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Power-based Value Capture over Punctuated Time: Cashmere supply chains and business continuity

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Submitted in fulfilment of the requirements for the degree of Doctor of Philosophy

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Abstract

Supply chain management (SCM) assumes collaboration is central to good practice and profitability. Empirical research shows that practitioners frequently choose opportunism over collaboration, and supply chain collaboration (SCC) requires appropriate cultures, resource complementarity, and incentives to succeed. This research further investigated this issue by exploring how cashmere value chain collaborative alliances sustain power-based value capture over punctuated time.

A qualitative longitudinal single case study of cashmere value chains was used for localised theory building. Data was collected from historical documentation, 30 semi-structured interviews and onsite observations before conducting a thematic analysis. The findings revealed that firms inherit power-based value capture depending on the relative value of their resources for a business opportunity. High-power firms adopt adversarial relationships and trap partners into illusionary collaborations over multiple business cycles. The longer opportunism cycles last, the harder it is for firms to break free as unfavourable conditions transform into cultural norms. Alternatively, low-power firms use genuine collaborations to mitigate opportunism cycles. If relationships continue without change, high-power firms can also become hostage to their growing convenience and sunk cost-based dependencies from long-established illusionary and genuine collaborations.

The opportunism cycle concept validates and extends the inter-partner learning theory and, to a lesser extent, Power theory and Path Dependence theory. First, it extends Hamel's priority shifts and external disruptor concepts by showing that these elements determine business developmental paths and validate the path dependence theory concept of multiple lock-ins. It also extends Hamel's concept of competitive collaboration by showing that firms can use illusionary collaborations to trick partners into creating psychological slack to extend the value capture potential beyond the limits of psychological slack. It validates that Khanna's predicted scenarios (three-legged fallacy, hesitant winners and reluctant losers) can occur passively but also shows how firms can actively create them. Second, it validated all six power bases and their relevance to different stages of the opportunity cycle, forming an effective tool for manipulating perceived power dynamics. It also contradicted Cox's assumption that collaborations do not account for power dynamics by showing that they do by actively avoiding their consideration. Third, it validated the power architecture theory prediction that network embeddedness facilitates opportunism rather than collaboration over time. Fourth, it identified path-breaking processes to extend the path dependence theory. On a practical level, the research explained that collaborations fail because practitioners fail to distinguish between genuine and illusionary collaborations and showed how practitioners can recognise when to implement and avoid opportunism cycles. The research concluded by identifying the need for future studies to adopt more advanced research methodologies and explore the implications of instant access to difficultto-acquire resources.

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Declaration

I declare that, except where explicit reference is made to the contribution of
others, this doctoral research is the result of my work and has not been submitted
for any other degree at the University of Glasgow or any other institution.

Signature:

Printed name: Sayed Aiden Saeed Gilani

Abbreviations List

CCCBA Centralised Chinese Cashmere Buying Selling Agency

CCMI Cashmere and Camel Hair Manufacturers Institute

EU European Union

F2F Face to Face

GCS Good Cashmere Standard

Govt Government

GPS Global Positioning System

IMF International Monetary Fund

IPL Inter-Partner Learning

NT Network Theory

PAT Principal Agency Theory

PETA People for the Ethical Treatment of Animals

PD Path Dependence

RA Research Aim

RBV Resource Based View

RO Research Objective

SC Supply Chain

SCC Supply Chain Collaboration

SCM Supply Chain Management

SFA Sustainable Fibre Alliance

TCE Transaction Cost Economics

UN United Nations

UNOP United Nations Office for Projects

UK United Kingdon

USA United States of America

US United States

USSR Union of Soviet Socialist Republics

WTO World Trade Organisation

Definition List

Behavioural lock-in Situations where individuals or organisations psychologically stagnate and become stuck by factors such as habit, culture, or organisation and enter into an inefficient or sub-optimal arrangement. Business alliance The varying degrees of collaboration between independent firms in buyer-seller relationships form link alliances and facilitate value-creation and capture. These relationships are influenced by contract-based control and positive transaction history-based trust. Clock time Time is linear, infinite, quantifiable units that are uniform, regular, precise, and measurable. Businesses engage in low-risk and reward opportunities without revealing their Covert intentions to their partners. opportunism Collaborative In long-term relationships, participants generally cooperate, share information, and relationships work together to plan and modify their business practices to improve joint performance. Consensual Opportunism is a cycle stage at which many business cycles have passed, and the opportunism cycles victim businesses begin to stagnate, accept, and protect the unfavourable business dynamics. Coordination Processes used to build trust and cultural synergy with partnering firms and foster collaborative relationships. These include unilateral actions, networking, and information sharing. Control (A, B) Control A refers to businesses already holding high power and can leverage the whole value chain for maximum value capture. Control B relates to situations where businesses have medium power to leverage their suppliers in dyad business relationships. Culture The web of norms, attitudes and perceptions constitute the social contract. Cultural A short-term solution to instantly access high levels of trust by well-respected local outsourcing proxies as representatives for non-local firms. Cyclical time Repetitive events with predictable durations that occur continuously and indefinitely. Disclosed proxy Actors inside and outside the value chain who are not directly connected to a firm are transparently used to increase information and opportunity access. Deceptive Generic false advertising regarding ethical business practices. The strategy is more marketing specific to businesses purchasing and repackaging goods and services before selling to customers without acknowledging their origins. Domino effect Actors naturally conform to their customer's demands, starting with the retailers. As the risks and losses are pushed back onto the value chain members, they must do the same with their suppliers to survive with ever-shrinking margins. **Dzuds** Extremely severe winters in the Mongolian language, By maintaining the status quo, highly influential firms, individuals, and state Elite capture agencies disproportionately benefit from business as usual.

A longer-term reciprocal and incremental trust-building approach is needed to form Going native strategy legitimate connections, embed themselves in their partner's cultural settings and form genuine psychological and cultural matches. Greenwashing Deliberate attempts made by organisations to mislead others regarding the ethics of their environmental practices. This can include false advertising, imagery and misleading labels. Long-term efforts are needed to create positive associations between products and Heritage marketing services and high quality, expertise, and reputations. Multiple lock-in Types of lock-in across different scales" or levels from which "there may not be a viable way out. Life cycle time Time flows in lifecycles, where natural phenomena follow predictable developmental paths that may or may not be continuous. Luck Business conditions can change and become fortunate for businesses that have developed specific resources by chance rather than foresight, affording them bargaining power and above-average value capture scope. Mutual opportunism If consensual opportunism cycles last too long, the more powerful firms develop convenience-based dependencies. In that case, the opportunism cycle regresses cycles from the consensual to a more mutual state, where the degree of opportunism by the high-power firms reduces. Opportunism cycles The initial stage of opportunism cycle formations, during which businesses are leveraged over fewer business cycles. These are situations in which businesses have fully exploited covert opportunism Overt opportunism and gained enough power to engage in low-risk, high-reward opportunism without fear of their partners finding out. Path dependence Organisational lock-in occurs when firms experience a comparatively narrow subset of routines, goals, and future growth trajectories. Path-breaking Situations where natural and unnatural rationality shifts and shocks transform successful regimes into irreversible competence-eroding changes. Patterned Firms shift from old to new core products, markets, and coordination routines over coordination time to create complex physical and non-physical value webs. Poverty traps Lock-ins that ensure the persistence of poverty for value chain actors with low power. Power The ability of firms to alter agreement terms favourably and obtain benefits from partners based on relative dependence. Punctuated time Situations where repetitive events like lifecycles are punctuated with unpredictable novel events. Therefore, punctuations represent disruptions, and punctuated time represents periods with frequent changes. Referent points Organisations place relative importance on past, present, and future times when making decisions. Rigidity trap Situations where "socio-environmental systems are pushed into fundamental new states due to exogenous factors. The experience of the past, present, and future occurs as individuals (intra-Social time

and interpret time.

subjectively) and collectives (inter-subjectively) mentally travel through, perceive,

Strategic repositioning	Process of adapting bargaining power and value capture scope over time.	
Strategic timing	Managing time to ensure flexibility in the organisational structures for optimal responsiveness. $ \\$	
Sunk costs	The knowledge that if the high-power firm withdraws from the business relationship, "the whole investment will be lost.	
Sustain	Longevity or continuity of business relationships and firm—and value-chain-level economic performance.	
Sustainability	Maintaining a balance between the three dimensions of sustainability by doing business with minimal negative impacts on the environment and society.	
Time	$\mbox{\bf A}$ non-spatial continuum in which events occur in irreversible succession from past to present and future.	
Time buffers	The alliance firm can allocate more time to vulnerable value chain processes and stages to improve its chances of managing future disruptive impacts.	
Time compression	The firm's ability to reduce the lifespan of these specific durations.	
Time lags	The elongation of specific time durations.	
Unbranding rebranding strategy	There is a two-step process for instantly acquiring high-quality brand values. First, businesses with high power commodify and rebrand acquired products and services from their suppliers. Second, they use value chain control to put their buyers out of business before acquiring them to inherit their brand values instantly.	
Undisclosed proxy	Actors inside and outside the value chain who are not directly connected to a firm but are used to act on their behalf with the collaboration partners secretly.	
Value	Value is the perceived trade-off between the attributes, limitations, or sacrifices within products. These trade-offs fluctuate in value depending on application, novelty, and cultural context.	
Value capture	Long-term firm process of strategically timing actions in temporary business opportunities to maximise financial benefits in the present and knowledge benefits that could lead to future economic benefits.	
Vertical integration	Gaining direct ownership of more resources needed for the value-creation process to achieve end-to-end control of their value chain.	

Chapter 1: Introduction

The purpose of this introduction chapter is to provide an overview of this entire doctoral research. It begins by outlining the research background, including the critical historical and contemporary developments within the SCM domain (sections 1.1 and 1.2). Next, it identifies the research problem and scope for making an original contribution to knowledge (section 1.3) using a specific research aim, objectives, and methodology to address the research problem (section 1.4). The chapter concludes by outlining the overall structure of this research (section 1.5) and a chapter summary (section 1.6).

1.1 Historical Developments

In 1982, the term supply chain management (SCM) first appeared in the literature and connected logistics with other business functions (Oliver and Weber, 1982), both inside the business and outside organisations (Houlihan, 1985). These initial contributions were made by consultants who emphasised three major points. SCM should view supply chains as "a single entity rather than relegating fragmented responsibility for various segments in the supply chain to functional areas" (Houlihan, 1985, p.26). The flow of materials should run across the supply chain (SC) with "optimal cost-efficiency without compromising on customer demands" (Houlihan, 1985, p.26; Jones and Riley, 1985). SCM requires a fresh approach where "systems integration, not simply interface, is the key" (Houlihan, 1985, p.27).

In the early 1990s, academics began to clarify the differences between traditional vertically integrated businesses and SCM based on information and material flows (Ellram and Cooper, 1990; Mckinnon, 1990). SCM is a complex concept with unique methodological challenges for prospective researchers and is understood using industrial organisation and Transaction cost theories (Ellram, 1991). Collaboration is conducive to SCM, referring to it as "integration" (Ellram and Cooper, 1990, p.4; Mckinnon, 1990, p.21); "coordination and collaboration" (Ellram, 1991, p.21).

Researchers developed explanatory frameworks for the next fifteen years (1990-2005) to explain SCM (Mentzer et al., 2001; Ellram and Cooper, 2014). A 2005 survey of 744 SCM practitioners confirmed that businesses implement SCM practices, and 80.8% of these respondents agreed that collaboration "drives SCM best practices" (Gibson et al., 2005, p.22). The 2005-2015 period saw researchers explicitly link collaboration with value-creation and profitability beyond the reach of businesses that compete independently (Soosay et al., 2008; Singh and Power, 2009; Soosay and Hyland, 2015).

More recently (2019-2023), academics have demonstrated continued efforts to unify research streams that define SCM, including operational product flows, tactical process management and strategic philosophies (Haddouch et al., 2019). However, contemporary research demonstrates significantly more consensus on managing supply chains using a "network of relationships" (D'Eusanio et al., 2019, p.179; Queiroz et al., 2019, p.242). At the core of these relationship networks is the ability to facilitate collaboration, frequently referred to as 'integration', 'coordination' and 'collaboration' ((Haddouch et al., 2019; Min et al., 2019); Zeng et al., 2021). Collaborative networks create tight synergetic connections among all supply chain actors (Ge et al., 2019; Liao and Widowati, 2021). According to Halldorsson et al. (2015), the most frequently used theories to explain SCM include the Resource-based view (RBV), Transaction cost economics (TCE), Principal agency theory (PAT) and Network theory (NT).

In sum, the physical supply chain actors and processes form the basic SC configuration and determine the upper and lower limits for the potential benefits that the SC produces. The degree of collaboration these SC configurations determines the benefits the individual businesses and the SC extract within those upper and lower limits. One definition that captures the essence of supply chain collaboration is as follows:

Supply chain collaborative relationships are "long-term relationships where participants generally cooperate, share information, and work together to plan and even modify their business practices to improve joint performance."

(Ralston et al., 2017, p.508)

1.2 Contemporary Developments

Before this research, a scoping study was undertaken to understand the SCM domain. This has not been included in the appendices due to word count limitations. Still, its key outcomes revealed three main research areas intertwined with Supply chain collaboration (SCC): Smart SCM, Sustainable SCM, and Disruptive SCM. Therefore, SCC represents one of four major SCM research areas.

Smart SCM refers to supply chain-wide integrated systems that "combine management systems and information technologies for the intellectualisation, digitalisation, networking, and automation of the supply chain" (Zhao et al., 2020, p.97). Two of its critical applications include machine learning for adapting through experience (Ni et al., 2019) and the Internet of Things (IoT) for tracking, visibility, and coordination (Ben-Daya et al., 2019; Abdirad and Krishnan, 2021).

Sustainable SCM is a crucial area of interest for the SCM domain, with "ample opportunities for seminal work" (Swanson et al., 2019, p.114). After reviewing the relevant literature, this research formed its own working definition of sustainability as the process of balancing the three dimensions of sustainability by doing business with minimal negative impacts on the environment and society (detailed in Appendix 2B). Within this context, sustainable SCM refers to the management of "the material, information and capital flows" (Abdirad and Krishnan 2021, p.11) through end-to-end supply chain cooperation (Lis et al., 2020; Bui et al., 2021). This addresses the long-term collective social, economic, and environmental SC goals and risks (Lis et al., 2020; Shi et al., 2021).

Disruptive SCM studies how businesses mitigate risks and ensure their survivability in volatile business environments (Bui et al., 2021). This is achieved by focusing on resilience through rapid adaption using buffer stocks, increased capacities (Sodhi & Tang, 2021; Choi et al., 2023) and coordination (Ben-Daya et al., 2019; Xu et al., 2020). The frequency of disruptions is growing, making disruptive SCM a critical area of research (Shi et al., 2021), especially in terms of inventory management related to the "Just-In-Time" versus Just-In-Case" debate (Jiang et al., 2021, p.143). Higher levels of coordination drive SC resilience, again showing

that, like sustainable and smart SCM, Disruptive SCM is underpinned by collaboration.

Taking these points together, smart SCs facilitate and optimise collaboration using technology to enhance firm and SC-level performance, including profitability. sustainable and disruptive SCM relies on end-to-end cooperation and, therefore, on smart SCM. Businesses must maintain good supply chain collaboration to reap benefits in emerging areas like sustainable, smart, and disruptive SCM.

1.3 Research Problem

Despite the long-held assumption that collaboration is central to good SCM (Houlihan, 1985; Ellram and Ueltschy-Murfield, 2019), a body of empirical studies shows that practitioners gravitate towards opportunism over time (Daugherty et al., 2006; Kampstra et al., 2006; Storey et al., 2006; Fawcett et al., 2015). Authors explain that this discrepancy between theory and practice emerges due to the inability of practitioners to upgrade their mindsets (Fawcett et al., 2015) and manage their relationships (Quayle, 2003). These explanations squarely place the blame on the ineffectiveness of practitioners rather than any limitations within supply chain collaboration as the driver for SCM best practice.

Porter (1989) highlighted that collaboration is context-specific, and three conditions must be met for effective implementation. First, a suitable culture should be established using corporate identities that emphasise collaboration. Second, complementary resources should be possessed and specialist managers used to collaborate. Third, the costs of facilitating collaboration should be offset through profitability. Despite this clarify, the gap in the literature remains to explore further the conditions for effective supply chain collaboration and failures (Ho et al., 2019; Bui et al., 2021). One-third of strategic alliances fail due to trust deficits or a lack of a trust-based culture (Paluri and Mishal, 2020; Bui et al., 2021). Researchers call for additional research to understand the impact of the external environment (Ralston et al., 2017) and diverse cultural attitudes on collaborative performance (Gupta and Gupta, 2019). These align with the first criterion for effective collaboration: establishing suitable cultural settings to facilitate collaborations (Porter, 1989).

Up to 80% fail due to uneven power dynamics and benefit sharing, which "dampens" businesses' enthusiasm for future collaborations (Zhao et al., 2020, p.104). In light of this, further research is needed to explore how profits are distributed in relationships with shifting power (Nurhayati et al., 2021) and whether collaborations can survive multiple changes (Lis et al., 2020).

Future research is also expected to understand the long-term contributions of adversarial and collaborative relationships towards business performance (Carter et al., 2019). These research issues also align with the second and third criteria for effective collaborations, establishing resource complementarity and balancing costs with profitability to facilitate collaborations (Porter, 1989). Notably, Porter's criterion was designed to explain collaboration on the dyad level rather than the supply chain. Therefore, this research focused on addressing the research problem of a lack of understanding of the conditions needed for effective supply chain collaboration (Ho et al., 2019; Bui et al., 2021) by examining the relationship between culture, power, value capture, and changing time.

1.4 Research Aim, Objectives, and Scope

A more focused literature review was undertaken to explore further the interrelationship between power, value capture, the cultural and structural business environments, and the changes they experience over time. This was reconfigured into the following research aim (RA) and objectives (RO).

(RA) Explore how power-based value capture is sustained over punctuated time by collaborative business alliances in international cashmere value chains.

- (RO1) Map value chain processes, relationships and value-sharing dynamics.
- (RO2) Identify the antecedents and impacts of the disruptors over time.
- (RO3) Establish the impact of value chain actors' strategic decisions.

This research examined interdisciplinary research that covered the anthropological, sociological, philosophical, and psychological domains to explore the definitions of power and culture before drawing conclusions (see Appendix 2B). Within this context, 'Power-based value capture' refers to the strong

correlation between bargaining power and value capture demonstrated through the literature review (sections 2.2 to 2.5). In line with Dyer et al (2018), power is the ability of firms to alter agreement terms favourably and obtain benefits from partners based on relative dependence. Value capture refers to the long-term firm process of strategically timing actions in temporary business opportunities to maximise financial benefits in the present and knowledge benefits that could lead to future economic benefits (section 2.1.3). Sustain refers to the longevity or continuity of business relationships and firm and chain-level economic performance. On the other hand, "punctuated time" refers to "situations where repetitive events like lifecycles are punctuated with unpredictable novel events" (Harvey and Novicevic, 2001, p.448). Therefore, punctuation represents disruptions, and punctuated time represents periods with frequent changes. To establish cultural boundaries, the research combined the business alliance and value chain setting to establish the boundaries for observing culture in practice. In this context, 'business alliances' refer to the varying degrees of collaboration between independent firms in buyer-seller relationships that form link alliances and facilitate value-creation and capture. These relationships are influenced by contract-based control and positive transaction history-based trust. Cashmere value chains represent linear governance and geographically dispersed chain structures and experience incremental technological changes (Appendix 2B).

The outcomes from the research aim and objectives were designed to be analysed against a theoretical framework (section 2.4.4, Fig 2.14) underpinned by Hamel's (1991) inter-partner learning (IPL) theory (Hamel, 1991). The IPL theory accounts for distinct types of collaborations based on value capture scope, including private, mixed, and common benefits (Khanna et al., 1998; Volschenk et al., 2016). Therefore, it offers an all-encompassing understanding of the collaboration phenomenon. Second, it explains phenomena on the dyad level, which can easily be extended to the firm and network levels. Third, the IPL theory must be further developed to understand collaboration and the value capture phenomenon within the value chain context (Doz, 2017; Kohtamaki et al., 2023).

This research adopted the cashmere industry as its case study setting for two reasons. First, extending the ILT theory using the cashmere industry context stands to make a notable contribution to knowledge. Hamel's (1991) original ILT research used diverse cultural settings, including Japanese and mainly US-based Western businesses operating in high-tech industries like aerospace, electronics, and automotive. However, ILT theory requires further development in different contexts (Kohtamaki et al., 2023). Despite low-tech sectors having different value capture implications than high-tech industries (Lavie, 2007a), theory building in lower-tech sectors like textiles is sparse (Xu et al., 2020). The cashmere industry is low-tech and relies on high labour intensity by the nomadic herders and fashion houses to demand its luxury status (Castelli et al., 2015). Like Hamels' use of Asian and Western businesses, cashmere value chains are international, stretching from the Himalayas to Europe (EU) and America (US) (Archer, 2019). Therefore, the cashmere industry's low-tech and international nature represents a different yet complementary context to Hamels' original research and fertile ground for expanding the explanatory power of ILT.

Second, the cashmere industry is mature and operates based on traditional practices, lower levels of innovation and five key processes that must occur at specific times of the year (Danforth, 2017). The cashmere sector can be traced back to the third-century Indus civilisation and clearly dominant market leaders (Brar, 2014), including the historical Kashmiri shawl trade and more contemporary British and now Chinese cashmere industries (De-Weijer, 2007). In 2020, the global cashmere clothing market was valued at 2790.3 million USD and is expected to grow by 3.9% between 2021 and 2026 to reach 3658.1 million USD (Myagmarjav, 2021). Therefore, the cashmere industry represents a stable environment, which makes it easier for researchers to identify power and value capture and cultural shifts over time and their impacts. This is central to the research aim and objectives (see above).

This research used Miles and Huberman's (1994) four criteria to justify the cashmere industry as an appropriate research setting. These criteria include relevance, measurability, generalisability, and feasibility. For further details, see Chapter 3 (section 3.5.6).

1.5 Structural Outline

This subsection provides an outline for the overall research.

- Chapter one provides a background to the SCM domain and the long-held assumption that SC collaboration represents the best practice for SCM.
 Next, the critical research issues were identified, specific to SC collaboration and its connections to major research areas. The research identified an aim and objectives to make a potentially original contribution to knowledge before outlining the research structure.
- Chapter two identifies the research aim and objectives that underpin the
 empirical research and original contribution to knowledge. This involved
 conducting a systematic narrative review, which identified the research aim
 and objectives, the theoretical framework, and the definition of key terms.
- Chapter three details the research methodology used for conducting empirical research. This included choosing an appropriate research philosophy before using it to filter out a research strategy, research design, research quality standards, data collection, and analysis protocols.
- Chapter four details the data collection and inductive coding procedures,
 which align with the data collection and analysis protocol developed in the
 previous chapter. The coding procedure uses the research aim and
 objectives to filter out non-essential information before inductively
 organising the data into codes, categories, and themes.
- Chapter five analyses and discusses the findings data. The first step involves
 using theoretical coding to interpret the relationships between the
 categories and themes to form a theory that aligns with the three research
 objectives and the research aim. The emergent and existing theories were
 compared to establish the contributions and limitations of this research.
- Chapter six concludes the doctoral research journey by reflecting on the research's contributions to theory, practice, and methodology. These reflections provide directions for future research.

1.6 Chapter Summary

This chapter introduced the research, outlining the background and significance of the chosen area of research, including the central problems in the supply chain collaboration literature and their significance. It then identified the research aim and objective used to guide the research. Finally, the structure of the thesis was presented. The research also used this chapter as a form of quality control, where the introductory chapter was revisited after completing each critical step in the study. This was done to assess the logical consistency between the chapters and their outcomes. It proved highly effective for shaping the chapters' narratives and establishing a strategic fit across the research, ensuring coherence and alignment.

Chapter 2: Literature Review

This doctoral research focused on addressing the research problem of a lack of understanding of the conditions needed for effective supply chain collaboration (Ho et al., 2019; Bui et al., 2021) by examining the relationship between culture, power, value capture, and changing time. Therefore, an in-depth literature review was undertaken to establish how the pre-existing literature understands this phenomenon. This chapter presents the outcomes of this focused literature review and how the research used them to develop an empirical research proposal with scope for original contributions to knowledge. The literature review followed a modified version of the Arksey and O'Malley (2005) approach (details in Appendix 2A) and was organised using the following three questions:

- What is value capture, and how does it work?
- What is the scope within management theories to explain value capture?
- What is the temporal scope within the value capture-related theories?

The literature review adopted the following working definitions to interpret key topics. Bargaining power, or simply power, is the ability of the firm or alliance to alter agreement terms favourably and obtain benefits from partners based on relative dependence (Dyer et al., 2018). Value capture is "the share of exchange rent firms capture from their capability to extract the rents generated in interorganisational exchange" (Ellegaard et al., 2014, p.2). Therefore, power and value capture are interlinked. Culture or cultural and structural settings of business environments are "the web of norms, attitudes and perceptions that constitute the social contract" Parkhe (1993, p.304). Time is a "non-spatial continuum in which events occur in an irreversible succession from past to present and future" (Halinen et al., 2012, p.12). This research developed the following working definition for collaborative business relationships (Appendix 2B):

"The varying degrees of collaboration between two or more independent firms in buyer-seller relationships influenced by a mixture of contract-based control and trust levels developed in specific business conditions over time."

Section 2.1 comparatively analysed value, value creation, and value capture definitions. Section 2.2 analysed the key theories in value capture, explaining how the phenomenon unfolds. Section 2.3 detailed the temporal scope of the value capture theories. Sections 2.1.3, 2.2.4, and 2.3.4 summarise the key outcomes and implications for additional research from sections 2.1-2.3. Section 2.4 drew on the literature review outcomes to establish the research aims and objectives (sections 2.4.1-2.4.3). Section 2.5 provided an overall chapter summary.

2.1 Value Capture Process

Section 2.1 presents the literature review outcomes that consider value capture and how it works. Section 2.1.1 examines the definitions of value. Section 2.1.2 looks at the processes for enhancing and extracting value using the value creation and value capture approaches. Section 2.1.3 discusses the scope of the outcomes covered within sections 2.1.1 and 2.1.2 to understand the conditions for effective collaboration, including the impact of culture, power, value capture, and time.

2.1.1 Value

Anthropology literature defines value as jointly made up of human ethics (perceived good and bad) and aesthetics (cultural norms and differences, traditions, crafts, etc.) and their influence on each other over time to shape meaning (Otto and Willerslev, 2013). Sociologists define value as a bundle of human ethics and the extent to which people are willing to acquire them (Sutton, 2004). Hill (1984) sees explicit value as the basis for knowledge development. Therefore, value is subjective and depends on the meaning individuals derive from their needs and ethics.

Management literature echoes these sentiments and broadly sees value as the social norms and rules that regulate interactions, which are divided into formal (laws, regulations, etc.) and informal (customs, traditions, etc.). It is the perceived trade-off between the attributes (Bowman and Ambrosini, 2000; Minerbo et al., 2021) and limitations or sacrifices within products (Ellegaard et al., 2014; Minerbo et al., 2020). These trade-offs fluctuate in worth depending on application (Bowman and Ambrosini, 2000; Pitelis, 2009; Minerbo et al., 2021),

novelty and cultural context (Lepak et al., 2007). Bowman and Ambrosini (2000, p.3) highlight that these attribute trade-offs include new products and services' speed or quality performance features. From the buyer's perspective, value measurement is based on the socioeconomic or environmental conditions and the worth of assets to them (Letcher et al., 2021). This is referred to as the "customer surplus" (Kang, 2013, p.3) and leads to different satisfaction levels called "use value" (Ben-Letaifa, 2014, p.283).

From the seller's perspective, value measurement is based on the realised financial benefits (Bowman and Ambrosini, 2000; Di-Gregorio, 2013; Miguel et al., 2013) and are called "net rent earning capacity of assets" (Niesten and Stefan, 2019, p.10). Realised or exchange value is acquired through the differences between supply and demand money against alternatives (Lepak et al., 2007; Miguel et al., 2013) and the buyer's willingness to pay at separate times (Ritala and Tidstrom, 2014; Simatupang et al., 2018). Value capture is measured through financial rent generation from exchanges in the present, while knowledge that leads to rent generation measures predicted value from future exchanges (Di-Gregorio, 2013). Combinations of individual and joint use and exchange values represent total value creation by collaborators (Di-Gregorio, 2013; Sridharan and Simatupang, 2013). Table 2.1 summarises the value capture measures, and column one uses numbering to denote the different types.

Table 2. 1: Financial and knowledge value measure

No		Measures	Sources
1		Economic rent or performance	Coff, 2010; Di-Gregorio, 2013; Dyer et al., 2018; Ellegaard et al., 2014; Kang et al., 2018; Niesten and Stefan, 2019; Tower et al., 2021
2		Profits	James et al., 2013; Kang et al., 2018; Mizik and Jacobson, 2003
3		Financial returns	Contractor and Woodley, 2016; Hamel, 1991
4	Financial	Revenue flows	Dyduch et al., 2021; Johns, 2006; Kim, 2016; Lepak et al., 2007; Pagani, 2013; Simatupang et al., 2018
5	Final	Financial equity	Wagner et al., 2010
6		Liquidity	Dyduch et al., 2021
7		Efficiency improvements	Zakrzewska-Bielawska and Lewicka, 2021
8		Stock prices	Kumar, 2010
9		Recruitment	Wagner et al., 2010
10		Internalised knowledge	Di-Gregorio, 2013; Hamel, 1991; Kang et al., 2018; Wagner et al., 2010; Zakrzewska-Bielawska and Lewicka, 2021
11	edge	Control/Property rights	Adgebesan and Higgins, 2010; Arino and Ring, 2010; Di-Gregorio, 2013
12	Knowledge	Patents	Anand et al., 2010; Kim, 2016; Lavie et al., 2007B; Reitzig and Punaram, 2009; Wagner et al., 2010;
13		Market exposure	Lavie et al., 2007B
14	Mixed	Operational improvements (quality, speed, power)	Zakrzewska-Bielawska and Lewicka, 2021

Table 2.1 identifies an overlap between financial measures (1-9) and knowledge-based measures (10-13) and one example of a mixed measure that combines elements from financial and knowledge-based measures in operational improvements (14). The economic measures represent the comparatively more objective option for measuring value because they are all numerically presented. In contrast, how firms could measure their internalised knowledge and market exposure is still being determined once they eventually engage in exchange use. Therefore, it was argued that purely financial or mixed financial and knowledge-based measures should prove more effective for measuring value capture. The use and exchange value interplay is summarised in Fig. 2.1.

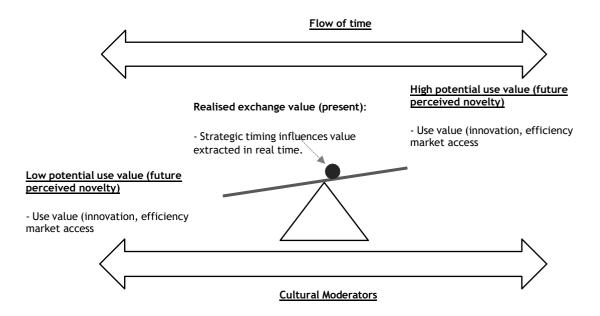


Fig 2. 1: Interplay between use value and exchange value

Fig 2.1 shows that value comprises two components: use and exchange. Use value is subjective and depends on the buyer's perceived novelty, which means it is influenced by the cultural (Lepak et al., 2007; Pitelis, 2009) and temporal contexts experienced by the buyer (Bowman and Ambrosini, 2000). Therefore, use value represents a potential value between buyers depending on when they make the transactions over time. Exchange value represents the realised value at a point in time (Di-Gregorio, 2013). Therefore, high or low exchange value fluctuates based on the seller's ability to time transactions when the use value is highest.

2.1.2 Value-Creation and Capture

Value creation is the process of improving value generation (Sjodin et al., 2020) and involves innovative product development (Mizik and Jacobson, 2003; Tower et al., 2021); cost efficiency, branding and new market access (Kang, 2013; Minerbo et al., 2021). Therefore, value-creation focuses on enhancing the use value of goods and services for the highest possible exchange value (section 2.1.1). Business relationships can be used for "additional value generated from interfirm exchanges beyond individual firms" (Miguel et al., 2013, p.566).

Business relationships create collective value (Sridharan and Simatupang, 2013; Zakrzewska-Bielawska and Lewicka, 2021) and involve three steps.

- Firms must combine complementary resources to create capabilities beyond the scope of individual firms (Lavie, 2007A; Volschenk et al., 2016; Letcher et al., 2021).
- Firms must ensure all collaborators fully contribute to optimising trust levels (Ritala and Tidstrom, 2014; Corsaro, 2020).
- Collaborative arrangements must lead to expected levels of relational rents for all collaborators (Lavie, 2007A; Ellegaard et al., 2014), leveraging their individual or collective arm's length relationships (Dyer et al., 2018).

Value capture is interchangeable with value appropriation, claiming or sharing (Ellegaard et al., 2014), pie sharing or value extraction (Zhang and Du, 2019). At its core, it extracts a share of the created value (Cambra-Fierro and Perez, 2018; Letcher et al., 2021). Value capture involves: "appropriating value for oneself, it is not about passing value to customers unless circumstances decree" (Cox, 1999, p.171). Therefore, value capture focuses on optimal exchange value. The main value capture approaches include common, private, and privately captured common benefits (Khanna et al., 1998; Volschenk et al., 2016).

Common benefits refer to the capture of value shares from co-created value with inter-organisational partners for relational rents (Niesten and Stefan, 2019; Minerbo et al., 2021; Zakrzewska-Bielawska and Lewicka, 2021). However, common benefit sharing does not always reflect the relative contributions made by the participants (Cambra-Fierro and Perez, 2018; Kang et al., 2018). Table 2.2 summarises the reasons for unequal distributions of value capture, and the first column uses numbering to denote the varied reasons. It shows that the differences in relative value shares occur due to unknown total value created (1) inadequate governance (2) partner actions (3), unequal power dynamics (4) and value capture capabilities (5) within different network structures (6). Environmental (network and governance structures) and firm-level circumstances (unequal power and value capture capabilities) dictate how collaborators act (partner actions).

Table 2. 2: Reasons for unequal value distribution

No	Reasons	Sources
1	Firms never know the total value or surplus created and focus on capturing the relative and perceived proportion of value.	Jap, 2001; Zhang and Du, 2019
2	Successful pie-sharing requires appropriate governance mechanisms to ensure fairness.	Sjodin et al., 2020
3	Payoffs rely on the firm and its partners' actions, taking optimal actions.	Gulati et al., 1994
4	Relative value capture determinants include power and dependency dynamics.	Dyduch and Bratnicki, 2018
5	Some firms have more effective value-capture abilities than others.	
6	Vertically integrated value chains, decoupled networks and multisystem platforms require different approaches for value capture.	Pagani, 2013

- Private benefits are unilaterally extracting the partner's skills and applying them outside the alliance for additional value capture (Kumar, 2010; Ryall, 2013; Niesten and Stefan, 2019). Therefore, focusing on purely private benefits means that firms choose to pursue personal benefit at the expense of the alliance (Lavie, 2007A). This includes actively extracting a partner's high-value resources or passively benefiting from unintentional partner knowledge spillovers (Ryall, 2013).
- Privately captured common benefits is a strategy that mixes purely common and private benefit approaches by tipping the balance in favour of either approach depending on the relative scope for value capture at different points in time (Hamel, 1991; Khanna et al., 1998).

Five groups of interconnected value capture tactics underpin the three value capture approaches. The first is creating scarcity through high switching costs and branding. The second is legal contracts. The third is secrecy through sticky knowledge and modular interfaces. Fourth is the relationship between innovation, competitive learning, and strategic timing. Fifth is using power to engage in vertical integration or build business architectures.

(Group 1) Scarcity through higher switching costs refers to the ability of firms to manipulate supply to buyers to increase demand (Minerbo et al., 2020; Minerbo et al., 2021) by holding or destroying the supply of products and services to encourage partner loyalty (Brandenburger and Nalebuff, 1995). Therefore, high

switching costs weaponise scarcity (Corsaro, 2020; Tower et al., 2021). Creating scarcity through branding is done by using communication tactics to manipulate the perceived contributions for value creation (Dyer et al., 2018), improve power dynamics (Arino and Ring, 2010; Jap, 2001) and facilitate repeat businesses (Corsaro, 2020). A brand is a phenomenon embedded with unique perceived tangible and intangible values. It distinguishes itself from alternatives through a name, design, symbol, and values (Fahy and Jobber, 2019). Effective branding requires organisations to understand their customers' requirements and tailor their branding efforts to cater to those needs by creating a cohesive experience on a psychological and physical level (Dahlen et al., 2009). It is about convincing partners to accept favourable or unfavourable trading using communication skills. Three relevant types of branding include heritage, greenwashing and rebranding.

- Heritage branding involves using unique histories without appearing outdated to build strong brand identities, distinctive products and services, and minimal imitation (Hakala et al., 2011).
- Greenwashing is the deliberate attempt made by organisations to mislead others regarding the ethics of their environmental practices (Bowen, 2014).
 This can include false advertising, imagery and misleading labels (Ioannou et al., 2022). Therefore, greenwashing equals communicating false values.
- Rebranding involves replacing an existing brand and its values with a new one that appeals to more or different customer segments (Muzellec and Lambkin, 2006). Regardless of the type of branding approaches adopted, good branding is a long-term and challenging resource to acquire (Pecot and De-Barnier, 2017; Molinillo et al., 2022).

(Group 2) Legal contracts predetermine and protect relative value shares from collaborations (Kang et al., 2018; Minerbo et al., 2021; Xu and Hao, 2021; Zakrzewska-Bielawska and Lewicka, 2021). Standard contract legal clauses include the following: property and copyrights (Zakrzewska-Bielawska and Lewicka, 2021); patents (Dyduch and Bratnicki, 2018), legal barriers to market entry (Corsaro, 2020, p.102); non-rival alliances (Zeng, 2003).

(Group 3) Secrecy through sticky knowledge and modular interfaces. Secrecy refers to maintaining hidden knowledge for value capture (Dyduch and Bratnicki, 2018; Zakrzewska-Bielawska and Lewicka, 2021). Secrecy through sticky knowledge refers to developing resources that are difficult to replicate due to context (Dyer and Singh, 1998; Kano, 2017). These are frequently called idiosyncratic resources and lose value outside of the collaborations that developed them (Tower et al., 2021) by ensuring that no single employee understands how to replicate the idiosyncratic resources (Hamel, 1991). Secrecy through modular interfaces develops "narrow alliance scopes and departmentalisation" (Coff, 2010, p.721) to prevent revealing the "underlying know-how" (Zeng, 2003, p.97).

(Group 4) Innovation refers to the firm's asymmetric investments to collaborations to maximise personal value shares in ex-ante contract negotiations (Dyer et al., 2018; Cambra-Fierro and Perez, 2018). More innovation should equal more value creation and capture at no one's expense (Wagner et al., 2010; Minerbo et al., 2021; Zakrzewska-Bielawska and Lewicka, 2021). Strategic timing refers to market entry and exits that leverage favourable conditions (Dyer and Singh, 1998; Xu and Hao, 2021). Firms can time market entries or future renegotiations when internal resources are perceived as having higher value (Arino and de la Torre, 1998; Dyer et al., 2018). In ex-post negotiations, firms can lower investments over time to 'hold up' partners with higher sunken costs for opportunistic value capture (Dyer et al., 2018; Xu and Hao, 2021). Competitive learning is an alternative to holding up partners or innovation, where firms use unilateral learning to absorb partners' skills (Khanna et al., 1998; Kumar, 2010; Xu and Hao, 2021). Effective competitive learning requires the allocation of more experts for managing alliances (Dyer et al., 2018) to optimise learning complex skills (Kumar, 2010) and the rate of absorbing unintentional knowledge spillages (Ritala and Tidstrom, 2014).

(Group 5) Vertical integration involves gaining direct ownership of more resources needed for total value creation (Kang et al., 2018; Corsaro, 2020). Business architectures facilitate the formation of favourable partnerships to increase their power over the network (Henkel and Hoffmann, 2018). This includes taking equity in other businesses like a 'Japanese keiretsu' (Kano, 2017) or occupying network positions that maximise asymmetries (Hughes-Morgana and Yao, 2016).

Fig 2.2 builds on Fig 2.1, and the use and exchange value interplay with value-creation and capture processes. It highlights that the cultural surroundings and the passage of time influence value creation and capture. However, the strategic management of these elements could also be used by businesses to actively improve the value-capture scope. Regarding time, firms compete independently or as part of alliances, depending on the balance between their scope for maximum value capture (Niesten and Stefan, 2019) and the rate at which the windows of opportunity diminish (Corsaro, 2020). Firms prefer to maintain power and leverage their partners as and when they require it (Cox, 1999).

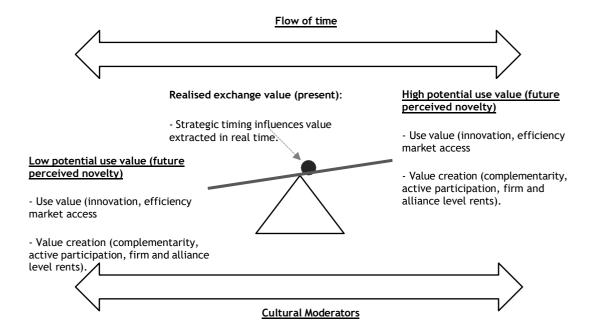


Fig 2. 2: Interplay between use value and exchange value and value creation and capture

Therefore, Fig 2.2 shows that the primary goal is to maximise value capture through control within these diminishing opportunity windows, and the alliance only serves as a vehicle to improve responsiveness. The value capture literature treats collaborative partnerships as tactics for improved time responsiveness. Firms strategically time their market entries and exist to maximise their value capture (James et al., 2013; Pagani, 2013). For example, firms use strategic timing to manipulate relative resource investments, including higher investments in exante negotiations and lower investments in ex-post bargaining to increase the close dependence of partners (Dyer et al., 2018; Xu and Hao, 2021).

2.1.3 Summary and Scope

This section summarises the details covered throughout section 2.1 before concluding the scope for additional research. Section 2.1.3.1 holistically examines the reviewed literature before identifying a new definition for value capture. Section 2.1.3.2 highlights the extent to which the reviewed literature offers insights into the conditions needed for effective collaboration.

2.1.3.1 Redefining Value Capture

Sections 2.2.1 and 2.2.2 stressed the need to further examine value capture over long time ranges and in diverse cultural contexts. Building on these sections, the research proposed a revised definition of value capture:

"The long-term process needed for firms to optimise their ability to strategically time their actions and maximise the relative scope for personal benefit from temporary cultural conditions. This involves optimising buyers' perceived worth of resources using isolation mechanisms, innovation, persuasiveness, and power. This should lead to financial benefits and knowledge that could lead to similar financial benefits".

This definition highlights the interrelationship between value capture (competition) and value-creation (collaboration) with time and culture. Many researchers have identified the passive link between value capture, time, and culture (Lepak et al., 2007; Ellegaard et al., 2014; Niesten and Stefan, 2019; Minerbo et al., 2020; Letcher et al., 2021). James et al. (2013) also touched on the impact of cultural elements (institutions, industry, technology) on value-capture (patents, secrecy, lead times, investments). Others accept that cultural and geographic backgrounds impact value capture (Kano, 2017; Xu and Hao, 2021) and cultural synergy is a long-term and complex resource to acquire (Carvalho et al., 2019; Blome et al., 2023). However, a need remains to understand the role and influence of culture on value capture. The proposed definition represents a starting point for further development by exploring culture, value capture and time. There is also a need to investigate how firms manage the transitions

between the three value capture approaches (common, mixed, and private benefits) within and outside of collaboration (see section 2.1.2). Fig 2.3 summarises the interplay between value creation, capture, time and culture.

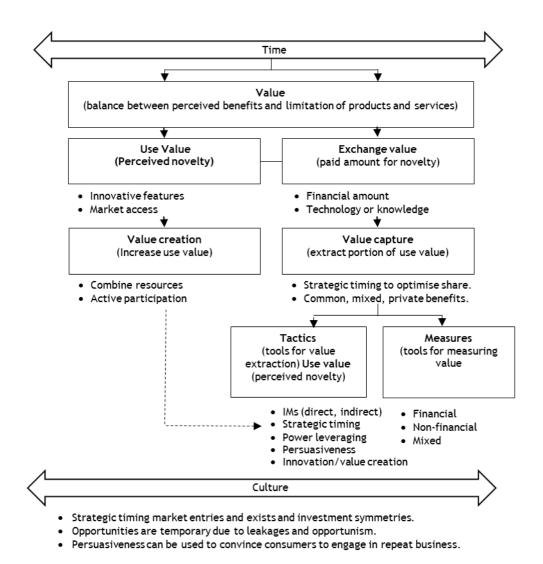


Fig 2. 3: Breakdown of value creation and capture components (IM = Isolation mechanisms)

2.1.3.2 Conditions for Effective Collaboration

The literature review outcomes address the question: What is value capture, and how does it work? (Section 2.1). Collaboration is a temporal phenomenon that should be understood in diverse cultural and structural environments—however, there are no insights into the conditions for effective collaborations.

2.2 Value Capture Theories

This section presents the outcomes for the scope within management theories to explain value capture. Fourteen theories were identified and classified into firm, dyad, and network-level theories (sections 2.2.1-2.2.3). Section 2.2.4 examines the outcomes to explain the value capture phenomenon, its limitations, research issues and conditions for effective collaboration. Table 2.3 categorises the theories by analysis level. Firm, Dyad and Network are denoted by F, D, and N.

Table 2. 3: Break down of value capture theories.

No	Theories	F	D	N	Sources	
1	Strategic factor markets	Х			Adegbesan and Higgins, 2010; Henkel and Hoffmann 2018	
2	2 Resource-based view				Alvarez and Barney, 2004; Destri and Dagnino, 2005; Kumar, 2010; Kang, 2013; Minerbo et al., 2020; Minerbo et al., 2021	
3 Transaction cost x Kumar, 2010;; Contractor and Woodley, 2015; Minerbo et et al., 2021; Minerbo et al., 2021		Kumar, 2010;; Contractor and Woodley, 2015; Minerbo et al., 2020; Han et al., 2021; Minerbo et al., 2021				
4	Core competencies	х			Brown and Eisenhardt, 1997	
5	Dynamic capabilities	х			Anand et al., 2010; Coff, 2010; Dyduch et al., 2021	
6	Porter's five forces	х			Bhattacharya, 2021	
7	Social exchange		Х		Minerbo et al., 2020; Minerbo et al., 2021	
8	Equity		х		Arino and de la Torre, 1998; Jap, 2001; Arino and Ring, 2010; Wagner, 2010;; Kano, 2017	
9	Contracting		Х		Gulati and Singh, 1998; Gulati et al., 2008; Contractor and Woodley, 2015	
10	Inter-partner learning		х		Hamel, 1991 Dyer et al.,2008;; Kabiraj and Sengupta, 2018; Khanna et al., 1998; Kumar, 2010	
11	Game		х		Parkhe, 1993; Gulati et al., 1994; Brandenburger and Nalebuff, 1995; Larsson et al., 1998; Zeng, 2003; Adegbesan and Higgins, 2010; Ryall, 2013	
12	Power		х		Cox, 2001; Cox, 2004; Cambra-Fierro and Perez, 2018; Nurhayati et al., 2021; Sridharan and Simatupang, 2013; Watson, 1999;	
13	Social network			х	Gulati, 1995; Kang, 2013; Hughes-Morgan and Yao, 2016; Lavie, 2007A; Zhang and Du et al., 2019	
14	Power architecture			х	Cox, 1999; Jacobides et al., 2006; Lavie et al., 2007B	

2.2.1 Firm-Level Theories

The resource-based view (RBV), core competencies theory and transaction cost economics (TCE) all focus on optimising firm-level bargaining power and value capture by developing only high-value resources inside the business. The RBV explains how firms can develop "capabilities" by combining resources to afford them competitive advantages over their rivals for leveraging new business opportunities (Barney, 1991). To be classed as a capability, resources must be "valuable, non-imitable, rare and organised" according to the VIRO criteria (Barney and Hesterly, 2010, p.73). The core competencies theory also focuses on similar capabilities called "core competencies" (Prahalad and Hamel, 1990, p.5). The criteria for determining core competencies overlap with the VIRO criteria. For example, resource value is determined by their ability to facilitate access to different markets (accessibility) and product diversification (significance). Resource non-imitability and rareness are defined by their ability to develop difficult-to-replicate resources. They are designed by firms shifting from old to new core products, markets, and coordination routines over time to create complex webs of physical and non-physical value. Prahalad and Hamel (1990, p.81) refer to this phenomenon as "patterned coordination".

However, the core competencies theory demonstrates a more advanced ability than RBV to explain how firms can continuously develop new capabilities through organisational learning. This theory details a path-dependent process for integrating skills over time, where unique technologies (core products) dictate which markets they enter for optimal value capture (core business) before using learning from internal business units to update the core products and enterprises (Prahalad and Hamel, 1990).

Transaction cost economics theory (TCE) examines how firms analyse their transaction costs internally to decide whether to produce resources internally or outsource (Williamson, 2008). The expenses are influenced by the perceived lack of information (bounded rationality) and the need to control resources (asset specificity) and include information (market research), decision-making (negotiating deals) and monitoring costs (curb opportunism) (Williamson, 2008). Researchers frequently pair TCE with RBV to examine the operational, asset, and

financial efficiencies and profitability of developing unique capabilities (Minerbo et al., 2020; Minerbo et al., 2021).

Table 2.4 shows how the criteria for RBV, the core competencies theory and TCE complement each other for measuring resource value and establishing whether they are capabilities or standard resources. The first column of the table uses numbers paired with letters to show the contribution and overlaps among the three theories. Numbers followed by an "a", "b", and "c", respectively, denote contributions by RBV, core competencies and TCE. Notably, the non-imitability criteria of core competencies (2b) sit in between the non-imitable and rare criteria of RBV (2a,3a). This is why the rows have not been kept uniform.

Table 2. 4: Updated VIRO framework

No	Criteria		Details
1a	Valuable	х	Do resources help exploit the opportunity or neutralise threats?
1b		Accessibility	Do resources facilitate access to different markets diversify?
		Significance	Do resources allow the diversification of product ranges?
2a	Non- imitable	х	Is it difficult to imitate the resources, and will a firm trying to obtain, develop, or duplicate them experience significant cost disadvantages? (history-dependent, casual ambiguity)?
2b		Non-imitable	Do resources support the harmonisation of production and technology through patterned coordination and learning?
3a	Rare		
		х	Is the control of the resource/capability in the hands of a relative few?
4a	Organised	х	Is the firm organised to exploit the resource/capability and capture value?
5c Cost x How much does the reservable, etc.)?		Х	How much does the resource improve operational efficiency (quality, speed, reliability, etc)?
			How much does the resource improve asset efficiency (perceived value of controlling critical assets)?
			How much does the resource improve financial efficiency (cost reduction, lower switching costs)?
			How much does the resource improve the actual or perceived profit?

(Adapted from Prahalad and Hamel, 1990; Barney and Hesterly, 2010; Minerbo et al., 2020)

Porter's five forces focus on developing high-value resources by matching current resources to environments outside the business that affords maximum bargaining power and value capture. Within this matching process, firms must compare their bargaining power against that of existing suppliers (force 1), rivals (force 2), buyers (force 3) and the threat of new entrants (force 4) and substitutes (force 5) (Porter, 2008; Teece et al., 1997). Fig 2.4 provides an overview of the five forces framework. It shows that value capture primarily relies on the firm's ability to find market positions that maximise their relative scarcity (forces 1,2,3,5), switching costs (forces 1,3,5), and resource value (forces 2,4,5), in comparison to other industry players for maximum bargaining power and value capture scope.

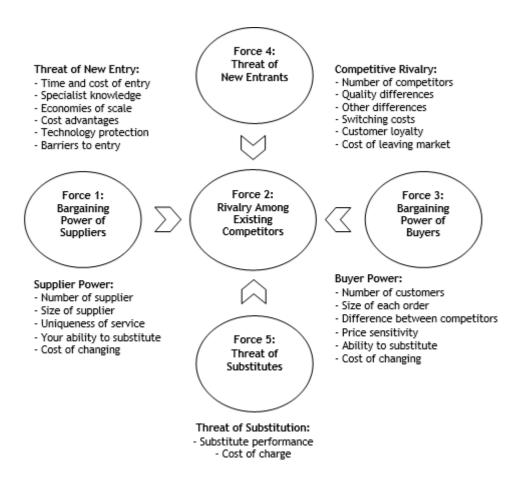


Fig 2. 4: Porter's five forces (Porter and Strategy, 1980)

The strategic factor market and dynamic capabilities theories adopt a middle ground. Both theories balance high-value resource building inside the business with searching for relevant markets outside the industry to develop bargaining power and value capture. Strategic factor markets theory sees high-value resource

development for above-average value capture because of "strategic foresight and luck in imperfect market conditions" (Barney, 1986, p.1233). Strategic foresight refers to the firm's ability to use internal knowledge to leverage situations where rivals over or underestimate the value of resources and allow focal firms to bypass or efficiently acquire them from "ill-informed controllers" (Teece et al., 1997, p.514). Therefore, in line with RBV, the core competencies theory, and TCE, strategic foresight accommodates the role of firms using their internal abilities to develop high-value resources. However, it also accepts the role of the outside environment in moderating the bargaining power and value capture of firms with the inclusion of luck as a determinant. It highlights that business conditions can change and become fortunate for businesses that have developed specific resources by chance rather than foresight, affording them bargaining power and above-average value capture scope (Barney, 1986; Teece et al., 1997).

Although luck is an obvious variable that businesses grapple with, none of the previously discussed firm-level theories address its role and implicitly assume perfect supply and demand information. Dynamic capabilities theory extends the learning component of core competencies by detailing how firms reconfigure capabilities in changing external environments (Dyduch et al., 2021). It suggests that firms must focus on coordination (collective routines) and learning from their experiences inside the business and the external environment before experimentally bundling them (Teece et al., 1997). According to Brown and Eisenhardt (1997), these bundling tactics include:

- Maintaining flexible organisational structures for responsiveness
- low-cost probing through alliance and prototyping
- Frequent communications and innovative predictive linking

Using environmental scanning techniques, these bundles can help adapt the previous core competencies based on market needs (ibid). Therefore, the dynamic capabilities theory takes the logic of internal resource development and adaption previously covered by the core competencies theory, RBV and TCE, and combines it with resources according to the external environment, which ties into the logic of Porter's five forces.

Dynamic capabilities theory extends the path-dependent logic for resource development offered by the core competencies theory to explain the interplay between the firm and its environments. Firm processes (coordination, learning and reconfiguration) are influenced by their "position", "paths", and "rate of imitability" (Teece et al., 1997, p.524). Position refers to the endowment of competencies at any given time. Path refers to the influence of the past on the trajectory of current and future processes and positions. The rate of imitability is the incremental replication of core competencies by rival businesses.

Dynamic capabilities theory demonstrates an advanced understanding of how the value capture unfolds among the firm-level theories. It reconciles the purely inward RBV logic, the core competencies theory and TCE with the purely outward Porter's five forces logic. Using path-dependence logic, it explains how businesses can adapt resources over time. However, it also acknowledges the influence of luck (Teece et al., 1997) but does not incorporate it in its overall theoretical explanations. This suggests that dynamic capabilities and strategic factor market theories offer a complete understanding of firm-level value capture procedures. Fig 2.5 visualises the dynamic capabilities-building process.

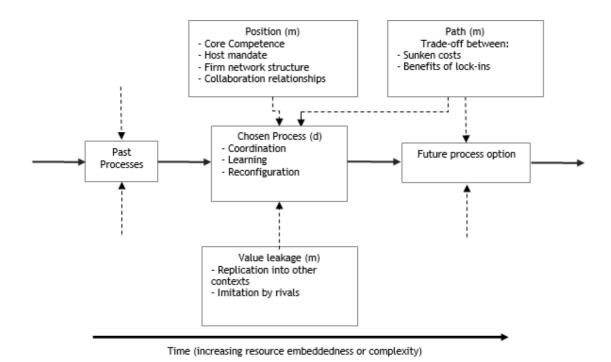


Fig 2. 5: Path-dependent paths (m=moderator, d=dynamic) (Adapted from Teece et al., 1997)

2.2.2 Dyad-Level Theories

Contract, equity and social exchange theories describe how firms negotiate, determine value creation and capture sharing dynamics for common benefits only. Social exchange theory focuses on identifying appropriate business partners to ensure the formation and distribution of common benefits (Nye, 1979), while equity theory stresses procedural fairness (Adams, 1965; Corsaro, 2020).

According to Arino and Ring (2010), fairness refers to proportionality within collaboration inputs and outputs (distribution fairness), transparent decision-making and information sharing (procedural fairness) and reciprocal respect (interpersonal fairness). Equity theory also recommends maintaining long-term relationships to achieve above-normal value capture by managing the sharing of principal resources. Firms attain above-normal value capture through long-term relational quality, managing the sharing principles, resources, and organisational factors (Jap, 2001). Contract theory focuses on developing ex-ante contracts that explicitly lay out the sharing principles of the organisational and resource factors (Gulati and Singh, 1998; Contractor and Woodley, 2015) and extends equity theory to include withdrawal plans (Gulati et al., 2008). Contract theory also identifies determinants that predict potential value capture outputs, including investment and knowledge asymmetries, perceived risks, environmental impacts and relative trust levels (Gulati and Singh, 1998; Contractor and Woodley, 2015).

Table 2.5 demonstrates the overlap between the social exchange, contract, and equity theories for explaining how value capture is negotiated. The first column uses numbering to denote the different steps within each of the three main phases, which include the partner section, ensuring fairness, and determining outcomes. Social exchange theory prescribes the critical business considerations when selecting appropriate partners (1,2,3). Contract and equity theories complement each other in detailing the sharing principles while considering resource and organisational factors. Equity theory focuses on the more intangible and holistic considerations for ensuring fairness (4,6,7). On the other hand, contract theory focuses on tangible and measurable considerations (5,8) to partially predict and control value capture outcomes (9-13).

Table 2. 5: Social exchange, contract and equity theory principles for negotiating value shares

No	Туре	Details	Sources
1	ion	Firms that offer the highest value-creation and capture potential and minimal costs.	Nye, 1979
2	Partner selection	Firms that offer longer-term benefits and, where these are equal, firms that provide the highest short-term benefits.	
3	Partne	If rewards and costs are similar, firms offer the highest social approval (reputation), independence and security (non-threatening), certainty in expected outcomes, and cultural proximity (abilities, performance).	
4		Sharing principles consist of different combinations of equity (contributions correspond to value shares) and equality (50/50 splits where contributions are difficult to measure)	Jap, 2001
5	S	Command structures (control rights) and incentive schemes (monitor performance against criteria)	Gulati and Singh, 1998; Contractor and Woodley, 2015
6	Fairness in contracts	Resource factors include contribution measurability (separable, asymmetric, idiosyncratic resources). Idiosyncratic resources curb individual opportunism (Kano, 2017, pp.22-23). resource factors are measured in contracts using property rights (mechanism for value capture) and control rights (scope for possible value-creation)	Arino and Ring, 2010
7	Fai	Organisational factors minimise adverse selection (pre-contract opportunism) and moral hazards (post-contract opportunism) by pre-knowing partners' processes, monitoring capabilities, and incentive alignment.	Jap,2001; Kano, 2017
8		Protective clauses (non-competition clauses, minimum returns, dispute resolution grandfather clauses); SOPs (codified interactions) and exit provisions	Contractor and Woodley, 2015
9		Investment asymmetry exists in the form of technology. The higher the technology's contribution, the more control and coordination are needed. However, this also leads to more value capture.	
10	ninants	Relative perceived risks are undertaken by each partner, where higher perceived risks equal higher rewards).	
11	Contract outcome determinants	Knowledge asymmetry involves situations where better foresight of industry developments reduces the need for protective clauses (control and coordination) and allows firms to accept more perceived risk and capture more value.	
12	itract ou	Trust, where the lower the trust between the partners, the more need for control and coordination	Gulati and Singh, 1998
13	Con	Environmental impacts include host mandates (power is augmented if local to an environment) and sector-specific culture (industry attitudes towards opportunism determine the level of coordination and protection).	Gulati and Singh, 1998; Contractor and Woodley, 2015

Table 2.5 shows that social exchange, equity, and contract theories assume that the collaborating businesses will have a universal understanding of their relative contributions and what constitutes fair value shares in the post-value creation phase of collaborations. However, fairness is subjective, and "value exists in the eye of the beholder" (Donnerstein and Hatfield, 1982, p.310). In practice, this could make the application of the equity theory and contract theory sharing principles challenging to implement (Wagner et al., 2010; Corsaro, 2020). For

example, idiosyncratic resources will curb opportunism (Kano, 2017), but the difficulty of separating these sources grows over time as causal ambiguity or embedded capital grows (Bowman and Swart, 2007; Ambrosini and Bowman, 2010). Social exchange, equity and contract theories are limited and only explain value sharing for common benefits and do not account for private and mixed benefits (for definitions, see section 2.1.2). This means the theories only provide tactics for actively preventing opportunism (Table 2.5, points 7,8) and passively relying on business environments' cultural and structural settings (Table 2.5, point 13). It sheds no light on what happens after successful partner opportunism.

Game theory complements the above theories by detailing how opportunism can be weaponised to maximise value creation and capture through "Machiavellian tricks" (Teece et al., 1997, p.511). If this means the "total pie shrinks but your personal share increases, then this is good" (Brandenburger and Nalebuff, 1995, p.62). Game theory also builds on the relationship between culture and value capture by highlighting that culture influences opportunism, and similar organisational cultures improve the effectiveness of collaboration (Table 2.6, points 6,7,8). Combining these common cultures and the contract forms the "social contract" (Parkhe, 1993, p.304), and businesses can actively create cultural synergy with partners using sacrificial and sequential commitment-based unilateral actions (Table 2.6, points 9,10,11).

This active culture building also has a temporal element where it creates mutual hostage-taking, making it harder for the partners to break away and prolonging collaborations (Parkhe, 1993; Larsson et al., 1998; Zeng, 2003). Game theory also analyses business interaction among independent competing players and maximises payoffs through optimal decision-making using contracts, loan covenants or trade agreements as rules (Brandenburger and Nalebuff, 1995; Tema, 2014). It assumes that all players are rational, maximise gains within uncertain conditions, the total players and payoffs are known, and each player has limited choices and uses probability to predict actions (Tema, 2014).

Table 2.6 details the key five steps businesses must take within dyad-level negotiations. Column one uses numbering to denote the five main strategies.

- 1. Strategy one: identify all players in the network structure and reconfigure them to optimise their scarcity for maximum value capture (1,2).
- 2. If strategy one does not work, adopt strategy two, identify relative value contributions, and further reduce investments to increase scarcity (3,4,5).
- 3. If strategy two does not work, adopt strategy three by building trust with players and ensuring contracts reflect risks and rewards (6,7,8).
- 4. If strategy three does not work, adopt strategy four, unilateral actions and marketing tactics to manipulate the perceived fairness in trades to serve personal interests (10,11,12).
- 5. If strategy four does not work, adopt strategy five and innovate to create unique resources and transform the industry (13).

Game theory builds on social exchange and equity theories to explain how opportunism and building cultural synergies can increase power and the lifespan of collaborations. Game theory assumes that all players are rational and that the total payoffs are known (Tema, 2014). Still, the broader literature suggests that the total value remains unknown (Zhang and Du, 2019).

Table 2. 6: Game theory-based negotiations

No		Details	Sources
1		Map players and assess the attractiveness of the business scenario.	Brandenburger and Nalebuff, 1995; Adegbesan and Higgins,
Dlayers		Assess the potential of introducing competition for your customers and suppliers to increase personal scarcity or for the complementary to shut out substitutes and strengthen bargaining power.	2010; Ryall, 2013
3		If there is no external competition, firms cannot go further and must haggle over <i>overvalue</i> .	Ryall, 2013
4	se	Map each player's potential upper and lower value capture potential.	
5	Values	Increase resource scarcity by destroying or holding resources to create demand.	
6		Prevent retaliation from stronger players by behaving as a non-threat	Brandenburger and Nalebuff, 1995
7	Rules	Establish pure (long-term) and calculative (short-term) trust.	Larsson et al., 1998; Zeng, 2003
8		Control rights should reflect risk and trust levels in contracts.	Adegbesan and Higgins, 2010
9		Manage the threat of partner opportunism and identify unilateral actions that manipulate the game's players to behave collaboratively by creating, maintaining, or reducing uncertainty.	Parkhe, 1993; Gulati et al., 1994;
10	Perceptions	Sacrifice commitments are high-risk positive public signalling for committing to partners. Failure to reciprocate sends negative messages to the market.	
11	Perce	Sequential commitment undertakes less risky steps that narrow the partner's potential responses with the expectation of predictable reciprocation. This makes it harder for the partners to break away.	Gulati et al., 1994; Larsson et al., 1998; Parkhe, 1993; Zeng, 2003;
12		Firms can optimise the value capture using the superior "persuasive intent" that makes up part of the overall bargaining power.	Brandenburger and Nalebuff, 1995; Ryall, 2013
13	Boundaries	If none of the above moves work, we must introduce innovations to transform the industry or create a new niche.	

In addition to Game theory manipulation tactics, the inter-partner learning theory identifies competitive learning as the key to building bargaining power and achieving optimal value capture of time (Hamel, 1991). Competitive learning refers to the firm ability to extract their partner's skills opportunistically or effectively absorb any unintentional partner knowledge spillovers (Ryall, 2013). The underpinning logic of the inter-partner learning theory is that collaboration is a "transitional stage" or short-term tactic for firms to engage and internalise partner resources and move relationships from interdependence, dependence, redundancy, and termination (Hamel, 1991, p.99). Khanna et al. (1998, p.205) describe collaborations as "learning races" in which firms try to outlearn their partners. Therefore, firms move partners from common to mixed and private

benefits (section 2.1.2) before terminating relationships and competing independently. Additionally to using game theory-based sequential commitments to prolong collaborations (Table 2.6, points 9-11), Inter-partner learning theory posits that collaboration can only become a viable long-term business strategy under two conditions: if all collaborating actors are vulnerable to a third party or they cannot extract partner resources (Kabiraj and Sengupta, 2018). Table 2.7 summarises the key features that underpin effective competitive learning. The first column uses numbering to denote the details of the three main components.

Table 2. 7: Key features of competitive learning

No			Details
1		Culture	Firms must ensure their organisational design and resource allocations support this and build a suitable firm-level cultural psychology focused on opportunism.
2	ness	Absorptive capacity	Firms must ensure that they can store, analyse and apply competitive learning to replicate the structures of their partners accurately.
3	Receptiveness	Absorptive capability	Firms must ensure that they have suitable absorptive capability. This allows many specialist managers to manage relationships, making extracting specialist or sticky knowledge easier.
4			Firms must be willing to unlearn "hardwired processes" to avoid lock-ins".
5			Firms must retrace how partners develop complex resources for effective replication.
6	rency	Slack	Firms should prefer to partner with partners who need to be better designed to protect their internal resources (slack) or prone to unintentionally exposing their resources to partners' transparency levels (knowledge spillovers).
7	Transparency	Indirect isolation	Firms should favour indirect isolation mechanisms (narrow alliances, modular interfaces, escalated information request policy, geographic distances, idiosyncratic resource development) over direct isolation mechanisms (contracts).
8		Relative scope	The relative scope for value capture determines the choice to pursue collaboration or opportunism. Pure collaboration leads to common benefits (low-risk reward), pure opportunism leads to private benefits (high-risk reward), and mixed approach leads to privately captured common or mixed benefits (medium-risk reward).
9		Contributions	The higher the partner contributions to value creation, the higher the scope for value capture from competitive learning.
10	Determinants	Network	The greater the lack of transparency and unique structural positions, such as network structural holes, the more efficient competitive learning becomes.
11	Governance		The level of control within governance structures (control rights) will influence the effectiveness of competitive learning.
12		Innovation	Faster partner resource development makes resource extraction harder.
13		Disruptions	The faster disruptions, partners or market shifts in priorities, the harder it becomes to extract all resources.

(Adapted from Hamel, 1991; Ireland et al., 2002; Kumar, 2010)

Table 2.7 shows that effective competitive learning requires good receptiveness (1-5) while maintaining the ability to protect one's resources (6,7). On the network level, the effectiveness of competitive learning is influenced by the relative scope for value capture and contributions, governance mechanisms, and environment, including the rate of disruptions and innovation (8-13). Inter-partner learning theory accepts the role of ex-ante contracting in line with social exchange theory, equity, and game theory. However, it explains how power and value capture evolve as firms move partners from common to private benefits before relationship terminations, reconciling their otherwise contradictory natures (equity and game theory). Inter-partner learning theory contextualises collaborations as a short-term tactic while detailing the circumstances in which long-term collaborations are possible and how firms can work around the issue of sharing value from idiosyncratic resources through opportunism. Finally, competitive learning complements the dynamic capabilities theory (section 2.2.1), showing how it can complement conventional learning for value capture.

This research refers to the combination of purely coercive (Cox, 2001;2004), non-coercive or trust-based power (Sridharan and Simatupang, 2013) and the social power sources (French and Raven, 1959) as the power theory. Like the interpartner learning theory, the underpinning logic of the power theory is that the choice between collaboration and competition is the relative opportunity for value capture (Cox, 2001). Businesses are only successful if they can leverage their power over their partners (Cambra-Fierro and Perez, 2018). Contrasting equity theory, the power theory assumes "dominant players do not follow any fair principles when dealing with other members" (Sridharan and Simatupang, 2013, p.90). Business is about appropriating value, not passing it on (Watson, 1999).

Table 2.8 summarises six strategies from the Coxian perspective for how businesses should manage their partners. Column one uses numbering to denote each strategy. Strategies one to three focus on supplier-to-buyer dominance, interdependence-to-buyer dominance, and independence-to-buyer dominance (1-3). Strategies four to six focus on moving from supplier dominance to interdependence, independence to interdependence and supplier dominance to independence (4-6).

Table 2. 8: Strategies for managing power.

No	Strategies	Processes
1	Supplier-to-buyer dominance	Increase personal market share, increase the number of suppliers, increase the dependence on chosen suppliers, opt for standardised supply, and call for cost transparency.
2	Interdependence to Buyer Dominance	Points 1-4 are the same as strategy 1, reducing supplier control of intellectual properties.
3	Independence to Buyer Dominance	Increase buyers' market share, select highly dependent suppliers, reduce buyer search costs, maximise standardised supply, and increase suppliers' value perception.
4	Supplier dominance to Interdependence	Points 1 and 2, like strategy 1, involve working closely with suppliers on innovation sharing, locking in high-quality suppliers, and creating idiosyncratic resources.
5	Independence to Interdependence	Like Point 1, working closely with chosen suppliers locks in capability creates idiosyncratic resources, and increases supplier dependence on buyers.
6	Supplier dominance to independence	Increase the number of suppliers, encourage substitutes, standardise products, reduce buyer search costs, and lower barriers to entry.

(Cox, 2001)

All the firm-level theories discussed in the previous section (section 2.2.1) and the game and Inter-partner learning theories align with the Coxian perspective. They see power as coercive and a source of value capture. However, the Coxian perspective demonstrates significant limitations.

- First, it accepts power is subjective, and partners can misperceive the dynamics and pursue inappropriate strategies (Cox, 2004; Cox, 2001; Nurhayati et al., 2021). Highlighting that coercive power is not enough. Sridharan and Simatupang (2013) suggest that power and trust are interchangeable and trust preserves relationships while power determines value-creation and capture. Furthermore, communicating power in non-threatening ways can motivate others to pursue mutual benefits (ibid). This aligns with the long-term assumption that trust is a complex resource to acquire (Carvalho et al., 2019; Blome et al., 2023).
- Second, it does not explain the environment's influence on businesses, resources, power and the scope for value capture (Cox, 2001; 2004).

In contrast, Sridharan and Simatupang (2013, p.82) refer to environmental and cultural elements as the "cooperative norms" and see them as the determinants for the levels of trust and opportunism that business partners can exercise. This also aligns with the inter-partner learning theory perspective, which identifies the

influence of culture on the firm, network and environmental levels when referencing cultural psychologies, structural positions, and market shifts (Table 2.7, points 1,10,13). Although Sridharan resolves the limitations of the Coxian perspective, their logic of trust and power as interchangeable elements contradicts the inter-partner learning theory, which sees trust and transparency as vulnerabilities (Table 2.7, points 6,7). This represents a significant incompatibility between these otherwise complementary concepts. Regardless, the concept of social power sources (French and Raven, 1959; Nurhayati et al., 2021) provides a nuanced understanding of power and how it can reconcile the abovementioned discrepancy.

Table 2.9 further details these six power types and their potential impacts. The first column uses numbering to denote each of the six strategies. This research argued that coercive (1,2) and referent power (9,10) represent the two extremes of pure opportunism and trust, while the remaining power types represent variances. The trust and transparency concepts within the inter-partner learning theory represent a pure form of trust and links to referent power. Sridharan and Simatupang did not clarify if they were referring to a pure or tactical form of trust. However, their recommendation to use power and trust interchangeably resonates with non-coercive power sources, including expert, informational and legitimate power (5-12). Therefore, the social power sources represent a valuable option to reconcile the inter-partner learning theory assumptions and the Sridharan perspective within the power theory to explain the dyad level value capture phenomenon.

Table 2. 9: Social power sources

No		Description	Туре	description
1	ive	The threat of punishment is made to gain compliance.	Personal	Receive personal threats of punishment.
2	Coercive		Impersonal	The belief is that powerful actors can threaten or impose punishment.
3	ard	The promise of some form of compensation in exchange for compliance.	Personal	Receive personal approval from critical actors and build relationships.
4	Reward	·	Impersonal	Economic benefits (bonuses) promise increased repeat business.
5		The authoritative right given by peers to expect compliance. Collective	Positional	Remain obedient to position holders in formal and informal social structures.
6	Legitimate	(social-cultural) norms protect this.	Reciprocal	Expect positive or negative reactions to previous positive or negative actions (something similar)
7	Legit		Equity	Compelled to compensate in a fair judicial way for past mistakes or positive actions (righting a wrong)
8			Dependence	Help actors who are dependent on help.
9	ent	Affiliation with influential groups and organisations	Positive	Compliance with order-giver due to personal connection.
10	Referent	convinces order-takers to comply (inspiration-based).	Negative	Compliance with order-giver with no personal connection and even dislike.
11	Expert	Asymmetric knowledge and reputation convince order takers to comply (faith-	Positive	Compliance with order-givers' expertise and experience.
12	Exp	based)	Negative	Compliance with order-giver knowledge and experiences used for opportunism.
13	ion	Persuasive ability is used to explain why orders should be complied with to	Direct	Information is directly given to the target using individual group conversations and presentations.
14	Information	convince order takers (convincing based)	Indirect	Information is indirectly given to the target using hints and suggestions.

(Adapted from Elias, 2008; Raven, 2008)

Combining the points for section 2.2.2 showed that the inter-partner learning theory offers the most advanced understanding of the value capture phenomenon among the dyad-level theories. In line with social exchange, equity and game theories, the inter-partner learning theory accepts that ex-ante contracting is vital to determining value capture. However, it also explains how bargaining power and value capture evolve as businesses shift between common, mixed, and private benefits over time (Table 2.7, point 8). This contextualises the conditions in which collaborations are possible. The competitive learning element of the inter-partner learning theory also complements the dynamic capabilities theory (section 2.2.1) by showing how learning can be used in another way to complement conventional learning and build resources and bargaining power for value capture over time. Inter-partner learning theory and its concept of competitive learning

represent a possibility for resolving the limitation within equity theory to explain the value sharing of idiosyncratic resources.

Despite its many positive traits, the inter-partner learning theory has shortcomings. This review found no research papers empirically showing a positive relationship between competitive learning and value capture from idiosyncratic resources or what happens if competitive learning fails. These points represent two further limitations within the literature in understanding the value capture phenomenon. Inter-partner learning theory only accounts for coercive power and sees trust and transparency as weaknesses. In contrast, the concept of social power sources within the power theory identifies trust and coercion as two of six potential power sources that apply to different contexts. This highlighted the need to combine inter-partner learning and Power theories to understand the value capture phenomenon.

2.2.3 Network-Level Theories

Social network theory explains the links between individuals, groups, organisations and even societies by examining the relationships within and between the units rather than the units themselves (Krause et al., 2007). Firm and dyad-level theories link resource reconfigurations to competitive advantages (section 2.2.1;2.2.2). Similarly, the social network theory links network configurations to enhanced learning and power-based value capture (Zhang and Du, 2019). This allows businesses to identify high-value partners before they understand their value (Gulati, 1995) and improve the scope for value creation and capture (Lavie, 2007A; Kang, 2013).

These network configurations or positional advantages are established using two main approaches: network centricity and structural holes. Network centricity involves using social networks to move into positions that improve the volume of information access (Zhang and Du, 2019) and provide opportunities for value capture (Gulati, 1995; Kang, 2013). Structural holes involve identifying and leveraging issues between organisations with complementary information sources (Hughes-Morgan and Yao, 2016) by "bridging or mediating between the two for

controlling information sharing" (Burt, 2017, p.34). This allows businesses to act as intermediaries or catalysts for improving their bargaining power and value capture (Gulati, 1995; Kang, 2013; Hughes-Morgan and Yao, 2016). Network centricity and structural holes allow all businesses to manipulate the bilateral and multilateral competition dynamics and enhance bargaining power and value capture in favour of the focal firm. Bilateral competition refers to the level at which network partners are considered competitors to a focal firm. The higher the bilateral competition, the lower the bargaining power and value capture for a focal firm (Lavie, 2007A). Multilateral competition refers to the level at which network partners are considered competitors for each other. The higher the multilateral competition, the higher the bargaining power and value capture for a focal firm (ibid).

In line with the dynamic capabilities theory, the power and inter-partner learning theories (section 2.2.1;2.2.2), the social network theory sees organisational learning as the driver for building high-value resources and power-based value capture (Zhang and Du, 2019). Like dynamic capabilities, the social network theory sees learning as the determinant of network evolution using "iterative feedback mechanisms where each new member influences the network and vice versa" (Gulati, 1995, p.623). Each new business tie to the network, reducing the dependence of all other businesses on previous relation, changing the "network norms" and deterring partner opportunism (ibid).

Network embeddedness refers to the behaviour "constrained by ongoing social relations" (Granovetter, 1985, p.482). The social network theory predicts that network embeddedness sets in as the frequency of inter-firm interactions rises and business ties move from structurally weak to relationally strong (Granovetter, 1985; Gulati, 1995). In these circumstances, networks become denser, and network culture moves from adversarial to trust-orientated to curb opportunism and make "ideas about proper behaviours more likely" (Granovetter, 2005, p.34). However, too much network embeddedness and density can also erode the competitiveness of all network members due to information burnouts, network inertia (Zhang and Du, 2019), and firm "short memories", making positive reciprocations less likely (Gulati, 1995, p.627). Most network embeddedness and

density research see business environments as regulators of firm behaviour, including minimising opportunism (Zhao et al., 2021A). However, other research identifies that uncertainty and a lack of formal authority make the eradication of opportunism from business networks less likely (ibid).

In line with the second school of thought, this research refers to the overlapping alliance portfolio concept (Jacobides et al., 2006; Lavie et al., 2007B) and power theory (Cox, 1999) as the power architecture theory. In this context, architectures refer to:

"Abstract descriptions of economic agents within an economic system and their relationships in terms of minimum rules (social norms) that are partly designed (firms, legal influences) and emergent (culture). Players who control the key resource shape the architecture formations, and over time, multiple ecosystems emerge" (Jacobides et al., 2006, p.1203)

The power architecture theory contradicts the social network theory and suggests that businesses should use the long term to manipulate network configurations and establish self-serving network-level architectures. In line with the interpartner learning theory, the power architecture theory also sees collaboration as a short-term tactic that firms should adopt when they help achieve end-to-end control of their value chain through vertical integration to create "hierarchies of structural dominance" (Cox, 1999, p.172). It identifies three significant choices for establishing end-to-end control.

First, businesses should try to control all complementary resources (Jacobides et al., 2006), also called "Janus dominance" (Cox, 1999, p.171). Second, if a focal firm cannot control all resources, it should manipulate the network structures by engaging in elevated levels of involvement within and competing networks. On the other hand, elevated levels of network involvement allow firms to shape favourable alliance agendas, including superior access to partner resources for private benefits or preventing opportunism by signalling a commitment to common benefits (Lavie et al., 2007B). Furthermore, higher levels of involvement in competing networks provide even broader information access for improved resource building, improved foresight, responsiveness to opportunities and

reduced personal risks due to diverse investments (ibid). Third, if it is impossible to control all the resources or build a favourable architecture, businesses must accept the power dynamics and reduce investments (Jacobides et al., 2006). Therefore, the power architecture theory complements social network theory with a greater emphasis on how firms can use the network for private or mixed benefits and exercise the dyad-level concept of competitive learning (section 2.2.2).

Combining the points for section 2.2.3, the social network theory details how firms use network manipulation techniques to enhance their learning ability for improved bargaining power and value capture. It provides a comprehensive understanding of the network culture, how it evolves and its relationship to firm-level power dynamics and network embeddedness. However, it only sees opportunism as a symptom of early-stage network embeddedness, which contradicts the power and inter-partner learning theories (section 2.2.2). Power architecture theory suggests that the long-term goal of network manipulations should be to establish end-to-end control by maintaining elevated levels of involvement inside and outside the network to enhance competitive learning. This highlighted a significant difference in how the social network and power architecture theories see the role of opportunism in network evolution and an issue in the literature to reconcile their contradictory explanations for opportunism in the long term.

2.2.4 Summary and Scope

This section summarises the critical details covered throughout section 2.2 before concluding the scope for additional research. Section 2.2.4.1 examines the reviewed literature before linking the reviewed theories to establish a complete understanding of value capture. Section 2.2.4.2 identifies the critical limitations of the reviewed theories to develop essential research issues. Section 2.2.4.3 highlights the scope of the reviewed theory to explain the conditions for effective collaboration.

2.2.4.1 Linking theories

Sections 2.2.1-2.2.3 identified fourteen theories that explain the value capture phenomenon at the firm, dyad and network levels. A comparison helped identify three core theories that offered the most advanced ability at the firm, dyad and network levels to explain value capture. This included dynamic capabilities, interpartner learning and social network theories. These core theories were complemented with three additional supporting theories to curb their limitations, including strategic factor markets and power and power architecture theories. The research also identified commonalities across six core and supporting theories that align them to offer a more complete understanding of value capture. Bacharach (1989, p.511) refers to these as "boundary spanners", or "constructs embedded in and shared by theories".

Section 2.2.1 identified the dynamic capabilities theory as the core theory at the firm level to explain how firms build bargaining power and capture value over time. However, it failed to account for it within its overall theoretical explanations. Strategic factor markets theory identifies luck and strategic foresight as the critical drivers for firm-level bargaining power development and value capture over time. Therefore, strategic foresight represents a boundary spanner that connects the dynamic capabilities and strategic factor market theories to understand firm-level value capture better.

Section 2.2.2 showed that the inter-partner learning theory similarly offers the most advanced ability among the dyad-level theories. The competitive learning element of inter-partner learning theory also complements the firm-level dynamic capabilities theory (section 2.2.1) by showing how learning can be used in another way to complement conventional learning. Therefore, learning represents a boundary spanner between these firm and dyad-level theories. However, interpartner learning theory only accounts for coercive power and sees trust and transparency as weaknesses. On the other hand, the power theory identifies trust and coercive power as two of six social power sources that apply to different contexts. This suggests that trust and coercive power represent boundary spanners between inter-partner learning and power theories, to give a complete understanding of value capture at the dyad level.

Section 2.2.3 shows that social network theory offers the most advanced ability among network-level theories. It details how firms use network manipulation techniques to enhance their learning ability for improved bargaining power and value capture. Like dynamic capabilities theory, the social network theory also sees organisational learning as a key to developing bargaining power. However, the social network theory also sees competitive learning-based opportunism as a symptom of early-stage network embeddedness that the network removes over time. Network embeddedness refers to the behaviour "constrained by ongoing social relations that to construe them as independent is a grievous misunderstanding" (Granovetter, 1985, p.482). In contrast, the power architecture theory suggests that the long-term goal of network manipulations and elevated levels of involvement inside and outside the network should be done to enhance competitive learning to establish end-to-end control. This logic ties in with the power and inter-partner learning theory dyad-level theories. Therefore, organisational learning represents a boundary spanner that links the dynamic capabilities and social network theory, while competitive learning and coercive power similarly link inter-partner learning and power architecture theories.

Fig 2.6 summarises the relationships between the core theories (bold lines) and support theories (dashed lines) within and across the firm, dyad and network levels using the boundary-spanning link among them (dashed lines). It shows that dynamic capabilities, inter-partner learning, and social network theories are the core theories that explain how value capture unfolds among businesses at the firm, dyad, and network levels. These theories could be used collectively as a theoretical framework or focus on one theory and treat the other two as additional support theories to supplement any limitation. This research adopted the second strategy and concentrated on using the inter-partner learning theory as its focal theory while treating the dynamic capabilities and social network theories as additional support theories. This is further detailed in section 2.4.4).

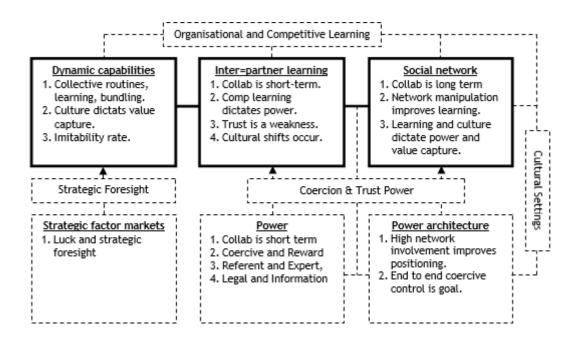


Fig 2. 6: Boundary spanners that connect theories

2.2.4.2 Limitations and Research Issues

All six theories see valuable resources as the source of bargaining power, and bargaining power should reflect the value captured. However, the literature acknowledges that businesses often misperceive the power dynamics, which causes problems in negotiations for value capture (Nurhayati et al., 2021). Power theory identifies six power sources without clarifying which offers the most or least value capture and in what contexts (section 2.2.2). Inter-partner learning theory sees competitive learning experience as the key to extracting idiosyncratic resources (Hamel, 1991, p.90). However, there is no empirical evidence outlining the effectiveness of competitive learning for extracting value from idiosyncratic resources or what happens if competitive learning fails (section 2.2.2). Finally, a review of the dyad and network-level theories showed that luck and its role as a determinant for value capture is not fully understood. Only equity theory (Bowman and Ambrosini, 2000) and game theory (Adegbesan and Higgins, 2010) reference luck as a source of value capture but require further exploration to explain its impact on the value capture phenomenon fully.

2.2.4.3 Conditions for Effective Collaboration

The reviewed theories proposed that collaboration is an effective short and long-term business strategy. Dynamic capabilities, power, inter-partner learning and power architecture theories categorise collaboration as a short-term tactic. Dynamic capabilities theory suggests that collaborations serve as short-term vehicles for increased responsiveness to temporary opportunities (Anand et al., 2010; Brown & Eisenhardt, 1997). Power theory sees the choice between collaborative and adversarial relationships as determined by their scope for value capture. Power theory also accepts that collaborations do not always account for power dynamics (Cox, 2001).

According to the inter-partner learning theory, collaborations help firms engage in competitive learning cycles and extract their partners' resources for improved power and value capture before terminating the relationship (Hamel, 1991). The power architecture theory highlights that firms should adopt short-term collaborations as a longer-term strategy to achieve end-to-end vertical integration for "hierarchies of structural dominance" (Cox, 1999, p.172). Collaboration should be used to increase involvement with businesses inside and outside the network to improve resource access and gain control of all essential resources (Lavie et al., 2007B). On the other hand, the inter-partner learning and social network theories also identified specific conditions under which collaborations can be used as a long-term strategy. Inter-partner learning theory suggests that if partnering firms are vulnerable to a third party, they will be less likely to act opportunistically and focus on collective value creation and capture tactics (Hamel, 1991).

Social network theory sees collaboration as an effective long-term strategy for value capture. It predicts that trust-based collaborative relationships become the superior source of value capture as the number of interactions between businesses increases and network embeddedness sets in (Granovetter, 2005). Network embeddedness refers to the behaviour "constrained by ongoing social relations" (Granovetter, 1985, p.482). This discrepancy between whether business networks minimise or optimise opportunism over time remains a grey area in the literature and requires further clarification (Zhao et al., 2021A).

2.3 Temporal Scope of Value Capture Theories

Management research demonstrates "a progressive forgetfulness of time" (Holt and Johnsen, 2019, p.1), and management theories fail to account for time and lack predictive accuracy (Halldórsson et al., 2015; Hitt et al., 2021). Therefore, to effectively assess the temporal scope of the value capture theories, this research identified the central management concepts that describe the time dimension. These time-related concepts were used to interpret the explicit and implicit temporal elements within the six core and support theories (section 2.2.4). The temporal scope for the firm, dyad and network level value capture theories are presented in sections 2.3.1 to 2.3.3.

2.3.1 Temporal Scope in Firm-Level Theories

Building on sections 2.2.1 and 2.2.4, this section analyses the temporal scope of strategic factor markets and dynamic capabilities theories. Strategic factor markets theory suggests bargaining power is acquired over time based on firm-level luck and strategic foresight. Strategic foresight refers to the firm's ability to use internal knowledge to intentionally leverage situations and develop or acquire high-value resources that align with market demand (section 2.2.1). The effectiveness of firm-level strategic foresight is governed by the "unique histories" of the firms (Barney, 1986, p.1233). Therefore, the strategic factor markets theory identifies past firm experiences as determinants for their future abilities to intentionally (foresight) or unintentionally (luck) match their internal resources to the market for maximum bargaining power and value capture.

According to time literature, referent points are the relative importance that organisations place on the past, present and future times when decision-making (Reilly et al., 2016; Shipp and Jansen, 2021). Different referent points require managers to use different temporal styles to interpret and react effectively to manage distinct levels of uncertainty (Ancona et al., 2001). Strategic factor markets logic suggests that firms adopt a past referent point and codify past experiences into patterns to predict the present and future. This is highly effective in low uncertainty settings (Butler, 1995). Where these codified patterns

form paths that fit with the Path dependence theory. These path-dependence-related studies show how past events influence current and future actions and clarify the processes that explain "how and why history matters" (Sydow et al., 2020, p.718). Paths are formed by examining repetitive events with predictable durations that occur continuously, indefinitely or in cycles (Davis, 1994; Halinen et al., 2012; Mosakowski and Earley, 2000). Path formations are based on "shared meanings" within specific cultural contexts, where individuals perceive time as a social phenomenon (Ancona et al., 2001, p.516). Shipp and Jansen (2021, p.301) define social time as:

"The experience of the past, present, and future, which occurs as individuals (intra-subjectively) and collectives (inter-subjectively) mentally travel through, perceive, and interpret time."

This contradicts conventional or clock time, which defines time as linear, infinite, quantifiable units that are uniform, regular, precise, and measurable (Shipp and Jansen, 2021; Hopwood et al., 2022). Therefore, objective clock time represents "snapshots" of experience across the time continuum. In contrast, social time connects the past, present, and future through a perceived narrative to create "a movie of snapshots" (Das, 1993, p.268).

Following the core competencies theory, the dynamic capabilities theory suggests businesses must continuously leverage their business units to maximise learning and up-to-date skills (Prahalad and Hamel, 1990). Enough learning creates opportunities to integrate previous technologies (old core products) to create new ones (updated core products) and enter new complementary markets for maximum bargaining power and value capture (core business) (ibid). According to the "non-imitable" criteria, complex resource development requires patterned coordination, where firms shift from old to new core products, markets, and coordination routines to create complex webs of physical and nonphysical value (section 2.2.1). This means patterned coordination (that meets the non-imitability criteria) creates time lags, elongating specific time durations (Holt and Johnsen, 2019), allowing firms with bargaining power to maximise their value capture. The resource-based view (RBV) offers further details on the non-imitability criteria by describing the patterned coordination processes as "history-dependent" rather

than duration-dependent and linking them to "casual ambiguity" and "social complexity" (Barney, 1991, p.112).

Dynamic capabilities theory implicitly adopts a social conceptualisation of time that flows in lifecycles, where natural phenomena follow predictable developmental paths that may or may not be continuous (Ancona et al., 2001). This is slightly different from cyclical time, which refers to repetitive events with predictable durations that occur continuously and indefinitely (Davis, 1994). Like SFM, the dynamic capabilities theory accepts the path-dependent nature of new core competency-building while adding additional time-related features. It argues that past processes and positions are not the only determinants of the present firm processes (coordination routines) and positions (core competencies). They are also influenced by the current path (opportunity attractiveness) and imitability levels (resource saturation rate) and whether businesses access business opportunities individually or as part of strategic alliances (Teece et al., 1997).

As individual businesses, it means more value capture for businesses who internally hold the critical resources to benefit from an opportunity. This is because these businesses do not need to form alliances and share any value created. Strategic alliances will afford less value capture because partnering firms must share the created value. However, strategic alliances also give firms faster market entry for longer access to benefit from the opportunity (Brown and Eisenhardt, 1997; Anand et al., 2010). Therefore, dynamic capabilities theory sees a firm's current path and the choice between individual or alliance competition as based on opportunity imitability.

Since business decision-making is partially determined by the current opportunities available in the socio-economic settings, the dynamic capabilities theory suggests businesses use past and present referent points. This indicates that business environments' cultural and structural settings determine the scope of value capture at any given time and reinforce the connection between culture and value capture (section 2.1.3). Imitability indirectly suggests that all core competencies and business opportunities are temporary and diminish in value over time, while rivals can further compress their lifespan through replication.

Therefore, business environments' cultural and structural settings change with each new temporary business opportunity, and firm-level learning triggers these significant changes. In this context, time compression refers to the firm's ability to reduce the lifespan of these specific durations (Medlin, 2004).

Fig 2.7 shows that for the same business opportunity (growth, T0), businesses can use time manipulation tactics to increase or decrease the window for optimal value capture (peak, W1, W2, W3) erosion (diminishment, A, B, C) and the overall opportunity lifespan (T1, T2, T3).

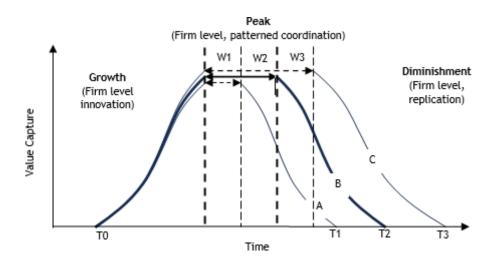


Fig 2. 7: Tug of war for bargaining power and value capture

In Fig 2.7, the growth phase, peak value capture window W1- W2, diminishment phase B and lifespan T0-T2 represent a hypothetical standard scenario. In this situation, businesses are assumed to remain passive and allow cultural and structural settings of business environments to dictate the peak value capture windows they can leverage before they close. Firms with bargaining power create time lags using patterned coordination to increase the windows for peak value capture (W3). As previously mentioned (section 2.2.1), patterned coordination refers to developing complex resources by firms shifting from old to new core products, markets, and coordination routines over time to create complex webs of physical and non-physical value (Prahalad and Hamel, 1990). This means the opportunity will erode later than it usually would have (diminishment phase C) and increase the duration of the business opportunity (T0-T3). Alternatively, firms

without bargaining power use time compression tactics like replication resources of market leaders to decrease the windows for peak value capture (W1). This means the opportunity will erode much quicker than it usually would have (diminishment phase A) and reduce the lifespan of the overall business opportunity (T0-T3). Overall, the conflict between the time compression and lags created by businesses with bargaining power represents a timed tug-of-war for optimal value capture. A firm's performance within each business opportunity influences its future developmental path and ability to engage in effective time compression of lagging. Their resilience arguably drives this. Section 1.2 shows that COVID-related research identifies safety stocks and capacities as a potential solution for managing change (Sodhi & Tang, 2021; Choi et al., 2023) and whether firms need to increase their agility or ability to adapt to prolong favourable conditions as part of the "Just-In-Time" versus "Just-In-Case" debate (Jiang et al., 2021, p.143).

2.3.2 Temporal Scope in Dyad-Level Theories

Building on sections 2.2.2 and 2.2.4, this section analyses the temporal scope of inter-partner learning and power theories. Inter-partner learning theory sees collaborations as short-term tactics to access and extract their partners' resources before terminating the relationship and competing independently. Section 2.2.2 (Table 2.6, points 1-7) showed that the effectiveness of competitive learning is influenced by the relative firm-level receptiveness (ability to extract resources) and transparency levels (level of protection against partner opportunism). Competitive learning is the firm or alliance's ability to extract their partner's skills (section 2.2.2), which occurs over a three-phase sequence or cycle.

- Interdependence: partners depend equally on others to benefit from opportunities and engage in common benefits (high risk, low reward).
- Dependence: firm uses competitive learning to make partners more dependent for mixed benefits (medium risk and reward).
- Redundancy: firm extracts all partner capabilities for private benefits (low-risk, high reward) before terminating relationships (common, mixed, and private benefits detailed in section 2.1.2).

Like dynamic capabilities, theory identifies core competency-building as path-dependent (section 2.3.1), and the competitive learning phases represent events that must be completed before moving forward. Therefore, inter-partner learning theory also adopts a socially constructed time conceptualisation to deconstruct and extract partner core competencies. Cycle or lifecycle time that includes disruptions is called punctuated time and is defined as situations where repetitive events (cyclical or lifecycles) are punctuated with unpredictable noel events (Ancona et al., 2001; Harvey and Novicevic, 2001). Therefore, the inter-partner learning theory accounts for the unexpected change or disruptions that firms may experience as their partners suddenly break running collaborations, which aligns with a social and punctuated time conceptualisation.

In section 2.3.1, the dynamic capabilities theory also discussed the positive impacts of high-frequency patterned coordination for creating non-imitable core competencies to prolong durations, optimise bargaining power, and capture value. Inter-partner learning theory highlights the negative side of relying on non-imitable resources. It predicts that if businesses fail to adapt and change over time, they can become locked into specific roles and "hardwired processes" and vulnerable (Hamel, 1991, p.88). Although contracts offer short-term protection, evolving bargaining powers reduce effectiveness (ibid). This logic aligns with the path-dependence concept of negative lock-in, the organisational risk of a growing inability to adapt (David, 1994; Goldstein et al., 2023).

Taking these points together, the inter-partner learning theory adopts a social and punctuated time conceptualisation within its competitive learning concept to deconstruct partner core competencies before extracting them. Each of the three phases represents transformational changes or disruptions. It also highlights that businesses must introduce changes to ensure they do not become too reliant on non-imitable resources for value capture. This is because they run the risk of slipping into negative lock-ins. Fig 2.8 summarises these key points.

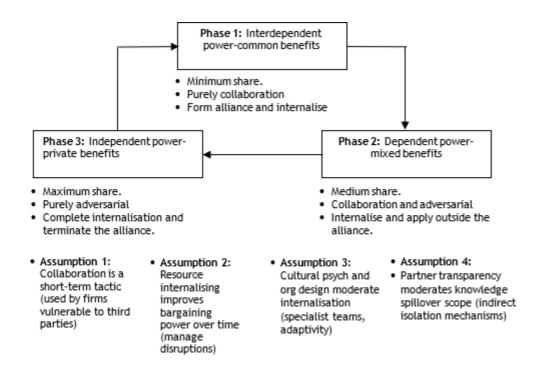


Fig 2. 8: Competitive learning phases/cycle (Adapted from Hamel, 1991, p.88)

Khanna et al. (1998, p.206) predict three suboptimal scenarios that can occur:

- Scenario 1 (three-legged fallacy): firms do not recognise that they are in a race and behave collaboratively due to firm-level mistakes
- Scenario 2 (reluctant losers): firms that knowingly do not react to their partners' growing value capture and prefer to maintain the status quo. That change becomes a significant hurdle for businesses that fail to adapt
- Scenario 3 (hesitant winners): High-powered firms can become hampered by strong personal ties and accept suboptimal value capture dynamics because even market leaders can "not recognise" and "fail to capitalise" on learning advantages.

Section 2.2.2 showed how the social power perspective of the power theory links six different power types to various circumstances (French and Raven,1959; Nurhayati et al., 2021). Raven (2008, p.5) classified these six social powers into three broader categories. Category one combines legitimate, expert, and referent powers to convince partnering firms to accept their influence (not compliance), using formal authority, knowledge asymmetry, and social connections. This is

because there are fewer incentives to hide non-compliance, so this power category's influence is called "socially dependent changes without surveillance". Category two combines reward and coercive power, allowing businesses to wield positive and negative reinforcements over partnering firms and gain conformity. The partnering firm must inform the business that wields coercive and reward power of their compliance. The firms with the powers must monitor the targets to ensure compliance before giving rewards or punishment. This requires continuous back-and-forth and surveillance and is therefore called "socially dependent changes with surveillance." Category three is informational power, which influences long-term cognitive alterations in partners that do not require additional follow-up actions and are, therefore, "socially independent".

Fig 2.9 summarises the three power categories and how their influence is sustained over time. The straight lines in the diagram represent the standard paths, and the black squares represent the interaction between the firms, where one of the three power categories has triggered deviations from the original path. The presence or absence of the black dots on the altered paths represents whether firms need to undertake additional interactions with their partners to sustain the influence of their power or not. The back dot with a dashed triangle represents firms engaged in monitoring (only relevant to category one).

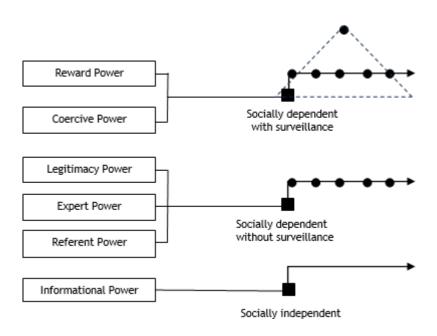


Fig 2. 9: Three types of social changes triggered by different power categories.

The three power categories and the predicted actions represent a helpful theory. However, the literature review found no empirical papers validating these predictions, highlighting the need for additional research.

2.3.3 Temporal Scope in Network-level Theories

This section analyses the temporal scope within the social network and power architecture theories. Like dynamic capabilities and the inter-partner learning theory (sections 2.2.1; 2.2.2), organisational learning is central to the social network theory. It drives incremental resource accumulation and network evolutions (Zhang and Du, 2019). In this context, learning represents the interface and coevolution of cultural and structural settings of firms and business environments using "iterative feedback mechanisms where each new member influences the network and vice versa" (Gulati, 1995, p.623). Social network theory assumes that firm-level learning leads to incremental changes, while the entry and exit of each new member represent radical changes to network power dynamics. Therefore, the social network theory makes two predictions regarding the evolution of networks.

- 1. Suppose businesses accumulate enough learning that leads to incremental changes. In that case, they can also trigger significant changes, like the market entry of existing network members, to redefine power dynamics.
- 2. Networks can simultaneously experience incremental and substantial changes as firms and networks coevolve over time. Fig 2.10 summarises the relationship between the firm-level actions that cause disruptions for their partners and their impact on network settings over time.

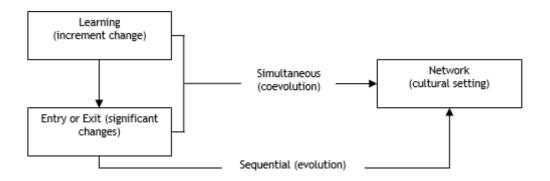


Fig 2.10: Network evolution over time

Social network theory predicts that network embeddedness sets in as the frequency of inter-firm interactions rises and business ties move from structurally weak to relationally strong. In these circumstances, networks become denser, and network culture moves from adversarial to trust-orientated to curb opportunism (Granovetter, 2005). However, too much network embeddedness reduces network competitiveness due to "information burnouts", "network inertia" (Zhang and Du, 2019, p.3191), and the "short memories" of firms, which make positive reciprocations less likely (Gulati, 1995, p.627).

Fig 2.11 visualises the three interrelated predictions regarding how social networks evolve. The three stages (A, B, C) represent a social network lifespan's beginning, middle and end. The black dots in stage A represent the frequency of interactions, while the white dot represents potential opportunism. The dashed lines and their directions (in stages two and three) show how opportunities for opportunism erode as network density increases from low to medium and high before experiencing structural inertia or negative lock-ins.

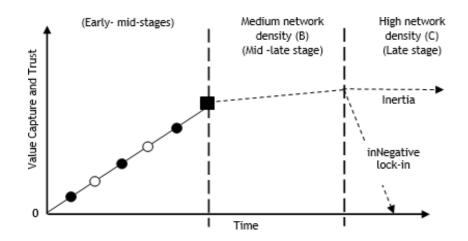


Fig 2.11: Social network theory predicted the impact of network embeddedness

In contrast, power architecture theory predicts that the cultural and structural settings of the business environment industry evolve from decoupled to vertically integrated (VI) supply chain structures. This means fewer firms extract more value (and firms increase their opportunism using control over time (Jacobides et al., 2006; Kang, 2013; Johns, 2006). Fig 2.12 summarises these key points.

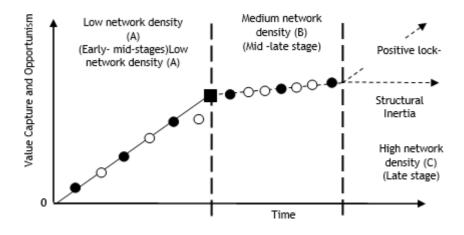


Fig 2.12: Power architecture theory predicted the impact of network embeddedness

The contradictions between the predictions in Figs 2.11 and 2.12 reflect the contradictions between social network and power architecture theories, which identify networks as both a filter for opportunism and ineffective due to environmental uncertainty and lack of authority (Zhao et al., 2021A). This highlighted a further issue in the literature that requires further exploration.

2.3.4 Summary and Scope

This section summarises the critical details covered throughout section 2.3 before concluding the scope for additional research. Section 2.3.4.1 examines the reviewed literature to establish the temporal scope within the theories. Section 2.3.4.2 identifies the limitations within the reviewed theories to establish research issues. No obvious explanations were found for the conditions for effective collaborations, so this is not discussed within this summary section.

2.3.4.1 Temporal scope within theories

In Section 2.2, the research identified fourteen theories that explain value capture at the firm, dyad and network levels. A comparison helped to identify three core and three supporting theories that best explain value capture offered the most advanced ability at the firm, dyad and network levels. In this section, the research assessed the temporal scope of these six theories using central time-related concepts to interpret the explicit and implicit temporal elements within the theories.

Section 2.3.1 shows that the strategic factor markets and the dynamic capabilities theory adopt path-dependent, social and lifecycle time conceptualisations of time, where firms use the past and present referent points to underpin decision-making. Both assume that high-value resource development requires past codification of resource development processes to predict future demand and develop resources accordingly. Business opportunities are temporary, and firms must reconfigure resources to match them to demand. This maximises power and value capture before rivals can replicate and saturate opportunities. Each opportunity is a tug of war where firms adopt time lags (patterned coordination) and compression (rival replication) to manipulate the opportunity durations.

Section 2.3.2 shows that inter-partner learning and power theories adopt a path-dependent, social, and punctuated time conceptualisation. Inter-partner learning theory sees collaborations as short-term tactics to engage firms in competitive learning cycles (Table 2.8). On the dyad level, competitive learning, relative transparency, and isolation mechanisms represent time compression and lag

mechanisms manipulating opportunity durations. The power theory shows how different power categories trigger industry changes.

Section 2.3.3 shows that social network and power architecture theories also adopt a path-dependent and socially constructed cyclical conceptualisation of time. Social network theory predicts that firm-level learning triggers incremental changes, and market entry and exits trigger significant changes (disruptions) to business environments' cultural and structural settings. Both predictions suggest that gradual changes can trigger substantial changes. Social network theory also makes the following three cultural setting evolution-related predictions. First, networks experience increased network embeddedness and density over time, shifting the relationship orientation from opportunistic to trust-orientated and market-saturated. Second, too much network embeddedness reduces network competitiveness, and firms can become stuck in structural inertia. Third, structural inertia eventually leads to negative lock-ins where firms slowly lose their competitive bargaining power and value capture scope.

In contrast, the power architecture theory suggests that cultural and structural settings of business environments facilitate vertical integration over time, allowing fewer firms to capture more value. Therefore, the power architecture theory and social network theory explain the lock-in phenomena and their impacts from the perspectives of the actors who benefit or suffer from them.

The analysis for sections 2.3.1-2.3.3 shows that all six theories adopt a socially constructed cyclical conceptualisation of time where events unfold to firm a path but do not explain what happens in the post-negative or positive lock-in phaseins. Fig 2.13 provides the basic path dependence theory to assess the developmental paths of the firm, alliance, and value chain, including the preformation, formation, lock-ins, and path-breaking phases. The preformation phase offers broadly unrestricted scope for action within the context of specific social spaces and time in "complex, uncertain, almost undetermined ways" (Sydow et al., 2020, p.718). The formation phase begins when businesses have a narrower range of options than in the preformation phase. At this point, a new regime and supporting self-reinforcing processes take over, and the longer they progress, the harder it becomes to reverse. Eventually, a dominant organisational

path emerges, and alternatives dwindle (Sydow et al., 2020). The third phase deals with locked-ins and how they end due to rationality shifts and how strategic repositioning can trigger "competence-destroying changes" due to a lack of reversibility (Anderson and Tushman, 1990, p.605).

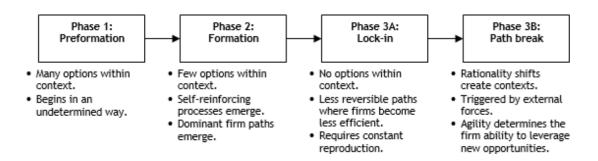


Fig 2.13: Path dependence theory (Adapted from Sydow et al., 2020, pp.724-728)

The framework offers a structured approach for breaking down and analysing pathdependent events. For example, the preformation and formation phases detail how firm path codifications influence their actions. This includes understanding how and why particular cultural and structural settings of business environments emerge, including the influence of internal and external agents/disruptors. The lock-in and path-breaking phases suggest that lock-ins experience path-breaking due to rationality shifts. These refer to how strategic repositioning transforms previous regimes into "competence-destroying changes" due to the lack of reversibility (Anderson and Tushman, 1990, p.605). The concept of rationality shifts and path-breaking represent useful lenses to extend the ability of value-capture theories to explain what happens in the post-lock-in phases.

2.3.4.2 Limitations and Research Issues

The literature review identified research issues associated with the network embeddedness concept and disruptions caused by actors inside and outside the network. Network embeddedness refers to the behaviour "constrained by ongoing social relations that to construe them as independent is a grievous misunderstanding" (Granovetter, 1985, p.482). The social network theory predicts increased inter-firm interactions increase network embeddedness, business ties

become relationally strong (Gulati, 1995), and network culture moves from adversarial to trust-orientated (Granovetter, 2005). However, too much network embeddedness can also erode competitiveness and cause negative lock-ins (Zhang and Du, 2019). In contrast, the power architecture theory suggests that over time, a business environment's cultural and structural setting facilitates network embeddedness that increases opportunism as firms increase control over more stages of the value chain through vertical integration (VI). Vertical integration allows fewer firms to extract more value capture to create positive lock-ins (Jacobides et al., 2006; Kang, 2013). However, neither theory explains what happens after establishing positive or negative lock-ins. Although most network embeddedness research supports the social network theory and links high network embeddedness with low levels of opportunism, others call for additional research to understand this phenomenon properly (Zhao et al., 2021A). These points together highlight a contradiction regarding the long-term impact of network embeddedness on business practice and the need to explore further what comes after a positive or negative lock-in is established. Also, if all network cultures experience the same evolution pattern, it is unclear whether social network theory suggests that opportunism should not exist in mature industries.

The social network theory predicts that an accumulation of organisational learning can trigger incremental changes, triggering more significant changes over time (Gulati, 1995; Zhang and Du, 2019). The power theory sheds light on the types of power firms must apply after a significant change to sustain or undermine them (French and Raven,1959; Raven, 2008; Nurhayati et al., 2021). However, both sides assume that change is only driven by powerful firms inside the network (sections 2.2.2; 2.3.2). Ancona et al. (2001) highlighted that changes could be brought about through continuous actions like organisational learning or sudden disruptions like natural disasters. Therefore, the literature on how sudden and unpredictable external and predictable internal disruptions influence business performance and network embeddedness requires further research.

2.4 Literature Review Conclusion

This chapter described an in-depth literature review to establish how the preexisting literature understands the conditions for effective collaboration and the impact of culture, power dynamics, value capture, and time on supply chain collaboration (SCC).

2.4.1 Research question-specific outcomes

Section 2.1 explains value capture and how it works. It found that "value" represents a balance between the perceived benefits and limitations of the product and can be broken down into the "use" and "exchange" values. Use value is subjective and depends on the buyer's perceived novelty, which is influenced by the cultural and temporal contexts experienced by the buyer. Exchange value represents the realised value a business achieves at a single point in time. Therefore, high or low exchange value fluctuates based on the seller's ability to time economic transactions (exchange value) when the use value is perceived to be the highest. Firms optimise the use and exchange of value through value creation and capture processes and their effectiveness is influenced by time and culture. This section found that there is a need for more research to explore value capture in specific time ranges and cultural contexts (Table 2.10, issue 1).

Section 2.2 covered literature that explains the scope within management theories to explain value capture. The literature review identified three core theories that offered the most advanced understanding of the value capture phenomenon at the firm, dyad and network levels. This included the dynamic capabilities, inter-partner learning and social network theories. These core theories were complemented with three additional support theories that helped curb the core theories' limitations. This included the strategic factor markets, power, and power architecture theories. The research also identified commonalities across the firm and dyad and network-level theories that were used to link them together and offer a complete understanding of value capture. This was summarised in Fig 2.6.

Section 2.3 explains the temporal scope of value capture-related theories. It assessed the temporal scope of the six value capture theories with help from the central concepts in management that describe the time dimension. All six theories adopted a social time conceptualisation where events unfold in a path-dependent way. Therefore, this research used the path dependence theory (Fig 2.13) to interpret changing bargaining power and value capture dynamics and how culture influences them (Table 2.10, issue 6).

Table 2.10 summarises the research issues identified across the three main section summaries (sections 2.1.3.1, 2.2.3.2 and 2.3.4.2). Column one uses numbering to denote the research issues. Most problems link to the condition set out by Porter (1989) for effective collaboration. Issues 2-5 link to Porter's second and third conditions, which relate to possessing complementary resources and enough profitability. Issues 7-10 link to Porter's first condition, which requires firms to adopt suitable cultures using corporate identities. Issue 6 identified a methodology for interpreting temporal changes and calls to investigate effective SCC (Ho et al., 2019; Bui et al., 2021).

Table 2. 10: Summary of research issues from across the literature review

No	lo Theory		Issues in the literature					
1	х	Х	Explore value capture in specific time ranges and cultural contexts.					
2	e A	Power	Explore if the six power sources and their interrelationships can resolve the issue of partners misperceiving power dynamics and causing negotiation problems.					
3	., valı re, lu	Inter-partner learning	Assess whether competitive learning is effective for extracting idiosyncratic resources.					
4	Power, value capture, luck	-	Explain what happens if an attempt at competitive learning fails with a partner.					
5	Strategic factor markets		Determine the role of luck in explaining value capture on the dyad and network levels.					
6		Path dependence	Use the path-dependent framework to interpret how business bargaining powers value capture evolve over different event patterns and cultural contexts.					
7	е	Social network	How do external and internal disruptions influence network embeddedness and the emergence of business opportunities?					
8	d tim	Social network,	What comes after the formation of positive or negative lock-ins?					
9	Culture an	Culture and time	Culture an	Culture an	Culture an	Culture an	Inter-partner learning and Power architecture	Explain the discrepancy between Social and Power architecture theories on whether business networks with high network embeddedness or density levels minimise or optimise opportunism over time.
10		Social network	If network embeddedness filters out opportunism in favour of trust over time, does this mean opportunism should not exist in mature industries?					

2.4.2 Conditions for Effective Collaboration

Section 2.2.3.2 showed that the primary goal of businesses is to maximise their value capture through control within diminishing opportunity windows. Value creation-driven collaborations only serve as short-term vehicles to improve firm-level responsiveness. This stresses the need to examine value capture in a specific time range and cultural background-related contexts (Table 2.10, issue 1 and aligns with previous calls for research (Kano, 2018; Minerbo et al., 2020; Xu and Hao, 2021).

Section 2.2.3.3 shows collaboration can be an effective short-term tactic to facilitate access or business opportunities in the market (dynamic capabilities and power theory) or extract partner resources to improve power-based value capture at their expense (inter-partner learning theory). Collaborations can also be used as a short-term tactic to facilitate long-term strategies to access partners' resources inside and outside the network using competitive learning and vertical integration (power architecture theory). On the other hand, collaboration can be an effective long-term strategy if the partnering firms have low power or are vulnerable to a third party (inter-partner learning theory).

Table 2.11 summarises the insights from the reviewed literature that complement Porter's conditions for effective collaboration. Column two uses numbering to denote Porter's different conditions with which the different value capture theories align. It shows that the inter-partner learning and social network theories outline the conditions that allow collaborations to perform as effective long-term business strategies (1,2). At the same time, dynamic capabilities, power, interpartner learning and power architecture theories all see collaboration as an effective short-term tactic to improve value capture (4-6). This contradicts the long-held assumption that SCC is central to good SCM practice (Ellram and Ueltschy-Murfield, 2019; Houlihan, 1985). Overall, the current understanding of the conditions for collaboration within the reviewed literature must be improved, highlighting the need for further research.

Table 2. 11: Conditions for effective collaboration

No	Conditions	Theory	Details
1	1 Suitable culture	Inter-partner learning	Collaboration can be an effective long-term strategy if the partnering firms have low firm-level power and are vulnerable to a third party.
2		Social network	Collaborations can become effective long-term value-capture tools if businesses wait until markets mature and experience structural inertia.
3	2 Valuable resources	Dynamic capabilities	Effective collaborations can occur when they are used to introduce difficult-to-replicate patterns of coordination to prolong the duration of favourable business opportunities.
4	3 Offset costs with profits	Dynamic capabilities and Power	Collaboration can be an effective short-term tactic for facilitating quicker access to business opportunities and value capture in the market.
5	2,3 Valuable resources and offset costs	Inter-partner learning	Collaboration can be an effective short-term tactic to extract partner resources to improve power-based value capture at their expense.
6	with profits	Power architecture	Collaboration can be an effective short-term tactic to facilitate long-term vertical integration by increasing their access to partners' resources inside and outside the network.

2.4.3 Research Aim and Objectives

Sections 2.4.1 and 2.4.2 provided limited insights into the conditions for effective collaborations (Table 2.11) or how culture, power, value capture, and time impact supply chain collaboration (Table 2.10). This means there is a need to explore further the interrelationship between power dynamics, value capture, cultural and structural settings of business environments, and the changes they can experience over time. This is because the first three of these four elements represent the subject matter of each condition set out by Porter (1989) for effective collaboration. Therefore, by pursuing this as the research aim, this research intended to make original contributions to knowledge on two levels:

- 1. Contribute to power, value capture and cultural and structural settings of business environments by addressing specific research issues covered in Table 2.10 (section 2.4.1).
- 2. Examine the relationships between the said elements over time (see Table 2.10, issue 6) to understand the conditions needed for effective supply chain collaboration (Ho et al., 2019; Bui et al., 2021).

Therefore, the research reconfigured the relationship between the four elements into a single cohesive research aim. The initial research aim was to explore how power-based value capture is sustained over punctuated time by business alliances

in traditional global value chains. Please note that this research aim is revised in the next chapter to improve its focus by including the empirical research sampling context of international cashmere value chains (section 3.5.6). The final research aim (RA) was to explore how power-based value capture is sustained over punctuated time by collaborative business alliances in international cashmere value chains.

research examined interdisciplinary research that covered This the anthropological, sociological, philosophical, and psychological domains to explore the definitions of power and culture before concluding (see Appendix 2B). The working definitions for the key terms covered within the research aim are as follows. Power-based value capture refers to the strong correlation between bargaining power and value capture demonstrated through the literature review (sections 2.2 to 2.5). Power represents the ability of firms to alter agreement terms favourably and obtain benefits from partners based on relative dependence (Dyer et al., 2018). Within this context, value capture refers to the long-term firm process of strategically timing actions in temporary business opportunities to maximise financial benefits in the present and knowledge benefits that could lead to future economic benefits (section 2.1.3). To sustain refers to the longevity or continuity of business relationships and firm—and chain-level economic performance. Punctuated time refers to "situations where repetitive events like lifecycles are punctuated with unpredictable novel events" (Harvey and Novicevic, 2001, p.448). Therefore, punctuations represent disruptions, and punctuated time represents periods with frequent changes.

The research used a combination of business alliance and value chain settings to establish the boundaries for observing culture in practice. In this context, business alliances refer to the varying degrees of collaboration between independent firms in buyer-seller relationships that form link alliances and facilitate value creation and capture. These relationships are influenced by contract-based control and positive transaction history-based trust. International cashmere value chains represent the traditional global value chain structures or governance arrangements that are linear, geographically dispersed, and experience incremental technological changes (Appendix 2B).

The research aim was also supported by the following three key research objectives (ROs). RO1 focused on mapping the static cashmere value chain environment and gaining a deep understanding of the industry background. This mapping process followed the methodology of Johns (2006), who successfully conducted a similar mapping process for the video games industry, its key players, processes, and performance over the past 26 years to identify patterned behaviours. Since this research also defined time as path-dependent (see Chapter Three, section 3.3.1.3), the mapping process offered a high potential to identify similar typical and atypical patterned behaviours for dynamic theory building. RO2 focused on understanding the key disruptors and their impact and was adopted to bring the change phenomenon to the forefront of the data collection process. This research objective was included to help this research understand the effects before and after crucial events or the impact of disruptions.

RO3 focused on establishing the impact of the strategic decisions undertaken by the value chain actors. This research objective was included to ensure that the value chain actors' reactions to internally triggered changes were incorporated as part of the empirical research. This line of inquiry explored whether the actors use long—or short-term planning horizons and referent points to predict and respond to change. By focusing on the actors, the research gained new insights into their justifications for coercive or virtuous behaviours during value capture processes. Taking the above points together, the research aim (RA) and supporting objectives (ROs) were as follows: RA: Explore how power-based value capture is sustained over punctuated time by collaborative business alliances in international cashmere value chains.

- (RO1): Map the processes, relationships and value-sharing dynamics.
- (RO2) Identify the impacts of the disruptors over time.
- (RO3) Establish the impact of strategic decisions taken by the actors.

2.4.4 Theoretical framework

A theoretical framework guides empirical research by providing a focused underpinning logic to interpret the phenomenon under investigation (Eisenhart, 1991; Kivunja, 2018). Grant and Osanloo (2014) believe theoretical frameworks can consist of one or more theories, while Eisenhart (1991, p.205) feels a single formal theory offers researchers "an established, coherent explanation of phenomena and relationships". Therefore, theoretical frameworks help to interpret empirical data and can use one or more theories. Section 2.4.1 identified three core theories that offer the most advanced understanding of the value capture phenomenon at the firm, dyad and network levels. This included dynamic capabilities, inter-partner learning and social network theories. These core theories were complemented with three additional supporting theories that helped curb their limitations, including strategic factor markets, power, and power architecture theories. Fig 2.6 identified links among these six theories to understand value capture better and represents a theoretical framework. Following Grant and Osanloo (2014) or Eisenhart (1991), all six theories or a single theory could underpin a theoretical framework. This research chose the second option and focused on the inter-partner learning theory (ILT) for three reasons:

First, the ILT accounts for distinct types of collaborations. Social network theory sees collaborations as a long-term approach for optimal value capture. Dynamic capabilities and social network theories see opportunism in collaborative relationships as an error (sections 2.2.1, 2.2.3). In contrast, ILT distinguishes between collaboration types based on firm and alliance-level aims. Standard collaborations align with common benefits and trust-based relationships. Hamel (1991, p.87) describes a second type of collaboration called "competitive collaborations", where collaborations are short-term tactics for extracting mixed and private benefits. Second, the ILT and its consideration for genuine and competitive collaborations allow it to act as a bridge and connect it to the firm-level dynamic capabilities of network-level power architecture and social network theories. ILT also only accounts for coercive power. In contrast, power theory identifies trust and coercive power as two of six social power sources that apply to different contexts. Therefore, power theory can extend the ILT to understand

value capture and link to the other theories (Fig 2.6). Third, the ILT remains underdeveloped and requires additional empirical research to develop its ability to explain the value creation and capture phenomenon. Doz (2017, p.29) highlights that ILT empirical process research is lacking, and there is a need to "fully understand the inter-partner learning process and its contingencies". Serrat (2017, p.643) calls for new research to explore how businesses encourage collaborative behaviours within ILT. There is also limited empirical research on how tacit knowledge is shared and codified, how relationship learning evolves and how they are impacted by institutional factors (Kohtamaki et al., 2023). Fig 2.14 updates Fig 2.6 to reflect the change from three core theories to one.

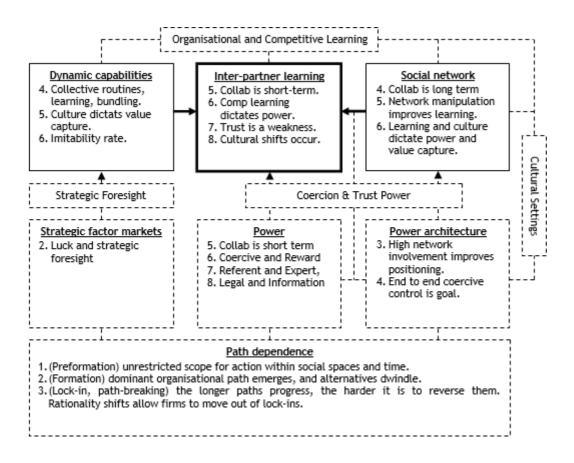


Fig 2. 14: Theoretical framework

Fig 2.14 shows inter-partner learning theory as the core of the theoretical framework while using the remaining five support theories to cross-validate empirical research outcomes that focus on the firms or network levels and address the limitations of inter-partner learning theory. The path-dependent theory (Fig

2.13) is also included to interpret changes over the preformation, formation, lockin and path-breaking phases. The concept of rationality shifts offers a valuable lens through which to understand what happens in the post-lock-in phase, something not previously covered in the inter-partner learning theory.

2.5 Chapter Summary

Chapter two detailed the research journey to define an area of interest for further research within the supply chain management (SCM) domain, complete with research aims and objectives that promise original contributions to knowledge. The journey began with a modest scope of research to comprehensively understand the SCM domain, revealing four interrelated research areas and associated research issues. This systematic approach, combined with an in-depth literature review, underscored the need to delve deeper into the interplay between power dynamics, value capture, the cultural and structural settings of business environments, and the changes they can undergo over punctuated time. The research reconfigured the relationship between these elements into the research aim (RA) and objectives (RO) (section 2.4.3).

(RA) Explore how power-based value capture is sustained over punctuated time by collaborative business alliances in international cashmere value chains.

- (RO1) Map value chain processes, relationships, and value-sharing dynamics.
- (RO2) Identify the antecedents and impacts of the disruptors over time.
- (RO3) Establish the impact of strategic decisions taken by value chain actors.

The RA and RO outcomes were designed to be analysed against a theoretical framework (section 2.4.4, Fig 2.14) driven by the inter-partner learning theory, which was used due to its relevance to the research topic. The remaining five theories and the path dependence theory represent secondary theories to cross-validate empirical research and reinforce the limitations of the inter-partner learning theory, thereby ensuring the robustness of the research findings.

Chapter 3: Research Methodology

The previous chapter identified a research problem that requires further attention, a research aim and objectives that promise original contributions to knowledge. This chapter describes the research methodology used to address the research aim: explore how power-based value capture is sustained over punctuated time by collaborative business alliances in international cashmere value chains (section 2.4.3). Sections 3.1 and 3.2 describe the research philosophy, strategy, and guiding principles and procedures underpinning this empirical research. Sections 3.3 and 3.4 describe the research design and quality assessment criteria, and sections 3.5 to 3.7 describe complementary data collection, analysis strategies, and procedures aligning with the research philosophy and approach. Sections 3 and 8 provide an overall chapter summary.

3.1 Research Philosophy

Research methodology is the branch of philosophy that drives discipline-specific principles for enquiry procedures referred to as "research philosophies, designs and methods" (Creswell, 2007, p.236). Research philosophies comprise different stances or research paradigms and shared beliefs that underpin new scientific research for a specific community. The two primary research paradigms are scientific and humanistic and are understood using philosophical assumptions on the ontological, epistemological, and axiological levels. Ontology considers the nature of reality and perceives social phenomena as objective or subjective (Don-Solomon and Eke, 2018). Epistemology considers objective or subjective realities and social phenomena or theories of knowledge (Al-Ababneh, 2020). Axiology considers the tolerance for the researchers' influence on the research, in line with specific epistemological and ontological guidelines (Saunders et al., 2019).

Fig. 3.1 summarises the interrelationship between the three levels of philosophy. It shows that the ontological level dictates the epistemological and axiological choices depending on whether researchers see reality as objective or subjective. This is because the ontological choice influences what a researcher can choose on the other two levels and identifies relevant research design methods and techniques (Morgan and Smircich, 1980). Sections 3.1.1 to 3.1.3 detail the ontological, epistemological, and axiological positions adopted by this research.

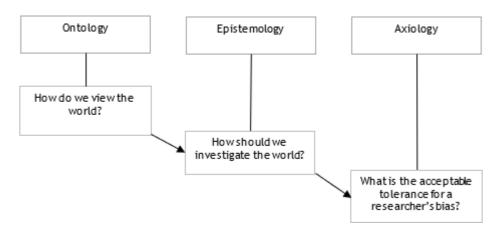


Fig 3.1: Ontology epistemology and axiology (Adapted from Crotty, 1998, p.3)

3.1.1 Ontological View

Ontology considers the nature of reality and the essence of existence (Burrell and Morgan, 1979) and questions whether it should be perceived as objective or subjective (Don-Solomon and Eke, 2018). Objective ontologies assume that reality is independent of human perceptions and will continue to exist regardless of changes. Therefore, only one reality exists (Ragab and Arisha, 2018). In contrast, a subjective ontological view assumes that reality is the "projection of the human mind" (Morgan and Smircich, 1980, p.492). Therefore, many realities can exist based on people's perceptions.

Easterby-Smith et al. (2019) identify four ontological views. The above definitions for objective and subjective ontologies represent the extreme views of realism (extreme objectivity) and nominalism (extreme subjectivity). In between sit two more flexible options of internal realism and

relativism. Internal realism maintains that truth/facts exist but are not always directly observable (high objectivity, low subjectivity). Relativism assumes that many truths/facts vary depending on viewpoints (lower objectivity, high subjectivity).

As discussed in the previous chapter (section 2.4.3), the initial research aim was to explore how power-based value capture is sustained by business alliances in traditional global value chains over punctuated time. As the impact of punctuations or disruptions varies across individual businesses and value chains, only the participants were expected to be influenced by their impacts and reactions. The scope for both the realism and internal realism objective ontological views. In line with Johns (2006), this research aimed to form a consensus among the participants and reveal a general understanding of the value chain level (section 2.4.3). This identified relativism as the most suitable option with its acceptance of collective realities. Therefore, this research adopted a relativist ontological philosophy.

3.1.2 Epistemological View

Epistemology builds on the ontological view by considering how the given objective or subjective realities should be studied within a theory of knowledge generation (Al-Ababneh, 2020). According to Easterby-Smith et al. (2019), epistemology offers two variants for the objective and subjective perspectives that align with the four previously discussed ontological variations. Strong positivism and positivism are associated with objectivism and link to realism and internal realism. In contrast, constructionism and strong constructionism are associated with subjectivism and link back to relativism and nominalism. In addition to the two variations, a third epistemological position is called pragmatism. Pragmatism represents a compromise between internal realism and relativism and does not accept that any ontological theory shapes truth or is constructed by people out of nothing (Easterby-Smith et al., 2019). Instead, it advocates engaging with "practical insights of real-world issues" (Patton, 2002, p.153) and making methodological choices on these over philosophy (Kelly and Cordeiro, 2020).

Section 3.1.1 justified adopting the relativist ontological view, removing the options of the strong or regular positivism and strong constructionism epistemological positions. This left behind the normal constructionism and the pragmatic epistemological positions. This empirical research adopted the normal constructionist epistemological position over a pragmatic position for two main reasons:

- 1. The constructionism epistemological position accommodates the possibility of multiple collective realities emerging from multiple individual realities (Easterby-Smith et al., 2019). It aligns with the research requirement to gather diverse actor perspectives for cross-validation before uncovering a consensus understanding.
- 2. The constructionism epistemological position complements research examining changing phenomena (Langley et al., 2013). This includes path-dependent events that "need theorising sensitive not only to history and time but to context and space" (Sydow et al., 2020, p.729).

Therefore, the constructionism epistemological position was adopted because it allowed the research to capture multiple perspectives and develop a path-dependent, time-sensitive theory.

3.1.3 Axiological View

Axiology refers to the role and influence of the researcher's values and ethics on the research and whether they should remain neutral by adopting either a detached or engaged position (Saunders et al., 2019). In detached positions, researchers remove their influence from the researched phenomenon (Saunders et al., 2019), while in engaged positions, researchers see their influence as critical to interpreting the research phenomena (Easterby-Smith et al., 2019).

All three research objectives relied on the participants detailing how internal and external disruptors influence their power and value capture, which was an emotive issue for the participants. Therefore, the detached approach, which extracts personal information from the participants while never directly

interacting, was also unrealistic. On the other hand, being too directly involved and observing and reacting to the language and tone of participants could introduce researcher biases, diluting the confirmability/objective validity of the collected data (section 3.4). Therefore, to control personal biases, this research engaged with participants but introduced some objectivism into the interviewing using a semi-structured interview instrument (see section 3.5.3, Fig 3.4).

Fig 3.2 summarises the interrelationships between the three philosophical positions. The dashed-lined triangle shape within the diagram denotes the adopted ontological, epistemological and axiological positions. The diagram shows like the ontological and epistemological positions, the research classed the two axiological positions as extremes and introduced the "relatively engaged" and "relatively detached" positions as additional variances. These variances were intended to help the research curb the negative trade-off between adopting either of the two extreme axiological positions. The study used the relatively engaged axiology to optimise objective validity (see section 3.4) while accepting the scope for some personal interpretations and biases.

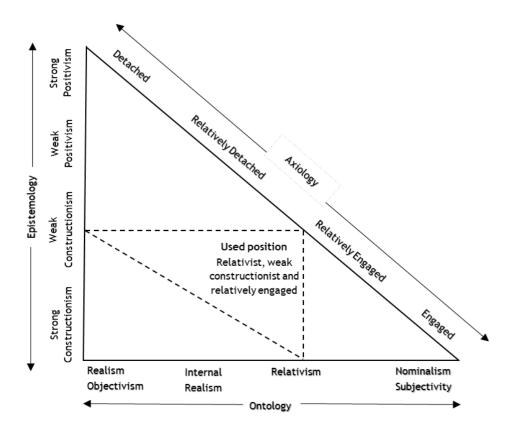


Fig 3.2: Ontology, epistemology and axiology (add weak ontology) (Adapted from Easterby-Smith et al., 2019, p.79)

3.2 Research Strategy

The research used the chosen philosophical boundaries to filter out irrelevant research strategies and designs, sampling, quality control, data collection, and analysis methods, leaving limited options depending on the individual research needs. This process began by comparing the three major research strategies, including deductive, abductive, and inductive reasoning.

3.2.1 Deductive, Abductive, and Inductive Reasoning

The deductive research strategy involves theory testing, where researchers "refine theoretical models before testing their validity through empirical research" (Saunders et al., 2019, p.155). Deductive reasoning underpins quantitative research (Grix, 2010) and offers "good generalisability at the expense of depth and specificity" (Bacharach, 1989, p.305). The inductive research strategy involves theory building by presenting and refining information within empirical explorations (Saunders et al., 2019). It underpins qualitative research (Creswell, 2004) and benefits from context-specific theory building that is "narrow but enjoys higher levels of explicitness" (Bacharach, 1989, p.304). Abductive reasoning represents the middle ground between deduction and induction by continuously moving from theory to data until a refined empirical model emerges (Suddyaby, 2006). Abductive research is pragmatic (section 3.1.2) and underpins mixed methods, by mixing qualitative and quantitative attributes to meet the research aim (Easterby-Smith et al., 2019).

In section 3.1, the research made a case for conducting a qualitative study using a relativist constructionist, relatively engaged research philosophy, and rejected pragmatism. This aligns with inductive reasoning in producing localised knowledge and understanding practitioner perspectives within local geographic and cultural contexts (Cook and Brown, 1999). The primary goal of this research was to use the international value chain as its cultural and geographical context to capture the distinct value chain traits and their influence on respondent perceptions (section 2.4.3). This aligns with an inductive reasoning approach for localised theory building, which was the chosen reasoning approach.

3.3 Research Design

Building on the research philosophy and strategy, this research identified a suitable research design to refine the available research method options further. A research design is "an action plan that helps researchers move from an initial set of research questions through a logical sequence of data collection, analysis and concluding answers" (Yin, 2003, p.20). Easterby-Smith et al. (2019) offer a helpful template for building a research design that includes the following additional choices: the general framework, including the unit of analysis and time horizons; research quality control; data collection procedures and research settings; and data collection and analysis methods. Each of these is detailed in the following subsections.

3.3.1 Research Frameworks

Qualitative constructionism-orientated research designs include narrative research, phenomenology, case studies, grounded theory and ethnography (Cresswell, 2007). After careful consideration, this research adopted the case study method for the following reasons. Case studies are defined as an investigative tool for taking an in-depth look at "one or a small number of organisations, events or individuals generally over time" (Easterby-Smith et al., 2019, p.116) within real-world contexts (Yin, 2009). The research previously detailed its plan to use the traditional international value chain structure and business alliances within them as the defining context for the empirical research (section 2.4.3). Therefore, the case study created boundaries to influence the ability of cultural and disruptive elements on power-based value-capture regimes.

3.3.1.1 Case Study Structure and the Unit of Analysis

Yin (2014) identified four types of case study structures: the holistic or embedded single case study and the holistic or embedded multiple case study. Table 3.1 provides further details on each of these four case study structures. According to Kumar (2018), the units of observation and analysis refer to the levels at which data is collected and analysed. Yin (2003, p.26) stresses that the "unit of analysis should always be addressed at the research aim level".

This research explored how power-based value-capture is sustained by international cashmere value chain business alliances over punctuated time (section 2.4.3). Since the value chain is central to the research aim, it also represents the analysis unit. Alternatively, the firms at each stage of the value chain represent the units of observation. Adopting the value chain as the unit of analysis also means that this research is less interested in establishing the collective view of any group of actors embedded in distinct stages of one or more value chains. This research defined the cultural settings as the environment created by combining business alliances and the value chain settings (section 2.4.3). If this research included multiple value chains to conduct a multiple and embedded case study, it would become harder to establish distinct cultural settings or assess the impact of disruptions on them. Instead, it is interested in understanding value capture over punctuated time to understand how the same value capture regimes evolve over multiple changes. Logically speaking, this would be easier to achieve with a single rather than multiple holistic case studies where a uniform cultural setting would make up the environment for all actors in a single value chain. Therefore, this research focused on literal replications across cashmere value chain stages to build a rich explanation for the value capture phenomena using the holistic single case study approach (see section 3.5.6 for justification of cashmere as a research setting).

Table 3.1: Case study types

Level 1		Level 2		
case	A single case is the best choice for researching a single thing (e.g., a person	Holistic	I am researching a single thing (person from a specific group) or a single group (group of people) focusing on consensus building.	
Single	in a specific group) or a single group (e.g., a group of people).	Embedded	Researching a single thing (a person from a specific group) or a single group (a group of people) focuses on comparing within and between case responses.	
Multiple cases	A multi-case is the best choice if you research multiple things (like people from different groups) or multiple groups (different groups).	Holistic	I am researching multiple things (people from different groups) or multiple groups (different groups) and focusing on consensus building.	
		Embedded	I am researching multiple things (persons from multiple groups) or multiple groups (different groups of people) and comparing case responses within and between cases to distinguish between questions posed to a single person or multiple people across the groups.	

(Adapted from Yin, 2013, p.50)

There is also a lack of inter-partner learning theory ILT) research using a single case study (Kohtamaki et al., 2023). Section 2.4.4 shows the ILT also underpins the theoretical framework for this research. Furthermore, value capture-related studies covered within the literature review chapter revealed that only three of fifteen qualitative papers adopted a single case study approach (Watson, 1999; Arino and Ring, 2010; Han et al., 2021). However, no single case study adopted the network or value chain as their unit of analysis, highlighting its potential to make a significant methodological contribution

3.3.1.2 Case Study Type

The literature suggests that depending on the philosophical positioning, researchers can adopt one of three main types of case studies (Easterby-Smith et al., 2019). Furthermore, each option dictates subsequent methodological choices, including sampling, data collection, analysis and theorisation (section 3.1). According to Easterby-Smith et al. (2019), these three major case types include the models prescribed by Yin (2003; 2014), Eisenhardt (1989, 2021) and Stake (1995; 2005). Yins' case study types best align with purely positivist epistemological positions, while Stake's approach represents the other extreme and aligns with purely constructionist epistemological positions. Eisenhardt's case study type represents a more flexible option that accommodates positivist and constructionist philosophical traits and represents a pragmatic epistemological position. Table 3.2 summarises the case study types and methodological choices.

Table 3.2: Case study types

Version	Yin (Theory testing)	Eisenhardt (Theory building)	Stake (instrumental)
Philosophy	Strong and standard positivism	Positivism and weak constructionism	Weak and strong Constructionism
Design	Prior	Flexible	Emergent
Sample	Up to 30	4-10	One or more
Analysis	Cross-case	Both	Within case
Theory	Testing (explanation)	Generation (both)	Action (explore)
Generalizability	High	Medium	Low
Outputs	High validity	Case-based theory building	Rich picture building

(Adapt from Easterby-Smith et al., 2019)

Section 3.1.2 previously made a case for adopting a normal constructionist over the pragmatic and positivist epistemological positions, which removes the scope for adopting Yin's positivist case study type in its purest form. Both Stake and Eisenhardt accommodate strong or regular constructionist positions. However, the Eisenhardt method is "first and foremost about theory building from multiple cases" (Eisenhardt, 2021, p.148). Therefore, it contradicts the selected holistic single case study structure (section 3.3.1.1), leaving only the Stake method.

Stake identifies the two types of case studies: First, intrinsic case studies are closer to the strong constructionist position and focus on exploration (Easterby-Smith et al., 2019), using "rich descriptive data to build a picture" and reveal previously unknown phenomena and less concerned with validity (Stake, 1995, p.102). Second, Instrumental case studies cover this same ground but more closely align with normal constructionism because they accept that consensus among individual opinions can inject degrees of objectivity within theory building (Shaukat, 2022). This research adopted Stake's instrumental case study because it better aligns with the chosen relativist ontological position, which assumes that many truths vary depending on viewpoints (lower objectivity, high subjectivity). Normal constructionism accepts the objective value of capturing multiple perspectives and develops a path-dependent, time-sensitive theory. It uses a relatively engaged axiology position to optimise objectivity while acknowledging the scope for personal biases (detailed in section 3.1).

3.3.1.3 Time Horizons

longitudinal researchers are recommended to adopt social time conceptualisation to examine events over at least five to six years to draw meaningful conclusions (Kogut, 1988; Hennart and Zeng, 2002). This makes casual relationships easier to observe (Leonard-Barton, 1990), especially in specific contextual and historical settings (Easterby-Smith et al., 2019). Social time is especially important for explaining the impact of global challenges like climate change and COVID-19 (Craighead et al., 2020; Shi et al., 2021; Shipp and Jansen, 2021). This is done by identifying reoccurring events or situations where firms, their environments and processes move together in predictable cycles (Ring and Van de Van, 1994; Destri and Dagnino, 2005; Ployhart and Vandenberg, 2010).

A review of the previous qualitative empirical research revealed that only two of the three single case studies were longitudinal. One paper did not define its longitudinal time range (Han et al., 2021), while the other had an inadequate tenmonth time range (Arino and Ring, 2010). Even the original grounded theory research used to develop the inter-partner learning theory only used a two-year observational period (Hamel, 1991). Therefore, the previous single case studies and inter-partner learning theory-related empirical research have not adopted enough of a time range to understand the value capture phenomenon and how it evolves over multiple changes. The review of empirical research also revealed one example of a case study that adopted a 26-year longitudinal range by combining secondary data and face-to-face (F2F) interviews to map out the evolution of the video games industry (Johns, 2006). This research followed Johns (2006) and tried to establish the longest possible observational period by complementing short real-time longitudinal research with historical cases and secondary data. This led to the inclusion of data sources covering a period of between 200 and 400 years. The longitudinal data collection procedures are detailed in sections 3.5 and 3.6.

3.3.1.4 Tailored Research Design

Fig 3.3 summarises the overall research design. The diagram shows that this research adopted a longitudinal holistic single case study design that used the value chain as its unit of analysis to explore the phenomenon and Stake's instrumental case study type (sections 3.3.1.1 to 3.3.1.3). Sections 3.5 and 3.6 further detail the data collection procedures and outcomes.

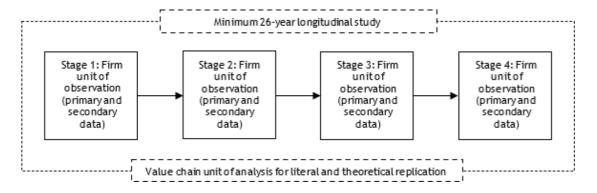


Fig 3.3: Summary diagram

3.4 Research Quality

In addition to the research design, the research also needed to clarify how the research would ensure rigour in practice. Therefore, the research made clear quality assurance decisions for the qualitative research. No unified understanding exists for qualitative research quality assurance (Flick, 2018). Therefore, this research used a combination of criteria frequently used to develop qualitative research methods (Lincoln and Guba, 1985; Miles et al., 2013; Yin, 2013). Throughout the research methodology design process, this research incorporated all five overlapping research quality criteria: confirmability, dependability, credibility, transferability, and adequacy. Table 3.3 summarises the quality criteria, and column one uses numbering to denote the different quality criteria.

Table 3.3: Research quality assessment

No	Criteria	Meaning	Solution
1	Confirmability (Objective validity)	Ensure investigation remains free of personal influence	Research methodology is transparent and considers rival conclusions.
2	Dependability (Reliability)	An investigation is consistent across methods	A transparent chain of evidence is maintained
3	Transferability (External validity)	Ensure applicability of outputs to other contexts	 Thick descriptions assess potential fitting in another context. Sampling is diverse, but limitations are considered.
4	Credibility (Internal validity)	Accuracy of interpretation of participant lived experiences.	 Research findings verified by participants for accuracy. Triangulation/validation done using multiple methods. A variety of participants was used to gain different perspectives.
5	Adequacy (Saturation)	Enough data is collected for all aspects of the area of interest.	Selection of cases and interviews until saturation from multiple sources is attained.

The confirmability (objective validity) and dependability (reliability) quality criteria were addressed using several approaches. The research adopted a relatively engaged relativist axiological philosophy and not a standard engaged axiology (section 3.1.3). This means that the research accepted that there would be some direct interactions with the phenomenon under investigation, but this should be kept to a minimum. This was reflected in the localised knowledge-building process by adopting a flexible but broadly predefined data collection protocol to accommodate the emergence of changing circumstances. This was

done within the boundaries of the constructionist philosophical position (section 3.1). The research also accounted for dependability (reliability) by ensuring that all deviations from the predefined data collection protocol were transparently reported. Furthermore, the research methodology was transparently laid out in section 3.7.4 (Table 3.12) to meet the dependability criteria. For example, Chapters Four, five and Six laid out a transparent coding process to transform the raw data into codes, categories, and themes, using data and theoretical summary tables (section 3.7.4, Fig 3.8).

The credibility (internal validity) quality criteria were addressed using three approaches. Multiple participants were asked the same questions using the predefined data collection instrument to cross-validate their responses and uncover credible results. Cashmere industry ex-professionals were also interviewed because they had fewer incentives to convey anything but the truth, leading to accurate accounts. These interview responses and secondary data added another layer of quality control (detailed in section 3.6.

The transferability (external validity) and adequacy (saturation) quality criteria were addressed using the single-case approach, the value chain as the unit of analysis (section 3.3) and the cashmere industry as the sampling context (section 3.5.6) for localised theory-building. This made it easier to identify similar and different contexts to apply, test, and adapt the theory (section 3.2.1). The data collection process for the primary continued until saturation was reached.

Within a qualitative research context, data saturation is the data collection phase when additional data collection does not reveal any new or more in-depth information (Braun and Clark, 2019). Data saturation is a gold standard for reporting qualitative research (Guest et al., 2006, p.60). Despite the praise, researchers also accept that data saturation in practice is unclear, and there is no right answer to the question of sample sizes (Chitac, 2022). Most qualitative research reports data saturation with 1 to 15 interviews (Bartholomew et al., 2021). However, this research followed Braun and Clark (2019) and reported saturation once the primary and secondary data collection processes were not retrieving any new information at 30 interviews and 70 secondary documents.

3.5 Data Collection Strategy

According to Stake, new research should rely on "intuition and impressions rather than the guidance of the protocol" when conducting qualitative single case studies (Stake, 1995, p.72). However, this research preferred a more structured approach to help guide the researcher throughout the data collection and analysis phases. Therefore, the research followed Eisenhardt (1989) by including a predetermined protocol to guide the data collection and ensure the objective validity of the research (section 3.4). However, the Eisenhardt protocol is not static and encourages researchers to adapt it "depending on the outcomes from the data and theory comparisons" (Eisenhardt, 1989, p.536). The inclusion of the flexible protocol allowed the research to trade-off between the objectivity needed to curb the researchers' biases (discussed in section 3.3.1.2) and the level of exploration within instrumental case studies. The following subsections provide further detail on the critical data collection strategy choices, including the data sources (sections 3.5.1;3.5.2), data collection tools (sections 3.5.3;3.5.4), ethical considerations (section 3.5.5), research settings and sampling (sections 3.5.6;3.5.7).

3.5.1 Data Collection Sources

Yin (2014, pp.105-106) advocates using "six complementary sources of evidence within case study research to achieve the highest degree of cross-validation". This validation process is frequently called triangulation and is associated with higher credibility theory building (Creswell, 2007; Eisenhardt, 1989). Yin (2009) also highlights that secondary sources effectively corroborate and supplement the findings of other qualitative data collection methods. Table 3.4 summarises Yin's (2013) six key qualitative research data sources, denoted using numbering in column one.

Table 3.4 Yins qualitative data sources

No	Sources	Strengths	Weaknesses
1	Documents	Stable (repeated review) Unobtrusive (existed before the case study) Exact (names etc.) Broad coverage (extended period)	Retrievability (difficult) Biased selectivity Reporting bias (author) Access (maybe blocked)
2	Archival records	Same as above Precise and quantitative	Same as above Access (maybe blocked)
3	Direct observations	Reality (covers events in real-time) Contextual (covers event context)	Time-consuming Selectivity (might miss critical details) Reflexivity (observer presence influence) Cost (observers need time)
4	Participant observations	Same as above Insights into interpersonal behaviour	Same as above Bias due to the investigator's influence
5	Physical artefacts	Insights into cultural features Insights into technical operations	Selectivity Availability
6	Interviews	Targeted (focus on case study topic) Insightful (provides casual inferences)	Bias due to poor questions and responses Incomplete recollection Reflexibility (respondents tell what the interviewer wants)

Using Table 3.4, this research used a combination of secondary and primary data collection to mimic the methodology of Johns (2006) to build the longest possible observational time range to understand the impact of punctuated time on the power-based value capture phenomenon over time (section 3.3.1.3). However, a further layer of data richness and validation was added by including observations of participants in the business settings. These three data collection sources are detailed in sections 3.5.2 to 3.5.4.

3.5.2 Secondary Data

Table 3.5 provides an overview of the key secondary data sources relevant to qualitative research identified by Saunders et al. (2019). This research focused on online secondary data sources, reports, newspapers, and websites to map the industry developments for the international cashmere value chain (section 3.5.6). The research focused on mapping industry-level consensus building (section 3.3.1.4). Therefore, the research needed to maximise the volume of information for effective consensus building, so there were no inclusion-exclusion criteria to filter out sources beyond relevance to the research.

Table 3.5: Types of secondary data

Sources		Details		
Documents	Written materials	 Organisational information (databases, emails, websites, reports) Journals, newspapers and interview transcripts 		
	Non-written materials	Media accounts (TV, radio, etc.) Voice and video recordings		
Multiple sources Area-based Time series based • Industry statistic reports • Financial country, government and EU • Books and journals		Financial country, government and EU publications		
Surveys	Census	Government population and employment census		
	Regular surveys	Government surveys (family spending, labour markets etc.) Organisational surveys (target group indexes, employee surveys)		
	Ad hoc surveys	Government organisational and academic surveys		

3.5.3 Interviews

Interviews were used to gain in-depth knowledge about meeting the requirements of the research aim and objectives and cross-validation against the secondary and observational outcomes. Interviews refer to "guided question-answer dialogues to explore topics and experiences" (Charmaz and Thornberg, 2020, p.317) by entering their world to gather their stories (Patton, 2002). David and Sutton (2011) believe interview standardisation dictates the balance between open-ended (for richness) and closed-ended (for quantification) questions, while structuring dictates the flexibility allowed in replicating the language and question sequences while interviewing. Fig 3.4 visualises interview standardisation and structuring.

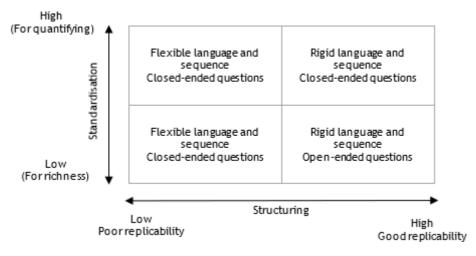


Fig 3. 4: Interview dimensions (Adapted from David and Sutton, 2011, p.119)

Section 3.5.1 previously expressed why this research included a predetermined but flexible protocol for guiding data collection without compromising exploration. Therefore, the research adopted a semi-structured and highly standardised interview design. In line with highly standardised interviewing, the researcher asked the same questions pre-determined to make all future comparisons easier for literal and theoretical replications (section 3.3.1.2). Semi-structured interviewing ensured that detailed accounts of individual experiences were captured to build a vivid picture (see section 2.4.3). The research also needed to ensure these stories remained relevant to the research interview questions and objectives. Therefore, open-ended questions were included to balance richness and relevance by pairing them with more focused complementary probing questions. This allowed the respondents to tell their stories freely while the research guided respondents to keep the responses relevant. Probing questions acted as a checklist to tick off any subtopics the interviewees covered in other answers or a reminder of elements that must be revisited.

3.5.4 Observations

The observation method refers to the "systematic recording, description, analysis and interpretation of people's behaviour" and remains a neglected research tool despite adding considerable "richness to the collected data" (Saunders et al., 2019, p.282). Pettigrew (1990, p.279) highlighted that direct observations "confront the researcher with discrepancies between what people have said in interviews and casual conversations, and what they do". Furthermore, Gill and Johnson (2002) identify four types of observation based on whether the researcher participates or only observes the phenomenon under research. Fig 3.5 aligns the four observation types to axiological positions (section 3.1.3).

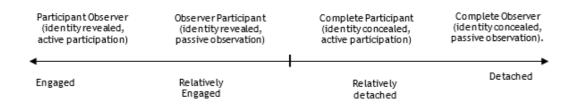


Fig 3.5: Observation method types (Adapted from Gill and Johnson, 2002 and section 3.1.3)

As discussed in section 3.1.3, this research adopted a relatively engaged axiology position. Therefore, the observer-participant approach best fits the overall research design and was adopted for this research. This included visits to value chain business locations, experiencing their environmental settings, engaging in informal conversations to understand the cultural settings visually, and building rapport. However, the researcher only actively participated during the interviews beyond asking the questions and using additional probing questions to ensure the response information was relevant. The observations also enriched the data and cross-validated the data collected from the secondary and interviewing processes. Table 3.6 summarises the data collection tools and interdependencies.

Table 3.6: Summary of research strategy

-	Techniques	Features	Time	Application to research
Document	Surveys, multisource documents	Offer facts but are vulnerable to selective deposit and survival.	High	Map the long-term historical development of the chosen value chain and a first level of validation.
Interview	Semi- structured and highly standardised.	Provide informational depth and target to explore areas where factual details are low.	Medium	Compliment documents by extracting retrospective accounts from participants shed light on the blind spots and address the research aim for a second level of validation.
Observe	Observer participant only	It helps to confront researchers with discrepancies between what people have said in interviews and what they do.	Low	They are used to address any other blind spots in the interviews and document collection and further cross-validate the findings.

3.5.5 Ethical Considerations

Following the ethical approval procedures at the University of Glasgow Adam Smith Business School, the proposed empirical research methodology was approved by the College of Social Sciences. Before conducting primary data collection, all participants were provided with a plain language statement to inform them of the aims and objectives of the intended project and their role. Formal consent forms were given to review the data collection procedures and sign to approve the commencement of the data collection. Appendix 3 (section 3.1) contains all three said ethics documents.

3.5.6 Research Settings

This research adopted the international cashmere industry as the research setting and used the criteria Miles and Huberman (1994) set out to justify this choice. Subsections 3.5.6.1 and 3.5.6.2 provide an overview of the cashmere industry's current status and history. This is followed by sub-section 3.5.6.3, which uses the criteria of relevance, measurability, generalisability and feasibility to justify cashmere as an appropriate research setting for this research.

3.5.6.1 Contemporary Cashmere Industry

The cashmere industry is the trade of the animal fibres extracted from the undercoat of cashmere goats (Ansari-Renani et al., 2013; Krosofsky, 2021) that do not exceed 19 microns (De-Weijer, 2007). This fibre quality level is usually only found in animals that live in - 40 C temperatures and 5000m (17000ft) altitudes that primarily exist around the Himalayas regions (ibid). According to Danforth (2017, p.4), transforming animal fibres into profit-making cashmere products involves five key processes that must be carried out at distinct times of the year (Towers et al., 2013):

- Harvesting involves herders managing the animals year-round to ensure the highest quality raw fibres are produced and extracted after the winder using combs and shears.
- Collection is done by middlemen who gather the smaller volumes of fibres from the herders and sell them to the processors (ideally) in bulk.
- Processing includes the activities needed to prepare the raw fibre for trade and yarn production. It involves sorting and souring activities to separate the fibres from dirt and grease through washing processes before spinning and dyeing the fibres to convert them into coloured yarns.
- Weaving and knitting involves transforming the coloured yarns into enduser products.
- Retail involves selling the final products to the end users.

According to the UNDP, the world cashmere market produces an average of 24,000 tons of cashmere a year, of which China alone supplies 50% or 12 thousand tons), while Mongolia supplies 40% or 9,6 thousand tons (Myagmarjav, 2021). Italy and the United Kingdom are the leaders in cashmere processing and leading importers from China and Mongolia (Myagmarjav, 2021) and the traditional homes of the premium-end cashmere market (Baldwin, 201). In 2020, the global cashmere clothing market was valued at 2790.3 million USD and is expected to grow by 3.9% between 2021 and 2026 to reach 3658.1 million USD (Myagmarjav, 2021).

Towers et al. (2013) believe the Western cashmere industry is made of typically small businesses with close and long-term trading relationships throughout the value chains. On the other hand, over 85% of exported cashmere products are Chinese original equipment manufacturing (OEM) exports for retail under foreign brand names in Italy and Scotland (McEwen, 2011). Therefore, South Asia and Europe represent major upstream and downstream hubs for most cashmere value chains that contrast in relative business size. For further details see section 4.1.

3.5.6.2 History of the Cashmere Industry

The origins of the cashmere industry are debatable. However, researchers trace its origins back to the 2700- 2000 BC Indus civilisations (Kenoyer, 1998; Sheikh, 2014) and the 3rd century Ashoka reign (Brar, 2014). The first formal cashmere industry is linked to the Kashmiri shawl industry (also known as the pashmina trade), which dates back to the 11th century AD (McKenna, 2018). The word "cashmere" is also derived from an anglicisation of the region of Kashmir (Abedin and DenHartog, 2023).

Between the 13th and 14th centuries, the Kashmiri shawl industry gained the patronage of Sultan Zain-Ul-Abidin, as the shawls became status symbols of quality and marketed to the ruling elite and foreign markets (McKenna, 2018). During the 16th century, the Persian and Mogul empires used cashmere shawls as 'robes of honour' for their political and social allies (De-Weijer, 2007, p. 13). Europeans first interacted with Kashmiri shawls between the early to mid-18th century through one of two possible schools of thought. First, during a campaign in Ottoman Egypt, Napoleon sent Kashmiri shawls back to Paris for Empress Joséphine (McKenna,

2018), who then accumulated a collection of hundreds of shawls (De-Lorme, 2005). Second, British East India Company employees first interacted with Kashmiri shawls during their early interactions in the subcontinent (Maskiell, 2002; De-Weijer, 2007). During the British Raj, Article 10 of the Treaty of Amritsar required the Maharaja of Kashmir to send three Kashmiri shawls to Britain for Queen Victoria (Lone, 2017).

By the 1830s, a Scotland-based UK cashmere industry initially emerged, weaving cashmere shawls with French-produced yarn before eventually acquiring and replicating the skills to spin the yarns in Scotland (Ministers of the respective parishes, 1854). Dawson International claims to have invented the first commercial dehairing machine in 1890, and from 1906, they imported raw cashmere fibres from China (McGregor, 2002). Around the 1980s, The Chinese cashmere industry emerged and has since established its end-to-end industry control (De-Weijer, 2007, p. 13) by using its control over supply to supply goods under their brand names (McEwen, 2011; Waldron et al., 2011). Today, Cashmere still symbolises luxury through rarity and exclusivity (Ansari-Renani, 2014, p.64).

3.5.6.3 Chosen Research Setting

As mentioned above, this research used the criteria set out by Miles and Huberman (1994) to justify the cashmere sector as an appropriate research setting for this research based on its relevance, measurability, generalisability and feasibility. Each of these criteria is further discussed below.

The relevance criterion requires that research settings complement or hold value for the research aims, objectives, and scope for developing inductive theory. Section 2.4.4 shows that this research used Inter-partner learning theory (ILT) as a theoretical lens to explore how power-based value capture is sustained over punctuated time by collaborating businesses in international value chains. Hamel's (1991) original ILT research used diverse cultural settings, including Japanese and mainly US-based Western businesses operating in high-tech industries like aerospace, electronics, and automotive. Within this context, high-tech industries

refer to organisations focused on the interplay between science and process scientific research results for high R&D intensity (Zakrzewska-Bielawska, 2010). However, the ILT requires additional exploration regarding value creation and capture (Doz, 2017; Serrat (2017) and the evolution of knowledge and relationships in different contexts (Kohtamaki et al., 2023).

According to Lavie (2007a), lower-tech sectors have different value capture implications than high-tech industries. More recently, academics have also called for fresh theory-building research using lower-tech sectors like textiles (Lahne et al., 2020; Xu et al., 2020) using developing countries from the Oceanic and Asian continents (Bui et al., 2021). Within this context, low-tech refers to a wide range of mature sectors, such as textiles and wood, that demonstrate less R&D intensity (Potters, 2009). The luxury end of the cashmere industry is low-tech and relies on high labour intensity by the nomadic herders and fashion houses for the industry to demand its luxury status (Castelli et al., 2015; Crowley et al., 2015). Furthermore, cashmere value chains are international, stretching from the Himalayas to Europe (EU) and America (US) (Archer, 2019), covering both developed and underdeveloped domestic industries. Therefore, the cashmere industry's low-tech and international nature represents a different yet complementary context to Hamels' original ILT research, which adopted a hightech but also international context for its theory building. This justifies that the cashmere industry context meets Miles and Huberman's relevance criteria because it represents fertile ground for expanding the explanatory power of ILT.

The second measurability criterion requires research settings to be appropriate for generating information that addresses the research aims and objectives. Again this research aimed to explore how power-based value capture is sustained over punctuated time by collaborative business alliances in international value chains. Within this context, punctuated time refers to situations where firms have novel events or disruptions in otherwise stable settings (Harvey and Novicevic, 2001). The cashmere industry represents this required stable setting influenced by unpredictable external disruptors. Sections 3.5.6.1 and 3.5.6.2 showed that the cashmere industry boasts an ancient history, involves five time-sensitive business cycle stages (harvest, collection, process, manufacture, retail), and has remained

the same for hundreds of years. Long histories and a stable environment make it the perfect research setting to examine the value capture phenomenon and more easily assess how changes impact these dynamics over time. This should prove especially useful for addressing the three objectives of this research, including mapping the cashmere value chain, understanding the impact of specific disruptions on its performance, and understanding the firm ability to manage the impacts (section 2.4.3).

Notably, this research consciously did not consider including more accessible industries like wool or other precious animal fibres like vicuna because there is a significant difference in scarcity between cashmere and other fibres. For example, wool sheep can produce up to 30 pounds of fibre a year, while cashmere goats only produce 250 grams of fibre a year and are by far the most valuable of animal fibres (De-Weijer, 2007). This means the cultural dynamics, business cycle timings and power structures across these sectors could vary significantly. Therefore, including multiple sectors could introduce external influences that reduce the generalisability of the research (Eisenhardt, 1989; Pettigrew, 1990). Thus, a better option is to conduct in-depth single case studies within these sectors before considering comparative or multiple case studies. These points helped the research meet Miles and Huberman's second measurability criterion.

The third criterion of generalisability requires research settings to have the capacity for analytical rather than statistical power-based ability to explain the phenomenon. The cashmere industry shares characteristics with other scarce resource commodity markets like oils, precious metals and silk, which require specific geographic conditions to grow, process and retail. Therefore, the empirical findings from this research will have theoretical and practical implications useful to these other scarce resource commodity industries. This is especially true considering the review of previous qualitative empirical studies revealed that none of the qualitative papers conducted research within the textile industry. Only one of the quantitative papers included textiles as part of a broader sample of the food and plastics industries (Wagner et al., 2010). This lack of textile-related qualitative research specific to the value capture topic will also increase the generalisability of this research and meet the third criterion.

The fourth criterion of feasibility requires researchers to assess whether it is likely that they will be able to complete the research within the chosen research setting, considering the required resource time, accessibility and competence. The cashmere industry value chains extend from the surrounding areas of the Karakoram mountains in Asia to the EU and US luxury fashion retail hubs (De-Weijer, 2007; Archer, 2019), and its major industry players frequently meet as international trade shows like Cashmere World (Hong Kong), Pitti Immagine Filati (Italy) and the Sustainable Cashmere Conference (Mongolia). Therefore, researchers can contact Western firms and ex-professionals and use their upstream contacts to facilitate data collection and visit the trade shows. This allowed the research to meet the fourth criterion of feasibility.

3.6 Sample Development

The procedure and outcome discussion is divided into details for the primary data collection (section 3.6.1) and the secondary data collection (section 3.6.2). For further data collection and instrument details, see Appendix 3 (section 3.4).

3.6.1 Primary Data Collection Procedures

The research focused its primary and secondary data collection procedures on targeting the five main steps of cashmere value chains (section 3.5.2). The interviews focused on people involved in the five main processes of the cashmere value chains but included an additional group of ex-professionals to total six groups of participants. The ex-professional group was added because these participants should have fewer reasons to hide any trade secrets because they are fully or partially retired, leading to interesting empirical insights. The exprofessionals were also used to compare current and previous practitioner viewpoints, help the research reach saturation levels, and meet the criteria for research credibility (internal validity) and adequacy (section 3.4). These choices resonate with purposive sampling, where researchers have a significant degree of freedom to explore new phenomena using a tailored sample focused on the purpose, utility, credibility, and availability (Eisenhardt, 1989; Saunders et al., 2019). The interviewing process began by building rapport and securing

interviewing opportunities with EU and US brand retailers and manufacturing businesses. The interview protocol included a question asking the interviewees for help securing additional interviews with their upstream value chain partners. The interviews were designed to be conducted F2F at the interviewees' business premises. A visit was made to the Sustainable Cashmere Conference (a major cashmere trade show in Mongolia) to source upstream interviewees who normally operate in Asia (detailed in Appendix 3, section 3.3.1).

In practice, the primary data collection process suffered several challenges that had implications for the five research quality criteria (section 3.4). This was partly due to the unwelcome arrival of the COVID-19 pandemic and less experience in conducting qualitative research. Once COVID-19 hit, F2F interviews became unfeasible. This meant only 11 of 30 (37%) interviews were F2F, four (13%) were done by telephone, and 15 (50%) used video conferencing software (Skype, Zoom) for the primary data collection. Personal inexperience in conducting qualitative research hindered data collection procedures, causing the following issues: an ineffective interview instrument, uneven representation of participants across the value chain, difficulties classifying the participants into the distinct stages of the value chain, and a significant trust deficit to overcome with the cashmere industry practitioners. Each challenge was addressed through the following solutions.

- The research minimised the ineffectiveness of the interview instrument by using a trial-and-error. This involved developing and testing four interview instruments for high confirmability and dependability research quality (section 3.4), presented in Appendix 3 (section 3.4.4, Fig 3.12).
- To address the issue of uneven representation, additional interviews were included with industry ex-professionals (two consultants, cashmere trade organisation heads and ex-professionals) with experience mostly in the wool rather than cashmere industry. However, their expertise extended back 20 and 50 years of experience and was cross-validated against the responses of an ex-professional with over 50 years of experience in the cashmere trade. This also helped the research maintain an elevated level of confirmability (objective validity), credibility (internal validity) and adequacy of research quality criteria (section 3.4).

- To address the challenge of classifying the participants, the research developed the following new set of categories: harvesting and collection, processing and trading, manufacturing and retailing, and wholesalers.
 These, along with the panel of ex-professionals, represented five broader groups.
- To overcome the trust deficit issue, the researcher decided to get further involved in industry-related events. Based on initial discussions of the doctoral research and its potential contributions, one of the major trade organisations commissioned the author of this research to produce a cashmere sustainability-related feasibility report and present it at their conference event. This helped build trust and allowed me to access and interview the cashmere value chain actors easily.

Appendix 3 (section 3.4.4, Fig 3.12) provides further details on these challenges, their solutions, and the abstract for the commissioned report. The primary data collection process continued until saturation was reached. Within the qualitative research context, data saturation is the data collection phase when additional data collection does not reveal any new or more in-depth information (Braun and Clark, 2019). Most qualitative research reports data saturation with 1 to 15 interviews (Bartholomew et al., 2021). This research exceeded this average by accumulating 30 interviews before no new or insightful information was found and saturation was reported.

Table 3.7 summarises the final number and nature of the secured interviews. Columns one and two use numbering to denote the five value chain stages. Column three shows that 30 interviews were conducted, with the majority with the upstream herder-collectors (30%), followed by the experts (27%), trader-processors, and manufacturer-retailers (17% each), and the least with the wholesalers (10%). Column four shows that, on average, the upstream actors demonstrate more experience, ranging between 4 to 43 years (1,2), compared to downstream actors who only have experience ranging between 5 to 34 years (3,4). However, the expert group offer the broadest experience range between 1 to 50 years and helps to compensate for any weaknesses that could have arisen due to the variances in experience across the value chain interviews (5). Column five also

shows that only 37% of interviews were face-to-face (F2F), 13% were done by telephone, and 50% used video conferencing software, including Skype and Zoom (online) for the primary data collection. Therefore, many of the interviews were conducted online. Column six shows that the average interview durations helped to compensate for the lack of interviews with the wholesalers, with longer average durations (2 hours 24 minutes) compared to the shortest with the herder-collectors (51 minutes). Column seven shows that all but 7 of the 30 interviews were conducted in English. The remaining interview participants were Mongolian herders who did not speak English. Therefore, local language interpreters facilitated the Mongolian and English communications.

Table 3.7: Summary of data collected through interviews

No	Stages	Interviews	Experience	Mode	Duration	Language
1	Herder- collectors	9 (6 herders, 3 collectors)	7-43 y (herders) 7-30 y (collectors)	F2F (4 herders, 4 collectors) online (1 herder)	51 mins	English (2 herders), Mongolian (3 herders, 4 collectors)
2	Trader- processors	5 (4 processors, one independent trader)	4-40y (trader- processor), 40y (trader)	F2F (1 processor), online (2 processors, 1 trader), phone (1 processor)	1 hour 11 minutes	English (5 traders and processors)
3	Manufacturer- retailers	5 (3 manufacturers , two small retailers)	11-34y (manufacturers) 7-31y (small retailers)	F2F (1 retailer), online (2 manufacturers), phone (1 manufacturer, 1 retailer)	1 hour 11 minutes	English (5 manufacturers and retailers)
4	Wholesalers	3 (2 small and one big wholesaler)	5y (small wholesaler), 10y (big wholesaler)	Online (3 wholesalers)	2 hours 24 minutes	English (3 wholesalers)
5	Experts	8 (2 consultants, 3 trader organisations, 3 ex- Professional)	1-3y (consultants) 3- 7y (trader organisations) and 20-50y (ex- Professional)	F2F (1 ex- Professional) online (1 consultant, 3 trader organisations, 2 ex-Professional), phone (1 consultant)	1 hour 14 minutes	English (8 experts)

In addition to Table 3.7, all but 1 of the 30 interviews were recorded and transcribed later for accuracy. Detailed notes were taken for the unrecorded interview with a consultant from the expert group to ensure the participant was not misinterpreted. This approach was taken upon the participant's request. No specific inclusion or exclusion criteria were used for the sampling beyond

expecting participants to belong to cashmere value chains and be willing to talk about their experiences in the industry. Finally, all interviewee identities were kept anonymous using codes to distinguish between them.

The codes were developed by taking the value chain stage or stages, the first letter of surnames, a digit, and each participant's business location. For example, a typical code for identifying a herder participant is written as "HerderAB1". By defining the role of potential interviewees at the start, the research made it obvious to potential readers that they could distinguish between the evidence provided by the different interviewees. This allowed this research to identify literal and theoretical replications among the interview responses (section 3.3.1).

Regarding observations, visits were undertaken at the business premises of four Mongolian herder collectors, one trader processor, and one manufacturer. A similar visit was made to the business premises of one of the Western manufacturing and retail businesses. The duration of on-location observations or business tours lasted a minimum of 30 minutes to a maximum of 1 hour and 15 minutes, with an average of 51 minutes. Pictures and information from tours were only recorded for the Mongolian trader processor and Western manufacturing and retail businesses. Appendix 3 (section 3.4.5, Table 3.8) further details the nature of the interviews, interviewees' identification codes, and observation procedures.

3.6.2 Secondary Data Collection Procedures

The documentation sourcing process began at the end of 2019 and continued until saturation was achieved in late 2023. The secondary sources were sourced using a series of Boolean codes and keywords on the Google search engine (section 3.5.1.3). Using predefined search terms was essential to ensure that the data collection process met the research quality criteria of confirmability (objective validity) (section 3.4).

In line with the definition by Braun and Clark (2019), this research reported saturation for the secondary data collection procedure at 70 documents, after which this research found minimal new or insightful secondary data retrievals.

Although 70 documents are not remarkably high for online data searches, this research determined whether a secondary data source was valuable or not based on its ability to support or contradict the primary data collection findings. The secondary data collection was used to mostly map out historical information and reinforce the conclusions of the primary data collection. Therefore, what constitutes saturation was more perception, and a judgment call was made based on personal experience while conducting this research. Researchers also accept that there is no right answer to the question of sample sizes, and researchers must rely on their own experiences (Chitac, 2022).

Overall, the secondary data collection process identified 70 data sources, of which 26% were high-quality, 41% were mid-quality, and 33% were low-quality (Appendix 3, section 3.5.1). Table 3.8 shows how the research used combinations of Boolean codes and keywords to search multiple online resources on a trial-and-error basis until the various resources offered relevant data sources. Column one uses numbering to denote the ten searching phrases. The research did not include a specific inclusion-exclusion criterion to filter the data beyond avoiding less credible sources like Wikipedia and personal blogs. After trial and error, this research used ten rather than one or two Boolean codes. This is because the initial data-searching experiences made it apparent that different online resources reacted differently to different word combinations. Therefore, more Boolean code searches ensured no helpful information was left behind. The research also included the terms 'wool', 'pashmina' and 'goat hair' in the searches because the initial searches revealed that these terms are used interchangeably.

Table 3.8: Boolean codes used to source the secondary data

No	Search String
1	(Luxury) AND (cashmere) OR (pashmina) OR (luxury fibre) OR (wool) OR (goat hair)
2	(Luxury) AND (cashmere) OR (pashmina) OR (luxury fibre) OR (wool) OR (goat hair) AND (industry)
3	(Luxury) AND (cashmere) OR (pashmina) OR (luxury fibre) OR (wool) OR (goat hair) AND (value chain) OR (supply chain)
4	(Luxury) AND (cashmere) OR (pashmina) OR (luxury fibre) OR (wool) OR (goat hair) AND (Industry) AND (disruptors)
5	(Scotland) AND (luxury) AND (cashmere) OR (pashmina) OR (luxury fibre) OR (wool) OR (goat hair) AND (Industry) OR (value chain) OR (cycle) OR (market report)
6	(Italy) AND (luxury) AND (cashmere) OR (pashmina) OR (luxury fibre) OR (wool) OR (goat hair) AND (Industry) OR (value chain) OR (cycle) OR (market report)
7	(Global) OR (world) AND (cashmere) AND (business cycle)
8	(Global) OR (world) AND (cashmere) AND (disruptors)
9	(Global) OR (world) AND (cashmere) AND (Industry) OR (market)
10	(Cashmere)

The oldest found data source was published in 1772 (Bolts,1772), while the remaining 70 data sources publications ranged from 1981 to 2022. However, multiple sources provided insights to understand the key historical developments from the 15th century (De-Weijer, 2007; Maskiell, 2002), 18th and 19th centuries (Bolts, 1772; Bairoch and Levy- Leboyer,1981; Tharoor, 2016), to the present (Brown, 1995; Ellwood, 2020; Kozlowski and Mackiewicz, 2020; Songwe and Magwan, 2003; Timmins, 2020). This meant that the secondary data met the 26-year time range of Johns (2006) and went well beyond the 7-to-10-year duration initially aimed for (section 3.3.1.3).

This catalogue of secondary data created an opportunity first to make the secondary and primary data sources and achieve the required rigour to meet the research quality criteria of credibility (internal validity) (section 3.4). Furthermore, as the secondary data covered a temporal range of 200 to 400 years, the research had many opportunities to identify historically patterned behaviours of the value chain participants to meet the research quality criteria of adequacy (section 3.4). Appendix 3 (section 3.5.1) provides further details on the nature of the secondary data collection procedures and outcomes.

3.7 Data Analysis Strategy

According to Stake (1995, p.44), data analysis is "a search for patterns, for consistencies" and emerges through categorical aggregation and direct interpretation. Categorical aggregation refers to the clustering of data to establish abstract meanings. Alternatively, direct interpretations refer to deriving holistic implications from cases (ibid). Unfortunately, Stake offers little detail on practically implementing these processes and leaves it to researchers to "find the forms of analysis that work for him or her" (Stake, 1995, p.77). Therefore, the research relied on the data analysis recommendations of Sjodin et al. (2020), who used the Gioia method to underpin their data analysis for their own similar single longitudinal case study approach and the Gioia method. These processes are further detailed in the following subsections.

3.7.1 Analysis Process

In qualitative research, data analysis should focus on "organising nuanced descriptions or statements into categories or patterns that show the particular logic" (Bouncken et al., 2021, p.260). Table 3.0 summarises the key steps in most qualitative data analysis methodologies.

Table 3.9: Three critical steps for data analysis

Main steps	Sub phase	Details
Prepare and organise data.	Management	Create and organise files for data
	Annotate	Read the text, make reflective notes and form initial codes.
	Describe	Develop a rich picture and context for cases.
Reduce data into themes through coding.	Classify	Use categoric aggregation to establish themes or patterns.
3 3	Interpret	Use direct interpretations for comparisons and generalisation.
Presentation	Visualise	Present detailed pictures using narrative, tables and figures.

(Adapted from Creswell, 2007)

Although these three phases provide helpful guidelines for data analysis, qualitative data analysis has traditionally required researchers to only "report impressions and cherry-pick quotes that supported those impressions" (Gehman

et al., 2017, p.286). This highlights that qualitative data analysis can lack precision if done incorrectly. Bouncken et al. (2021, p.260) suggests that the Gioia method offers a "highly disciplined coding and analysing process".

Table 3.10 illustrates the high levels of alignment between the features of the Gioia method and the intended research requirements. Column one uses numbering to denote the different criteria (1-6). The table broadly shows that the Gioia method is compatible with the social constructionist epistemology position (section 3.1.2) and inductive research approach (section 3.2.1) by seeing the world as "socially constructed" (1). Second, Gioia accommodates flexible interviewing methods to balance the benefits of using a predefined protocol to curb personal biases while ensuring the respondents fully express themselves (3 and 4). Gioia also champions recording retrospective and real-time interviewee experiences of change (6). These complemented the aim of observing changes (section 2.4.3) and the data collection strategy (section 3.5.1) to justify the appropriateness of the Gioia method to underpin the data analysis process.

Table 3.10: Suitability criteria for the Gioia method

No	Criteria		Details	
1	Constructionist epistemology	Yes	Basic assumptions include "the organisational world is socially constructed" and that the people constructing the realities are 'knowledgeable agents.'	
2	Inductive	Yes	The method does not impose prior constructs or theories on informants to give them a voice in the early stages of the research to create "rich opportunities for the discovery of concepts."	
3	Detached and engaged	Yes	Initially, it casts researchers into the role of 'glorified reporters' whose primary function is to give an adequate account of the informants' experience.	
4	Predefined yet flexible instrument	Yes	Reviewers often do not recognise that the interview questions must change with the progression of the research and "adhere to some misguided sense that the protocol must be standardised so that there is consistency over the project."	
5	Transparency	Yes	The features that enhance qualitative rigour begin with our analysis approach, especially in organising the data into first- and second-order categories to facilitate their later assembly into a more structured form.	
6	Understanding longitudinal change	Yes	It employs multiple data sources, but the heart of these studies is the semi-structured interview—to obtain retrospective and real-time accounts from those experiencing the phenomenon.	

3.7.2 Data Preparation and Organisation

NVivo-12 and Microsoft Excel were used as the primary data management tools. NVivo-12 was used to record and organise the primary data, while Microsoft Excel was used to do the same for the secondary data. During the primary and secondary data collection procedures, detailed notes were taken on the margins of the interview instrument secondary documentation printouts. The initial transcript reviewing process for the primary and secondary data used rudimentary reflective techniques. This covered everything from contradictory views and links to theory, tone, emotions, and language. In later stages, note-taking also covered possible solutions or comparisons between participant responses to the same questions. Next, all interviews were transcribed word for word. This allowed detailed descriptions that could be revisited to ensure accuracy while also allowing the researcher to identify any critical information that was initially missed.

The transcripts were uploaded onto NVivo for the primary data collection, and the initial notes were pasted using the memo option. Similarly, the most important quotes from the secondary data, including quotes and reference information, were copied into Excel. A similar note-taking process was done to (wherever possible) link the content to the other secondary data sources and interviewee responses. The research assigned each interview to one of the six value chain process categories based on how the participants described themselves. However, after completing the interviews, some group boundaries were reclassified because many participants carried out multiple processes (section 3.6.1).

3.7.3 Categorical Aggregation

Following Gioia's approach, the data was reduced into themes by classifying and interpreting them to identify patterns. The rich descriptive raw data was broken into manageable forms using coding techniques. Coding in qualitative research is defined as "words or short phrases that capture the importance, essence or emotion of language or visual data that can be further abstracted into groups of similar codes or categories" (Saldana, 2013, pp.3-9). Categories that describe explicit situations merge to form sentences describing "processes on an abstract

level known as themes" (Rossman and Rallis, 2017, p.228). According to Williams and Moser, 2019), coding up to the theme level can be done inductively (themes emerge from data) or deductively (predetermined themes filter codes). However, researchers "frequently mix the two with more emphasis on one" (Strauss and Corbin, 1998, p.137). Researchers are also recommended to improve their reporting accuracy by only recording the data without interpretation, also called adopting a "willing suspension of belief" (Gioia et al., 2012, p.21).

As the research used predetermined research objectives and a data collection instrument for data collection (Section 3.6.1), the interview questions were used to loosely group the collected data before inductively coding them into codes, categories, and themes. This initial classification was supported by creating large data inventories on NVivo-12 and Microsoft Excel of the initial codes that emerged from the data. This is the best practice for ensuring data reliability (Yin, 2003). Next, the initial data inventories were used to pick out the most relevant data to answer each interview question, using data source tables throughout the findings chapter (Chapter 4) (sections 4.1.1-4.1.3; 4.2.1-4.2.8 and 4.3.1-4.3.2). According to Cloutier and Ravasi (2020, p.117), data source tables effectively display data in transparent and concise detail to increase the trustworthiness of reporting and represent "a growing trend in qualitative research". Therefore, adopting data source tables directly facilitates a "willing suspension of belief" for higher-quality research. The research used labels for each data source table to describe what they represent, linking data to the initial findings without introducing biases.

The research next grouped these data source tables and their descriptions to summarise the key emergent points related to each interview question and research objective using concept evidence tables. Concept evidence tables refer to tables that are useful for listing "the basic components arising from data coding that appears connected to a research's emerging theoretical framework" (Cloutier and Ravasi, 2020, p.119). Therefore, the concept tables allowed the research to condense further and summarise the key data sources and interrelated concepts to address the three research objectives (sections 4.1.4, 4.2.9, 4.3.3).

3.7.4 Direct Interpretation

Direct interpretation is "making sense of the data and identifying the lessons that need to be learned" (Lincoln and Guba, 1985, p.371). Stake does not provide detailed guidance for direct interpretations (Yazan, 2015). Table 3.11 summarises the major features that at least provide significant clues. Column one uses numbering to denote the key quotes by Stake that offer clues on how to approach direction interpretations (1,5). In contrast, column two categorises them into broader groups and refers to them as features. The above table shows that the research aim should isolate the critical data, categories and themes to form the basis for interpretations (1,2) and focus on consistent patterns that emerge in specific conditions (3,4). Furthermore, single case studies should focus on the precise requirements underpinning the emergent theory for replicability or theory extensions using multiple case studies in the future (5).

Table 3. 11: Indications for direct interpretation

No	Features	Details	Source
1	Research aims and objectives.	" Spending the best analytic time on the best data is also important. Full coverage is impossible; equal attention to all data is not a civil right".	pp.84- 85
2	,	"The case and the key issues need to be focused. The search for meaning and analysis should repeatedly roam out and return to these foci".	
3	Reoccurring phenomenon	"The search for meaning often is a search for patterns, consistency, and consistency within certain conditions".	p.78
4		"Sometimes, we will find significant meaning in a single instance, but usually the important meanings will come from reappearance repeatedly".	
5	Theoretical boundaries	"Single case studies are not meant to be generalised, but rather they are added to a collection of cases from which generalised claims can be made".	p.85

According to Gioia (2012), once the open and axial coding is done, researchers should reintroduce their perspective to interpret connections between themes, theorise solutions to address the research aims and compare emergent theory to the theoretical framework (section 2.4.4, Fig 2.14). The connections among concepts and themes require the depiction of dynamic relationships using boxes-and-arrow figures (Gioia et al., 2012) and "convert a photograph into a movie" (Gehman et al., 2017, p.286). In line with these recommendations, section 3.7.3 described how Chapter 4 used the research objectives to loosely group the codes into broader categories before inductively coding them into wider categories and

themes using concept evidence tables. This created data structures and links needed to make initial connections between the relevant codes, categorisation and themes. Chapter 5 also used theoretical coding to build a data-driven theory before comparing it to the existing literature. Theoretical summary tables were used to add further depth and provide a transparent chain of evidence to link the empirical data to emergent theory (Cloutier and Ravasi, 2020). These comparisons included conflicting and similar literature to improve the internal validity and transferability of the emergent theory (Eisenhardt, 1989) and more accurately reflected the research's original contributions to knowledge. Chapter 6 reflects on the implications within and beyond the research scope.

Table 3.12 offers further details for the overall data analysis procedures, which were underpinned by coding methods (Saldana, 2013), interpretation methods (Gioia, 2012), and data organisation tables (Cloutier and Ravasi, 2020). Together, these underpinned the overall data analysis and discussion protocol.

Table 3. 12: Summary of data analysis and discussion protocol

	Tactic		Details
	Prepare and	Data	Uploaded all information onto NVivo-12 and Excel.
organise data		Review	 Detailed notetaking during and after interviews. Focus on personal reflections, interviews and secondary data comparisons. Transcribe all interviews word by word. Use data inventory tables.
Categoric	Data into codes, themes	Classify	 Put transcripts onto NVivo and Excel before initial coding (short phrases). Develop inductive categories and themes using axial coding. Use data-source and conceptual evidence tables
present outcomes • Used research aim and objectives as a lens to assest outcomes • Identified patterns in general and specific condition		 Categories and themes were combined using theoretical coding. Used research aim and objectives as a lens to assess themes. Identified patterns in general and specific conditions. Focused on conditions that underpin theory (no generalisation). Use theoretical summary tables. 	
Direct int		Visualise	 Put emergent concepts, themes, and relationships into diagrams. Compare to existing theory for transferability. Consider policy implications beyond the research scope.

3.8 Chapter Summary

Chapter Three detailed the practical steps to developing a suitable research methodology for the intended empirical research. The process began by examining the methods used by the empirical research papers in the literature review, which identified the need for additional longitudinal qualitative research. These methodological issues were used to complement the requirements of the research aim and objectives to develop a high-impact research methodology. The research adopted a relativist ontological, normal constructionist epistemological and relatively engaged axiological research philosophy (section 3.1.3) to support localised theory building (section 3.2.1). This was complemented with a holistic longitudinal single-case study research design that used the value chain as its unit of analysis (section 3.3) and appropriate research quality criteria (section 3.4). The data collection strategy relied on 30 semi-structured interviews with historical documents and on-site observations of international cashmere value chain members (sections 3.5 and 3.6). The data analysis strategy relied on inductive coding (Gioia, 2013; Saldana, 2013) and Stake's (2005) categorical aggregation and direct interpretation analysis procedures (section 3.7).

Chapter 4: Research Findings

The previous chapter developed the research methodology, including data collection and analysis protocols for this research (section 3.7.4). This chapter presents the key findings for the secondary and primary data collection in line with the categorical aggregation procedures. Within the first step of categorical aggregation, the research used the research aim and objectives (section 2.4.3) to isolate the relevant collected data before inductively organising the data into codes and themes using open and axial coding (section 3.7.3). Within the second step, the research ensured the confirmability, dependability and credibility of research quality (section 3.4). The information was presented in condensed forms within the main body through a transparent chain of evidence to connect raw data to emergent codes, categories, and themes.

Section 4.1 describes the findings for the first research objective (mapping the value chain processes, relationships, and value-sharing dynamics). Section 4.2 describes the findings for the second research objective (identifying the antecedents and impacts of the disruptors over time). Section 4.3 describes the findings for research objective 3 (establishing the effects of strategic decisions undertaken by the value chain actors).

The findings for each research objective (RO) covered significant descriptive information. Therefore, sections 4.1.4, 4.2.9, and 4.3.3 provided individual summaries for each RO. In the following chapter, these summary sections used diagrams and concept evidence tables to form transparent building blocks to develop a data-driven theory (Chapter 5). This conscious effort to ensure transparency and logical consistency again allowed this research to justify that it meets the confirmability, dependability, and credibility (internal validity) research quality criteria (section 3.4). Section 4.4 concludes this chapter with a chapter summary.

4.1 Findings for Research Objective 1

The first research objective involved mapping the cashmere value chain processes, relationships, and value-sharing dynamics. The relevant findings are presented in subsections 4.1.1 to 4.1.3.

4.1.1 Processes

The data collection and coding processes identified five critical processes comprising the cashmere business cycle: fibre harvesting, collection, processing, manufacturing, wholesale, and retailing of finished products. Each of these processes is detailed in subsections 4.1.1.1 to 4.1.1.5 below.

4.1.1.1 Harvesting

The findings suggest that harvesting is a herder-level process that involves four main phases: pre-harvesting, harvesting, trading, and post-harvesting. Table 4.1 further details the pre-harvesting process, and its first column uses numbering to denote its main activities. The table findings suggest that in the preharvest period, herders use specialist skills (1-3), including strategic timing (4), to balance fibre quality against animal welfare.

Table 4. 1: Pre-harvest

No	Details	Sources
1	The spring-summer season is the busiest for the herders, who work long hours beginning with lambing in March-April.	CollectorNM1; HerderIM1; HerderSM1; HerderKM1
2	During this period, herders use specialist skills to develop fibre quality, including monitoring herd movements and ensuring animal health.	HerderIM1; HerderSM1; HerderKM1; TraderProcessorLA2
3	The herders pay particular attention to the weaker animals and selective breeding.	ExpertLA5; ExpertKA5; ExpertRA5
4	Herders administer medicines and foods to the animals and time herd movements to expose them to different nutrients and environments and optimise animal health and fibre quality.	CollectorNM1

The link between herder strategic skills and high-quality fibre development is well captured within the following herder remarks:

"Different patterns of cashmere outcome depend on the climate conditions of that particular year and the main speciality of different herders. When herding, keeping the herd stress-free and handling it carefully is essential for fibre quality. Low cashmere fibre outcomes result from careless herding, hiring inexperienced people or harsh climate season" (HerderKM1).

For additional pre-harvest-related quotes, see Appendix 4 (table 4.1, quotes 1-3). The secondary data complemented the above points by highlighting the quality requirements for the luxury-end cashmere industry and the harsh conditions that the herders and goats must endure to achieve them. For example, the data shows that the average fibre micron "must not exceed 19 microns for goat hair to be classified as premium end cashmere" (De-Weijer, 2007, p.27). Cashmere fibre typically requires keeping goats in climates below - 40 C temperatures at 5000m (17000ft) altitudes (ibid).

Table 4.2 details the harvesting process, and the first column uses numbering to denote its main activities. The table findings suggest fibre harvesting begins in springtime (1,2). However, this varies between locations depending on weather patterns (3,4,5), the herder's ability to identify visual changes in the goats, and their ability to match the two together to maximise the quality and volume of fibres (5,6,7). Once herders complete the labour-intensive fibre removal process using combing or shearing techniques (8,9), they are stored with or without some minor hand processing to remove impurities (10,11).

Table 4. 2: Harvesting

No	Details	Interviewees
1	The season begins every year in spring, from March to May.	HerderIM1; CollectorNM1; ExpertBC5; ExpertJM5
2	Asian season begins in spring from March-June time in Asia	ManufacturerWU3; ManufacturerRetailerCU3
3	Mongolian clip comes to market first and the Chinese last.	TraderProcessorLA2
4	The harvesting start dates vary depending on geography and when specific locations become warm.	ExpertBC5; ExpertJM5; ManufacturerWU3
5	Apart from start dates, changing environmental conditions also impact the cashmere's annual volume and quality.	HerderKM1
6	The harvesting is usually triggered by the herders' ability to identify visual changes in the goats and weather.	HerderIM1; HerderSZ1; TraderProcessorLA2; ManufacturerRetailerCU3; ExpertFG5; ExpertBC5
7	If harvesting is done at the right time, fibre quality and volume are optimised.	HerderIM1; ManufacturerRetailerCU3; ExpertFG5; ExpertBC5
8	Fibre removal involves planning how many goats to shave or comb, separating the goats for fibre removal, and removing hair, roughly taking 20 minutes per goat.	HerderlM1
9	The fibres are removed using combing to remove "impurities like the dust, sand, grass and shrubs" or shearing to save time by removing the whole fleece and bundling it.	ExpertLA5
10	Afghan herders shear but also remove impurities by hand.	TraderProcessorLA2
11	However, most prefer to pass them on in their natural state.	TraderProcessorBM2

A more comprehensive understanding of how the herders judge when to engage in harvesting is understood from the following explanation:

"As soon as the weather gets warm for a few days consistently, the goats will know that they don't need the cashmere and start pushing the cashmere from their bodies. So, we can see it on the goats' bodies when the cashmere is shedding. In the wintertime, when they need it, the cashmere is right next to their bodies; when they don't need it anymore, they shed it, and it is visible that it is coming off. The goats start to become fluffy" (HerderlM1).

See Appendix 4 (Table 4.1, quotes 4-5) for additional harvest-related quotes. The secondary sources confirmed harvesting begins in spring (Baldwin, 2016; Kerven and Toigonbaev, 2010; O'Donnell, 2015;), varies depending on geography (Håkansson, 2022) and is triggered by when the animals moult (Ansari-Renani et al., 2013; Krosofsky, 2021; Håkansson, 2022). Others contradict this:

"While goats are often claimed to be combed when naturally moulting, this varies based on unique differences between individuals. This means some goats in a herd may not be moulting come combing time" (Håkansson, 2022).

This highlighted the moulting season and when each goat's moult was different, showing the complexity of harvesting. The secondary data further shows that the moulting process starts from the neck and moves to the rump (Ansari-Renani et al., 2013), and the best quality fibres are extracted from the neck region (Krosofsky, 2021). However, combing takes longer if harvesting timing is wrong:

"Goats are roughly combed for as long as an hour, on average. Investigations have shown goats screaming out in pain and distress during this long and gruelling process" (Håkansson, 2022).

In Iran, 80% of harvesting is done between April and June and 20% in July (Ansari-Renani et al., 2013). Herders reconfigure their herds to optimise fibre quality and volume. For example, the data suggests female and infant goats produce higher quality fibre (LeCraw, 2005), and animals are typically combed at 2-3 years of age (Fiddes, 1996) but only survive for 7 of their 10-15-year lifespan (Karthik et al., 2015). This secondary data contradicted the primary data regarding harvesting in two ways. First, it suggested combining leads to higher-quality fibre extraction rather than regional preferences (Cobb, 2014). Second, it indicated that fibre harvesting and combing are unethical because the combing process uses "sharptoothed metal combs" that cause "bruises and injury" to the animals (Håkansson, 2022). This process is detailed in the following article quote:

"Goats are tied up, all four legs wrapped together, so immobilisation is, as you would imagine, frightening and stressful. Goats are roughly combed for as long as an hour, on average. Investigations have shown goats screaming out in pain and distress during this long and gruelling process" (Håkansson, 2022).

Table 4.3 details the trading process between the herders and collectors, and the first column uses numbering to denote its main activities. The table findings suggest that these trades occur once a year (1). The herders sell their fibres in either their raw state or after completing hand processing (3). Collectors buy cash based on volume rather than quality (4). In the post-harvest and trading phases, the herders work fewer hours but focus on preparing the animals and their equipment for the upcoming harsh winters (5,6,7).

Table 4. 3: The herder perspective on trading with collectors and post-harvest

No		Details	Sources
1		The collectors come to see the herders for trading once a year, and this is their primary income source.	HerderIM1
2	ing	Dairy, skins and meat supplement herder income.	HerderSM1b
3	Trading	Herders sell fibres in the same state or after completing hand processing.	HerderlM1; TraderProcessorLA2
4		The cashmere is traded based on volume or sack load rather than the quality of fibres using cash.	ExpertLA5; HerderSM1b; ExpertJM5; ManufacturerWU3
5		Herders work relatively shorter hours, 8 am to 10 pm, during post-harvest.	HerderIM1; CollectorNM1; HerderKM1
6	ost-harvest	Herders use strategic skills to prepare their herds for the upcoming harsh winters. They feed them specific nutrients and tailor animal shelters to optimise animal survival.	
7	Post	The herders are roughly fixed for three months before winter when they build their shelters and generally work shorter hours.	HerderKM1

The findings suggest that local herders remain concerned with the adverse effects of the volume over quality-based fibre trading policy and feel that this is slowly eroding the supply of animal and fibre quality.

"I sometimes have a concern about the quality of fibre, which is reducing in some regions due to poor maintenance of the local natural breed and pastureland. Some people take quantity over quality, which is a factor in some cases for breeding with a goat that has thicker fibre" (HerderSM1b)

One of the interviewees also offered further insights into the significant contributions that herders make living in their harsh conditions:

"Autumn again requires care and treatment work and preparation for the harsh winter. Salt and nutrition are given regularly to help goats grow enough fibre for the winter. Cashmere fibre grows dust-free and clean for winters with plenty of snow. Less snowy, dry winters cause dusty fibre beyond herders' control. Mongolian pastoralism is highly dependent on the environment and climate" (HerderlM1)

For additional harvester-collector trading-related quotes, see Appendix 4 (Table 4.1, quotes 6-8). The secondary data further confirmed that herder collector trading is done in late spring (Kerven and Toigonbaev, 2010; Ansari-Renani et al., 2013), some herders hand process fibres for better payoffs (De-Weijer, 2007; McGregor et al., 2011), and collectors pay flat rates based on weight rather than the quality of fibres (Baldwin, 2016; Waldron et al, 2011).

4.1.1.2 Collection

The collection of the fibres from the herders is done by upstream intermediary traders, often called the collectors. These people are involved in fibre collection, movement, storing and reading. Table 4.4 further details the collection process, and the first column uses numbering to denote its main activities. The table findings show that the collectors must track down the herders before purchasing, bundling, and transporting the fibres to their local warehouses (1,2,3) and rely on economies of scale to make their processes cost-effective (5). However, they use the same bags for collecting diverse types of fibres, which causes crosscontamination and quality issues further down the value chain (6).

Table 4. 4: Collection procedures and trading

No	Details	Sources
1	Significant effort is needed to track down the nomadic herder before buying. Large quantities of batching need to be done before transporting. The fibre must be manually sorted before being stored in the warehouses for their customers.	ManufacturerWU3; ManufacturerRetailerCU3; ExpertLA5; ExpertKA5
2	As soon as the collectors purchase the fibres from herders, they build up the volume by gathering and storing fibres from 50kg to 10 tons, as the raw fibre buyers require.	TraderProcessorLA2; CollectorBM1
3	Many traders fill their stores/warehouses with fibres and sit on them for up to 10 years to get the best prices.	ExpertFG5
4	Collectors have dual roles. Both supply raw fibres to the processors and repurchase them in processed form before supplying them to local manufacturers.	WholesalerG4
5	Collectors compete on economies of scale, which would not be cost- effective for herders if they tried to do this themselves.	ManufacturerWU3
6	Mongolian collectors use the same bags to collect different animal fibres, which leads to cross-contamination that, when tested, influences the quality of fibre processing and manufacturing.	WholesalerG4

Table 4.5 details the trading process between collectors and their customers, and the first column uses numbering to denote its primary activities. The table findings show that China represents the primary customer for the global raw fibre supplied by the collectors (1,2,3) at various times depending on their geographic specificities (1,4,5). Collectors trading with their suppliers and customers use one of three structures: the popular standard (6,7,8), emerging cooperative (9,10), and open market-based trading structures (11,12). Table 4.5 point 11 highlighted that the open market auction-based structures have lost their value as a trading

structure over time. The following interviewee's comment explains the reasons behind the decline of the auction trading structure:

"Auctioneers would have been local Mongolians, and they didn't want foreigners to come in, so they kept it very much to themselves. Of course, if you have trade contacts, then you might get it. But they were for it and insufficient quantity to make it work" (ExpertDW5).

For additional collector-trader-related quotes, see Appendix 4 (Table 4.1, quotes 9-11). The secondary data further confirmed that the primary function of the collector is to source, buy, store and hold the fibres for their customers (Ansari-Renani et al., 2013). Secondary data also recognises the collector effort:

"Brokers such as Arvinzaya Khenz buy the sought-after wool from herders. For Arvinzaya, 42, spring means driving around Bayantsagaan in her beige blazer and white Toyota Land Cruiser, prowling for business" (Bayartsogt, 2019).

Table 4. 5: Collector perspective on trades with herders and processors

No		Details	Sources
1		Most fibres are sold to Chinese traders in late March.	CollectorBM1; HerderSM1; CollectorOM1
2	ading	Chinese buyers purchase 70-90% of Afghan fibres.	ExpertLA5; ExpertKA5
3	or Tr	Chinese buy 75-90% of Mongolian raw fibres.	ExpertLA5; ExpertJM5
4	Collector Trading	In Afghanistan, this happens between Nov and May.	ExpertJM5
5	O	In Mongolia, it is March-May time, with a peak in April.	TraderProcessorBM2;TraderProcessorWM2
6	re	Herders or herder cooperatives sell to collectors and traders, who sell to processors.	TraderProcessorLA2;ProcessorJA2; TraderProcessorBM2;TraderProcessorWM2
7	Standard structure	Herders need help gathering and supplying enormous volumes to big Chinese buyers. Chinese traders need help trading directly with the herders and collecting, making collectors important.	TraderProcessorBM2
8	Sta	This is inefficient and "erratic" because people must visit difficult-to-reach locations.	ExpertDW5
9	Co-ops	Herders and herder cooperatives sell directly to processors, cutting out collectors and traders.	TraderProcessorBM2; TraderProcessorWM2
10	S	Co-ops are gaining popularity in recent years.	TraderProcessorWM2
11	market	People do not use open markets anymore because of a history of opportunism.	TraderProcessorBM2; ExpertDW5
12	Ореп та	However, auctions offer "a nice orderly flow" and make it "easier to understand the market" for businesses in other markets.	ExpertDW5

4.1.1.3 Processing

Fibre processing involves receiving, sorting, scouring, dehairing, and drying fibres to transform them from raw to processed. This is followed by processors trading them with their local and international customers. Table 4.1 details how the processing factories carry out each activity, and its first column uses numbering to denote its main activities (1-9).

Table 4. 6: Processor activities

No		Details	Sources
1	Sorting	Local and Chinese mills begin by sorting the fibres in 100kg to 50-200-ton fibre batches by colour, fineness, and length using mechanical processes.	TraderProcessorLA2; ProcessorJA2; ExpertLA5; ExpertJM5
2	os	The remaining fibres undergo a "beating process" to remove the bulk impurities before being prepared for scouring.	ExpertLA5
3	Scouring	Fibres are washed using detergent (usually 2-4%) to remove body fats and grease. The process consists of 4-5 bowls (where fibres move from bowls one to four, are picked up, put in detergent, washed, and rinsed). Each bowl is 10x2 meters long and has squeeze rolls.	ExpertLA5; ExpertKA5
4	Sco	Scouring requires volume to work efficiently.	TraderProcessorWM2
5		Afghanistan mills scour 5 tons of fibre daily, yielding 85%	ProcessorJA2
6	g	Mechanically separating finer and coarser fibres.	ProcessorJA2; ExpertLA5
7	Dehairing	A typical yield output is 60% per 100kg but should ideally be 70%.	ManufacturerWU3; ProcessorJA2
8	Ð	Mongolian dehairing is 50%, China is 45%, and the Afghan yield is 40%.	ExpertLA5
9	Drying	This final activity involves drying fibres electronically or with steam, then sold to weavers and retailers.	

Table 4.7 suggests that processing is a susceptible stage of the cashmere value chain, and its first column uses numbering to denote the different groupings of vulnerabilities and solutions. The table findings show that the process fibre quality and volume experience significant adverse impacts due to poor factory design and the use of mixed bags to bring the raw fibres to the factories (1). Second, poor weather can cause up to 6 months of delays in an already time-sensitive process (2-7). To combat these vulnerabilities, processors only sell fibres a year after they are ready, and the customers ask for long credit lines to give them enough time to manage any risks (8,9).

Table 4. 7: Processing vulnerabilities and perspective on trading

No		Details	Sources
1	Error	The mixed fibre bags in the processing mills significantly reduce Mongolian processing quality and yields. Poor infrastructure further strengthens this impact, which is understood by their mills frequently being poorly situated in residential districts with no running water, waste treatment, or electricity.	WholesalerG4
2		Sorting and dehairing last four months, from February to June	ExpertLA5
3		with peak fibre volumes coming into Chinese mills from April	ExpertBC5
4	S	Afghanistan peak scouring runs for six months, from May to November	ProcessorJA2
5	Vulnerabilities	Mongolia's scouring runs for 4 to 7 months, from April to June.	TraderProcessorLA2; ManufacturerWU3
6	Vulne	Mongolian scouring ends in August or October- November. The wool is processed from November to May.	TraderProcessorBM2; TraderProcessorLA2; ManufacturerWU3
7		Maintenance work can be done from March to May every year. However, due to weather issues, this can also lag up to 6 months.	ManufacturerWU3
8		Anything produced this year will only be retailed the year after unless buyers pay Chinese processors a premium price of around \$135/kg.	ExpertLA5; ExpertFG5
9	Solution	Furthermore, EU buyers do not do spot buying but ask for 60-to-10-day credit lines to cause further delays.	ExpertLA5
10	Sol	Western and Chinese processors and manufacturers carefully blend their long and short fibres before storing dyed fibres in separate bags to avoid cross-contamination.	Wholesaler14

The following customer insight further summed up the potential ineffectiveness faced by non-Chinese processing factories:

"1kg should yield 58-60%, but Mongolians have 40-50% yields because collectors bring their fibres in mixed bags. You have long and short fibres from the young and older goats in the bag, and the colours are not okay either. If your infrastructure is that bad, you cannot have superior quality washing, dehairing, or later spinning. Few are good enough to export." (WholesalerG4)

"For some, it will be immediate, and for others, it can be six months. We were involved in a direct purchase last year and took six months to be dehaired from the time they it bought" (ManufacturerWU3)

The secondary data further confirmed the differences in potential processing yields experienced by different processing units (Table 4.7, point 1) by highlighting that these vary from 30% to 75% and typically fluctuate between 48-65% (Ansari-Renani, 2013; Danforth, 2017). The secondary data also confirmed the potential for 6-month delays, with lead times for a single customer being 1-1.5 months or three months, including shipping lead times (Towers et al., 2013).

Table 4.8 details the traditional trading structure covered in Table 4.5, highlighting how this works for processor-fibre buyer trading relationships and its first column uses numbering to denote the different activity groupings. The table findings show that traditionally, Western buyers visit Asian factories to purchase their fibres (1), which are delivered a year later to Western customers (2-5). In contrast, the direct buying structures involve Chinese businesses warehousing their stocks closer to their EU customers to allow purchasing, production, and retail in the same calendar year (6,7).

Table 4. 8: Processor perspective on trading

No		Details	Sources
1		This structure refers to the practice of manufacturers or selling traders visiting Asian processing factories with their local contacts to buy the stocks.	TraderMM2
2	onal	The fibres are dehaired by August of year one and sold to EU customers between July and September.	TraderProcessorBM2
3	Traditional	The processed fibres arrive in Western ports between August and September.	TraderProcessorLA2; TraderProcessorWM2
4		The processed fibres arrive in 8 weeks of direct shipping from China or indirectly from Afghanistan.	TraderMM2; ManufacturerRetailerCU3; TraderProcessorLA2
5	Buying	The second structure is through the Chinese suppliers, who now hold stock in the EU and sell directly to their EU customers for improved responsiveness, as an independent fibre agent understands the following point. They purchase the fibres as early as July and use them within production and retail for the same calendar year.	TraderMM2

The improved responsiveness attributed to the direct buying trading structure and its implications for the value chain is confirmed by the following trader comment:

"Chinese these days are storing quite a lot of goods in Italy in dehaired form and are ready to sell because it's close to the market and taken away a lot of the merchants' business" (TraderMM2).

4.1.1.4 Manufacturing

Manufacturing involves purchasing processed fibre, dyeing, drying, carding, roving, spinning, knitting, weaving, and trading. Table 4.9 shows the differences between Asian and Western manufacturing processes for fibre buying activities. The table findings show that Asian manufacturers first buy their dyeing chemicals from the West (1) before buying their fibres for the year (3) from mid-April to May before making smaller follow-up purchases (8). Western manufacturers start with

an investigative trip to the sourcing locations (2) before also making their bulk fibre purchases (3,7) between May and October (5) and storing their shipped fibres in EU-based warehouses (4).

Table 4. 9: Processed fibre buying.

No	Details	Interviewees
1	Mongolian manufacturers begin by sourcing specialist chemicals from the UK to produce products that meet the luxury standard.	ManufacturerSM3
2	Western manufacturers begin making investigative trips to sourcing locations and gathering information about prices and volumes from contacts.	ManufacturerRetailerCU3
3	Asian and Western manufacturers buy processed fibres using "guesstimates" to calculate what they might need for the year and then look to top up based on how fibre prices and demand vary.	ManufacturerSM3; ManufacturerWU3
4	Once EU manufacturers receive their fibres, they store them in bonded warehouses and use trucks to deliver them weekly to their mills.	ManufacturerRetailerCU3
5	For Western manufacturers, fibre buying is done between May and October.	ManufacturerRetailerSU3; ManufacturerRetailerCU3
6	and peaks between August and September or March and June, depending on whether a firm is a specialist or an integrated spinner knitter.	ManufacturerTU3; ManufacturerRetailerCU3
7	Western manufacturers also negotiate monthly contracts at the end of each year for the following year. Therefore, the stocks should already be in the EU and Asian warehouses, ready for trading, and the fibres should arrive in the Western ports one year after they are combed.	ManufacturerWU3
8	Asian manufacturers do most of their buying from mid-April to May and follow up with top-ups as and when required.	ManufacturerSM3

A manufacturer describes the negotiation process for Western fibre buyers:

"Typically, we would negotiate a contract at the end of the year for the following year, but the fibre we buy is already harvested. So, the spinners will base their prices on stock already in warehouses in Mongolia, China, and possibly Europe. It's pretty slow, so it won't arrive in our mill until typically a year after it has been combed" (ManufacturerWU3).

The secondary data complemented the above by highlighting that EU manufacturers source 60-70% of their processed fibres from China, Mongolia and Afghanistan, with the remainder primarily bought from traders based in Italy (Towers et al., 2013). Table 4.10 details how the manufacturers carry out each activity, and its first column uses numbering to denote the different activity groupings. The table findings show that Western and Asian manufacturers typically focus on economies of scale to optimise their yields in the post-dyeing (1) and spinning processes (7,8). However, western spinners and manufacturers have traditionally produced for the premium consumer market only (5) to maintain six

months of fibres in their system to ensure consistency and manage sudden disruptions (6). There is a difference between Asian and Western manufacturing:

"The Chinese stuff is incredibly low grade. The Chinese buy stuff from Mongolia and Afghanistan, mix it, and then develop common quality standards. And then they use it for manufacturing cheap, low cost or competitively priced cashmere" (ExpertKA5)

Like Mongolian processing (section 4.1.1.3), interviewees felt their manufacturing could have been suboptimal due to poor factory layouts and fibre contamination:

"They are organised in bizarre ways that take fibre from one side of the factories, processing it, dye it on the other side and spin in the middle" (WholesalerI4)

Table 4. 10: Manufacturer processes

No		Details	Source
1	Dye	EU manufacturers use fully computerised stock dyeing processes to achieve perfect and consistent colouring every time, using 500-700 kg batches for dyeing popular colours and smaller batches for sampling.	TraderMM2; ManufacturerRetailerCU3; ManufacturerTU3; ExpertLA5
2	Dry	Fibres are dried using automated radio frequency drying machines to avoid over- or under-drying before being bagged to prevent cross-contamination.	ManufacturerRetailerCU3; ManufacturerTU3
3	Card and Rove	Fibres are reorientated for felting, a process that involves a series of big rollers that constantly open the fibre until it reaches the end, where it starts to parallelise fibres before roving to form weak individual strands.	ExpertLA5
4	Spin	Western and Asian manufacturers demonstrate specialist spinning knowledge by blending different fibre qualities to achieve specific performances.	TraderProcessorLA2; ManufacturerRetailerCU3; ExpertLA5
5		To produce a ridged structure with a soft feel, spinners combine fibres of different origins by inserting the strands twice for tensile strength to form coloured yarns for knitting and weaving.	TraderProcessorLA2; ExpertLA5
6		Products for the luxury end are always spun in the West and in-house by the manufacturers and outsourced to specialists in the UK and Italy.	ManufacturerRetailerCU3; ManufacturerWU3; ManufacturerRetailerSU3
7		Moreover, EU spinners consistently keep up to 6 months of fibre capacity in the system at any time.	ManufacturerWU3; ManufacturerRetailerSU3
8		For efficiency, Mongolia mills spin fibres in 50-200kg batches to minimise wastage. 50kg batches offer 88% yields, and 200kg provides a 97% yield.	ManufacturerSM3
9		"During spinning, where the spinning lines are not clean enough, they can spin the yak next to the cashmere in the same room."	WholesalerG4
10	Knit and Weave	Sixth is the knitting and weaving process, where EU manufacturers use specialist machines and skills to produce fully fashioned panels that are then assembled for improved efficiency.	ManufacturerRetailerSU3

Table 4.11 details the trading process between manufacturers and their customers, including downstream wholesalers and retailers. Its first column uses numbering to denote its main activities. The table findings show that Western and Asian businesses in the West produce and supply cashmere products to their customers between January and June (2,7). However, they kept producing until August and still met the September deadline for getting the cashmere products into the retail stores on time (1-3,5,8). Anything made after is marked for the following September (6). Asian manufacturers are less responsive, and Western customers must place orders from March to July for September deadlines (9).

Table 4. 11: Manufacturer perspective on trades with customers

No		Details	Sources
1		Manufacturers work with 4-6-week lead times for bulk production before the fibres are used in different batches at different rates.	TraderMM2; TraderProcessorLA2; ManufacturerTU3; ManufacturerRetailerCU3
2	firms	Spinning begins in October and January and ends in May and June.	TraderProcessorLA2; TraderMM2; ManufacturerSM3
3	Western firms	Manufacturers supply customers between June and September. They maintain long-term contracts, which they work slowly over the year.	ManufacturerWU3; ManufacturerRetailerCU3
4		EU can run into June to August to meet the September cut-off.	ExpertLA5; ExpertJM5; ExpertBC5; ExpertFG5
5		Items produced by Western manufacturers over November-December are sold during the following August-September times for December.	TraderProcessorLA2
6		Chinese firms supply to Western customers between May and June.	ExpertBC5
7	SU	Mongolian spinners work with shorter lead times, 2-3 weeks, and produce 300-400 units in another 2-3 weeks.	ManufacturerSM3
8	Asian firms	Asia-based wholesalers deliver by August- October to ensure stock is in retail for the holiday sales from September onwards.	WholesalerBC4
9	¥	Asian manufacturers maintain two windows for customer orders. For May-September deliveries, orders are placed by March, June, and July.	ManufacturerSM3; WholesalerBC4; ExpertBC5

The secondary expanded on the above insights by adding that more than 85% of exported cashmere products are Chinese original equipment manufacturing (OEM) exports for retail under foreign brand names in Italy and Scotland (McEwen, 2011). However, Italy and Scotland remain the traditional homes of the premium luxury market (Baldwin, 201).

4.1.1.5 Wholesale and Retail

Table 4.12 shows that the wholesale and retail processes involve design, prototyping, and trading, and its first column uses numbering to denote the different activity groupings. The table findings show that bigger businesses use past designs to inspire customers to pick future orders by May for August deliveries (2) by developing technical files (6,7). Alternatively, smaller wholesalers should have designs for Asian manufacturers by January and August (3). Regarding the prototyping process, businesses take 2 or 3 rounds of sampling to the product right (6) over 5 to 6 months (8) but can lag up to a year (9). However, Western firms usually have different lines, can produce core products over two years, and have quick collections for one month (10,11).

Table 4. 12: Design and prototyping

No		Details	Source
1		Depending on the value chain structure, retailers design processes or consult suppliers, such as manufacturers or wholesalers.	WholesalerBC4
2	processes	Chinese wholesalers attract customers' interest in previous designs with annual adjustments in October and expect orders between March and May. These products arrive in the West in a month, around late August.	
3	Design proce	The smaller EU and US-based wholesalers submit their orders to Asian manufacturers in January. Deliveries arrive from Asia in March and then again in August, with deliveries arriving in October.	WholesalerI4
4	D	For Asian retailers, the winter NPD process is completed in six months, every year from April-May until October-November, with finalised prototypes.	TraderProcessorBM2
5		Chinese wholesaler design processes vary between October and January.	WholesalerBC4
6		Businesses assemble technical files before specific manufacturers are commissioned to produce samples over two or three rounds.	WholesalerG4; WholesalerBC4
7		Smaller wholesalers try to keep their products standardised and straightforward to avoid the need for too much sampling or miscommunications with their suppliers.	WholesalerG4
8	ping	Small Western wholesalers spend 5-6 months perfecting samples (January-March).	Wholesaleri4
9	Prototyping	This can be one year in extreme cases, depending on the complexity and urgency.	WholesalerG4
10		Western retailer design teams work two years in advance for core products (from drawing board to retail) and can complete more specialised orders in one month.	ManufacturerRetailerCU 3
11		Western retailers must finalise the main winter collections for production between January and June.	ExpertLA5

Table 4.13 details the trading process between retailers and their customers, and its first column uses numbering to denote its main activities. The table findings show retailers begin finalising their orders by March-July (1). Depending on whether their suppliers are Asia-based or West-based, their orders must be put in by either March to July (2) or August time (3) to meet the September deadline (3,4,5). Once in the retail stores, the firms have a 3-month window to see the products before introducing discounts (6).

The secondary data further confirmed the need for a 2-3-month lead time to get products from Asia (specifically China) to the West (Waldron et al., 2011). Secondly, the data confirmed the limited retail window and the significant negative consequences of potential late deliveries for retailers (Towers et al., 2013). Finally, in contrast to the primary data, the secondary data identifies an 8-month end-to-end business cycle rather than 18 months (ibid).

Table 4. 13: Retailer perspective on trading with customers

No	Details	Source
1	Asian manufacturers and Western retailers or wholesalers trading, Chinese wholesalers and Western customers begin discussing orders from March to July.	WholesalerBC4
2	Asian manufacturers typically have two windows for Western customer order placements, including peak and off-peak ordering. Customers who want deliveries for the peak May-September window must place orders between March and July to give the manufacturers a 2-3-month lead time.	ManufacturerSM3; WholesalerBC4; ExpertBC5
3	EU can run into June to August to meet the September cut-off.	ExpertLA5; ExpertJM5; ExpertBC5; ExpertFG5
4	This is because the peak production period for Chinese manufacturers occurs between August and September, which should be avoided.	WholesalerBC4
5	Retailers must get their products into the stores by August-October to benefit from the run-up to peak Christmas sales.	ManufacturerRetailerCU3; ManufacturerRetailerSU3; ManufacturerTU3; ManufacturerWU3; ManufacturerSM3; ExpertBC5
6	Once the products are in store, retailers usually have a 60-90-day window to sell full-price items before introducing soft discounts. One month after this, the 50-70% discount is introduced to make room for new stock.	ManufacturerSM3
7	The end-to-end cashmere value chain takes 18 months from fibre harvesting to final retailing.	TraderProcessorBM2; TraderProcessorLA2; ExpertLA5

4.1.2 Nature of Relationships

The data collection and coding processes identified that cashmere value chain businesses experience tactical, collaborative, and adversarial business relationships. These relationships are detailed in sections 4.1.2.1-4.1.2.3.

4.1.2.1 Tactical Relationships

Cashmere value chain actors adopt collaborative or adversarial relationships depending on the ability of each relationship type to maximise their firm-level value capture in different circumstances. Table 4.14 details the tactical nature of relationships, and its first column uses numbering to denote the different activity groupings. The table findings show that depending on retailer requirements, their upstream businesses adapt their business relationships to fit their strategic plans (1,2) by continuously updating their internal resources (3) and markets (4). This means businesses compete and collaborate with the same businesses over time, creating temporary relationship formations and breakdowns (5,6). Furthermore, apart from the retailer, non-government organisations (NGOs) can also facilitate collaboration between partners (7). Therefore, the relationships are tactical.

Table 4. 14: Opportunity for business-based tactical relationships

No	Details	Sources
1	Downstream businesses feel that retailer demand drives all business relationships and must adjust to opportunities that arise from this.	ManufacturerWU3; ManufacturerTU3
2	Firms periodically switch business partners to capture the various business opportunities that arise, also called opportunity business.	ManufacturerWU3; ManufacturerTU3; WholesalerBC4; ExpertFG5
3	Chinese wholesalers continuously update their supplier portfolios to ensure access to a range of suppliers with the latest technology and to fulfil orders for optimal benefit.	WholesalerBC4
4	Small Western wholesalers experience tactical behaviour from their customers, who "buy for a few years before stopping for a few years and then coming back."	WholesalerG4
5	Businesses compete and collaborate over time within the same and different stages of the value chains to fulfil specific opportunities.	TraderMM2
6	Cashmere business relationships are "a mixture of both competitive and collaborative relationships" to support the constant formation of "soft breakups" over time.	ExpertFG5
7	Non-government organisations can facilitate deliberate coordination between rival businesses using "advisory boards."	ExpertBC5

Overall, Table 4.14 findings suggest that price remains the main driver for business regardless of relationship quality, cashmere businesses are tactical:

"I can go to a nice Italian guy that I've known for the last 30 years, and he'll say, thank you very much, but you're \$5 too expensive" (TraderMM2)

"We're reluctant to look at others just because they're a dollar cheaper because they might walk away from contracts. Although once or twice a year I will see other people" (ManufacturerRetailerCU3)

"It's just our customer (who are a well-known brand) changed what they were selling, and we had to adjust" (ManufacturerWU3)

For additional quotes related to price over quality and opportunity business, see Appendix 4 (Table 4.4, quotes 1-4). The secondary data confirmed the cost-over-relationship quality that underpins the modern cashmere industry relationship by describing it as "informal", "unstructured," and "cost-focused" due to the challenging trading environment (Towers et al., 2013, pp. 965-966).

4.1.2.2 Collaborative Relationships

Cashmere value chain actors adopt collaborative relationships when firms depend more on their partners to capture optimal value from business opportunities. The first column of Table 4.15 uses numbering to denote the different collaborative tactics that include direct (formal and informal) and indirect (proxy) networking. These are facilitated by unilateral trust-building actions (prepayments, partner support) and by fostering cultural synergies. The table findings show that collaborative relationships form when businesses are interdependent in addressing business opportunities. This is in line with the retailer requirements (1,2,3), depending on the scarcity of internal resources (5-7). The customer controls its supplier at each value chain stage (4).

Table 4. 15: Dependence

No		Details	Sources
1	Iriven	Traditionally, in cashmere and non-cashmere value chains, businesses are "driven by the retailers, and businesses wanted to fit in and be part of their bigger strategies".	ExpertPW5
2	Retailer driven	Herders, collectors, and local traders have good relationships because, without each other, they have the product and money to exchange.	ExpertKA5
3	R	In this vein, the interviewee feels that Western brands control the Chinese producers, and they control the herders to form a hierarchy.	WholesalerBC4
4		Manufacturers work with the traders and processors further down the chain to secure the otherwise scarce suitable quality suppliers.	ManufacturerRetailerCU3; ManufacturerWU3
5	rity	Even within the manufacturer's role, knitters/weavers rely on their spinners for specialist yarns, colours and consistent fibre quality to curb the risk of receiving contaminated fibres.	ManufacturerWU3; ManufacturerRetailerSU3
6	Scarcity	These downstream businesses also form relationships with non-cashmere actors like banks, whom they rely on to bolster their sourcing capability.	ManufacturerRetailerSU3
7		Due to a limited number of players within the cashmere industry, actors understand that if they behave opportunistically with a particular today, they might need to rely on the same businesses or people in the future.	ManufacturerTU3

The fear of repercussions of opportunistic behaviours makes business dependence self-regulate power within business relationships:

"People tend to move around in the same places. So, you might lose out with that brand now, but two years later, the person from the brand might be somewhere else" (ManufacturerTU3).

For additional detailed quotes for going native-related quotes, see Appendix 4 (Table 4.2, quotes 17-19). The secondary data further confirmed the third form of dependence, where downstream businesses rely on the same quality-assured supplier and give them orders to make the suppliers interdependent (Towers et al., 2013). Table 4.16 details the networking tactics, and its first column uses numbering to denote the different activity groupings. The table findings suggest that businesses collaborate with their direct value chain partners using formal and informal networking arrangements inside and outside the value chain (1-4) and proxy contacts further up or down the chain for indirect connections (5-8). Direct and indirect networking is used for improved learning capabilities (1-3), value chain visibility (5-8) and responsiveness to changing market conditions (3,6) by focusing on collective advantages. For additional networking-related quotes, see Appendix 4 (Table 4.2, quotes 1-5).

Table 4. 16: Networking: direct and indirect networks

No		Details	Sources
1	Jg	Herders rely on informal networking. Different herder communities have always met up, shared their thoughts and gut feelings, and used this as the "baseline they relied on" for negotiating prices.	HerderIM1
2	Direct networking	Collectors and Western wholesalers use formal and informal networking with local and national government officials and bank managers to improve data access.	CollectorBM1; WholesalerI4
3	Direc	These networks afford them improved responsiveness to the point of collecting "over 40 tons in less than two weeks."	CollectorBM1
4		This leads to opportunities for co-enhancing their product quality.	CollectorOM1
5	ies)	Businesses rely on information sharing from indirect contacts at critical points of value chains to improve visibility for downstream traders, wholesalers' manufacturers, and retailers.	TraderMM2; WholesalerI4; ManufacturerRetailerCU3
6	rking (proxies)	Collectors, traders and processors within Asian sourcing locations act as buying agents for downstream Western manufacturers and Chinese wholesalers.	WholesalerBC4
7	etwo	Independent traders use contacts to source location visits.	TraderMM2
8	Indirect networking	Western wholesalers and retailers act as buying agents who know their "quality policies very well, do the testing for, and give full visibility in that area."	ManufacturerRetailerCU3; WholesalerI4

Table 4.17 details the unilateral action tactics, and its first column uses numbering to denote the different activity groupings. The table findings show that cashmere businesses trigger collaborative arrangements with other firms using two unilateral action modes: prepayments and partner support. Prepayments are used by upstream collectors (1,2) and downstream traders (3,4) to fund the purchasing of raw and processed fibres to secure stock for their customers, thereby taking on the risk for them. Second, cashmere businesses use collaborative signalling or partner support to maintain their collective arrangements. This includes using transparency in trades, organising charity events (6), explicitly showing blind trust (7) and engaging in strategic buying to inflate the perceived value of the partners' resources (8). One interviewee observed the relationship between prepayments and instant goodwill building and collaboration: "This approach has been used for years because herders are trusted" (ExpertJM5).

Table 4. 17: Unilateral actions

No		Details	Sources
1		Upstream processors advance pay collectors for buying greasy cashmere from the herders to help them.	ManufacturerRetailerCU3
2	ents	Collectors (mainly Afghan and Mongolian) support herders through specific difficult times of the year when they are most financially vulnerable by prepaying them for fibres months before the harvesting season.	CollectorBM1; CollectorNM1b; ExpertKA5
3	Prepayments	Smaller Western wholesalers implement forward contracts for fibre with their supplier's raw fibre suppliers "through forward contracts and identify some of the most important links in the value chain."	Wholesaler14
4		The Western manufacturer praises their suppliers and states, "So the middle guy almost acts like a backup. So rather than us risking our money, he will risk his cash".	ManufacturerRetailerCU3
5		cashmere industry is underpinned by trust and honesty-orientated relationships and relies on verbal agreements rather than contracts.	ManufacturerRetailerCU3; ManufacturerTU3
6	oort	Collectors sometimes use multiple scales to show accuracy to the herder arranging charity events, including "food, support for funerals, presents handed to children on Children's Day".	CollectorBM1; CollectorNM1b
7	Partner support	Processors demonstrate trust and respect to their fibre suppliers. They buy their fibres without checking them because "if they check all cashmere from the herders, the herders don't like it." Instead, they rely on their relationships with local communities and understand regional qualities.	TraderProcessorBM2
8		Processors also disrupt the upstream market to benefit the herders by engaging in actions such as "buying the fibres at a higher price to make it hard for the Chinese to pay lower amounts" and benefiting the herders.	

For additional prepayment and partner support-related quotes, see Appendix 4 (Table 4.2, quotes 6-7 and 8-11). The secondary data confirmed prepayments as a collaborative tool to develop long-established formal or verbal contracts between the herders and collectors (Kerven and Toigonbaev, 2010; Bayartsogt, 2019). The secondary data expands partner support (Table 4.16, points 5-8) by identifying the "Loro Piana method" for improving Chinese processing (China Daily, 2016) (Appendix 4, Table 4.16).

Table 4.18 details how businesses use incremental trust-building to improve the quality of their collaborations. The table shows the upstream collector (1-3), processor (4-6) and downstream trader and wholesaler levels (7,8). Alternatively, businesses and NGOs also use well-trusted local proxies to instantly access high-trust relationships (9). The cultural fit between firms also influences their ability to form long-term collaborative relationships (10,11,12). The interviewees reiterated the value of cultural fits for collaborative arrangements:

"If I go to an Italian customer, I've got a better chance of selling than a Chinese guy that's walking down the street" (TraderMM2)

"We don't work with many businesses because just the character fit, and the personality wasn't right for us. You do business with people you like you trust and who deliver super high-quality product" (Wholesalerl4)

Building on the fact that international NGOs in cashmere sourcing locations use local people to communicate with local businesses (Table 4.16, point 9), the following interviewee's comment also provided further insights into understanding how proxy contacts are used in practice for instant access to trust building:

"You have the farmers who don't answer you because why should they do it? If just an auditing company goes there and we, for example, go to the farms, we always have somebody local, like the cashmere producers or buyers, joining the auditors because that creates trust on the farmer side" (ExpertBC5).

Table 4. 18: Synergy building

No		Details	Sources
1		Collectors feel that their success relies on long relationships with the herding communities to which they belong.	CollectorOM1
2		They also rely on positive customer referrals for future business.	CollectorBM1; CollectorNM1b
3		Collector relationships typically range from 15-16 years to over 20 years.	CollectorNM1b; CollectorOM1
4	sd	Local processors rely on their experiences as herders and collectors to exploit these relationships and source the best-quality fibres.	TraderProcessorBM2
5	Long term relationships	Asia-based Western processors feel they have developed collaborative arrangements by maintaining a long-term presence in the country and slowly gaining familiarity with the locals, eventually leading to trust.	TraderProcessorLA2; TraderProcessorWM2; ExpertPW5
6	ng ter	For traders and processors, these range from 10 to 27 years.	TraderProcessorBM2
7	Lor	In the downstream, Western traders (customers of Asian processors) also highlight how their suppliers, at times, are "quite Westernised" and show empathy when their home government cause trade disruptions by referring to them as "the bloody Chinese."	TraderMM2
8		Bigger Chinese wholesalers range from 15 to 30 years.	WholesalerBC4
9		NGOs working in Asian sourcing locations always have somebody local with them during audits for credibility and to create trust .	ExpertBC5
10		Downstream EU manufacturers (private family businesses) form closer relationships, offer extra customer support, and share a culture.	ManufacturerRetailerSU3; ManufacturerTU3
11	Cultural fits	Western wholesalers prefer to have "personality fits" with suppliers and like them to "speak English to circumvent potential language barriers.	WholesalerI4; WholesalerG4
12	0	Big Chinese wholesalers use culture-specific account managers to cater to customer needs through online, face-to-face, and telephone communications.	WholesalerBC4

For additional quotes related to cultural synergy, see Appendix 4 (Table 4.1, quotes 10-15 and Table 4.2, quotes 3,4, 14,16). The secondary data reinforced the value of cultural fits to long-term relationship building with the example of how, despite government efforts to cut out the intermediaries to improve herder payoffs, this has proven difficult because "many herders and brokers are related, while others have trading histories going back decades" (Bayartsogt, 2019).

4.1.2.3 Adversarial/Competitive Relationships

Cashmere value chain actors adopt adversarial or competitive relationships when less dependent on their partners to capture optimal value from business opportunities. Table 4.19 shows that adversarial cultural traits lead to the formation of adversarial business relationships, and its first column uses numbering to denote the different activity groupings. The table findings show shows that the cashmere value chains are riddled with cultural clashes that inhibit collaboration and facilitate competitive behaviour justified by nationalism (1,2), conflicts between diverse cultural business practices (3) in terms of critical thinking (4), opportunism (5,6) and ability to adapt over time (7). In contrast to the firm-level cultural clashes, cashmere firms share a common tradition of control. Firms from the West (8,9) and Asia (10,11) aim for control rather than collaboration to manage their value chains.

Table 4. 19: Negative Industry Culture

No		Details	Sources
1		Herders and collectors are nationalists and prefer to sell to local customers but cannot because of their economic dependence on Chinese customers.	CollectorBM1; CollectorNM1b; HerderSM1
2		Chinese firms are nationalist and hesitate to work with non-Chinese firms. "Germans and British people are coming in, and they want to tell us how to do this business better. We have done it the last hundred years."	ExpertBC5
3	lashes	Mongolia has a multicultural market, with people from China, Japan, Russia, Ukraine, Cambodia, the EU, and the US, applying their traditional business practices, sometimes contradicting each other.	WholesalerI4
4	Culture clashes	Western customers feel that some Mongolian businesses maintain an individualistic mindset and need critical skills to facilitate collaboration.	WholesalerI4; WholesalerG4
5	O	Chinese businesses as "Greedy", "bad managers", and "a little bit cheap."	TraderProcessorLA2
6		Chinese firms are also criticised for processing and trading Afghan fibres without admitting their origins, which leaves the Afghans resentful and feeling like "they are losing their identity."	ExpertKA5
7		The Afghan industry is "hardwired" to comply and even protect their unfavourable tradition of supplying China with raw fibres. "This is because the people, traders, their mentality about this is not the best, they want their traditions to continue".	ProcessorJA2
8	lc	Historically, three or four big Western businesses gained control over global fibre supply by putting everyone else out of business and leveraging the market at "the expense of their reputation".	TraderMM2; ExpertPW5
9	of contro	Western firms "carved up the industry between them until the late 80s" and controlled the prices throughout to make costs highly predictable.	TraderMM2
10	Tradition of control	Chinese businesses now monopolies global raw fibre processing and take advantage of this position through unfair practices.	ExpertLA5; ExpertRA5
11	Tr	China is wiping out the EU industry to establish its end-to-end control.	ExpertFG5; ExpertLA5

Three interviewee testimonies further capture the impact of the cultural clashes, the intensity of dislike and dependence of Afghan and Mongolian suppliers and Western customers on Chinese businesses:

"The Chinese are very clever; they know their face is unwelcome. So, they will align with agents in Afghanistan and Mongolia. The Mongolians hate them and have hated them for years. So, seeing a Chinese would prevent a herder and make them think. I'd rather eat it than sell it to you" (ExpertLA5).

"We knew we could trust the Mongolians, and we also knew we could never trust the Chinese" (ExpertLA5).

"We sometimes talk between us about why we don't sell some fibre to local companies even if they are a little shorter than Chinese price. After all, we need to think about the interests of our own country first. We worry about our country's interest, too" (HerderSM1).

Interviewees comment on their dealings with Mongolian suppliers also sum up their frustrations due to the diversity in their business practices:

"They are not problem solvers. Even if you ask a question, something out of the ordinary or not possible, they will not tell you and go silent. If you push further and sit with them, you always find a solution. Also, they are very closed in communication and never tell you their plans. It is not even about holidays; they announce holidays 2-3 days before" (WholesalerG4).

Three additional interviewees commented further on the tradition of control-based opportunism. The first two comments show common opportunist behaviours between American (US) and United Kingdom (UK) businesses' behaviour before and how Chinese firms behave today. The third shows businesses' uneasiness and adaption to this opportunism reality.

"To be fair, in 1977, there were 3 or 4 main traders in Europe and America. They all bought greasy fibre from Asia and Eastern Europe with d Mongolian cashmere from two or three different sources. Those three of four companies carved up the industry between them until the late 80s" (TraderMM2).

"The Chinese are greedy and bad managers who just copy other people. They try to wipe out their international competitors before fighting it out amongst themselves" (TraderProcessorLA2).

"Manufacturers need to ensure they do not depend on any one customer for more than 5% of their business because they can end the relationship at any time without any reason" (ManufacturerRetailerSU3).

For additional information on culture clash-related quotes, see Appendix 4 (Table 4.3, quotes 1-9). The secondary data confirmed the existence of the cultural and structural lock-ins within the Mongolian herder population. In this context, herders appear happy and even protect the existing system, where they gain sub-optimal payoffs:

"Another local auction at Shine-Jinst, south of Bayantsagaan, was scrapped in 2017 after frustrated herders beat up a local governor as anger about persistent low prices spilt over into violence" (Bayartsogt, 2019).

The secondary data also confirmed how Western firms bought and controlled Chinese raw cashmere supplies (Brown, 1995; Pepinster, 1995). It also confirmed that China slowly increased its end-to-end control of the global value chain by engaging in reciprocal "tit for tat" competitive behaviours from the 1980s onwards (Brown, 1995, p.84; Waldron et al., 2011).

The secondary data identified that the Kashmir cashmere industry "began around the 13th century" (Håkansson, 2022). Like the West and now China, until 1870, Kashmir enjoyed end-to-end control over the global cashmere shawl industry (Bairoch and Levy-Leboyer, 1981; Maskiell, 2002; Krosofsky, 2021). Like China now, the Western firms engaged in competitive behaviours that included the following: exporting Indian raw materials to feed British factories at no cost to Britain, soldiers smashing the looms of Indian artisans and placing 70-80% tariffs on Indian exports to Britain; exporting back UK branded retail goods to India at prices well below what already the poorly paid local artisan could offer; flooding the UK with cheap replicas of the Kashmir shawl; squeezed out all other foreign buyers to establish a monopoly over the supply and demand (Bolts, 1772; Wilson, 2016). One secondary source described these as British slave supply chains:

"They decided the terms of trade to their advantage and cut off the export markets for Indian textiles, interrupting long-standing independent trading link" (Tharoor, 2016, p.22).

For additional culture clash-related quotes, see Appendix 4 (Table 4.3, quotes 10-11). Building on section 4.7.2.4, the secondary data provided evidence of Chinese businesses adopting opportunistic business practices with examples of how they used their relationships with UK and Japanese customers to access their technologies, build up their local industry and establish end-to-end control (Waldron et al., 2011). The secondary data also went further back into the past to show that Western businesses also adopted this same approach to similarly extract the unprotected dehairing processes from their Kashmiri partners to perfect the automated dehairing machine (Kozlowski and Mackiewicz, 2020).

Table 4.20 clarifies that businesses engage in adversarial relationships by adapting their dependence and ability to manipulate the visibility levels of their business environments. The first column of this table uses numbering to denote the different activity groupings. It shows that the cashmere industry experiences naturally low visibility (1-4) because their value chains are linearly connected and have low communication (5-7). This lack of visibility forces businesses to be more protective of their internal resource because they fear their partners could try to extract the resources they rely on for competitiveness (8-10). Therefore,

businesses engage in low-risk and reward opportunism or exploit partners without revealing their intentions to them. This research refers to this as covert opportunism (11-14). For example, some cashmere firms use low industry visibility to introduce proxy contacts (15,16). This shows that proxies are used in adversarial and collaborative relationships and only become adversarial if not disclosed to partners. Therefore, disclosed and undisclosed proxies link collaboration and adversarial relationships.

Table 4. 20: Naturally low visibility and covert opportunism

1 2 3 4 5	Unintended low visibility	The cashmere industry lacks visibility "due to cultural and logistical reasons". "Despite best efforts to understand it, it is difficult." For downstream businesses, "there is no way of being able to tell the facts or rumours apart." Even the big Chinese wholesalers only try to control their direct suppliers and "don't know what happens in the upstream." Each actor in the chain has multiple suppliers, so "it's not transparent at all, and it is difficult". Downstream businesses "don't understand it themselves." Upstream relationships, processing mills, big traders, local traders, collectors and herders link together linearly and "there are no broader communications."	ManufacturerWU3 ManufacturerRetailerCU3 WholesalerBC4 ExpertJM5 ExpertKA5; ExpertLA5
3 4 5 6	Unintended low visibility	Even the big Chinese wholesalers only try to control their direct suppliers and "don't know what happens in the upstream." Each actor in the chain has multiple suppliers, so "it's not transparent at all, and it is difficult". Downstream businesses "don't understand it themselves." Upstream relationships, processing mills, big traders, local traders, collectors	WholesalerBC4 ExpertJM5
5	Unintended low visibility	"don't know what happens in the upstream." Each actor in the chain has multiple suppliers, so "it's not transparent at all, and it is difficult". Downstream businesses "don't understand it themselves." Upstream relationships, processing mills, big traders, local traders, collectors	ExpertJM5
6	Unintended low vi	and it is difficult". Downstream businesses "don't understand it themselves." Upstream relationships, processing mills, big traders, local traders, collectors	•
6	Unintende		ExpertKA5; ExpertLA5
6	Ď		
7		Individual herders offer "very small scale" and feel "there is no real opportunity for any scalable relationships."	ManufacturerRetailerCU3
		Western manufacturers maintain little to no buying or relationship with the herders and instead rely on Chinese supply.	ManufacturerSM3
8	netry	Mongolian herders and collectors agree that collectors use tampered scales to underpay herders "without the herders ever knowing".	CollectorBM1; HerderIM1
9	on symn	Cashmere actors have closed communications with external entities to ensure no one takes their resources.	ExpertPW5; ExpertKA5
10	Information symmetry	Herders feel that they have traditionally been "cheated" because their trades with collectors were always "blurry, so when it is like that, there is always a way to defend themselves".	HerderlM1
11		Mongolian herders also feel uneasy with Chinese businesses further down the chain cutting out their contribution by "mixing Mongolian fibres with poor quality Chinese cashmere" and rebranding them as Chinese cashmere.	HerderSM1
12	_	Herders and collectors also feel their customers behave opportunistically and use similar tampered scales to underpay them.	CollectorBM1
13	ortunism	Mongolian processors complain that some suppliers "sometimes put sunflower oil and sand to increase the weight."	TraderProcessorBM2
14	Covert opportunism	Afghan-based processor highlights that some collectors "try and hide things" within the bails to increase the weight.	TraderProcessorLA2
	Ő	Herders feel customer relationships are only sometimes genuine because Chinese businesses outsource to undisclosed local proxy agents.	HerderlM1
16	•	Chinese use proxies and are reluctant to trade directly in Mongolia and Afghanistan because the local populations dislike them.	ExpertKA5; ExpertLA5; ExpertJM5

The following interviewee quotes capture the essence of naturally low visibility settings and how businesses exploit them for covert opportunism:

"Growers get the least amount and don't know where the fibres go and don't get any of the information after that. So, they don't really have any information apart from the price points and quality" (HerderSZ1)

"Over 40 years, five guys controlled the Afghan/ Iranian cashmere. The herders had no idea what this stuff that fell off the goats was, so these guys stepped in like Messiahs, saying they would give you a dollar and themselves made \$5-10/kg" (ExpertLA5).

For additional silo thinking and information asymmetry quotes, see Appendix 4 (Table 4.3, quotes 17-20 and 21-23). The secondary data confirmed cashmere value chains as complex, inefficient, and underpinned by "limited standards", making opportunism more likely (Ishrat et al., 2018, p.124). This point is further reiterated by the following interviewee insights into their experiences with the cashmere value chains:

"Cashmere value chains have unclear boundaries, nonlinear and unpredictable in directions" (Danka, 2017, p.2)

"Scattered nomadic herders connected to the chain through middlemen purchasing agents and only fibre processors have some limited upstream visibility" (Archer, 2019, p.10).

"Rickety, Rube Goldberg-like supply chains, where yokes family herders to small processing centres and then to foreign mills with little connection to the herders halfway across the world" (Ellwood, 2020).

The secondary data also confirmed the presence of significant information asymmetries within the herder-collector or trader relationships (Ariunchimeg, 2017). The herders have little to no market information (Ansari-Renani et al., 2013) and feel that they have no choice but to sell their fibres at the prices given to them by the collectors (Kerven and Toigonbaev, 2010; Ariunchimeg, 2017).

Table 4.21 details how cashmere businesses exploit naturally low visibility levels within their environments to improve their relative bargaining power. The first column uses numbering to denote the different activity groupings. It shows that businesses gain the ability to deliberately lower the visibility levels of their business environments further to protect their internal resources (1,2) and

enhance their opportunism by selecting highly controllable partners (3,4,5). Once these two elements are in place, businesses can engage in low-risk, high-reward opportunism without fear of their partners finding out (6-9). This research refers to overt opportunism and power consolidation as overlapping processes.

Table 4. 21: Deliberately lowered visibility, overt opportunism.

No		Details	Sources
1	m	Smaller Western wholesalers feel that their Mongolian suppliers largely keep them in the dark and think that the Chinese businesses do a better job in this respect.	
2	Protectionism	J. Dawsons "reputationally struggled" due to their "paranoia" protective attitude towards their mechanical dehairing competency (ExpertPW5). This involves prohibiting access for customers who would "buy from them regularly and go to drop off samples but could not get in or see the machinery because it was a secret."	ExpertPW5; TraderMM2
3	ıers	"Businesses need control over their supply chains to manage and minimise risks."	ExpertFG5
4	Selective partners	Value chains are generally controlled by the customer in each transaction, returning to the EU firms that set the market prices.	ExpertKA5
5	Selecti	This gives the customers at each stage the power to "dump all the issues" backwards onto their suppliers to minimise personal risks at the suppliers' expense.	ExpertFG5
6	on	"In the corner over a barrel" and take advantage of the EU spinning over capacity to force prices down to "see how you survive and how low will you go."	ManufacturerTU 3
7	consolidati	Double their prices even if only one of their input factors goes up, condition customers to buy some of their poorer-performing products, and ask customers to fund fibre processing for them but still pay the same price.	WholesalerI4
8	Overt opportunism, consolidation	Every time a customer leaves, Mongolian suppliers increase their prices to make the difference. They even set their prices in US dollars but ask for payment on Mongolian Tugriks to protect themselves at the customer's expense.	WholesalerG4
9	Overt op	Chinese opportunism in the form of incomplete or contaminated fibre supplies: They previously remember Chinese suppliers "putting water and sugar onto the greasy fibre and then throwing sand on it", and many buyers "getting their fingers burned."	TraderMM2

The following interviewee sees selective partnering and controllable relationships as a positive, to broadly support deliberately reducing partner visibility, covert and overt opportunism:

"The relationships were temporary, momentary. We wouldn't have precise information, so we wouldn't know if we were cheated and how much the right information is. So, it was blurry. So, when it is like that, there is always a way to defend themselves. They can say no, this is because of this and that. It was always uncomfortable and tense, and we were always suspicious" (HerderIM1).

"Our suppliers are more important to us than our customers because they have been with us for longer, and we are in control of that business, whereas our customers control us in that same way" (ManufacturerWU3).

For additional quotes related to protectionism, selective partnering, and competitive learning, see Appendix 4 (Table 4.3, quotes 12-16). The secondary data further confirmed selective partnering to build controllable relationships by identifying traders and collectors using their bargaining power to create "a cycle of equilibrium" (Ariunchimeg, 2017, p.41). In this context, herders are taken advantage of and are forced to accept poorer margins over time (Ansari-Renani et al., 2013; Ariunchimeg, 2017). This requires establishing favourable long-term trading conditions using verbal and contractual agreements (Krishna et al., 2014; Kerven and Toigonbaev, 2014). Furthermore, the collectors become very "hardnosed" in negotiations to take advantage of their power through price fixing to optimise profits (Baldwin, 2016, p.14; Laukhuf, 2017). This negative use of power is further expressed by the following article quotes from a Mongolian herder:

"It is very unfortunate that our cashmere cannot be proudly sold on a global market as Mongolian cashmere, says Batmunkh" (Timmins, 2020).

The secondary data also found evidence of downstream overt opportunism where manufacturers believe their brand retailer customers unfairly make "10 times more money" (Waldron et al., 2011, p.18).

4.1.3 Value-Capture: Bargaining Power

The data collection and coding processes identified that cashmere value chain actors' bargaining power and value capture ability are determined by their relative competencies in branding, technical production skills, and collaborating and controlling their partners. These power sources' and relative value capture dynamics for the cashmere value chain are detailed in sections 4.1.3.1 to 4.1.3.5.

4.1.3.1 Branding

The findings revealed branding as a critical source of bargaining power for current Western and prospective Chinese brand retailers and manufacturers. Table 4.22 shows that this branding competency comprises the following three subcomponents, and its first column uses numbering to denote the different subcomponents' activity groupings.

Table 4. 22: Sources of brand-based bargaining power

No		Details	Sources
1		"European brands are already trusted internationally."	TraderProcessorBM2
2	ing:	EU brands provide consumers with "status, belonging and quality" values.	HerderSZ1
3	Heritage marketing	These intangible values "come with time."	TraderProcessorBM2; ExpertLA5
4	Heritag	Chinese businesses cannot enter this value chain stage because "there are no international Chinese brands."	TraderProcessorLA2
5		Herders develop high-quality fibres through specialist animal management practices, the strategic timing of herd movements, and harvesting.	Same as Table 4.1
6	eting	Western businesses associate themselves with various sustainability-related causes without providing evidence.	ExpertFG5
7	Deceptive marketing	Ethical sourcing from Mongolia, "but even in the best scenarios, they only export fibres and in most circumstances from inner-Mongolian fibres, which of course is Chinese."	WholesalerI4
8	Decel	Brands label their products as "made in Mongolia" when they are sourced from "inner Mongolia" or, in other words, China.	ManufacturerSM3
9	anding	Upstream Chinese processor businesses have traditionally removed the fibre associations with Mongolia and Afghanistan by not admitting to their origins. This leads to the "unbranding" or "commodification" of the fibres. In the next phase, they "rebrand" the fibres as lower-quality Chinese fibres.	ExpertKA5; ProcessorJA2; HerderSM1
10	Unbranding rebranding	Downstream, Chinese businesses buy Western brand retailers to instantly inherit sought-after brand values by "putting their overseas competition out of business before the Chinese buy them up."	TraderProcessorLA2
11	Unbra	Chinese businesses are also praised for understanding the value of remaining in the brand countries of origin to keep the values intact rather than offshoring production and for the importance of controlling their trademarks.	ManufacturerTU3; ExpertDW5
12	ges	Brand messaging becomes stronger depending on the actors' geographic proximity to the final consumers based in Western markets.	ExpertBC5; HerderSZ1
13	advantag	Downstream Western wholesalers believe they occupy a unique market and find it "inconceivable" that their partners would want their position.	Wholesaleri4
14	Positional advantages	When sourcing raw fibres from geographically dispersed herders, "you don't want to drive 10 hours back without making a deal".	ManufacturerWU3

Table 4.22 identifies the following three major components: First, heritage marketing, where long-term business efforts create positive associations between products and services and high quality, expertise and reputations (1-5). Second is deceptive marketing, in which businesses focus on the same goal as heritage marketing, using false advertising without evidence (6) and exploiting loopholes (7, 8). Third, the unbranding rebranding strategy (also see Table 4.19, point 11), where Chinese businesses commodify all non-Chinese raw fibres and rebrand them

as Chinese (9) and starve Western businesses of fibre supply to put them out of business and buy them to inherit their brand values instantly (10,11).

Whether a firm adopts a heritage of deceptive marketing, the unbranding rebranding strategy, or a mixture of all three, the research found that a firm's closeness to the final consumer influences its ability to communicate its brand values effectively using all three branding approaches, which it refers to as a positional advantage (12). Notably, scarcity-related positional advantages are related to moving more upstream (13,14) and are further discussed in section 4.2.1. The following three interviewee insights further emphasise how and why Western businesses maintain branding advantages over Chinese counterparts through heritage marketing, deceptive marketing and how value chain positions influence a firm's ability to engage in effective marketing communications:

"European brands are already trusted internationally. China is trying to develop a brand, but I don't know any Chinese brands. The world market is the same; they trust in European brands and not Chinese brands". To build trust takes time" (TraderProcessorBM2).

"It is unbelievable; people do not realise it. Loro Piana has been seen in Mongolia lately because they've spent much money and brought a film crew across to make this fantastic promotional video. They went into the Mongolian countryside for two weeks to make a promotional video. But the reality is the majority of Loro Piana cashmere comes from China" (ManufacturerSM3).

"I think the closer you are, the easier it becomes to communicate your story to them. Then, suppose you have a story that the consumer will value for some reason. In that case, they will be willing to pay more, which is the opportunity to differentiate yourself from a commodity channel" (HerderSZ1).

For the quotes related to the above-described heritage, deceptive marketing, and the unbranding rebranding strategy, see Appendix 4 (Table 4.5, quotes 1-6 and 7-8). The secondary data also confirmed heritage marketing as a source of power. In section 2.1, the marketing concept of heritage branding involves using unique histories without appearing outdated to build strong brand identities (Hakala et al., 2011). For example, sources highlighted that Western brand retailers take advantage of the brand power they have developed over "100s of years" to form high barriers to entry for new Chinese businesses for optimal value capture (Baldwin, 2016; Cook, 2021). This is like the Kashmir industry branded shawls

referred to as the "buta shawl", which was "worn by Iranian and Indian rulers to a luxurious garment highborn ladies wore to adorn themselves" (Krosofsky, 2021). Upstream herders' heritage could be marketed through their "traditions stretching back centuries" (Timmins, 2020).

Management literature describes deceptive marketing as false advertising or greenwashing, where customers are deliberately misled by businesses for improved payoffs (see section 2.1.2). The secondary data found Western brands making claims like "the process of treating raw materials with Scottish waters is impossible to recreate" (Gonsalves, 2014), which gives the cloth "next-level snugness" or that "Brits also knit the cloth tighter, which means it keeps its shape and pills less" (Cook, 2021). These points are not supported with evidence to justify deceptive marketing and are targeted at "sartorial romantics" who enjoy the "tales of what makes British cashmere special" (Cook, 2021). The secondary data also confirmed that the unbranding rebranding strategy (Table 4.10, points 9-11) is not new. In section 2.1.2, the marketing concept of rebranding which involves replacing an existing brand and its values with a new one that appeals to more or different customer segments (Muzellec and Lambkin, 2006). The secondary data also found that these tactics were previously used by Western businesses to discredit the Kashmiri branding competencies:

"Imitating the buta shawls using cotton and wool materials and imitating the buta print as the now famous "paisley print" (De-Weijer, 2007, p.7).

The secondary data also expanded the value of geographic locations upstream and downstream. This was done by highlighting that Mongolia and China have become the primary sourcing hubs for the luxury market segment of the international cashmere industry. This is because of their unique environmental conditions and access to the herders (Kerven and Toigonbaev, 2010; Laukhuf, 2017; Songwe and Magwan, 2003). Furthermore, "Cashmere still only makes up 0.5% of the world's total wool production" (Floyd and Shardlow, 2019). However, the herders still lack bargaining power due to low individual volumes (Waldron et al., 2011) and the collectors' government-based financial power (Economist, 1999).

4.1.3.2 Technical skills

The findings revealed technical skills as a second source of power-induced value capture. Table 4.23 shows the technical skills representing the tangible products and services underpinning branding, and its first column uses numbering to denote the different groupings of activities.

Table 4. 23: Sources of technical skill-based bargaining power

No		Details	Sources
1	4:	Western manufacturers are praised for innovative manufacturing techniques, including the world's first mechanical dehairing machines.	HerderSZ1; TraderMM2; TraderProcessorLA2; ExpertPW5
2	Design manufacture	Mongolian manufacturers have failed to enter the US market due to quality control problems associated with "regulation, so branding labelling, fire retardancy, and things like that are a problem."	WholesalerI4
3	esign ma	A typical spinning strategy is: "I will buy 15 different fibre types with 15 different price points and specifications for specific products."	ManufacturerRetailerCU3
4	۵	"These are tricks of the trade, and you're never really going to learn because that's the secret of their success."	TraderProcessorLA2
5	pə]-;	Product development takes one to two years to meet all their needs in dedicated workrooms for critical clients.	ManufacturerRetailerCU3
6	Client-led	Big Chinese wholesalers assign clients individual account managers to maintain complete visibility and monitoring of the design and production.	WholesalerBC4
7	t	Herders develop high-quality fibres through specialist animal management practices, the strategic timing of herd movements, and harvesting.	Same as Table 4.1
8	Fibre development	Mongolian businesses feel their fibres are "the longest natural and finest cashmere in the world."	ManufacturerSM3
9	a deve	Chinese businesses believe Chinese fibres are the most valuable.	TraderProcessorLA2
10	Fibr	Others feel that different fibres have their unique characteristics and uses.	ExpertKA5; ProcessorJA2; TraderProcessorLA2
11	Y;	Good processing capability could allow businesses to demonstrate higher cost efficiency with significantly higher yields.	TraderProcessorWM2
12	Production technology	J. Dawson previously used its technological advantage, which "gave them a monopoly to control the market."	ExpertPW5
13	ion te	Western firms have "old kit", and "some of it is 40 to 50 years old."	ManufacturerRetailerCU3
14	Product	"The Chinese will have more modern machinery; they lack our people's skills."	ManufacturerTU3

Table 4.23 shows that Western manufacturers' high-quality design, manufacturing, and customer service skills have traditionally acted as barriers to entry for Asian businesses trying to compete directly for this market share (1-5). However, Chinese wholesalers who bridge the issue between Asian manufacturers and

Western brand retailers now also demonstrate good customer service skills (6). The herders remain the gatekeepers of fibre quality development through their year-round efforts (7). However, the findings offered contradictory information regarding which countries produce the best fibres (8,9). Processing and manufacturing technology previously allowed the West to achieve market leadership and extract the highest value capture (10-12). Chinese firms have access to superior technology than Western firms (13,14).

Three interviewees further detailed why Western businesses maintain superior technical skills to their Chinese counterparts:

"Chinese items have a very ethnic look. So, they are not Louis Vuitton, Burberry or Aquascutum. They are not even the likes of Johnson of Elgin" (ExpertLA5)

"Western spinners "buy 15 different fibre types with 15 different price points and specifications for specific products" (ManufacturerRetailerCU3).

"Western manufacturers understand that key customers "want it to be right. So, for them, it must be perfect"; for these specialist clients, dedicated workspaces for product development are used, where "everything is hand checked to achieve the required quality levels. For these guys, the labels must be hand sewn" (ManufacturerRetailerCU3).

A fourth interviewee detailed why there has been a conflict among international fibre processing nations regarding how fibre quality should be graded and priced:

"Chinese members have proposed grading Cashmere, expecting the Chinese white cashmere to be defined as first grade. However, the different fibres and origins are suitable for different uses" (TraderProcessorLA2)

Finally, interviewees provided insights into how and why Chinese firms enjoy significant cost-efficiency and capacity advantages over Western counterparts:

"Chinese government incentives to invest in equipment have made them cutting edge. Before someone asked me, I would say it won't last the test of time. Ten years ago, it was like the difference between a Skoda and a Jag, but now their machines are as good as (if not better) things that are being built in the West.

So that has given them a decided edge" (ExpertLA5).

For additional quotes related to the design and manufacturing skills, fibre development and production technology, see Appendix 4 (Table 4.6, quotes 1-5, 6-8 and 9-10, respectively). The secondary data confirmed that Western businesses boost their brand value through complementary technical design and production skills. One article described their approach as:

"We're not all about castles and golf courses and shortbread; we're proud of our heritage, but we can't live in the past. Too many backwards-looking brands and factories just die" (Cook, 2021).

Another UK brand explained, "You can't replicate these techniques with modern equipment" (Cook, 2021), and despite charging more, Italian businesses dominate the high-end cashmere manufacturing processes (LeCraw, 2005) (Appendix 4, Tables 4.19). The secondary data also confirmed the upstream value of fibre development by suggesting that fibre value is determined by length and fineness (LeCraw, 2005), colour second (Baldwin, 2016; Ishrat et al., 2018; Kerven and Toigonbaev, 2010), and yield third (Ansari-Renani et al., 2013; Songwe and Magwan, 2003). However, the herders still need more bargaining power due to low individual volumes (Waldron et al., 2011).

4.1.3.3 Coordination

The findings revealed that effective coordination represents a third source of bargaining power and is achieved through the previously discussed collaborative relationship subcomponents of networking, unilateral actions, synergy building and dependence (section 4.1.2.2). One interviewee also highlighted that Mongolian processors often consolidate their power for collective raw fibre buying to match the buying capacity of large individual Chinese businesses (TraderProcessorBM2). Other respondents countered this argument:

"So, we are very close with the origin; it is kind of the strength of our group with local partners, so we have a mil there too, so they understand the cultural and social aspects much better than an outsider" (TraderProcessorWM2).

4.1.3.4 Control

The findings revealed that control over parts or all of the value chain represents a fourth source of bargaining power. Section 4.1.2.3 previously highlighted the role of the negative industry culture and the relationship between different visibility (naturally low, deliberately lowered) and opportunism levels (covert and overt). Table 4.23 highlights that a firm's ability to use opportunism to extract partner resources represents a source of increasing personal control. Its first column uses numbering to denote the different control process groupings. The table findings suggest businesses achieve control by using opportunistic learning for forward integration (1-3). As firms increase their opportunistic learning, they can reduce the resource scarcity and information asymmetries of others while improving them to benefit themselves (4-9). Regarding the shortage of downstream traders (10), an interviewee clarifies:

"We spend so much we put 45000 miles on our car last year driving all over and knocking on the doors of individual proprietor-owned businesses; it is inconceivable that any one of the Mongolian manufacturers would ever be able to invest that time and money to build the niche that we have" (Wholesalerl4).

For additional dependence and resource scarcity-related quotes, see Appendix 4 (Table 4.7, quotes 4-8). The secondary data confirmed China's reliance on control for bargaining power. Two companies process 20% of global fibres (Songwe and Magwan, 2003), and 85% of Chinese exports are OEMs for Western brands (McEwen, 2011). However, Chinese vertical integration does not correspond to improvements in their bargaining power (Waldron et al., 2011).

Table 4. 24: Sources of control-based bargaining power

No		Details	Sources
1	Opportunistic learning	China controls "60-80% of global fibre supply" and uses this fibre monopoly to control forward integration into fibre processing and manufacturing.	HerderSZ1
2	unistic	Chinese firms "don't play the game correctly, quite successful as a result."	TraderProcessorLA2
3	Opport	"The Chinese have no respect for people's intellectual property and copyright. They imitate things. They undermine them."	TraderProcessorLA2
4		Herder benefits from an abundance of collectors competing for the same limited volume of raw fibres. This leads to increased prices and "herders getting the best value."	TraderProcessorBM2; ManufacturerRetailerCU3
5		When sourcing raw fibres from geographically dispersed herders, "you don't want to drive 10 hours back without making a deal".	Table 4.10, point 13
6	/ledge	A few traders take advantage of their unique positions in Afghan value chains to control the upstream fibre trade.	ExpertRA5
7	Scarcity/Asymmetric knowledge	The Chinese industry "holds the purse strings" by controlling processed fibres and manipulating fibre prices depending on how much fibre they want to boost or drop the market at a given time.	ManufacturerRetailerSU3; TraderMM2; TraderProcessorLA2
8	//Asymr	China has developed its consumer market and reduced the supply to international buyers, introducing further scarcity over time.	TraderMM2
9	Scarcity	Herders and collectors feel their customers cheat them. Processors are improving upstream visibility, and downstream Western wholesalers feel Mongolian suppliers should be more forthcoming.	See section 4.1.2.3
10		Downstream Western wholesalers believe they occupy a unique market and see it as "inconceivable" that their suppliers or customers want to undertake their role.	Table 4.10-point 12

Table 4.24 also identified that elements influence the interrelationship between opportunistic learning and resource scarcity or information asymmetry, and its first column uses numbering to denote the different moderator groups. First is firm size and reputation, where the larger the size and reputation of a firm, the more effective their opportunistic learning ability (1-4). If competing firms have size and reputation, they will reduce each other's opportunistic learning ability (4). Second is government support, where the more government support given to a firm, the better its ability to exercise opportunistic learning and control (5-7). Regarding the complementary and contradictory role of firm size, reputation, and government support as determinants of control, interviewees provided the following explanations and insights:

"There is a difference if you are a big manufacturer supplying to a medium name or big retailer with smaller manufacturers. But if you're a medium supplier for a specific component, they must do what you want" (ExpertFG5).

We don't have that big factory to add value at this stage, but work is being done to build that capacity in the next four years" (ExpertJM5).

"I think it was because of the model that Gobi or Goyo implemented, and they are the big companies. They receive all the grants everything. They are incredibly inefficient. They don't work at all like it's not working, but they are the ones that are always put forward" (WholesalerG4).

Table 4. 25: Determinants of control-based power and value capture

No		Sources	
1		Bigger firms "can make money because they can control the market".	TraderMM2
2	Reputation	If bigger Chinese processors "want to push the price, they will push it, and everyone will follow".	
3	size and Repu	Large Mongolian firms take advantage of smaller Western wholesale customers by asking them to finance their fibre processing. They double product prices when one of their single input factors rises or a customer is lost, forcing customers to buy poorer-performing units to secure their desired orders.	Table 4.20, point 7
4	Firm	The reputation or brand value of the firm influences the size of the firm. As a business's reputation and brand value increase, its larger business partner will have less power and vice versa.	ExpertFG5; TraderMM2
5	,	Chinese growth has been underpinned by "very soft loans from the Chinese government to encourage them to build factories by machinery."	TraderMM2
6	/t support	Chinese businesses continue to receive "heavy subsidies" for building up their resources and "13-17% export tariff rebates" for international expansion.	ExpertLA5
7	Govt	Like China, the Mongolian "government tries to back Mongolian companies."	TraderMM2

Taking the points in Table 4.24 together, firm size and reputation contradict each other but remain sources of control. Government support positively influences competent firms' growth. However, it harms less competent firms that become complacent and rely on it exclusively for long-term competitiveness.

4.1.3.5 Relative Value Capture Dynamics

Table 4.26 revealed that cashmere value chain actors share little consensus regarding the fairness in the relative bargaining power and resource contributions they have and the value capture share they eventually receive. The first column of Table 4.25 uses numbering to denote the different groupings of activities. It shows that different cashmere value chain actors identify the brand retailers, (1,2) manufacturers (3), processors, (4) and herders (5) as possessing the highest relative bargaining power. Others deepen these contradictions by identifying that the herders (11,12) and collectors (13) have little power and control. The following justification was also provided to support herders as potentially the most powerful actors:

"The herders seem to have quite a bit of power. From what I understand, the herders have quite a lot of power, which may be related to the distances. So, if you have driven 10 hours out into the Mongolian grasslands to make a deal"

(ManufacturerWU3)

The above quote suggests that herders enjoy a unique geographic advantage they do not take advantage of in their negotiations with their customers. Another interviewee linked the bargaining power of brand retailers with manufacturers:

"Manufacturing is key because you've got to deliver a product to your customer in retail. As a retailer, they have got to have a product in store that can achieve the retail price. And a lot of that is done through marketing, etc."

(ManufacturerSM3).

For additional quotes related to bargaining power, see Appendix 4 (Table 4.8, quotes 1-14).

Table 4. 26: Relative bargaining power

No		Details	Sources
1		Brand retailers "always have the advantage over everyone."	TraderMM2
2		Brand retailers "have the money; they tend to be the most powerful."	ExpertFG5
3	Most	The manufacturers have the most bargaining power.	ManufacturerTU3; ExpertDW5
4		The big Chinese processors and manufacturers have the most power.	ExpertLA5
5		Probably, the herders have it. Whether they know it or not is another matter.	ManufacturerWU3
6		Chinese dehairers are second "because they control the market."	TraderMM2
7	2 nd most	Chinese wholesalers believe their business is the second most powerful because manufacturers depend on them for orders. "There are many manufacturers in China, and they are hungry for orders."	WholesalerBC4
8		Manufacturers have the second-most power. "Manufacturing is critical because you've got to deliver a product to your customer in retail.	ManufacturerSM3
9	most	Similarly, another interviewee added, to support the big trader claim, "The reality is if you're dealing with a company that sells the fibre, then they have bargaining power."	
10	3 rd	"Herders have something to some extent, but they are not a cohesive unit; they are all individuals."	TraderMM2
11	_	Herders lack power and "must take what comes to them."	ExpertKA5
12	none	Herder power is "fairly limited because they just want fast cash."	ManufacturerSM3
13	Little to none	Middlemen actors have no power and "just go with the flow."	TraderMM2

Table 4.27 also found a need for more consensus among the value chain actors regarding the relative value contributions made by each of the value chain actors to the final cashmere products. Its first column uses numbering to denote the information used to classify the value chain actors. The table findings identify that the brand retailers are the most significant contributors to the total value created across the value chain processes (1,2). They attribute their branding capabilities to creating value from nothing (3). Others dispute this by identifying the manufacturers (4,5) and a combination of the herders and collectors (7-9), citing that without their contributions, there would be no industry (7). Alternatively, processors and big traders are seen to make minimal contributions as they process the fibres and finance the purchases like they would for any other fibre type (12,13).

Regarding the low contributions of the fibre processors and non-spinner manufacturers (5,6), interviewees highlighted the following two key points:

"The Dehairs make a least critical contribution; you're only taking fibre and dehairing it, which these days are relatively easy. There is always a way to try and re-dehair or overcome any issues" (TraderMM2).

"A knitting machine is a knitting machine wherever in the world it is, but there is a lot more craft in spinning" (ManufacturerTU3).

Building on point 3 (Table 4.26), an interviewee highlights the degree to which brand retailers can generate value out of nothing:

"For a simple woven product, Loro Piana sells it for around \$2200-2400, while we might sell it for \$600-700. That difference is purely Loro Piana existing for 150 years, and admittedly producing an extremely high-quality product" (Wholesalerl4).

For additional quotes related to relative contributions, see Appendix 4 (Table 4.8, quotes 15-17). The secondary data found that some Chinese manufacturers contradicted the notion that Brand retailer branding capability is a significant value contributor:

"We are left to do the coolie work, and foreign salespeople stick on a brand and make more than ten times the money" (Waldron et al., 2011, pp.2-3).

Table 4. 27: Relative value contributions

No		Details	Sources
1		Brand retailers make the most valuable contribution.	ManufacturerWU3
2		The interviewees believe that brand retailers raise the perceived value of their products to allow them to charge premium pricing for their branded products.	TraderMM2; WholesalerI4; ExpertPW5; ExpertBC5
3		Brand retailers offer design insights that "create value from nothing."	ExpertPW5
4		Manufacturers (especially spinners) contribute most because "Combining the spinning, weaving, and finishing is still an art".	TraderMM2; ManufacturerSM3; ManufacturerTU3; ManufacturerRetailerSU3
5	Most	The knitting manufacturing process offers no value because it uses the same processes regardless of the fibre type or product.	ManufacturerTU3; ExpertBC5
6	~	Herders make the most significant contribution because they look after the goats all year round and use specialist skills to produce the required fibre quality.	CollectorNM1; ExpertJM5
7		Herders make the most significant contributions because their specialist knowledge is responsible for developing the quality fibres needed for the luxury end market.	HerderKM1
8		Collectors (along with herders) make the highest value contribution.	ExpertJM5; ExpertRA5
9		Herders are the second highest-value contributors.	ManufacturerWU3
10	most	Collectors make the second most contributions because of their effective communication to facilitate herders and Chinese trading.	TraderProcessorBM2
11	2 nd	Brand retailers are the second most valuable contributor.	ManufacturerSM3
12	one	Processors and big traders (often the same) make the most negligible value contributions because they do the same process regardless of fibre type. If they make a mistake, then it is easy to rectify.	TraderMM2
13	Little to none	The big traders make no contributions because "they add no value and just finance the fibre buying and selling".	ExpertKA5

Table 4.28 also found a need for consensus building among the value chain actors regarding the fairness of relative value shares each value actor attains from the value created by the value chain. Its first column uses numbering to denote the different groupings of activities. The table findings show that the brand retailers capture 30-75% of the total value created by the entire value chain (1-3). The wholesalers (where used) and manufacturers achieve the second most value capture with 15-20% of the total value (4,5). The processors allegedly get very little, only capturing 10% of the created value (6). Still, one of the herders who was an interview participant felt that the processors get above-average value capture (7).

Traders come next with a share of between 2-10% but make it up on volume (8). Collectors get double the 10% of herders, and both are argued to get the smallest value shares (9-12). See Appendix 4 for additional quotes (Table 4.9, quotes 3-4).

The following interviewee further stresses the dissatisfaction that the Chinese manufacturers feel regarding their value capture:

"We are left to do the coolie work, and foreign salespeople stick on a brand and make more than ten times the money." (Waldron et al., 2011, pp.2-3)

Table 4. 28: Relative value shares

No		Details	Sources
1		Western brand retailers extract the highest-value shares	TraderProcessorWM2; TraderMM2; ExpertFG5; ExpertJM5; ExpertKA5
2	Most	Brand retailers take 50-75% and a minimum of 30% of the total value created by the whole value chain.	ManufacturerRetailerSU3; ExpertDW5; ExpertBC5; ManufacturerSM3; WholesalerBC4
3		The downstream wholesalers and manufacturers feel retailers get 2-5 times the markup of whatever they pay them.	WholesalerG4; WholesalerG4; ExpertLA5
4	2 nd most	The wholesalers (where used) have the second most value shares with a 60% markup on whatever price they pay their supplier's manufacturers and take 15% of the total value created,	WholesalerG4; WholesalerBC4
5	2 nd	Manufacturers receive the second-largest value share, around 20%, and a minimum 15% markup on product production costs.	ExpertBC5; WholesalerBC4
6		Processors get 10% of the total value and rely on volume trading.	WholesalerBC4; ExpertJM5; WholesalerG4
7		Italian and Chinese processors achieve above-average margins by blending expensive Chinese fibres with cheaper Mongolian fibres.	TraderProcessorBM2
8		Traders receive 2% to around 10% of the value the value chain creates. Over the longer term, traders compensate for low volume margins.	ExpertDW5; WholesalerBC4; WholesalerG4
9	Least	Collectors feel they make extraordinarily little. Still, their customers sell the fibres to their customers at double the margin.	CollectorBM1
10	_	Collectors feel they pay the herders well, contradict the herders and feel they pay their herder suppliers fairly.	CollectorBM1; HerderSM1b
11		Herders also get around 10% of the total value. Others highlight that this is difficult to determine, but they need more.	ExpertBC5; ExpertFG5
12		Herders who feel they receive the smallest value share relative to the chain, and their value share is unfair.	HerderSZ1; HerderKM1; HerderSM1b HerderIM1

Table 4.29 also found that businesses benefit from significant indirect financial value gains that have yet to be covered in detail within the research. The first column uses numbering to denote the different groupings of activities. It shows that herders, apart from cashmere fibres, extract indirect value from trading in milk and meat (1). Chinese and Mongolian traders, processors and manufacturers gain significant indirect value capture from government incentives (2). Big Chinese businesses also use large social programs that benefit from economies of scale to give employees essential services (health, schooling, housing) and smaller wages to gain indirect value gains from cost minimisation (3). Mongolian processors process wools in their off-season (Nov-May) (4), and Western spinners similarly process small batches of fine wools for indirect financial value gains (5).

Table 4. 29: Indirect value capture

No	Details	Sources
1	Herders rely on indirect value streams like meat and milk trading for survival.	HerderSZ1; ExpertKA5; ManufacturerWU3
2	Larger Chinese and Mongolian companies benefit from indirect benefits like government grants to further supplement their total value capture.	WholesalerG4; ExpertLA5
3	Chinese businesses use cost minimisation and social programs to enhance their value shares.	ExpertLA5
4	Mongolian scouring ends in August or October- November. The wool is processed from November to May.	TraderProcessorBM2; TraderProcessorLA2; ManufacturerWU3
5	UK spinner manufacturers take small orders for super fine merino wool spinning for critical clients.	ManufacturerRetailerSU3

The following interviewee illustrated the indirect benefits:

"Cashmere is the main source of financial income for many of these people; they get a good and stable price for trading the fibres externally" (ManufacturerRetailerCU3).

"The Chinese factories build a community. Within the community, you'll have a place to live; your kids will have a place to be educated. There are doctors and dentists. Their salaries are unquestionably lower, but I might challenge that their disposable income is lower because they feed them at the end of the day. They get one, if not two meals, hot meals. They have a choice of good food. So, the social conditions are being taken care of. If you're an employee of one of these major companies, you're doing fine" (ExpertLA5).

Table 4.30 provides mixed results regarding the interviewees' views on fair value-sharing dynamics, and its first column uses numbering to denote the different groupings of activities. The table findings show that value chain actors feel the value-sharing dynamics are unfair because the contributions do not match value shares (1). This is because the brand retailer gains more than they put in (2), and the herders get too little (3-5). Alternatively, Western businesses feel that value sharing is fair because it is dictated by free market economics (6,7). At the same time, the herders' customers think that they pay the herders too much as it is (8,9).

Table 4. 30: Perceived fairness of value sharing

No		Details	Sources
1		Chinese and small Western wholesalers feel value sharing is generally unfair because "there is a bit of a mismatch between the effort you put in it, the risk you take, and the money you get out of it."	WholesalerG4; WholesalerBC4; WholesalerI4
2		Brand retailers gain unfair shares because they get more than they put in.	ManufacturerSM3; TraderMM2; WholesalerI4; WholesalerBC4
3	Unfair	Herders and collectors are unfairly paid less than they should. And are "suppressed" by the downstream.	ExpertLA5; ExpertRA5; ExpertKA5
4		The herders "do not have a great living standard."	TraderProcessorWM2
5		"Deep down, there is a feeling they are not getting what is due to them."	ExpertKA5
6		Western manufacturers and brand retailers feel value sharing is fair because the free market determines it.	ManufacturerWU3; ManufacturerRetailerCU3
7		Western traders feel businesses "need to roll with it unless it's a state organisation like the Chinese."	ExpertDW5
8	Fair	Asian manufacturers and processors feel herders get more than they should.	TraderProcessorBM2
9		"For me, the price of real cashmere is (many people will probably disagree with me) higher than it should be".	ManufacturerSM3

4.1.4 Summary of Research Objective 1

The findings identified distinct cashmere value chain characteristics and ineffectiveness in sections 4.1.1 to 4.1.3, summarised in Fig.4.1.

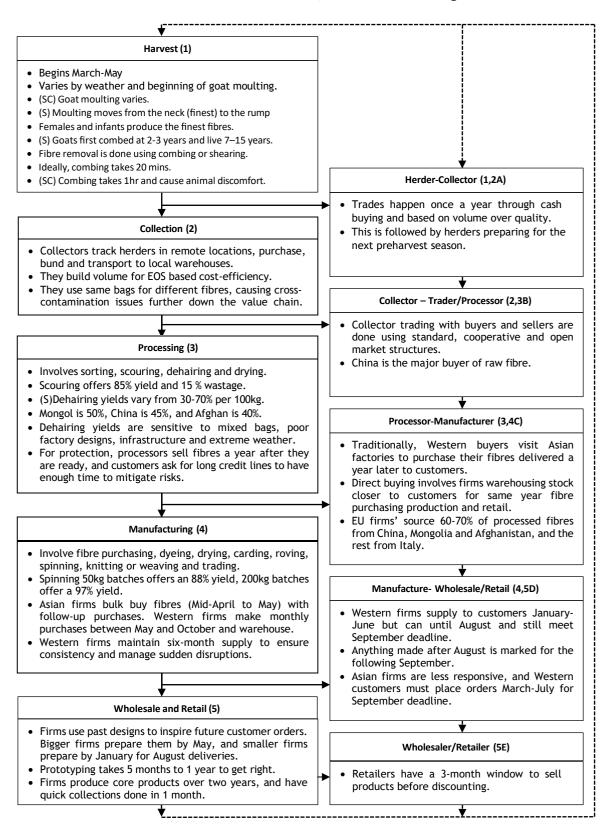


Fig 4. 1: Summary of the value chain processes.

Fig 4.1 shows that cashmere value chains are vulnerable to human and structural ineffectiveness. Human ineffectiveness refers to the mistake people can make that negatively impact the rest of the value chain. For example, herders can potentially mistime their fibre harvesting processes by combing or shearing goats before they moult. This increases the labour intensity, animal discomfort and duration from 20 minutes to 1 hour while reducing the fibre yield volume (component 1, point 8,9). Herders and collectors use the same bags to store and transport different animal fibres, creating the danger of significant crosscontamination further down the chain (component 2, point 3). Processing is a highly vulnerable process where the scouring and dehairing processes can lead to considerable wastage due to the influence of poor factory design, extreme weather, and power cuts (component 3, points 3-5). Manufacturing processes in Asia also sometimes require better factory designs to curb the influence of crosscontamination due to the raw fibre suppliers' use of mixed bags brought into the factories.

Structural ineffectiveness refers to the problems that have intentionally or unintentionally evolved in cashmere value chain structures. For example, herders must choose between selling their fibres to collectors independently (standard structure 1) or as a cooperative selling directly to big traders or processors (cooperative structure) (Fig.4.1, component 2B, point 1). Collectors can choose to either sell to traders and processors (standard structure 2) or directly to the manufacturers in an open market structure (auction structure) (Fig.4.1, component 2B, point 1). Processors wait for traders and manufacturers to visit and purchase the fibres to be shipped to their country the next year (standard structure 3). Alternatively, the processors ship and hold the fibres closer to the final customer location to offer a more responsive alternative for the final customers (warehousing structure) (Fig.4.1, component 3, points 1,2). Manufacturers have the choice of selling directly to retailers (standard structure 4) or selling to wholesalers, who then supply to the retailers (wholesaler/trader structure) (Fig.4.1, component 5B, points 1).

Together, standard structures 1, 2, and 3 represent ineffective trading options due to the presence of intermediaries. The cooperative, auction, warehouse, and standard structure 4 are more streamlined and efficient value chain structures. The trading structures are summarised in Fig 4.2.

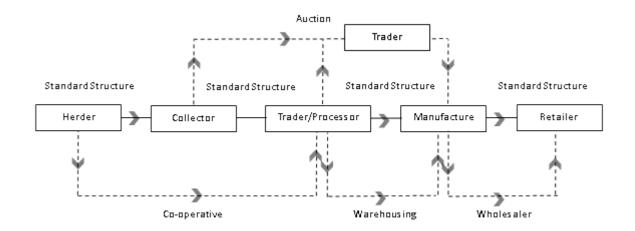


Fig 4. 2: Alternative trading structures

Cashmere industry business relationships are often tactical. Sections 4.1.2 and 4.1.3 showed that business relationships change depending on opportunities that reflect the requirements of retailers. Businesses compete and collaborate with the same firms over time using temporary relationships, depending on the scope for value capture. The findings identified four power-based value capture sources: branding, technical skill, coordination, and control (sections 4.1.3).

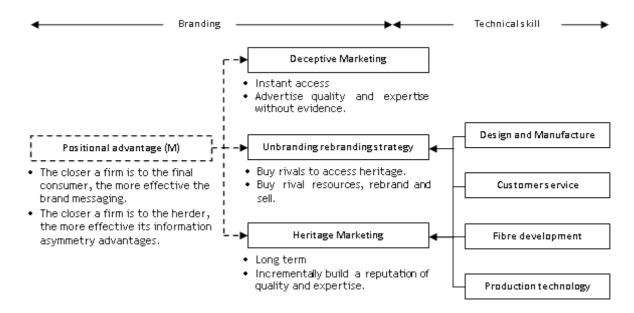


Fig 4. 3: Branding power sources

Fig.4.3 summarises the three key sources of branding competencies and the positional advantage as their moderator. Branding and technical skills represent the key intangible and tangible firm-level bargaining power sources. Two of the branding sources are linked to the technical skills to show how these two primary power sources connect and reinforce each other over time.

Businesses adopt collaborative relationships and coordination tactics when they depend more on their partners' for optimal value capture (sections 4.1.2; 4.1.3). The vital coordination tactics include using relative dependence to find appropriate partners and unilateral trust-building actions (prepayments, partner support) to incentivise collaborative arrangements. Once established, business networks use formal and informal information sharing to improve individual and collective advantages and power with direct and indirect partners (sections 4.1.2; 4.1.3). Furthermore, firms strengthen these collaborations through incremental trust-building reciprocal actions and well-trust local actors as proxies to benefit from high-quality trust relationships (section 4.1.2). The overall collaborative relationship and coordination mechanism are summarised in Fig 4.4.

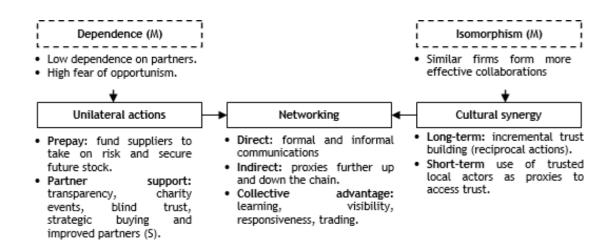


Fig 4. 4: Collaborative relationship and coordination mechanism

Businesses adopt adversarial relationships and control tactics when they depend less on their partners' for value capture business opportunities (sections 4.1.2;4.1.3). The cashmere industry broadly represents a hostile or adversarial industry culture underpinned by cultural clashes, a tradition of opportunism and end-to-end control rather than collaboration (section 4.1.2.3). Within this context, the industry experiences naturally low visibility as businesses try to protect themselves from opportunism. The lack of visibility also creates information asymmetries that make businesses more protective of their internal resources while tempting them to exploit the benefit from an information asymmetry for self-benefit. These are low-risk, low-reward opportunism opportunities or covert opportunism. Once businesses have exploited the naturally low visibility, they should gain enough power to lower the visibility for others. This allows them to simultaneously protect their internal resources and create "cycles of equilibrium" by working with controllable partners (section 4.1.2.3). This allows businesses to engage in long-term, low-risk, high-reward opportunism or overt opportunism. The overall adversarial relationship and control mechanism are summarised in Fig 4.5.

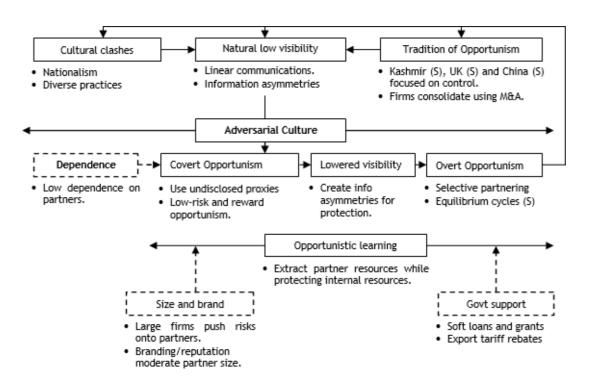


Fig 4. 5: Adversarial relationship and control mechanism

Table 4.31 summarises the misalignments between bargaining power, resource contributions, value distributions, and perceived fairness (see section 4.1.3.5). This suggests that value chain actors perceive the power and value capture link subjectively. Furthermore, as adversarial relationships focus on control, they remove the negative impacts created by misalignments. This partially explains why cashmere firms traditionally choose adversarial over collaborative relationships.

Table 4. 31: Misalignments between perceived power and value capture

Actor	Competency	Power	Contribution	Value share	Fairness
Brand-retailer	Branding, technical skills	1 st	1 st	1 st	Unfair and fair
Wholesaler	Control (data access)	2 nd	1 st	2 nd	Unfair
Manufacturer	Technical skills	2 nd or 3 rd	1 st or 2 nd	3 rd	Unsure and unfair
Processor	Control and tech skills	2 nd	6 th or least	4 th	Х
Trader	Control	3 rd or least	6 th or least	х	Х
Collector	Control (Information access, strategic timing)	4 th	3 rd	5 th	Unfair
Herder	Branding technical skills, control (strategic timing)	Fourth, sixth, or least	First or second	Least	Unfair and fair

4.2 Findings for Research Objective 2

The second research objective involved identifying the key disruptors, their impacts, and who is responsible for their occurrence. The relevant findings covered in sections 4.2.1 to 4.2.8 identified seven major overlapping disruptors, their impacts, who is responsible, and their frequencies. The seven disruptors include climate change, labour issues, anti-animal activism, technology, China, politics, and sustainability.

4.2.1 Climate Change

The findings identified climate change as the first major disruptor for the international cashmere industry, manifesting through the interdependent elements of extreme weather, referred to as dzuds, land degradation, and flooding. Table 4.32 focuses on dzuds and their impacts, and its first column uses numbering to denote the elements that trigger them. The table findings show that dzuds or severe weather-based snow make it harder for the animals to eat grass and survive (1,2), which has led to three major negative impacts. First, it has led to significant animal deaths (3,4,5), reducing the quality and volume of cashmere fibres for the luxury market segment (5,6,7). Second, this has led to herders, leaving the trade to reduce the fibre supply (7,8,9). Third, it has led to sharp price fluctuations as demand outstrips supply (9).

The findings identified one significant positive impact by linking the dzud-based animal deaths to a natural quality control mechanism to ensure only the strongest and best animals are left for selective breeding to improve fibre quality continually (10). However, one of the interviewees felt unsure whether dzuds are having any impact at all, which further confuses the true effects of climate change:

"Every six months, I go to a trade show in China, and it is getting bigger. So, I am not sure if that all stacks up" (ManufacturerTU3).

For additional quotes related to dzud impacts, see Appendix 4 (Table 4.10, quotes 1-5).

Table 4. 32: Dzuds and their impacts

No		Details	Source
1	sp	Dzuds make it challenging for the animals to survive the harsh winters, leading to the "wipeout of large numbers of the goat population."	CollectorBM1; ManufacturerTU3
2	Dzuds	Dzuds cause excessive snow, and "the goats cannot dig low enough to get the grass underneath and die."	ExpertJM5
3		"In 2001, 80% of goats died in the village and went from 120,000 to 22,000 animals."	TraderProcessorBM2
4		Between 2009-2011, another "3 million goats died."	ManufacturerSM3
5		Animal deaths have caused financial and emotional issues for herders.	CollectorBM1; ExpertJM5
6	Negative	This causes a need for more quality fibres in the market.	ManufacturerRetailerCU3; CollectorBM1; ManufacturerTU3
7	_	Herders were forced to slaughter their animals to pay debts.	CollectorBM1
8		This action has led to a speeding up of the rate of fibre scarcity and the exodus of herders leaving the trade.	ExpertJM5
9		This has again contributed to the growing scarcity of quality fibre as demand begins to outstrip demand.	ExpertDW5; ManufacturerSM3
10	Positive	"From time to time, the weaker animals are removed," leaving behind the higher-quality animals to reproduce goats with superior fibre quality and control overpopulation.	TraderProcessorBM2

The secondary data further confirmed that dzuds lead to increasing animal death, fibre scarcity and price fluctuations (Crowley et al., 2015):

"We lost all our animals, thirty-nine out of 40 cows, almost 300 sheep. The cows wandered far away in the snow and never came back. And when we got up one morning, all the sheep had frozen to death. We had lost everything" (Kingsley, 2017).

"By the end of the century, temperatures could rise 5 degrees Celsius. Extreme events are growing in some areas. Cases of 'dzud,' or extremely severe winters in the Mongolian language, are increasing. Some regions experience heavy summer rain; others go through increasingly intense winter storms" (Pasotti, 2020).

Recently, dzuds have been linked to significant upstream booms and busts as fibre quality has varied (Songwe and Magwan, 2003). The data also reinforced that dzud-induced animal deaths have triggered herder skill erosions that indirectly contribute to fibre scarcity and price fluctuations (Crowley et al., 2015).

Table 4.33 shows how land degradations contribute to climate change, and its first column uses numbering to denote the elements that trigger them. The table findings show that climate change is causing land degradation, reducing the goats' grazing land. Overgrazing in the limited areas available to the goats results in further land degradation, triggering a vicious cycle (1). This is leading to two negative impacts.

- First is the reduced volume and quality of fibre, which also causes sharp price fluctuations (2,3).
- Second is the damaged reputation of cashmere, which has also led to highstreet cashmere retailers forming a market for low-quality fibres.

This means there is now a demand for poor-quality fibres, which has created a second vicious cycle that is causing incremental damage to the reputation of cashmere (3,4). To counter this, the herders are increasing their herd numbers to compete on volume over quality and reduce fibre quality further. The table also shows that flooding remains a significant disruptor to the downstream manufacturers in the west (5). In the past, this compromised large quantities of stored processed fibres, disrupting downstream production.

Table 4. 33: Land degradation, flooding and their impacts

No		Details	Sources	
1		Fewer lands for the goats to graze in limit herd movement slowly. This triggers a vicious cycle of land degradation that continuously damages the land as the goats overgraze in more concentrated pasturelands.	HerderIM1; HerderSM1; CollectorBM1; TraderProcessorLA2	
2	lation	Land degradation intensifies with government grazing policies, and herders with growing herds and fibre volumes compensate for quality.	TraderProcessorLA2	
3	Land degradation	This is also causing further fibre scarcity and price fluctuations, damaging the cashmere's reputation as a highly sought-after and premium product.	ManufacturerRetailerCU3; ManufacturerWU3; WholesalerI4	
4		The emergence of a high-street cashmere business, which uses inferior fibres to produce budget products, consolidates the reputational damage.	HerderSZ1; WholesalerI4	
5		High street names blend 10% cashmere with 90% wool and mislabel it.	ManufacturerWU3	
6		In the downstream, weather-induced flooding is a severe disruptor.	ManufacturerRetailerSU3	
7	Flood	In the past, it has led manufacturers and retailers to lose large quantities of their processed fibre stocks to limit their ability to supply cashmere products for that particular year.		

Interviewee comments further reiterated the relationship between land degradation, increased goat numbers and how the rise of the high street retailers is impacting the premium market segment:

"Land degradation in pastureland is another problem arising. Everyone wants more income and goats" (HerderSM1).

"A \$79.99 high street sweater is not the same as a Hermes \$1700 sweater; this is chalk and cheese. But customers might not see it and later become disaffected" (WholesalerI4).

"So, if you're trying to sell cashmere scarves at £200 compared to £40, then it's a harder sale" (ManufacturerWU3).

One of the interviewees who was previously affected by extreme flooding reflected on their experience, which offers some measure of the significance of its impact:

"It was bad because this was a once-in-a-generation event. It was in October, and I was in Ireland, but my colleagues were lucky here. The water got into the building into the yard because they got some slight incline or decline; the water rushed in and affected the fibre. It was around a 100-thousand-pound insurance claim. That there was a considerable disruption" (ManufacturerRetailerSU3).

For additional quotes related to land degradation impacts, see Appendix 4 (Table 4.10, quotes 6-7). The secondary data confirmed the vicious cycle created by land degradation, animal overgrazing, continuous land degradation and the incremental erosion of fibre quality and the industry (Burwell, 2017; Håkansson, 2022; Lakshmanan et al., 2016). One extract shows the feeling of a herder currently trapped in the vicious cycle:

"Yes, I know my goats are harmful to our grassland and the more we have, the worse our land becomes. I get that. But this is how we earn our money. All I can do is watch my grasslands disappear, Lkhagvajav Bish - nomadic herder" (Håkansson, 2022) (Appendix 4, Table 4.26).

4.2.1.1 Responsibility

The findings did not identify evidence that held any particular person or institute responsible for dzuds. However, interviewees did feel that herders and their active pursuit of growing herd numbers drive land degradation due to overgrazing of the limited land (HerderSM1; ManufacturerWU3; ManufacturerRetailerCU3; TraderProcessorBM2; TraderProcessorLA2). The growth in herd sizes is driven by the rise of high-street cashmere retailers (ManufacturerWU3), which is connected to poor government grazing policies (TraderProcessorBM2; TraderProcessorLA2; HerderSM1b). Therefore, the poor government grazing policy has created market demand for poor-quality fibres, incentivising herders to focus on volume over quality to trigger further overgrazing, land degradation, and climate change. This shows connections between government policy and climate change. For more land degradation-related quotes, see Appendix 4 (Table 4.10, quotes 8-12).

The secondary data confirmed the relationship between poor grazing policy and market demand for poor-quality fibres; herders focus on volume, which triggers overgrazing, further land degradation and dzud-based climate change. The secondary data suggests that the growing demand for low-grade, high-volume mass-market products is a growing concern among the luxury segment, who rely on higher-quality cashmere fibres (Archer, 2019; Håkansson, 2022). Going further into the past, another source highlighted that the poor government policy directly resulted from the 1980s breakdown of the Union of Soviet Socialist Republics (USSR) (Kingsley, 2017).

4.2.2 Labour

The findings identified labour issues as the second major disruptor for the international cashmere industry, where frequent labour force fluctuations contributed to industry-level skill erosion. Table 4.34 shows that a lack of labour has meant that cashmere businesses cannot access and train skilled labour and is referred to by this research hereafter as "skill erosion". Alternatively, an abundance of labour has also shown process quality to decline at the individual firm and value chain levels, referred to by this research hereafter as "negative skill growth". Table 4.33 focuses on land degradations and their impacts, and its

first column uses numbering to denote the elements that trigger them. The table findings show that in the upstream, people leave the herding profession for standard jobs (1,3), while downstream Western businesses struggle to recruit technical staff (2). This is leading to two negative impacts. The rapid exodus of herders into city jobs is causing urban pollution and erosion of Mongolian herding practices (3), leading to a scarcity of quality fibres (4). Western businesses' lack of technical skills benefits from the rapid offshoring of technical skills to Asian locations (5). Table 4.34 provides contradictory results, showing that herders are shifting from city jobs to the herding profession (6), further inflating goat numbers and causing overgrazing, degrading land, and erosion of fibre quality (6,7).

Table 4. 34: Labour issues and their impacts

No		Details	Sources
1		In the upstream, the industry is experiencing an exodus of the next generation who are now moving into city jobs to live "in the city and have an easy 9-5 job".	HerderIM1; TraderProcessorLA2; ExpertJM5
2	on	In the downstream, European businesses are also experiencing a similar drain on their technical skills, making it difficult for Western businesses to recruit new staff as their current staff retires.	ManufacturerRetailerSU3
3	Skill erosion	The herding exodus is causing overcrowding and urban pollution and eroding the Mongolian heritage of traditional herding practices. This influx of young people is "seeing the glitz and glamour" and moving from "herding to city jobs."	ExpertJM5
4		It also further increases the negative impacts on fibre scarcity levels.	HerderIM1; TraderProcessorLA2; ExpertJM5
5		Skill erosion forces more businesses to consider offshoring to Asia.	ManufacturerRetailerSU3
6	growth	Many Mongolians have recently shifted from city jobs back into herding due to its benefits and contributions to goat overpopulation.	TraderProcessorBM2
7	Negative skill growth	Negative skill growth leads to overgrazing, triggering a vicious cycle of land degradation and diminishing fibre quality.	Table 33 (points 2,5)

One interviewee explained why the goat numbers continue to rise:

"This raises the question, why are the animal numbers in Mongolia continuing to increase? Because a lot more people want to get into the herding profession. The only problem now is in Mongolia, where there are around 70 million animals yearly, so we must sell at least 20 million to accommodate the next newborn 20 million" (TraderProcessorBM2).

See Appendix 4 (Table 4.11, quotes 1-3) for quotes related to skill erosion. The secondary data supported the causal link between dzuds and animal deaths as a trigger for an upstream herder skill erosion that indirectly contributes to fibre scarcity. One source claimed that 600,000 or 20% of former Mongolian herders have migrated to the capital in the past three decades to trigger urban pollution (Kingsley, 2017).

Another source provided the following explanation for why this happens:

Herders are overworked and underpaid and have more to worry about with their flock than ever. They either lose more goats in harsh winters or have too many mouths to feed in an arid landscape. The goats eat these once-lush places down to nothing, causing a natural imbalance in the region (Krosofsky, 2021).

Although the secondary data did not directly find evidence of people entering the herding profession, one trade association did link growing goat numbers with herder prosperity using the following logic:

"Cashmere has been saving herders from going into poverty. Goats are gifts from God" (Bayartsogt, 2019)

4.2.2.1 Responsibility

The interview findings suggested that skill erosion in the downstream processes, including manufacturing and retail occur, due to poor government technical education policies, which are not producing the "dexterous" manufacturing skills desired within the Western labour (ManufacturerRetailerSU3; force ManufacturerSM3). In the upstream, herder skill erosions have partially been caused by dzud-induced climate change, where significant goat deaths have forced many herders to leave the trade altogether (Table 4.32, points 3,4,5). One interviewee felt that in the current climate, "the herding way of life is not supporting them financially" (ExpertJM5). Another respondent felt that the rise of communications technology means "people are now not so interested in kind of herding and harvesting fibres" (TraderProcessorLA2). For additional quotes

related to labour issue responsibilities, see Appendix 4 (Table 4.11, quotes 4-6).

The secondary data further confirmed the role of climate change as a trigger for the herder skill erosion in Mongolia. It also links back to identifying a lack of government grazing policy as the leading cause (section 4.2.1.1). This lack of policy originated due to the 1980s fall of the centralised Soviet system (Kingsley, 2017; Pasotti, 2020), as detailed in the following article quote:

"Until the fall of the USSR, Mongolia was a communist country, and the central government tightly managed herding. Collectives owned livestock, officials decided where they lived, restricted herd sizes, and kept a central fodder supply to curb dzud impacts. Because of the socialist system, everything was well organised. When communism ended, the state was opened, and herders welcomed this as they could now own as many animals as they liked and live where they wanted. Now the headcount shot up" (Kingsley, 2017).

4.2.3 Anti-Animal Activists

The findings identified anti-animal activism as a third major disruptor for the international cashmere industry. The respondents felt that cashmere businesses continue to experience a reputational backlash from anti-animal activists like People for the Ethical Treatment of Animals (PETA) (HerderIM1; HerderSZ1; TraderProcessorLA2; ExpertFG5). The interviewees allege that organisations like PETA use deceptive marketing tactics to trigger reputational damage, slowly undermining the whole industry. The following interviewee comments further reiterate the negative feelings that cashmere businesses have towards PETA.

"PETA thrives on the ignorance of themselves and the public" (TraderProcessorLA2).

"Most of the information that I have seen that PETA provide is just rubbish; it's just not true, and that's sad" (ExpertFG5).

In addition to reputational damage, interviewees described their own experience of dealing with PETA in the context of the Angora fibre industry:

"It's an organisation of extremists, almost terrorists who basically killed off the Angora industry overnight" (TraderProcessorLA2).

"1/3 of Mongolians are herding people, and so herding and cashmere are the backbones of our economy" (ExpertJM5).

For additional quotes related to responsibility for labour issues, see Appendix 4 (Table 4.12, quotes 1-3). The secondary data confirmed the alleged untrue claims that activists like PETA put out:

"Animals are subjected to workers on amphetamines, punching the sheep with fists and clippers, slamming on their backs" (Cocozza, 2017).

"The process of shearing is incredibly painful, and there's even footage of goats screaming in pain while being held down and sheared" (Krosofsky, 2021).

These alleged false advertising campaigns are increasing the boycott of cashmere in favour of alternative fibres (Cochrane, 2018; Krosofsky, 2021).

4.2.4 Technology

Technology was identified as a fourth major disruptor, with positive and negative impacts on the international cashmere industry. In the upstream, cutting-edge communication technologies have improved transparency and information symmetries across cashmere value chains (CollectorBM1; TraderProcessorBM2; TraderProcessorWM2; TraderMM2; ExpertFG5; ExpertLA5). One interviewee further expressed how access to communication technology acts as an important determinant of competitiveness for upstream cashmere businesses:

"Well, it all depends on access to information. The problem with the Afghan herders is that they know nothing. They have no access to information. In Mongolia, traders would take advantage of the herders, but now they have, you know, they've got full access to the media. In Mongolia, the price of cashmere is almost like the weather forecast. You know today it will rain, and Cashmere is \$50. So, they have access" (ExpertLA5)

Moreover, technological advancements have led to the development of "whole garment-making" textile production machines, which have enhanced the productivity of Western manufacturers by "reducing their staff headcounts by 40%" (ManufacturerRetailerSU3). The rise of E-shopping has allowed firms to connect with the end consumers directly, especially Asian manufacturers, who use e-shopping to remove language barriers and offer better customer service (ManufacturerSM3).

The findings also suggest that technology is a two-edged sword, and price transparency pushes the industry towards heightened competition and reduces the value of relationships (TraderProcessorLA2; TraderMM2). Interviewees feel that even long-term relationships are secondary to price and are "cutthroat, where no one wants anyone else to make money" (TraderProcessorLA2). Another added, "regardless of relationship length, it all comes down to a price" (ManufacturerTU3). One interviewee also claimed that technological advances have led to increased land degradation, where Chinese and Russian groups "shoot sulphur into the rain clouds when they need rain" before the rain reaches Mongolia (TraderProcessorBM2). For additional quotes related to technology impacts, see Appendix 4 (Table 4.13, quotes 1-4).

The secondary data confirmed automation technologies as a significant source of bargaining power for China, as it has given their businesses consistency in fibre processing (Ellwood, 2020; Economist, 1999). However, this has also lowered the fibre quality and triggered mass job losses in the West (ibid). Furthermore, process automation has significantly contributed to increased waste and unethical fibre blending (Ellwood, 2020; Ishrat et al., 2018). Moreover, the rise of "eco-fabrics", "eco-edit", and "recycled cashmere" options within online shopping is also reducing the competitiveness of cashmere through concise market messaging (Håkansson, 2022; Mintel, 2018). The article extract further emphasises this point:

"As always, buying pre-loved and caring for the clothes you already have is the most ethical and sustainable way to get dressed" (Håkansson, 2022).

4.2.5 Rise of China

The findings identified the rise of Chinese cashmere businesses as a fifth major disruptor. which has positively and negatively impacted international cashmere industry. Table 4.35 uses its first column numbering to group the impacts into positive and negative activities. Regarding the negative impacts, the table findings show that Chinese businesses have used their end-to-end control for decades to reduce the fibre supply for Western customers. Second, the poor Chinese fibre removal and blending techniques and the growing appetite for meat have reduced the fibre quality and reputation of cashmere (1-4). Third, Chinese control and their ability to manage speculative buying and selling allow them to trigger significant price fluctuations (5,6,7). It also allows the firms to manipulate the upstream suppliers and terminate the role of Western downstream traders for their benefit (8,9). The Chinese business causes controlled disruptions and the negative implications for their business partners are further reiterated by the following interviewee comments:

"The Chinese always combed up until last year, and it upset the processers because now the Chinese herds are saying, "Oh bugger this! Why should I fight with 500 goats and spend all my time combing them? All I got to do is chuck them on the ground and shear them" (ExpertLA5)

"In the traditional supply-demand dynamics, price fluctuations happen based on Chinese actions. It probably doesn't run with the normal patterns of the price cycle, or time of year and calendar events" (TraderProcessorLA2).

"China is doing it all, in terms of fibre and the quantities of cashmere; very little is coming out now" (ExpertDW5).

Table 4.35 identifies two examples of positive impacts. First, Chinese growth has broken down traditional barriers to entry and allowed new businesses to enter the market (10). This includes domestic consumer market development and the creation of new business opportunities for Western brand retailers (11,12). Second, Chinese growth has allowed them to warehouse processed fibres closer to Western consumers for improved responsiveness to customers' needs (13,14). One interviewee also linked Chinese cashmere businesses to market stabilisation:

"From 1987 to 1990, the processed fibres went from \$65-\$70 a kilo to \$225 a kilo and t dropped back to \$65 a kilo when it relied on supply and demand, which is not the case now" (TraderMM2)

For additional quotes related to China's rise and its positive and negative impacts, see Appendix 4 (Table 4.14, quotes 1-3 and 4-7).

Table 4. 35: Rise of China and its Impact

No		Details	Sources
1		China maintains end-to-end control over fibre benefits from the ability to create scarcity for international customers within the industry.	ManufacturerSM3; ManufacturerTU3; ExpertDW5; ExpertLA5; ManufacturerTU3; TraderProcessorLA2
2		Chinese herders have switched from combing to shearing to reduce fibre quality and assign processors to work.	ExpertLA5
3		The Chinese fibre blending is lowering the processing quality and damaging the perceived value of cashmere.	HerderSM1b; HerderKM1; HerderSZ1; ExpertFG5
4	Negative	China's growing prosperity has meant "the masses have developed a likeness for meat", causing the slaughtering of the next generation of cashmere goats to create fibre scarcity and undermine the whole trade.	ExpertLA5; HerderSM1b; HerderKM1; HerderSZ1
5	Neg	Besides fibre scarcity, price fluctuations are a second impact because of Chinese control.	ManufacturerRetailerCU3; ManufacturerTU3; ManufacturerSM3
6		High-volume speculative buying and selling strategies allow them to control fibre benefits from prices.	ManufacturerRetailerCU3; ManufacturerSM3
7		Chinese trading-induced price fluctuations: "In 2017, prices jumped to \$120/kg due to Chinese bulk buying".	ManufacturerSM3
8		Chinese forward integration is killing the trader's role.	TraderMM2
9		In Afghanistan, China is "totally manipulating the market". Regarding the Afghan people, "their situation is not good".	ProcessorJA2
10		Chinese growth has democratised the cashmere industry, including production and consumerism.	ExpertFG5
11		The rise of Chinese cashmere businesses has created a new consumer market of "14.2 billion potential customers in China", from which brand retailers benefit.	TraderProcessorLA2: TraderMM2
12	Positive	Big brands have experienced a minimal impact from China because they compete in different segments.	ExpertFG5
13	Pos	Chinese forward integration and holding processed fibres in EU warehouses means that Western fibre buyers now have instant access to fibres and can yearly buy, produce, and retail fibres.	TraderMM2
14		Chinese businesses now offer a "one-stop shop" for Western buyers to make sourcing more convenient.	ManufacturerTU3

The secondary data confirmed China's use of vertical integration to improve its control, creating fibre scarcity and price fluctuations for Western businesses. For example, Chinese integration led to price rises of 140% in 1995 (Pepinster, 1995) and indirect losses of 50% in Western staff jobs (Cowell, 2004). The data also found support for China's monopolisation over processed fibre:

"EU mills/traders are unable to buy enough to process it viably and allow China to strangle them" (Waldron et al., 2011, pp.11-15).

The secondary data also showed that China's use of automation is responsible for improving its bargaining power at the expense of global fibre quality. The unethical Chinese blending of inferior materials, like "rat fur to coarsen fibres", has increased waste and mislabelling to undermine the credibility of cashmere (Ellwood, 2020; Ungoed-Thomas and Gillespie, 2016). One article neatly captured this phenomenon with the following statement:

"There have been extreme cases of mislabelling too, and some supposedly 100% cashmere products have been found to contain yak hair or even rat fur. If you find a cheap product claiming cashmere, it may be too good to be true" (Floyd and Shardlow, 2019).

The secondary data also expanded the primary data collection by detailing how China uses cross-border smuggling (Songwe and Magwan, 2003; De-Weijer, 2007) and sourcing from less-known neighbouring countries to maintain its monopoly over raw cashmere fibre (Archer, 2019; Waldron et al., 2011). Chinese businesses use their stranglehold over the global processed fibre supply to starve Western businesses of supply until they go out of business and the Chinese businesses can they and their values using mergers and acquisitions (Waldron et al., 2011).

4.2.5.1 Responsibility

The findings broadly attribute the success of Chinese businesses to the Chinese government's economic-friendly business policies. The interviewees highlighted China's focus on vertical integration, shifting trade policy from quality to cost efficiency, and strong government support as the major drivers (section 4.1.3.4).

The secondary data expanded on these points to highlight that Chinese demand is responsible for the rise in goat numbers, fibre price fluctuations (Burwell, 2017; Pepinster, 1995) and coarsening of fibres due to crossbreeding (Ellwood, 2020). These negative impacts "take *generations to reverse*" (Waldron et al., 2011, p.17). The secondary data also suggests that the 1980s and 1990s recessions triggered China's growth, the disbanding of the Centralised Chinese Cashmere Buying Selling Agency (CCCBA), and the decline of Western demand (Brown, 1995).

4.2.6 Politics

The findings revealed global political forces as a sixth major disruptor for the international cashmere industry. Table 4.36 identifies the key elements of political disruptions, including trade wars, financial recessions, and the role of international non-government organisations (NGOs), and uses numbering to denote these elements. The table findings show that the previous and current trade wars (1,2,3,4,5) have disrupted established shipping routes to increase costs and cause delays that impact their efficiency and responsiveness (1,2,6). Furthermore, the danger of tariffs introduced due to trade wars makes business transactions uncompetitive (4,5,8). Second, financial recessions have loosened and broken down the control of market-leading industries. Examples include the past centralised USSR cashmere industry (9,12) and Western businesses' recent erosion of buying power (10,11,13). Third, International and local government and non-government trade organisations are accused of offering uneven support for more prominent firms and impacting their performance by distorting the market (14,15).

Table 4. 36: Political Issues and Impacts

No		Details	Sources
1		Since the US trade sanctions on Iran, businesses that previously shipped their Afghan supply from Iranian ports must reconfigure their logistics.	TraderProcessorLA2
2	vars	During the Falklands, US supply chains were disrupted for Dawsons.	ExpertPW5
4	Trade wars	The previous UK-US political dispute nearly led to a trade war, where UK businesses were threatened with significant tariffs.	ManufacturerRetailerSU3
5		Recently, the US-China trade war negatively impacted global supply chains, with the US and China now imposing trade tariffs on each other.	WholesalerBC4
6		Participants who purchased Iranian fibres before the US sanctions on Iran must move them across other regions before shipping to the West.	ExpertLA5
7	Impact	Afghan fibre quality is deteriorating because the herders cannot freely move around anymore and are overgrazing in the same areas due to the growing Taliban no-go areas today in Afghanistan.	
8		US-UK trade disputes left UK goods uncompetitive for US customers.	ManufacturerRetailerSU3
9	no	The 1980s recession caused the USSR cashmere industry to break down.	ExpertDW5
10	Recession	2008 economic recession negatively impacted economies, including the Western cashmere industry.	ExpertJM5; ProcessorJA2
11		Western businesses ultimately lost control of fibre processing because major processing businesses either closed their doors in the US and EU or re-established themselves closer to countries of origin.	ProcessorJA2
12	Impact	The 1980s recession contributed to the breakup of the centralised Russian cashmere industry.	ExpertDW5
13		Western businesses' reduced borrowing power. One interviewee feels that if they had experienced a cut in their borrowing, "that would have been horrendous and could have killed".	ManufacturerRetailerSU3
14	NGOs	Trade bodies and NGOs offer little to no support to the Mongolian industry or unfairly help bigger international businesses.	WholesalerI4; WholesalerG4
15	Impact	Trade bodies and NGOs are accused of distorting the market to create unfair competition.	Wholesaleri4

Regarding the impact of trade wars and sanctions, the interviewees provided insights to understand the barriers to moving their fibres through Afghanistan and the impact of politics on animal welfare and fibre quality:

"They run a racket, and you must pay to move million-dollar containers through unsafe bandit territories; all the time, new problems are occurring, and we must solve, overcome, and live with them" (TraderProcessorLA2).

"We found that there's been a kind of deterioration in quality. One reason is that the Kuchu, the nomadic herders in Afghanistan, had free reign. They could go what they like. But now, after the coalition left Afghanistan, they'll only be there and cannot engage. So, the Taliban are penetrating the areas where previously you had the coalition" (ExpertLA5).

The interviewees also stressed the negatives that they have allegedly experienced when working with non-government organisations (NGOs):

"I started now having problems, not from cashmere businesses but NGOs helping the poor Alpaca farmers in Peru. They have emailed my clients directly with pictures of my designs, saying they can make them in Alpaca. I thought, why are you trying to ruin my business? What is this?" (WholesalerG4).

"We are firmly behind SFA accreditation and indicators of environment, sustainability, animal treatment, etc. What we experienced, however, is monopolistic behaviour coming from SFA" (WholesalerI4).

Secondary data confirmed that financial recessions have reduced the Western presence in fibre processing and manufacturing processes. While the primary data above highlighted how the 2008 recession led to Western businesses being removed from the upstream, the secondary data highlighted that the 1990s recession triggered China to engage in forward integration to gain a presence in processing (Waldron et al., 2011). It also supported the causal link between the 1980s financial recession and the breakdown of the Union of Soviet Socialist Republics (USSR) and its centralised cashmere industry. This has led to significant volatility in the Mongolian cashmere industry, which struggled to shift from a communist to a capitalist system (Ariunchimeg, 2017; Kingsley, 2017). Some of the most important of these teething problems include the following. First, the "breakup of many long-standing relationships with USSR countries" (Songwe and Magwan, 2003, p.2). Second, the lack of Mongolia's grazing policy led to businesses trading on weight and not quality (Ariunchimeg, 2017) and an explosion in goat numbers as herders became incentivised by government policy (Songwe and Magwan, 2003; Kerven and Toigonbaev, 2010). Third, between 1997-2007, many of the smaller ex-Soviet cashmere hubs emerged as additional supply options for China:

"The highest quality cashmere is ironically produced by the poorest rural inhabitants from forgotten regions" (Kerven, 2007, p.2).

Finally, the secondary data complemented the above by highlighting the historical influence of trade organisation decisions that impact today's cashmere industry. For example, the World Trade Organisation (WTO) removed quota tariffs and predicted that China could capture 50% of the US market in 2 years and challenge the Scottish industry (Cowell, 2006). In other cases where NGOs are working in locations like Afghanistan and Mongolia, their performance is often inefficient:

"Most projects involve more international marketing expertise than local experts who can relate them to herders' lives. This leads to a false impression of what they can achieve without properly understanding the root of the problem they must face" (Ellwood, 2020).

4.2.7 Sustainability Trend

The findings revealed the emerging sustainability trend as a seventh major disruptor for the international cashmere industry. As previously mentioned, sustainability or sustainable business is balancing the three sustainability dimensions by doing business with minimal negative impacts on the environment and society (detailed in Appendix 2B). The sustainability trend is pushing the entire industry towards positive culture building and long-term performance but has also created opportunities for short-term opportunism. One interviewee highlights that adopting sustainable practices will be the only way for firms to continue to compete in the cashmere market for the long term:

"In ten years, companies that will still be in the market will be sustainable somehow and have been able to evolve with this over time" (ExpertFG5).

The implementation of sustainability, however, represents a significant disruption to 'business as usual' approaches like mass production and price competition (ExpertFG5). The costs for implementing sustainability are high (ExpertBC5), which gives non-sustainable rivals distinct cost advantages (ExpertPW5). These points highlight a negative short-term impact for at least the early adopters:

"if your competitors are not doing that environmentally friendly processing, your approach will cost more than your competitors, and price wins out. It might be different now because that was 20 years ago" (ExpertPW5).

The secondary data confirmed the growing popularity of the sustainability trend, with consumers now calling for more supply chain transparency. As a result, many big brand retailers are now including "ethical standards in supplier performance criteria" (Towers et al., 2013, p.962). Furthermore, "People are also more environmentally aware, and traceability of in-house craftsmanship, rather than third-party supply chains, is a draw" (Cook, 2021). However, in locations like Mongolia, there are no widely agreed Codes of Practices or understanding of "what sustainability should stand for" (Okamoto and Jamsranjav, 2019, p.15). The data also suggested sustainability trends are a reaction to fast fashion (Abnett, 2015).

4.2.8 Frequencies of Disruptions

The findings revealed that two types of dzuds occur in a pattern over time, where the small dzuds occur every 10 to 12 years (CollectorBM1; TraderProcessorBM2), and the bigger dzuds arise every 30 years:

"Dzuds reoccur with ten-year intervals. Some severe Dzud disaster cases were observed to be reoccurring with about 30 years intervals, as the last one was recorded as severe as the one that occurred in 1980" (CollectorBM1)

One interviewee also highlighted that the climate changes every 4-6 years, with the winters getting increasingly extreme (ExpertJM5). Finally, the downstream interviewees identify floods as occurring "once in a generation" every 100 years (ManufacturerRetailerSU3). However, another interviewee highlighted that those disruptions impact the industry daily, claiming, "We have had earthquakes, fires, and drought, you name it. Every year there was something" (ManufacturerRetailerCU3). In terms of more general disruptions, the findings suggest that the broader textile industry is now experiencing disruptions every 5-7 years:

"The textile industry is normally the 1st going into crisis because when people stop buying clothes, it's one of the last to come out of the crisis as well"

(TraderProcessorWM2)

4.2.9 Summary of Research Objective 2

The findings identified seven major disruptors within the cashmere industry: Climate change, Technology, Labour, the rise of Chinese cashmere businesses, Politics, Anti-cashmere activism, and Sustainability. Tables 4.36 and 4.37 summarise the impacts and who is responsible (where possible) using numbering in the first column for each to denote the different implications. The research has used (S) to distinguish impacts that are static themselves and are the result of other disruptive impacts. The key takeaway from the tables is that 25 out of 33 disruptive impacts are negative (points 13 and 12 in Tables 4.37 and 4.38).

The major negative impacts include the following:

- Gradual erosion of the quality of fibres needed for the luxury market (Table 4.37, points 1,2,3,7,11,15,17; Table 4.38, points 1,2).
- Price fluctuations (Table 4.37, points 2,3; Table 4.38, point 3).
- Expertise erosion (Table 4.37, points 15,16; Table 4.38, points 3,4,7,8).
- Declining reputation of cashmere as a symbol of luxury (Table 4.37, points 4,11; Table 4.38, points 1,12,13).
- Creating markets for low-quality fibres (Table 4.37, points 4,5,10).
- Breakdown of valuable relationships (Table 4.38: point 9).

Regarding responsibility, the findings highlighted human ineffectiveness as the root cause of most disruptions. This includes poor government and policymaking (growth and training, international trade bodies) and poor practitioner actions (herders growing goat numbers, the rise of high street retailers). Regarding frequency, the findings suggested that these disruptions are growing in intensity and frequency over time, increasing the negative impacts on the cashmere industry.

Table 4. 37: Climate change, Technology and Labour disruptors

No		Impact	Responsible
1		(Negative) significant animal deaths, reducing the quality and volume of cashmere fibres for the luxury market segment.	Herder growing goat numbers, high
2		(Negative) herders are leaving the trade to reduce the fibre supply further, causing sharp price fluctuations.	street retailers and poor govt
3	9	(Negative) lack of land due to degradation is reducing the volume and quality of fibre and causing sharp price fluctuations.	policy (S).
4	Climate change	(Negative) land degradation and lowered quality are damaging the reputation of cashmere and have created a demand for low-quality fibres through high-street cashmere retailers, further damaging its reputation.	
5	Clir	(Negative) To counter this, the herders are increasing their herd numbers to compete on volume over quality and further reduce fibre quality.	
6		(Negative) Flooding previously compromised large quantities of stored, processed fibres, inhibiting the Western manufacturer's production.	
7		(Positive) Dzud-based animal deaths offer natural quality control where only the strongest animals are left for selective breeding to improve fibre quality.	
8		(Negative) Rival neighbouring national industries shoot sulphur into the rain clouds when they need rain" before the rain reaches the other country and causes more land degradation.	Not given
9		(Negative) Transparency means pricing has pushed the industry towards heightened competition and reduced the value of relationships.	
10	gy	(Negative) The rise of "eco-fabrics" and "eco-edit" options in online shopping and recycled cashmere options are also reducing cashmere's competitiveness through concise market messaging (S).	
11	Technology	(Negative) Chinese use of automation has increased wastage, unethical fibre blending and inferior fibre quality (5).	
12	T	(Positive) China's automation has significantly benefited by allowing them to achieve consistency in fibre processing.	
13		(Positive) improvements in communication technologies and "E-shopping" have improved the cashmere industry's overall transparency and information symmetry, especially for the herders.	
14		(Positive) technological advancements in textile production have cut labour costs by 40% for Western manufacturers, minimising labour scarcity issues.	
15	٧.	(Negative) People are leaving herding, and downstream businesses need to help recruit technical staff, causing expertise fibre erosion.	Climate change, poor govt and
16	issue	(Negative) rapid offshoring of jobs from the West to Asian locations	educational policies
17	Labour issues		

Table 4. 38: Rise of China, Politics, Anti-cashmere activism, and sustainability disruptors

No		Impact	Responsibility
1		(Negative) control has reduced fibre supply for Western customers and poor fibre processing techniques, and the growing appetite for meat has reduced the fibre quality and reputation of cashmere.	Chinese govt growth policy
2	_	(Negative) Poor animal crossbreeding has coarsened the fibre quality and will take "generations to reverse" (S)	
3	(Negative) Control over speculative trading allows them to trigger significant price fluctuations to manipulate the upstream suppliers and terminate Western traders.		
4	Rise	(Positive) Growth has broken down traditional barriers to entry and developed a significant domestic consumer market opportunity for brand retailers.	
5		(Positive) Chinese growth has allowed them to warehouse their processed fibres closer to Western consumers, making them more responsive to customers' needs and buying, adding value and retail products in the same year.	
6		(Negative) Trade wars have disrupted established shipping routes, increasing costs, causing delays, and rendering firms uncompetitive.	Intended and unintended decisions of
7		(Negative) Financial recessions have reduced the borrowing power of the USSR cashmere and Western industries, leading to the control breakdown.	businesses and international organisations
8	Ŋ	(Negative) The WTO removed quota tariffs on China, and they quickly took over all stages of the cashmere value chain (S).	
9	Politics	(Negative) Former communist economies struggled to adopt capitalist systems due to the breakdown of long-term relationships. They suffered without a centralised grazing policy, causing an explosion in goat numbers (S).	
10		(Negative) International and local trade organisations are accused of distorting the market and offering uneven support to more prominent firms.	
11		(Positive) US policy has tried to build up the local Afghanistan cashmere industry using selective breeding projects to improve the local fibre quality.	
12	ctivism	(Negative) The industry is facing a negative backlash to its reputation as a luxury fibre and the continuation of the whole industry due to deceptive marketing by organisations like PETA.	Anti animal activist
13	Ac	(Negative) Retailers are boycotting cashmere in their products (S)	
14		(Negative) It is causing a significant disruption to the current business operations, like mass production and price competition, as the costs of implementing sustainability are high, pushing the products into niches.	Businesses and changing consumer demand.
15	Sustainability	(Negative) This allows non-sustainable rivals to gain a distinct cost advantage over businesses pursuing true sustainability.	
16	Susta	(Positive) Adopting sustainable practices allows businesses to compete in the cashmere market long-term.	

4.3 Findings for Research Objective 3

The third research objective involved establishing the impact of the strategic decisions undertaken by the value chain actors themselves. Section 4.3 focused on their processes for managing disruptions and engaging in post-disruption renegotiations. The findings related to the processes for managing disruptions are covered in section 4.3.1, while the findings for post-disruption renegotiations are covered in section 4.3.2.

4.3.1 Processes for Managing Disruptions.

The data collection and coding processes identified four major overlapping processes for managing disruptions across cashmere value chains: organisational learning, collaboration control, and strategic repositioning. Luck and organisational competencies in strategic timing influence these four processes, which are covered in sections 4.3.1.1 and 4.3.1.6.

4.3.1.1 Organisational Learning

The findings identified organisational learning as the first major process for managing disruptions over time in the international cashmere industry. Table 4.39 identifies experiential, experimental, and analytical learning as the main organisational learning approaches. Its first column uses numbering to denote the different information that makes up these broader approaches. The table findings show that experiential learning involves businesses using observations over multiple business cycles to learn and adapt their processes in the present and rely on their memories to predict future business opportunities (1-5). Therefore, experiential learning represents an incremental low-risk and reward firm-level approach to identifying business opportunities (section 4.1.2.1). Experimental learning involves businesses adopting a higher risk and rewards approach. They use trial-and-error methods that include upstream experimental processes (6), downstream market testing probes (7,8) and creative problem-solving in negotiations (9). The experiential and experimental learning approaches are underpinned by analytical learning for downstream firms that use data analysis of their past financial performance to determine future actions (10,11).

Table 4. 39: Organisational learning modes

No		Details	Sources
1		Herders learn by adapting their practices according to weather patterns—and previous experiences to improve their future performance.	CollectorBM1; TraderProcessorBM2; ExpertJM5
2	ial	Herders have adapted their processes to gather and store enough grass and medicines before winter.	HerderIM1; CollectorNM1b; HerderSM1
3	Experiential	Herders have adapted the corrals to better deal with harsh winters.	CollectorNM1b
4	Ехр	Herders hire workers and transport to protect the animals, procure business insurance and strategically move the herders to allow grass to regrow in time.	CollectorBM1
5		Western businesses traditionally rely on their patterned memories or "concept of cycles itched into their heads" and have used these memories to drive their decision-making.	ExpertPW5; (ExpertDW5
6		Herders and collectors have previously experimented with vacuum cleaners upstream for more effective and efficient raw fibre sorting.	CollectorNM1
7	ental	In the downstream, Western manufacturers develop collections and use them like experimental probs that are presented to customers for feedback. They are then tailored to produce something more accurately reflects the demand for a given business cycle.	ManufacturerWU3
8	Experimental	Experimental probes include single outlet stores to move overstock while testing the market for the potential of setting up a retail store network.	ManufacturerRetailerSU3
9		The smaller Western wholesalers also adopt creative problem-solving to push the boundaries and understand what is possible to work around Mongolian manufacturers' rigidity. This includes asking to pay more to secure popular coloured items and asking to dye items.	Wholesaler14
10	Analytical	Western retailers form 5-year long-term strategies and overlay them with medium-term 12-month budgeting to periodically update the longer-term plan depending on the midterm performance.	ManufacturerRetailerSU3
11	Analy	Budgets and operational choices (buy, sell, production) are updated by comparing weekly and monthly performance against previous years.	ManufacturerRetailerSU3; ManufacturerSM3

Two interviewee testimonies highlight how businesses in practice engage in herder-level experimental and retailer-level experiential learning:

"Herders tend to be very smart. They are managing their herds better; some years, they do not breed the animals, so there are no babies. Next year babies. They have lots of knowledge and so much experience that no companies can teach them anything about how to herd" (TraderProcessorBM2).

"People were talking cycles, and although they had recent experiences, they still had this concept of cycles itched into their heads. I am talking more about the older guys, who had the experience of 3 or 4 cycles and felt that they had seen it all before. There is much hope, and I think you could feel a bit hard done by is when they were decisive and got it wrong" (ExpertPW5).

For additional learning-related quotes, see Appendix 4 (Table 4.15, quotes 1-2 and 3-4). The secondary data confirmed the presence of experimentation and creative problem-solving as critical tools for Western businesses to manage disruptions. This is primarily understood through a quote that highlights the importance of experimentation for effective manufacturing and retail:

"It pushes us to try new techniques, says Brown. If it doesn't work for Barrie, it's not the end of the world. It'd be a disaster if it didn't work for one of our couture brands. Once they've mastered new methods, they'll pass some of them on to Chanel et al. The Barrie brand is a shop window so people see what we can do" (Cook, 2021).

4.3.1.2 Coordination

Building on the previous discussions on collaborative relationships (section 4.1.2.2) and coordination as a source of value capture (section 4.1.3.3), the findings identified coordination as a second process for managing disruptions. Table 4.40 identifies direct and indirect networking, unilateral actions, and collective action-taking as the underpinnings of this process. The first column also uses numbering to denote the different information that makes up these broader approaches. The table findings show that upstream cashmere businesses trigger collaborative relationships and coordination by demonstrating transparency and trust with the suppliers and engaging in strategic trades to improve payoffs (1-3). Once a coordination mechanism is formed, cashmere businesses use direct formal networking with businesses, NGOs and government agencies to counter the effects of climate change on fibre quality deterioration (4,5), the political anti-cashmere fibre campaigns (6) and visibility issues (7). This core activity is first supported by direct informal networking with businesses and external actors to source insider information through rumours and gossip (8,9,10,11). Second, proxy contacts support formal networking through indirect contacts further up and down the chain to improve visibility and quality control and directly trade with the consumer for better value capture (12,13,14). The combination of direct formal and information networking and indirect proxy contacts can be improved as a source of disruption management by using third-party facilitators to engage in collective actions (15,16).

Regarding the value of informal networking to the cashmere industry coordination efforts, interviewees provided the following explanations:

"Because of the disorganised nature of the cashmere industry, you have rumours because cashmere outputs are not properly tracked. So, because of the industry structure, it is harder to set down formal plans" (WholesalerBC4).

"We try to stay very close to the market through direct travel into markets. The industry is relatively small, so everybody tends to know everybody. You could be on a flight to Beijing with the buyer from Loro Piana, and you tend to have a chat and news share" (ManufacturerRetailerCU3).

One interviewee also justified using local proxy contacts in their sourcing locations as a practical cost-cutting method:

"It is basically because we have not been geographically close to other businesses. So, it is not cost-effective or practical to send and receive items all the time" (ManufacturerRetailerCU3).

One interviewee highlighted that collective action can help weaker businesses to pool resources using trade bodies to curb Chinese power:

"There are two Chinese members in the CCMI as well. It took a long time for the CCMI to permit them to join. It was a bit like the WTO. The Western world thought, you know what? Having the Chinese in a rules-based organisation is better than having them outside. Even though they ignore the regulations, it does not matter, and I think to a certain ex

For additional quotes related to coordination as a process for managing disruptions (Appendix 4: Table 4.17, quotes 1-6; Table 4.38, quotes 1-3). The secondary data also confirmed the herders' use of collective decision-making:

"Together, we collect hay and forage for the winter. We grow vegetables, comb goats, and sheer sheep and ensure our river remains clean. These activities are quicker when carried out together," Belonging to a community also comes with social support" (Pasotti, 2020).

Table 4. 40: Collaboration for managing disruptions

No		Details	Sources
1	ction	Mongolian collectors build trust with suppliers by using multiple scales to show they are not being cheated, even though they make comparatively less than other collectors. This secures long-term and more responsive relationships.	Table 4.15, points 5 and 7
2	Unilateral action	A Mongolian processor buys 10% of their supply at higher prices to raise the price for the remaining 90% for the Chinese buyers.	
3	Uni	The participant also introduced a new trading structure: the firm pays local communities in advance for raw fibres. After deducting costs, they would split the utilities 50/50.	TraderProcessorWM2
4	ks	Herders, collectors and trader-processors form collaborative relationships with NGOs, government departments, herder cooperatives and other value chain actors to manage fibre deterioration and climate change.	HerderSM1; HerderKM1; HerderSM1b; CollectorOM1; CollectorNM1; ManufacturerWU3; ExpertLA5; ExpertFG5
5	Formal Networks	Collaborative projects "need government support for longevity", while another sees cultural synergies as ingredient.	ExpertPW5; ExpertFG5
6	Forma	The traders and processors feel similar collaborations also help address political and anti-animal activism-related disruptions.	TraderProcessorWM2; TraderProcessorLA2
7		Smaller Western wholesalers collaborate with international banks to finance park conservations to improve price tracking.	Wholesaleri4
8	orks	international business agents funnel various rumours and gossip to reinforce decision-making and managing disruptions.	TraderMM2
9	netw	Informal contacts gather intelligence and resolve issues.	WholesalerBC4
10	Informal networks	"Like Saturday mornings, let's discuss over pizza and wine".	WholesalerG4
11	Info	This includes, among other things, valuable information to help execute takeovers of partner businesses.	ManufacturerRetailerSU3
12	S	Fibre growers form direct relationships with EU manufacturers to access final consumers and market themselves for better payoffs.	HerderSZ1
13	Proxy contacts	Smaller Western wholesalers maintain offices in sourcing locations and upstream proxies to monitor and their agents "reject 10-15% from each factory before shipping."	WholesalerI4
14	Pr	Western manufacturers and retailers only sometimes have offices in sourcing locations but maintain high-trust contacts.	ManufacturerRetailerCU3; ManufacturerRetailerSU3
15	ŗ	Brand retailers join trade bodies, to develop 10-year strategies aligned with the SDGs to protect against Chinese power.	ExpertJM5
16	Co-action	Businesses have focused on local rather than international competition and lobbying using trade bodies and govts.	ExpertPW5

4.3.1.3 Control

This section builds on the previous discussions on adversarial relationships (section 4.1.2.3) and controls as a source of value capture (section 4.1.3.4). The findings identified control as a third process for managing disruptions in the international cashmere industry. Table 4.41 shows that control as a disruption comprises vertical integration, power asymmetry, and government support. It also uses numbering to denote the different information that makes up these broader approaches. The table findings show that vertical integration allows cashmere businesses to absorb any risks and losses across more units to reduce their impact (1,2) while curbing opportunism and maximising profits (3) and visibility (4). Businesses usually do this over time by first increasing the perceived value of their internal resources to allow them to compete on their strengths and make controlling the critical resources easier (5,6). Second is government support, evident in the pattern that emerges from the Chinese, Mongolian, and now Afghan government efforts to boost their local cashmere industries (7,8,9,10).

Table 4. 41: Triggers for end-to-end vertical integration

No		Details	Sources
1	ition	Mongolian trade processors feel end-to-end control could help businesses absorb disruption losses efficiently across multiple units.	TraderProcessorBM2; ExpertLA5; ExpertBC5
2	Vertical integration tradition	Vertical integration offers manufacturers with a retail arm more control over what they produce, curbing the risk of bottlenecks and customers leveraging and dropping them.	ManufacturerTU3; ManufacturerRetailerSU3
3	al integ	The cashmere industry has a tradition of using vertical integration to maximise control and profits.	ExpertDW5; ExpertLA5
4	Vertic	Vertical integration offers businesses better visibility.	ManufacturerRetailerCU3; ManufacturerSM3
5	Strength-based	Chinese firms have changed the industry trading policy from fibre quality to fibre volume, using uniform raw fibre trade pricing herders to reduce complexity for themselves.	ExpertLA5
6	Strengt	For Mongolia to achieve end-to-end integration successfully, they need to update their processes and "mix with a heritage of centuries of experience of traditional herding culture".	HerderSM1
7	ī	Chinese growth is underpinned by "very soft loans from the Chinese government to encourage them to build factories by machinery."	Table 4.24, points 5,6
8	Government support	Chinese firms receive "heavy subsidies" for building up their resources and "13-17% export tariff rebates" for expansion.	
9	nmer	Like China, Mongolia is trying to back Mongolian companies.	TraderMM2
10	Gover	The Afghans are trying to establish a government-run centralised trading system and Afghan fibre branding.	ExpertKA5

Table 4.42 shows that cashmere businesses have successfully evolved their ability to implement backwards and forward integration for end-to-end control and use numbering to denote the different information that makes up these broader approaches. The table findings show that Chinese businesses have learned effective forward integration from past market leaders and try to ensure other businesses cannot replicate their processes (1). They use the unbranding rebranding strategy to remove the historical barrier to entry into the downstream branded manufacturing and retail processes (2,3) and have moved their supply closer to the final consumer to offer higher levels of responsiveness at the expense of terminating the role of the downstream traders (4,5). Similarly, Mongolian and Afghan firms are following the Chinese firms. They are focused on establishing their end-to-end chains (6,7,8,9), which includes setting up domestic cashmere consumer markets to reduce their dependence on Western customers (10,11). Regarding backward integration, Table 4.41 shows that Western businesses move into the upstream processes in Mongolia and Afghanistan to counteract China's ability to form end-to-end value chains and reduce their relative dependence (12,13,14). One interviewee provided further insights into how Chinese firms have handled the COVID-19 disruption:

"The good thing is that the entire supply chain is in one country. We were facing problems last year because some of the auditors couldn't go out to the farms; they needed to go into quarantine for two weeks before they could go out to the farms" (ExpertBC5)

Another interviewee also explained how the Afghan government and businesses are following the Chinese, Mongolian and Western businesses by also focusing on forward integration:

"I had a conversation with all the collectors and the local traders, and they suggested that they have one common trading centre to control the prices, and I was quite surprised. If a neutral agency or institution runs one system, they said they would love to work under it. I also met with the ministry, and he showed me a logo of something that would happen. I don't know whether they have already introduced it" (ExpertKA5).

Table 4. 42: Forward and backward integration

No		Details	Sources
1		Chinese businesses have learnt from the EU and US monopolies and protect their power by "shutting doors behind them" so others cannot follow them".	ExpertLA5
2		Chinese businesses are adopting the un-branding rebranding strategy to gain instant access to Western brand values by first putting Western businesses out of business before purchasing them.	Table 4.23, points 8-11
3		Chinese business is buying Dawson and all trademarks, and a dispute is occurring. They previously also bought Dawson International.	ExpertDW5
4	on	Chinese businesses have innovated the cashmere value chain structure by storing and holding processed fibre stocks in Europe to become more responsive to cashmere-buying customers.	Table 4.8, point 6
5	Forward integration	While this is positive for the fibre buyers, this has all but terminated the role of the downstream trader.	TraderMM2
6	orward i	Mongolian firms take "the factory price and convert that into a significant multiple at the retail level".	WholesalerI4
7	F	In Mongolia, "work is being done to build capacity in the next four years".	ExpertJM5
8		If herders move into processing, they expect to work with longer payment lead times than now, "That's a big deal if you're living on the land".	ManufacturerWU3
9		A few dehairing factories have arrived in the last decade. Although there is some improvement, "it is very slow and will take some time."	ProcessorJA2
10		Mongolia has now developed its modest consumer market, selling budget cashmere clothing like China did before.	ExpertLA5
11		The rise of Chinese cashmere has created a new consumer market of "14.2 billion potential customers in China", which benefit brand retailers.	Table 4.34, point 11.
12	on	Mongolia's backward integration is curbing fibre erosion and improving the visibility of the upstream and supply structures for the local industry.	TraderProcessorWM2
13	Integrati	Western firms build on USAID projects to help Afghanistan improve its fibre while ensuring a consistent supply of quality fibres for themselves.	ExpertKA5; ExpertRA5
14	Backwards Integration	Western trader-processors are setting up processing units in Afghanistan to curb the Chinese stranglehold on global supply and help the herders gain a better margin by removing their reliance on local traders.	TraderMM2

Regarding the secondary data, it first confirmed Chinese businesses focusing on their strengths with standardised pricing for trading with the herders with the following explanation:

"Chinese traders buy and sell fibre 'by eye' and so cannot judge the quality and deal with mixed batches" (Waldron et al., 2011, p.18).

Two secondary data sources show how China and Mongolian businesses are trying to forward integration into the downstream processes using the unbranding rebranding strategy and the traditional expansion approach:

"The Chinese businesses are using the current excess capacity to process, finish and export products under their own brand names or contract supply" (Waldron et al., 2011, p.2).

"The hope of both the Mongolian government and the UN is to open more plants in Ulaanbaatar that can do all the processing work so that the finished wool can be sold for a "made in Mongolia" premium" (Timmins, 2020).

The secondary data also confirmed the value of government support by highlighting examples of how businesses today benefit from local government support for Mongolia and international government support for Afghanistan:

"The Mongolian government is providing Technological and financial support for domestic cashmere producers" (Bayartsogt, 2019).

"EFI founder and head Simone Cipriani said, It's part of the civil society of Afghanistan. What we have co-built together belongs to Afghan society. Afghan companies, staffed by Afghans, with Afghan producers. They are still very much there, and we are ready to continue our work of mentorship and facilitation as soon as possible" (Hall, 2021).

Regarding Western backwards integration, the secondary data also showed that Western businesses tried to build up their EU-based supply hub in the past. This involved exporting cashmere goat embryos to Western countries like Spain, Italy, and Greece (Russel, 1998, p.4) and the American (US) for raw fibre farming (Ellwood, 2020). The potential for the US and Afghanistan as a sourcing hub even now is captured within the following article quotes:

"Wendy Pieh lives in Bremen, Maine, and runs the Cashmere Goat Association. Her small herd of goats is among the 10,000 animals farmed Stateside. Pieh sells small-batch fibre and yarn to niche customers. It's local, traceable and sustainably farmed on land that isn't over-grazed. And it's very expensive, as she explains, quietly proud" (Ellwood, 2020).

"Afghanistan's budding cashmere industry, which was the focus of initiatives sponsored by the International Monetary Fund (IMF), USAID and a high-profile joint project unveiled by the Burberry Foundation and Oxfam in 2018" (Hall, 2021).

Like the Chinese strategy of buying Western brands using the unbranding rebranding strategy (Table 4.41, points 2-4), Western brands are now buying up other Western businesses to consolidate their power and increase the dependence of Chinese businesses on them as their customers. Both points are illustrated using the following article quotes:

"Chanel, a long-time Barrie client, bought the mill in 2012 after its then-owner went into administration. Today, 265 of the 1,000 people employed by mills in Scotland work for Barrie" (Cook, 2021)

"The local economy would suffer terribly if we shut, says Brown. We're trying to put a foundation in place for the next 30 years... we've got to do special things. Alex Begg, too, bought another Scottish factory on the brink of closure last year" (Cook, 2021)

4.3.1.4 Strategic Repositioning

The findings identified strategic repositioning as a fourth process for managing disruptions in the international cashmere industry and complement the previous three processes (sections 4.3.1.1, 4.3.1.2, 4.3.1.3). Table 4.43 identified two types of strategic repositioning: minor and major. The first column uses numbering to denote the different groupings of activities. The table findings show how Western and Mongolian businesses engage in minor strategic repositioning by diversifying their branding and competing on quality rather than price (1). The focus should be on specific marketing strategies and establishing cultural synergies with customers to command more power-induced value capture (2,3). This includes deceptive marketing to make sustainability claims without evidence supporting them for instant access to desirable brand values and improved power-induced value capture (7,8,9). As mentioned before, sustainability refers to balancing the three sustainability dimensions by doing business with minimal negative impacts on the environment and society (detailed in Appendix 2B).

The table also shows that to curb Chinese control and anti-cashmere activism, Western businesses must source some fibres from Oceania countries, which match the top 1% of Chinese fibres in terms of quality but not volume (4,5). Asian firms

have recently followed Western counterparts towards standardising dyeing colour palettes for more responsive order fulfilment (6).

When considering true and untrue sustainability credentials, it should be noted that the term sustainability or ethical trading is subjective, and cashmere industry practitioners seem to define it in ways that favour them. This point is supported by a Mongolia-based manufacturer's thoughts on the matter:

"There's nothing more ethical than buying a pure cashmere garment that's made using pure Mongolian cashmere, which is knitted and finished in Mongolia, so the value remains within the country" (ManufacturerSM3).

Therefore, minor strategic repositioning refers to adaptive improvements to power-induced value capture within an existing business opportunity. Table 4.43 also provides examples of major strategic repositioning. It shows Western, Mongolian, and Chinese businesses shifting from cost-to-sustainability-driven industries through long-term strategies. This is done to mitigate disruptions (10), secure sustainable raw materials (11), and introduce sustainability branding and quality standards (11,12,13). Therefore, major repositioning refers to adaptive improvements to power-induced value capture that create new business opportunities. For more strategic repositioning, see Appendix 4 (Table 4.19, quotes 4-5; Tables 4.22 and 4.23, quotes 1-5 and 1-3).

Table 4. 43: Strategic repositioning

No		Details	Sources
1		One Western manufacturer countered Chinese control by avoiding price competition and supplying yarns only to the premium market. They avoided diluting their and customers' luxury brand image despite losing customers for 30-40 % of their supply.	ManufacturerTU3
2	Branding	Smaller Western wholesalers distinguish themselves by working with Mongolian rather than Chinese suppliers to help build specific marketing strategies around Mongolia's nomadic traditional cashmere practices.	Wholesaler14
3		Mongolian firms are improving customer service by recruiting Western immigrants to head up their customer-facing operations. This creates cultural synergy and removes traditional barriers associated with international buying.	ManufacturerSM3
4	.ls	Western businesses should outsource some of their fibre sourcing to the Oceania regions to curb Chinese control and PETA.	HerderSZ1
5	Technical skills	Oceania cashmere matches the top 1% of Chinese fibre quality but not volume, ensuring consistent supplies to Western businesses.	
6	Techr	This improved brand image parallels their efforts to improve their technical skills by standardising their dyeing colour palettes, which gives them more flexibility and responsiveness for order fulfilment.	ManufacturerSM3
7		Smaller Western wholesalers recently caused "a big controversy around them in Mongolia because they claim to produce in Mongolia, but they don't". Their stories are inaccurate".	WholesalerG4; WholesalerI4
8		Some Western businesses greenwash and use sustainability as a marketing ploy without supporting facts.	ExpertFG5
9	Sustainability	Chinese firms are reducing their goat numbers and outsourcing the more toxic processes to Mongolia because "they prefer to ruin the Mongolian environment rather than their own".	TraderMM2; WholesalerBC4
10	d False Sus	One Western processor explained that "a 10-year strategy for sustainability is not to react but to work in advance to mitigate the risks and to have a clear strategy for disruptions."	TraderProcessorWM2
11	Real and False	Mongolian manufacturers are securing long-term exclusive rights over sustainable fibre sources and marketing as "100% sustainable fibres".	ManufacturerSM3
12		Mongolian manufacturers are developing "Woolmark-type stickers, so customers know that the fibres meet a certain sustainability standard."	
13		Chinese firms market themselves as sustainable by collectively assembling a sustainability system to trace and certify fibres.	TraderMM2

The secondary data confirmed branding-based minor strategic repositioning by identifying Western firms "strategically repositioning themselves on the tip of the luxury market" (Cowell, 2014). Therefore, brands manage exclusive customer service for their top luxury customers to a broader pool of customers and create a higher standard:

"The aim is to future-proof the business in a globally competitive, post-Brexit market. For around £3,000, customers can make 7m of their cashmere fabric from scratch, choosing the yarns, colours, pattern and wool weight. We can make a blanket with your face on it if you want. It's the same experience that the luxury labels get from us" (Cook, 2021)

Chinese businesses also match Western branding efforts by partnering with Western downstream firms or employing Western designers and labelling the items as 100% Italian to "establish brand credibility and benefit from the country-of-origin value" (Heine and Gutsatz, 2015, p.238). Rather than continuing to match Western brands, Chinese businesses have begun redefining what good branding should be by connecting their home-grown brands to high quality. It also confirmed China's attempts to achieve a major strategic repositioning and become a sustainability leader in this new era of competition (Mongolia and the West). The data shows that, like the Sustainable Fibre Alliance (SFA) in Mongolia, the Good Cashmere Standard (GCS) in China has been set up as a third-party sustainability project to promote sustainable value chains:

"Walk into a Hugo Boss store later this year, and you could pick up a garment touting its production under the Good Cashmere Standard. A separate, rival non-profit operates this certification—the German-based Aid by Trade Foundation—with fewer partners, including Boss and Lacoste. The process operates at a grassroots level, including sending teams of verifiers into the field" (Ellwood, 2020).

The secondary data revealed that the government and the UN are experimenting with Global Positioning System tagging (GPS) and blockchain technology to improve within-country traceability. These technologies can curb the "chaos of the raw materials market, which middlemen and market aggregators cloud" (Timmins, 2020). However, the most innovative of these efforts is the development of online auctions to empower the herders to engage in more direct and informed trading:

"Dashzeveg Polooj, a member of the Bayantsagaan provincial council, backs the government's efforts to change the industry, arguing that centralised trading should continue, even though the system has been less successful this year than in 2018 when he helped to raise prices in a local auction by buying cashmere above the initial market level on the first day of trading" (Bayartsogt, 2019).

4.3.1.5 Strategic Timing and Luck

Strategic timing and luck represent determinants for the previously discussed four disruption management processes (sections 4.3.1.1-4.3.1.4). Table 4.44 uses numbering to denote the different groupings. The table findings show how firms use strategic timing to optimise their power-induced value capture while mitigating disruptive impacts. For example, the table findings show that herders and traders can hold raw fibres until demand peaks and trades are predictably favourable (1,3). At the same time, the collectors try to prepay for raw fibres when the demand is at its lowest to avoid future volatility (2).

In the downstream, processed fibre, yarn, and finished product buyers similarly time their purchases by managing the trade-offs between market visibility, price, and benefit from demand fluctuations (4,5,6). It is underpinned by careful market monitoring to learn the emergent patterns over time (7,8) to buy low, sell high (9) and avoid long-term commitments in favour of present-day risks and rewards (10). Furthermore, businesses optimise their strategic timing success by adopting flexible structures and evenly spreading workloads to avoid bottlenecks and respond to disruptions (11,12,13). Therefore, Strategic timing refers to the firm's ability to use organisational learning to identify the best moments to undertake specific actions to improve its power-induced value capture.

Table 4. 44: Strategic timing

No		Details	Sources
1		Collectors feel customers use prepayments to get herders and collectors "locked in with a single buyer" at their most vulnerable for the lowest prices.	CollectorNM1b
2		Herders, collectors and processors can hold fibres until prices rise and strategically time their trades to optimise their margins.	ExpertLA5; ExpertFG5; ManufacturerRetailerCU3; ExpertJM5
3	Timing	Traders fill their stores/warehouses with fibres and sit on them for up to 10 years to get the best prices.	Table 4.4, point 3
4	ï	Firms buy fibres when prices become stable between January and June.	ManufacturerTU3
5		Smaller customers buy more between December and January and continue asking suppliers how much stock they have left to avoid fibre scarcity.	WholesalerG4
6		One Western manufacturer went to trade shows with a finalised price list and collected the final orders. However, I have now switched to only taking an indicative list in June and giving the last process in September- December.	ManufacturerTU3
7		Herders monitor the market and look for signals or environmental triggers that could help them adjust quickly.	HerderSZ1
8	ring	Other interviewees identify triggers that Chinese wholesalers try to monitor, including raw material prices and volumes.	WholesalerBC4; WholesalerI4
9	Monitoring	Businesses wait for the correct time to buy and sell based on patterns merging with past trading experiences. The aim is to "buy low or sell high, which is easier said than done."	TraderMM2; WholesalerBC4; ManufacturerRetailerCU3
10		Western manufacturers avoid long-term commitments and focus on present- day risks and rewards when buying and selling fibres and products.	ManufacturerRetailerCU3
11	ā	Western manufacturers maintain a "flat mill" or remain flexible in spreading their workload evenly over the year to minimise bottlenecks.	ManufacturerRetailerSU3; ManufacturerTU3
12	structur	Western manufacturers engage in forward ordering, visiting customers and taking advance orders for most of the business cycle to create clear visibility.	ManufacturerRetailerSU3
13	Flexible structure	Manufacturers engage in careful inventory management where yarns are bulk dyed and kept in large batches for the popular colours and used without any issues depending on real-time needs.	ManufacturerTU3; ManufacturerRetailerCU3; ManufacturerWU3

Regarding luck, Table 4.45 highlights that cashmere businesses sometimes rely on pure chance (passive) or luck for circumstances to become favourable and optimise their power-induced value capture (active). The table uses numbering to denote the elements that make up active and passive luck. Table 4.44 shows that businesses remain passive, control their costs to limit losses, and hope things improve (1,2). Firms also make educated guessing-based decision-making to predict future business opportunities while keeping the rough variability of the industry in mind (3,4).

Table 4. 45: Luck

No		Details	Sources
1	assive	One trader believes that as a weaker value chain actor, they must "go with the flow," using the following logic: "I think what we have learned is that the market will recover. No matter how bad things look, they will recover."	TraderMM2
2	Pass	Retailers traditionally tried to control their costs to limit the negative impacts of disruptions while "just sitting waiting for the fashion to come back."	ExpertPW5
3	ve	Manufacturers take "educated gambles" using "imprecise forecasting."	ManufacturerSM3; ManufacturerWU3
4	Active	Everyone knows the price points; there is never more than a 10% spread and luck within speculative trading.	ManufacturerRetailerCU3; ExpertLA5

The research previously highlighted strategic timing-based prepayments act as a trust-building mechanism within herder-collector relationships (section 4.1.2.2). However, other interviewees feel prepayments are used for controlling partners and demonstrate how businesses weaponise strategic timing, as illustrated by the following interviewee reflection:

"Middlemen are holding that fibre until the market is there for it. Every year, there was something. Major competitors are taking inventory positions, so speculating and buying up major fibre volumes when they feel prices will rise and selling a lot when prices are thought to fall has significantly impacted the industry" (ManufacturerRetailerCU3).

One interviewee explained how and why businesses adopt a flat mill flexible structure and focus on their present risks and rewards for responsiveness:

"Whether it is Covid, whether it's SARS or foot and mouth, the main thing we've learned over the years is, don't sell anything until it's on the water. When it's been shipped and, on the water, we can try and sell it forward" (TraderMM2).

One participant highlighted that firms rely on passive and active luck:

"The key to making money in cashmere is constantly on the doorstep in China, Mongolia, and Afghanistan. Can you pick up a tone at a lower price? That is where you make your money. OK, today's price is fifty dollars. I will buy two hundred tons. So, you have got a million. You have got a million dollars that you just stuck on a roulette table" (ExpertLA5).

See Appendix 4 for additional quotes related to strategic timing (Table 4.7, quotes 1-3,14, 9-10 and 11-13), flexible structures (Table 4.15, quotes 5-7) and luck (Tables 4.9 and 4.16, quotes 1-2 and 1-3).

4.3.2: Renegotiations

The findings identified the following seven possible scenarios from post-disruption renegotiation scenarios that include: stronger partners push risks/losses onto the weak (scenario 1); stronger partners terminate relationships or reduce orders (scenarios 2 and 3); stronger partners offer adjusted payment schedules (scenario 4); evenly matched partners offer minor concessions followed by ultimatums (scenario 5), and reciprocate coercive actions (scenario 6); or engage in industry arbitration (scenario 7).

Table 4.46 details scenario 1, and its first column uses numbering to denote points that underpin the scenarios. The table findings show that stronger partners (usually the customer) push any risks or losses they encounter onto their weaker partners within post-disruption renegotiations (1-3). Upstream, the collectors' processors and processors force their suppliers to accept their terms and absorb any risks over losses while their customers do the same to them (4-6). In the downstream, the brand retailers, wholesalers, manufacturers and sub-units within manufacturing (spinners and knitters) force suppliers to accept unfavourable terms. They are forced to do the same by their customers (7-10,11) or risk losing the prospect of future business (12-14). The following two comments express how weaker counterparts feel about being forced to accept unfavourable terms and the perspective of the stronger partners:

"Some customers are really greedy, difficult and not ethical, but we just have to work with them" (WholesalerBC4).

So, once you have given a price and someone has accepted it, that will be the price. It was the same way as trade stocks and shares" (ExpertPW5).

Table 4. 46: Scenario one

No		Details	Sources
1	١	In buyer-seller relationships, buyers pass on disruption-induced risks and losses to their suppliers, who accept to secure future business.	ManufacturerRetailerCU3
2	General	"Local businesses need to control their supply chains to minimise risks".	ExpertFG5
3	Ğ	The same firms feel that expecting their customers to absorb the risks and losses is unfair when dealing with them.	ExpertPW5
4		Collectors only do business with suppliers if they accept their terms.	CollectorNM1b
5	Upstream	Collectors unwillingly accept customer terms in because they offer much better margins than local customers.	CollectorNM1b; CollectorBM1
6	Upsi	In processor-customer relationships, suppliers are "used by many brands" who ask for sustainability features but do not pay for them and expect them. Suppliers absorb the losses to secure business.	TraderProcessorWM2
7		Western spinner-knitter renegotiations highlight a situation where customers ask suppliers to absorb losses to secure business.	ManufacturerTU3
8		Western manufacturers and retailers expect their suppliers to accept unfavourable terms or risk losing customers and future business.	ManufacturerRetailerCU3; ManufacturerWU3
9	Downstream	Chinese wholesalers believe they have power over their suppliers, "For our manufacturers, we have options to change, but this is rare, and I have not seen any manufacturer changes in my two years here".	WholesalerBC4
10	Dov	Big wholesalers and manufacturers must accept their customers' terms. Similarly, manufacturers expect to be controlled and submit to their retail customers on the same grounds.	ManufacturerRetailerCU3; ManufacturerWU3; WholesalerBC4
11		Brand retailers today blame suppliers for all issues (price fluctuations, politics, fibre quality) and struggle with ever-shrinking margins.	ExpertFG5
12	ns	This is true within both the fibre and yarn stages, where once a price is agreed upon, that is like stock trading.	ExpertPW5
13	No renegotiations	Once the manufacturers set prices with their suppliers and customers, then that is it. Only less reputable businesses go back.	ManufacturerRetailerCU3; ManufacturerSM3
14	No rene	Upon discovering any issues, businesses try to be careful next time, but there are no reviews of current dealings.	ExpertFG5

Table 4.47 shows that if the weaker partners do not accept the stronger counterpart terms in the second and third scenarios, the stronger firm terminates the relationship or significantly reduces the orders. Alternatively, in a fourth scenario, if the stronger partner is partially dependent on a specific partner, they may prefer to offer them minor concessions rather than terminate the relationship. The first column of Table 4.46 uses numbering to denote points that underpin the scenarios. The table findings show that in the upstream if the herder refuses the demand of their customers, the collectors then the collectors' source new suppliers (1). In the downstream, the retailers directly terminate the relationships (2), create situations where the weaker partner leaves themselves

(3) or drastically reduce the orders with their suppliers (wholesalers or manufacturers) (4). Alternatively, in retailer relationships with wholesalers and wholesalers' relationships with the manufacturers, the customers can offer minor concessions to their key suppliers through difficult periods like flexible terms (5,6). The likelihood of stronger firms providing this flexibility is also influenced by the length of their relationships (7,8).

Table 4. 47: Scenarios two, three and four

No	Details		Sources
1		If the herders refuse to comply with collector demands, then the collectors replace the herders with someone else.	CollectorBM1
2	and 3	Western manufacturers reflected on their French couture house retail customers' reaction to a minorly delayed delivery of a 4000-unit order. The customer demanded discounts but also wanted to terminate future business.	ManufacturerRetailerSU3
3	Scenario 2 a	Manufacturers broke the deal despite a small Western trader and Mongolian manufacturers agreeing on product deliveries for July. Instead, they should have supplied the goods by November time and asked the customer to return the following year, forcing the business to outsource to other countries.	WholesalerG4
4		In wholesaler-retailer relationships, if partners are asked to absorb some losses or risks, this can go down like a "lead balloon" where they terminate the relationship or significantly reduce the order sizes.	Wholesaler14
5		Stronger firms occasionally allow smaller partners minor concessions (flexible pay schedules) in manufacturer-wholesaler relationships.	
6		Traditionally, strong customers have adjusted payment terms to help key suppliers who ran into trouble and ensure service provision.	ExpertPW5
7	Scenario 4	A 15-year Japanese customer owed an EU manufacturer money, but the manufacturer remained passive to preserve the relationship. The partner eventually went bankrupt, with 10% of the total business.	ManufacturerRetailerSU3
8		A 6-8-year-old UK-based customer owed an EU manufacturer money. Eventually, the business got a tip-off and went into their stores with bin liners, collecting all the stocks and leaving. Still, they let the situation get bad to maintain a lucrative relationship.	

Regarding the second and third scenarios, one interviewee captured the uneasiness in business relationships when the stronger counterparts move towards terminations or significant order reductions:

"We had to return to our buyers because the prices were unexpected. So, we had to swallow an awful lot of the price increase by cutting out our margins and raising prices by 10-15% for our buyers, which went over like a lead balloon, and we lost a couple. We had others who said we are interested but that we can't take as much" (Wholesalerl4).

Regarding the fourth scenario, stronger partners can help their weaker counterparts through difficult times. Why do they do this, and to what extent:

"What could and did happen if the suppliers got into trouble? Then, the payment terms could be adjusted. For example, a scouring company that worked for Dawsons faced financial difficulties and ran out of money. So, the payment terms had to be adjusted to ensure that the service provision could be maintained. So that type of arrangement was more likely" (ExpertPW5).

The key reason for this is the minimum level of dependence and familiarity that firms build over a long relationship, which means that the stronger partners will do whatever they can to maintain the relationship before being forced to terminate it:

"You are always conflicted because you want to expand your sales with somebody you have been trading with and feel you can do more. You should be saying to be a business and not a salesman. Confront it and be willing to stop it. I mean, it helped because we tend to do the selling ourselves. The only person you can blame is yourself." (ManufacturerRetailerSU3).

Furthermore, the longer these relationships last, the more complacent, the stronger firms become:

"I always remember being in a boardroom, looking at some samples from Poland, and I remember someone saying that "they are crap", and someone replied, they are not crap enough. In other words, we couldn't match that quality level at that price level. I regret that having been at the centre of it 20-25 years ago, we failed to spot that we were investing in the wrong place" (ExpertPW5).

See Appendix 4 for additional quotes on how stronger partners push risks onto their weaker partners and refuse to accept renegotiations (Table 4.23, quotes 1-7 and 9-10). Table 4.48 shows that if businesses are more evenly matched in terms of relative power, in a fifth scenario, they may offer each other ultimatums (1,2). If unsuccessful, firms engage in coercive retaliation in a sixth scenario. (3). In the seventh scenario, firms that cannot terminate relationships may resort to 'tit for tat' negative actions or 'cold wars' (4).

Table 4. 48: Scenarios five, six and seven

No		Details	Sources
1		Reflecting on personal experiences, one processor lays out their standard approach, "I would say, look, I know we gave you this price last week, but the market has fallen, and it's worth this week. So, they either accept it or they don't".	TraderProce ssorLA2
2	ınd arbitration	Similarly, the business partner might return and ask for a concession in other situations. In this case, the response would either be price matching, minor improvement, or the direct response, "What you have been looking at is rubbish. I won't consider that; this is our price; take it or leave it."	
3	actions and	In Asian manufacturers' relationships with small Western customers, the manufacturer described an opposite situation: the manufacturer, not the retailer, set ultimatum deals.	Manufacture rSM3
4	coerced	In the 1990s, a Western cashmere firm set up a JV dehairing plant in Mongolia and made necessary training machinery-related investments. However, after some time, the local workforce wanted to change the contract, get more value capture, and constantly throw up obstacles. In response, the EU firm withheld their ex-pat labour for four months before giving up.	ExpertLA5
5	Concessions,	One past EU trader explained that on rare occasions, they previously ran into conflicts with their Chinese buyers. However, they preferred a trade-led arbitration system rather than going to court. If still unhappy, then the court was an option.	ExpertDW5

Three interviewees' reflections on their past ultimatums to customers effectively show how firms engage in risky business negotiations:

"They bring in customs and try to make it difficult for you, and you'll bring in who you can. Well, we withheld our labour. We just said you try running your machines because we had experts who were experienced experts running machines. It's like giving the car keys to a 12-year-old; the first thing you will do is hit the lamp post. This lasted from Christmas until April, and then they gave in; they gave up. We just continued through that and kept going until things became too difficult" (ExpertLA5) (also see Appendix 4, Table 4.23, quote 8).

Secondary data also confirmed that where actors are evenly matched, or power structures are ambiguous, firms engage in tit-for-tat coercive behaviour until one gives in. Collectors demonstrate more control over local government and force partners to accept terms after reciprocal coercive actions:

"The local governor had set far higher prices in other cashmere trading centres, and after a two-day standoff, some cashmere finally cleared at 115,000 tugriks. But a day later, prices had fallen to 113,000 tugriks. The saga was a triumph for the brokers, who control 80% of the market despite government attempts to squeeze them out in favour of a centralised trading system intended to bring herders into direct contact with manufacturers (Bayartsogt, 2019).

4.3.3 Summary of Research Objective 3

This section summarises the findings for RO3 (sections 4.3.1-4.3.2), which involved establishing the impact of strategic decisions undertaken by the value chain actors. This included four major processes and two moderators for managing disruptors: organisational learning, coordination, control and strategic repositioning, influenced by strategic timing and luck. Fig.4.6 summarises, three major approaches that underpin organisational learning and include experiential, experimental and analytical learning.

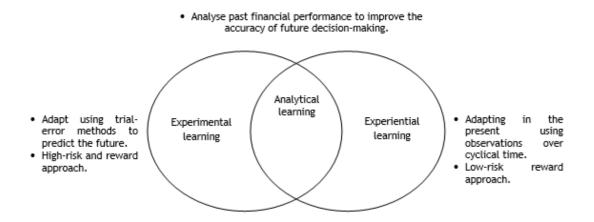


Fig 4. 6: Organisational learning approaches

The three organisational learning approaches covered in Fig 4.6 underpin firm-level branding and technical skills to maximise power-induced value capture, covered within the research objective one finding (section 4.1.4, Fig.4.3).

Coordination tactics represent a second major approach for managing disruptions over time and allow firms to learn and adapt beyond the organisational learning scope of any single firm. The findings reiterated the value of the previously discussed features for coordination (section 4.1.4, Fig.4.4). This is a solution for countering the negative impacts of climate change, political issues and anticashmere activism. The research identified that processors have begun directly paying the local herder communities in advance for raw fibres. They are also beginning to split the utilities 50/50 after deducting their costs after processing and selling fibres to customers in a processed form (section 4.3.1.2, Table 4.40,

point 3). Fig 4.7 adapted Fig 4.4 to show the relationship between collaborative relationships and coordination mechanisms.

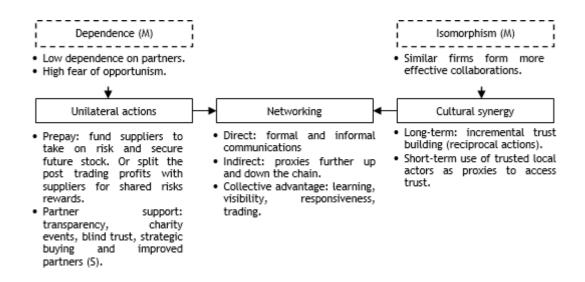


Fig 4. 7: Collaborative relationships and coordination mechanisms

Control tactics represent a third major approach for managing disruptions over time, allowing firms to do one of two things: absorb risks and losses across more units to reduce their impact while curbing opportunism and maximising profits and visibility, or push risks or losses onto the remaining businesses in the value chain. Fig.4.8 reiterates previous findings on the control mechanism (section 4.1.4, Fig.4.5), emphasising how firms build their control over time using backwards and forward integration. The vertical integration (VI) component captures backwards and forwards integration.

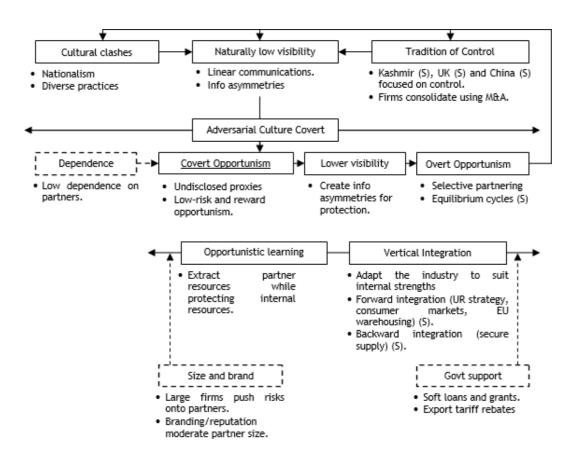


Fig 4. 8: Control mechanisms as a source of disruption management (Adapted from Fig.4.5)

Strategic repositioning is a fourth process for managing disruptions over time and includes two main types. Fig 4.9 shows that minor strategic repositioning involves adaptive improvements to power-induced value capture within an existing business opportunity. In contrast, major repositioning involves adaptive improvements to power-based value capture that create new opportunities.

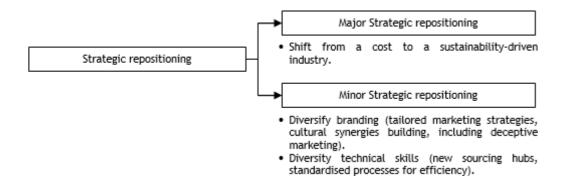


Fig 4. 9: Types of strategic repositioning

Strategic timing and luck influence the four processes for managing disruptions. Strategic timing is the firm's ability to identify the best moments to undertake specific actions to improve power-induced value capture and mitigate disruptions. Luck refers to how much a firm relies on a chance for things to work out in its favour. Fig.4.10 visualises the interplay between strategic timing, luck and the four processes for disruption management.

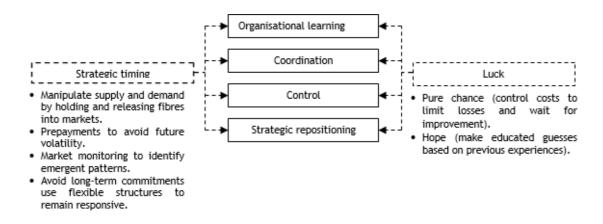


Fig 4. 10: Strategic timing and luck determinants

The findings identified seven scenarios regarding post-disruption renegotiations. They acknowledged that relative power is the primary determinant of whether a renegotiation succeeds or fails for all value chain actors (section 4.3.2).

4.4 Chapter Summary

Chapter Four coded the collected raw data into codes, categories and themes in line with the categorical aggregation component of the data collection protocol (section 3.7.3). This involved using the research aim (RA) and objectives (ROs) (section 3.5.6) to isolate the relevant data for each RO before inductively organising it using open and axial coding (sections 4.1- 4.3). A summary section accompanied the details for each RO to ensure reader comprehension by incorporating diagrams and tables to form transparent building blocks that would inform theory building in the next chapter (sections 4.1.4, 4.2.9, 4.3.3). Following Gioia (2012), the data was not interpreted and focused on the codes, categorisation, and themes (section 3.7.3).

Chapter 5: Data Analysis and Discussion

The previous chapter outlined the key research findings from the secondary and primary data collection, aligning with the first component of the data collection and analysis protocol for categorical aggregation (section 3.7.4). This chapter focuses on data analysis and discussion following the second component of the data collection and analysis protocol: direct interpretation. The data analysis adopted theoretical coding to interpret the relationships between the categories and themes. These outcomes were compared to the literature (section 2.4.4, Fig 2.14, driven by inter-partner learning theory) to identify the original contributions of this research project.

The primary objective was to understand the conditions for effective collaboration and the influence of culture, power dynamics, value capture, and punctuated time on supply chain collaboration (section 2.4.3). This research has contributed to the value capture literature by addressing key research gaps related to power, value capture, culture, and time (section 2.4.1, Table 2.10). Building on these points and their interrelationships, broader conclusions were drawn to explain the conditions for effective supply chain collaboration and why inadequate collaborations happen (Ho et al., 2019; Bui et al., 2021).

Section 5.1 provides the data analysis and discussion for the first research objective (RO1): map the processes, business relationships and value capture dynamics that make up international cashmere value chains. Section 5.2 provides the data analysis and discussion for RO2: Identify the antecedents and impacts of the disruptors over time. Section 5.3 provides the data analysis and discussion for RO3: establish the effects of strategic decisions taken by the value chain actors. Section 5.4 provides a chapter summary that draws broader conclusions regarding how business alliances sustained power-based value capture over punctuated time and the conditions needed for effective collaboration.

5.1 Interpreting Data for RO1

The data analysis and discussion for RO1 first discusses the ineffectiveness of cashmere value chain structures and how businesses can break out of the lock-ins they create (section 5.1.1). Second, they provide insights that form the opportunism cycle concept (section 5.1.2).

5.1.1 Cashmere Value Chain Structures

Sections 4.1.1 and 4.1.4 showed that cashmere value chains suffer from ineffectiveness caused by human error and poor structural design and can be summarised into the following three points:

- 1. Poor initial inputs by the herders (ill-timed fibre harvesting, mixed bags, ineffective trading structures) create problems that can multiply the ineffectiveness at each stage.
- Trading fibres and finished goods between Asian and Western firms can be delayed for up to six months due to extreme weather, long shipping routes, and poor processing practices.
- 3. All cashmere actors must manage multiple time cycles.

The cashmere industry business cycle lasts 18 months, beginning in March each year and ending in August of the following year (section 4.1.1.5). The findings for RO3 also showed that powerful herders, collectors, and traders hold fibres until the demand rises in late summer for better payoffs (section 4.3.1.5, Table 4.44, point 2). Therefore, delays caused by people or poor structural design when moving the fibres downstream will compress timelines and increase pressure on the downstream value chain actors to meet deadlines. The inter-partner learning theory identifies partner or market priority shifts as internal disruptions impacting business environments like a value chain (Hamel, 1991). This research argues that combining these three elements forms an internal disruptor other than partner priority shifts, referred to hereafter as the ineffective value chain disruptor. These points are summarised in Fig 5.1.

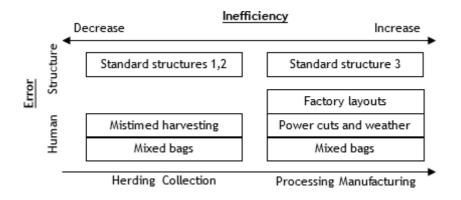


Fig 5. 1: Inefficiency snowballing across the cashmere value chain.

Table 5.1 summarises the time cycles different value chain actors must manage. Upstream includes weather (1-3), animal lifespan (4,5), and trading cycles (6,7). Downstream includes manufacturing (8,9), retail, and wholesale (10,11).

Table 5. 1: Businesses managing multiple time cycles.

Actors		Cycles	Details	Source
1		Weather cycles	Strategic time herd movements to optimise animal health survival and fibre quality by feeding them different types of grasses and weather.	4.1.1
2			Goats are kept in harsh climates at around 5000m (17000ft) and temperatures below -40 C.	4.1.1.1
3	ers		The herders spend three months before winter preparing the goats with nutrients and fixing their shelters to optimise their survival.	
4	Herders	Animal life cycles	Goats are combed for 2-3 years and live for 7-15 years.	4.1.1.1
5			Goats moult when they change visually at different points, beginning from the neck and moving towards the rump.	
6		Trading cycles	The collectors come to see the herders for trading once a year, and this is their primary income source.	
7			Harvesting and trading happen between March and June.	
8	Traders, Producers	Buying and Production cycles	Firms must time fibre buying against the differing Afghan, Mongolian, and Chinese processing cycles.	4.1.1.3; 4.1.1.4
9	Trac Prod	,	Firms must time their fibre buying and shipping against their own Asian (April-July) or Western (May-following June) trading and manufacturing cycles.	
10	e, Retail	Design and Retail cycles	Firms manage their design cycles, which range from 2 years to 1 month for different market and customer segments against their peak and off-peak buying (Mar-Jun and Aug-Feb) and delivery windows (May-Sep and Oct-Apr).	4.1.1.5
11	Wholesale, Retail		Retailers have a 60-90-day window to sell full-price items before introducing soft discounts. One month later, they offer a 50-70% discount to make room for new stock.	

Section 4.1.4 showed that cashmere value chain actors have the choice between the ineffective standard structure and more effective alternative trading options:

- Standard 1 versus cooperatives: herders must choose between selling their fibres to independent collectors (standard structure 1) or forming cooperatives with other herders to sell directly to big traders or processors.
- Standard 2 versus auctions: collectors can sell to traders and processors (standard structure 2) or directly to the manufacturers in the open market.
- Standard 3 versus warehousing: processors can wait for traders and manufacturers to visit them and ship the fibres to the customer for next year (standard structure 3). Alternatively, they can move and hold the fibres closer to the final customer location for improved responsiveness.
- Standard four versus wholesaler: Manufacturers can sell directly to retailers (standard structure 4) or wholesalers, who then supply to the retailers.

This raises the question of why the actors continue to adopt ineffective trading options when more effective options are available. One reason is the need for more visibility created by structural ineffectiveness and the traditionally adversarial culture, which prevents businesses from collectively fixing these issues (sections 4.1.2.3; 4.1.4). A second is the high familiarity with specific options over many years, making them social norms and traditions. The Inter-partner learning theory accepts the existence of lock-ins (Hamel, 1991) but offers little insight into what happens post-lock-in. The behavioural lock-ins concept within path dependence theory explains this phenomenon as a behaviour lock-in. Behavioural lock-ins are situations where individuals or organisations psychologically stagnate:

"Stuck by factors such as habit, culture, or organisation, and is entered into an inefficient or sub-optimal arrangement. These patterns can often be traced to specific historical events." (Goldstein et al., 2023, p.2).

5.1.1.1 Temporal Buffers

Section 4.1.4 showed that cashmere businesses manage inherently ineffective supply chain structures by allocating additional time around the most vulnerable parts of the value chain. This is a major reason why the cashmere industry business cycle lasts 18 months, beginning in March each year and ending in August of the following year, rather than 12 months (section 4.1.1.5). This additional time gives the Asian and Western businesses engaged in the processing and purchasing fibres the extra time to manage disruptions (section 4.1.4). This research refers to this phenomenon as temporal buffers, and some of the key examples of temporal buffering are as follows:

- Processers begin treating raw fibres as early as April and stop as late as
 December; the trades for fibre processed in August are usually finalised in
 the following April-May and arrive at Europe (EU) manufacturing locations
 by September (sections 4.3.1;4.3.2). This gives the processors a 1-1.5-year
 cushion to identify and plan for future disruption.
- EU manufacturers use fibres they purchased and stored from the previous year. As a result, they always maintain pipelines for six months (sections 4.4.2;4.4.3). This cushion allows them to continue to supply despite any sudden disruptions upstream.

Fig 5.2 summarises the potential time-based bottlenecks that cashmere value chains experience and how temporal buffers are used to reduce their impact.

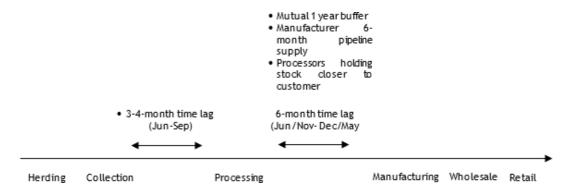


Fig 5. 2: Bottlenecks and time buffers

The inter-partner learning theory accepts the existence of lock-ins (Hamel, 1991), but offers little insight into what happens in the post-lock-in stage. The path dependence theory identifies path-breaking as the stage that comes after lockins. Path-breaking refers to situations where natural and unnatural rationality shifts and shocks transform successful regimes into irreversible competenceeroding changes (Anderson & Tushman, 1990; Sydow et al., 2020; Goldstein et al., 2023). This research argues that the temporal buffering phenomenon is a nontraditional path-breaking mechanism. Rather than breaking existing paths, cashmere businesses use their experiential learning over multiple business cycles to 'alter' conditions within their established path structures. This represents a positive accident and not something this research expected or addressed in the literature review. In sections 1.2 and 2.2.1, the research identified safety stocks and capacities as potential disruption SCM-based solutions for managing change (Choi et al., 2023; Sodhi & Tang, 2021). Temporal buffering fits within this discussion, but rather than expecting firms to maintain extra stock, it calls for them to preserve 'safety time' to uniquely contribute to the "Just-In-Time" versus Just-In-Case" debate (Jiang et al., 2021, p.143). Furthermore, by identifying temporal buffering as a path-breaking process, this research has helped explain what happens in the post-lock-in stage, contributing to a key issue within the value capture literature (section 2.4, Table 2.10, issue 8).

This research needed to clarify how the temporal buffering phenomenon emerged within international cashmere value chains. Was it purposely developed previously by individual market-leading cashmere industries, including Kashmir, the United Kingdom (UK), or China, to preserve their power? Did they emerge due to cashmere value chains working collaboratively to ensure their existence? Or have they merged due to a mixture of both? This represents an interesting direction for future research.

5.1.2 Opportunism Cycles

The data analysis and discussion led to the emergence of the opportunism cycle concept. This process is divided into four subsections. First, they discuss how business opportunities are formed and how branding and positional advantages help businesses optimise their value capture (section 5.1.2.1). Second, how relative power is reflected in the kind of business relationships cashmere firms adopt (section 5.1.2.2). Third, the research discusses how businesses frequently need clarification on genuine and illusionary collaborations (section 5.1.2.3). Fourth, there are better competitive strategies than genuine collaborations because genuine collaboration represents a contingency plan (section 5.1.2.4).

5.1.2.1 Business Opportunities, the Brand and Positioning

Section 4.1.2.3 showed that the cashmere industry's overarching culture has historically been adversarial. Business relationships are tactical and experience incremental shifts between purely collaborative and adversarial relationships based on the relative dependence of firms on their partners (sections 4.1.2.1-4.1.2.3). Each time the strategic goals of a retailer change, the rest of the value chain firms must reconfigure themselves. This includes reconfiguring the value chain actor power dynamics and value capture expectations, depending on the relevance of their internal resources to the new business opportunity (section 4.1.2.1, Table 4.14). The inter-partner learning theory identifies that partner or market priority shifts can disrupt business environments, hindering the effectiveness of competitive learning and value capture (Hamel, 1991). This research has identified powerful retailers as an internal disruptor and a major source of priority shifts within international cashmere value chains. Furthermore, the study identified that these retailers often create new business opportunities.

Table 5.2 summarises the firm-level sources of power-based value capture for the different value chain stages. A comparison between how the cashmere value chain actors perceive their relative bargaining power, resource contributions, value sharing, and perceived fairness showed significant misalignments. All actors accepted that branding and technical skills are the most important power sources (detailed in section 4.1.4, Fig 4.3). This suggests that businesses need more than

just valuable resources to predict value capture accurately. Herders and brand retailers possess unique branding and technical skills (section 4.1.3.1). However, only the brand retailers effectively convert their power into value capture and gain around 50-75% of the total created value. Herders frequently achieve the least share of the total value created (section 4.1.3.5).

Table 5. 2: Value chain actors and their firm-level sources of bargaining power

No	Power and Actor		Details	Source
1	kills	Brand Retailer	Heritage of technical excellence and quality used within branding.	4.1.3.1
	ınical sl		Geographic proximity to the final Western consumer market reinforces competencies.	
2	Branding and Technical skills	Manufacture	Spinners possess unique fibre blending abilities to create fabrics with different performance resources.	4.1.3.2
3	ding a	Herder	Heritage of specialist nomadic herding techniques to produce high-quality fibres.	4.1.3.1
4	Bran		Geographic proximity to the initial source gives herders a remoteness-based control advantage.	
5	etries	Collectors, Trader and Wholesaler	Leverage low upstream visibility and niche downstream market positioning using information asymmetries.	4.1.3.4
6	asymmetries		Geographic proximity to the initial herder creates a scarcity-based control advantage.	
7	Info		It is reinforced by government support.	
8		Processor	Use cutting-edge technology and global raw fibre supply control to squeeze out customers who must comply.	
9	Scarcity		Geographic proximity to the initial herder creates a scarcity-based control advantage.	
10			It is reinforced by government support.	

This research identified branding competencies and positional advantages as key to convincing partners and consumers that a business's internal resources are desirable. The closer a firm is to the final customer in terms of culture and geographic location, the more effective its ability to convince consumers to pay a premium price for their added value. For example, Western brand retailers are geographically and culturally closer to traditional Western luxury consumers, allowing them to engage in more effective brand messaging than Asia-based upstream actors. Western cashmere businesses are associated with a heritage of high-quality production and brand image (section 4.1.3.1, Table 4.23, point 11). The herders also have a significant heritage of nomadic life and fibre development. However, they cannot access the final customers to effectively

market their products and services in ways that increase their perceived novelty (section 4.1.3.1).

This research also found that traditional protective barriers for Western downstream cashmere businesses are eroding. As mentioned in section 2.1.2, heritage marketing or branding involves using unique histories without appearing outdated to build strong brand identities (Hakala et al., 2011). It is a conventional approach to brand building and is associated with long-term image building (section 4.1.3.1, Table 4.22, points 1-5). However, cashmere businesses have recently begun to dilute the power related to heritage marketing by allegedly engaging in 'deceptive' marketing and the 'unbranding-rebranding strategy' (section 4.1.3.1, Table 4.21, points 6-11). Deceptive marketing refers to false advertising akin to greenwashing. Section 2.1.2 defines greenwashing as the deliberate attempt by organisations to mislead others regarding the ethics of their environmental practices (Bowen, 2014). Section 4.1.3.1 also showed that Chinese cashmere businesses have allegedly sold inferior non-cashmere fibre products as 100% cashmere. This is deceptive marketing. One interviewee also identified that Western brand retailers often use loopholes to label their products as sustainably sourced from Mongolia when they are from "outer Mongolia" or China:

"That's their loophole. It's like you and I saying, 'made in Strathclyde' rather than 'made in Scotland'. If you do an international textile labelling, it must be country of origin, not region of origin." (ManufacturerSM3).

The unbranding rebranding strategy refers to capturing the benefits of owning unique resources by presenting those of others as your own and engaging in hostile business takeovers to acquire rather than build brand value. In a sense, the first of the two approaches is an example of deceptive marketing. However, deceptive marketing refers to generic false advertising regarding ethical business practices. The unbranding rebranding strategy is more specific to businesses purchasing and repackaging goods and services before selling to customers without acknowledging their origins. This represents a more advanced version of the traditional rebranding strategy described in section 2.1.2, which involves replacing an existing brand and its values with a new one that appeals to more or different

customer segments (Muzellec and Lambkin, 2006). For example, section 4.1.3.1 (Table 4.22, points 6-11) identified both approaches that can be used individually or together within and across different value chain stages.

- 1. In upstream, Chinese processors buy Mongolian and Afghan fibres and remove all their country-specific characteristics (unbrand) before reselling them as Chinese fibres (rebrand).
- 2. In downstream, Chinese firms use their monopoly over raw fibres to supply to Western brands and manufacture cheap replicas to undermine and put them out of business (unbrand) before buying and relaunching (rebranding).

The unbranding rebranding strategy gives Chinese cashmere businesses instant access to the highly desirable branding value. This means deceptive marketing and the unbranding-rebranding strategy represent pathways to achieving brand values necessary to implement heritage marketing and confuse partners and consumers about which firms engage in deceptive marketing and which do not. This highlights the need to reconsider the long-held assumption in management research that branding is a long-term and challenging resource to acquire (Pecot and De-Barnier, 2017; Molinillo et al., 2022).

Since deceptive marketing and the unbranding-rebranding strategy-based branding competency are eroding previous barriers to competition, they represent rationality shifts that transform successful regimes into irreversible competence-eroding changes. This is the definition of path-breaking mechanisms (Anderson & Tushman, 1990; Sydow et al., 2020; Goldstein et al., 2023). By identifying branding competency as a path-breaking mechanism, this research helped explain what happens in the post-lock-in stage, contributing to a key issue within the value capture literature (section 2.4, Table 2.10, issue 8). The inter-partner learning theory identifies partner or market priority shifts as internal disruptions impacting business environments like a value chain (Hamel, 1991). This research also argues that branding competency (heritage marketing, deceptive marketing, and the unbranding rebranding strategy) represents a third internal disruptor that explains why priority shifts could occur in the cashmere industry.

5.1.2.2 Power and the Business Relationship

In the previous section, the research indicated that each time a retailer's strategic goals change, the rest of the upstream value chain businesses must reconfigure themselves. This includes reconfiguring the relative power dynamics and value capture expectations, depending on the relevance of their internal resources to the new business opportunity (section 4.1.2.1, Table 4.14). Businesses with all the resources needed to capture opportunities achieve medium- or high-value capture and adopt mostly adversarial relationships. Businesses with few critical resources inherit low power and adopt collaborative relationships. Section 4.1.4 (Figure 4.5) showed that firms use the industry's naturally low visibility levels to extract their partners' high-value resources in a two-stage process to optimise control in the cashmere industry. This research refers to these two stages as covert and overt opportunism (section 4.1.2.3). Covert opportunism refers to businesses engaging in low-risk and reward opportunism without revealing their intentions to their partners. Therefore, covert opportunism lasts as long as the partner remains confused about what is happening. Overt opportunism refers to situations where a business has fully exploited covert opportunism and has gained enough power to engage in low-risk, high-reward opportunism without fear of its partners finding out. Therefore, overt opportunism does not require the partners to be confused.

Over time, the exploited low-power firms experience behavioural lock-in. Section 4.1.2.3 showed that cashmere businesses had allowed unfavourable trades due to the social dynamics to become cultural norms and traditions. Therefore, the inertia experienced in the psychological setting is reflected in the cultural settings, which comprise the actors, social norms, and the structural design of the value chain. This research identified that these behavioural lock-ins occur over many business cycles where the higher power firms engage in opportunism, and the victims become increasingly familiar with the situation. This research refers to this phenomenon as the 'opportunism cycle'.

It also breaks down how and why behavioural lock-ins occur in the cashmere industry using the first two stages of the opportunism cycle:

- 1. The standard opportunism cycle refers to the initial formation stages, during which businesses are leveraged over fewer business cycles.
- 2. The consensual opportunism cycle refers to the stage at which many business cycles have passed, and the victim businesses begin to stagnate, accept, and protect the unfavourable business dynamics.

It allows high-power firms to develop "elite capture" lock-in, which refers to highly influential firms, individuals, and state agencies disproportionately benefiting from business as usual by maintaining the status quo (Goldstein, 2023, p.4). Therefore, low-power firms experience negative behavioural lock-ins, and high-power firms establish positive elite-capture lock-ins. Both lock-ins are reflected in economic lock-ins, which refer to technologies and economic systems heavily influenced by historical events (David, 1985). The inter-partner learning theory also accepts that, over time, businesses can experience inertia and become "hardwired" into specific roles and find unlearning or adapting more difficult (Hamel, 1991, p.97). Therefore, this research has provided further empirical evidence to support the concept of lock-ins while showing how behavioural lockins can reflect an economic or structural lock-in.

Outside of the historically low visibility levels, proxy representatives or contacts are featured as a second source of confusion. Proxy contacts refer to actors inside and outside of the value chain who are not directly connected to a firm (do not buy from or sell to) but provide increased information and business opportunity access. The role of proxy contact differs depending on whether it is used within collaborative or adversarial relationships. Disclosed proxies are actors inside and outside the value chain who are not directly connected to a firm but are transparently used to increase information and opportunity access (section 4.1.2.2). Undisclosed proxies are actors inside and outside the value chain who are not directly connected to a firm but are used to secretly act on their behalf with the collaboration partners (section 4.1.2.3).

The only thing distinguishing whether a proxy contact is used to support collaborative or adversarial relationships is the level of transparency. However, apart from improving visibility, some cashmere businesses use trusted local actors as their undisclosed proxy (section 4.1.2.3). This affords them instant access to benefits that are usually difficult to obtain. These findings dispute the long-term assumption that trust and cultural synergy are long-term and complex resources to acquire (Carvalho et al., 2019; Blome et al., 2023). Instant access to trust and information means that proxy contacts hold the potential to help businesses overcome traditional competition barriers. Therefore, proxy contacts represent a path-breaking process and contribute towards the call for research by path dependence theory researchers (Anderson & Tushman, 1990; Sydow et al., 2020; Goldstein et al., 2023). This also contributed to a poorly understood area within the value capture literature of what happens in the post-lock-in stage (section 2.4, Table 2.10, issue 8).

Section 4.1.4 (Fig 4.4) showed that low-power firms use dependence and unilateral actions (partner support, prepayments) to trigger collaborations with higher or complementary firms. Less powerful firms use unilateral actions to convince medium and high-power potential partners of their shared synergies and strategic fits for future value-capture potential, putting them off opportunism. This protects them in an environment otherwise ripe with cultural clashes and adversarial (section 4.1.2.3). Therefore, collaborative relationships are underpinned by cultural matching. Once collaborations are formed, firms use direct and indirect contacts to optimise their access to knowledge and improve their collective and individual bargaining powers (section 4.1.2.2).

This research refers to the key processes for optimising knowledge as the going native and cultural outsourcing processes (section 4.1.2.2). Going native refers to a longer-term reciprocal and incremental trust-building approach needed to form legitimate connections, embed themselves in their partner's cultural settings, and form genuine psychological and cultural matches. Cultural outsourcing refers to the shorter-term solution to instantly access high levels of trust by well-respected local proxies as representatives for non-local firms. Therefore, collaboration

tactics try to mitigate the influence of behavioural lock-ins as part of opportunism cycles.

Fig 5.3 shows that new business opportunities represent a significant trigger point. Each time an opportunity emerges, the actors' relative bargaining power and value capture are redefined. The reconfiguring process between opportunities acts like a race, where firms with high power will want to prolong these races to maximise value capture. In contrast, low-power firms want them to end or compress their lifespan (section 4.7.3). Therefore, maintaining favourable adversarial relationships through control mechanisms is ideal. In the previous discussion, the research identified the combination of the three branding tactics (heritage and deceptive market, the unbranding rebranding strategy) as an internal disruptor due to the confusion it creates. Therefore, along with the low visibility and proxy contacts, communication capabilities improve power by increasing and decreasing illusionary collaboration in value capture dynamics.

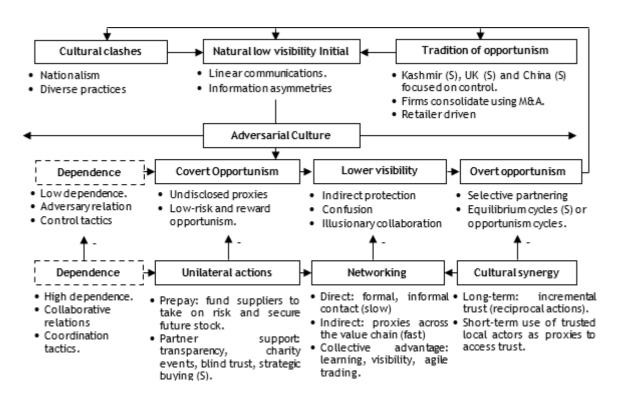


Fig 5. 3 Collaboration and adversarial relationships

5.1.2.3 Illusionary Collaborations

The Inter-partner learning theory suggests that firms focus on collaborating with resource-rich partners in competitive learning. In this context, collaboration is a facilitator mechanism that allows firms to extract their partner's resources before terminating the relationship and moving on to a new partner (Doz, 2017). Hamel (1991, p.87) refers to collaborations that utilise competitive learning as a "competitive collaboration", suggesting a different type of collaboration. Khanna et al. (1998, p.205) describe collaborations as "learning races" in which firms try to outlearn their partners. According to Ireland et al. (2002), the effectiveness of competitive learning is determined by:

- Firm-level absorptive capability (ability to extract information)
- Absorptive capacity (ability to store information)
- Partner slack (level of protection in organisational design)
- Environment (influences the effectiveness of competitive learning)

The inter-partner learning theory accepts that the environment influences decisions without explaining how and why. The explanation for illusionary collaborations provides the background for how and why firms can enhance their competitive learning. Hamel (1991) suggests that firms should find partners for competitive learning with significant slack (low protection) within the firm-level structural design and a tendency for unintended spillovers. On the other hand, illusionary collaborations confuse partners into not protecting themselves or even wilfully opening themselves up. Therefore, illusionary collaborations rely on psychological rather than structural slack, making protective measures within the business's physical structure less important. This also addressed a poorly understood issue: how competitive learning could be improved to extract idiosyncratic resources (section 2.4.1, Table 2.10, issue 3).

The "three-legged fallacy" refers to situations where firms do not recognise that they are in a race and behave collaboratively (Khanna et al., 1998, p.206). Khanna assumes firm-level mistakes create this. However, the behavioural lock-in phenomenon and (more specifically) the illusionary collaboration concept show

that business with opportunity can manipulate their environments over time to actively trick partners into the three-legged field. This means there is an active and passive three-legged fallacy; businesses do not always choose the correct approach (genuine or competitive collaborations). The relative scope is subjective and can be manipulated using illusionary collaboration. The "reluctant losers" situation occurs when firms knowingly do not react to their partners' growing value capture and prefer to maintain the status quo (Khanna et al., 1998, p.205). Interpartner learning theory also accepts that change becomes "a significant hurdle" for businesses that fail to adapt (Hamel, 1991, p.97). The concept of consensual opportunism cycles provides empirical evidence to support and provide context for how and why reluctant losers may emerge.

5.1.2.4 Collaboration is a Contingency Plan

The above insights regarding collaborative relationships represent a contingency plan rather than the ideal scenario. Businesses adopt collaborations to reduce the relative power dynamics with the high-power partners by using their collective advantages to enhance firm-level organisational learning. This contradicts a major supply chain management (SCM) assumption that good SCM requires collaboration "throughout its relationships across the supply chain for long-term performance improvement" (Queiroz et al., 2019, p.242). Instead, supports the Inter-partner learning theory assumption that collaborations are an effective long-term strategy for businesses vulnerable to a third party (Hamel 1991). Furthermore, the theory sees collaborations as a short-term tool for facilitating opportunism and competitive learning to optimise power-based value capture over time (Khanna et al., 1998; Ryall, 2013). Therefore, it sees the one pursuing the opportunism as active and the collaborators as passive.

Power theory also suggests collaboration represents a "tyranny of best practice" and is limited because it does not account for ongoing power dynamics (Cox, 2001, p.43). This research refers to 'opportunity transitions' as the confusion and disruptions created by changing retailer priorities or the emergence of new business opportunities. It argues that many become overwhelmed or misperceive

their power dynamics in these changing circumstances. This provides the background context, partly explaining why firms misperceive power dynamics and addressing one of the issues identified within the value capture literature (section 2.4.1, Table 2.10, issue 2).

Also, rather than seeing this as a blind spot, this research argues that collaborators' focus on strategic fits over power dynamics represents a conscious shift away from unfavourable trading terms. Effective collaborations rely on the firm ability to manipulate the partner's perceived relative scope by enticing them with potential value capture in the future and adopting suboptimal value capture dynamics in the present. Khanna et al. (1998, p.206) describe situations where firms with high power become "hampered by strong personal ties" and accept suboptimal value capture dynamics as "hesitant winners". The hesitant winner case implicitly supports the potential for manipulating the perceived relative scope, where even market leaders can "simply not recognise" and "fail to capitalise" on learning advantages (ibid). Therefore, hesitant winners do not just happen due to mistakes made by high-power firms. Collaborators can also actively trigger these mistakes by using their communication abilities.

5.2 Interpreting Data for RO2

The data analysis and discussion for RO2 first discuss the key disruptors impacting the cashmere industry and its value chains (section 5.2.1). Second, they provide insights into these disruptors' short and long-term impacts on the cashmere industry (section 5.2.2).

5.2.1 Disruptors, Impact and Responsibility

Section 4.2 identified seven major exogenous disruptors that negatively impact the international cashmere industry. Although disruptors like climate change and technology represent external and uncontrollable forces, the research found that poor policy and business decision-making are the major causes, explaining why these disruptors impact the industry the way they do.

Table 5. 3: Summary of disruptors, their impacts, and responsibilities

Disruptors	Negative impacts	Responsibility
 Climate change Technology Labour issues Rise of China Politics Anti-fibre activism Sustainability 	 Fibre volume and quality erosion for the luxury market and positional advantages. Fluctuations in fibre price and benefit from the ability of expertise. Decline of the reputation of cashmere as a luxury fibre. Relationship breakdowns The emergence of a new market for low-quality fibres. 	 Poor policymaking (government grazing, industry retention and labour education policies, trade wars, recessions) Poor business decision-making (herder goat growth, opportunistic business practices) Anti-fibre activists

Table 5.3 shows that the collective impact of the seven disruptors is the gradual diminishment of the luxury segment of the cashmere industry with the erosion of high-quality fibre, fluctuating prices and expertise, declining reputation, and the rise of high-street retailers. This gradual diminishment is caused by mostly controllable forces. In this chapter, the research engaged in a more in-depth analysis of the interrelationships between the disruptors to understand their implications for the cashmere industry. This identified examples of how the impact of these disruptors, the gradual decline, is prolonged and accelerated, highlighting significant temporal elements within the disruptions.

5.2.1.1 Politics, Climate Change and China

Section 4.2.1 findings suggest that politics (financial recession) and government policies directly contribute to climate change, reducing the supply of quality fibres, causing price fluctuations, and creating a low-quality fibres market.

- The 1980s recession led to the breakdown of the centralised Union of Soviet Socialist Republics (USSR) trading system and control measures. This increased herder entrepreneurs and goat populations (section 4.11.6.1).
- The shrinking grasslands and increasing goat numbers have triggered vicious cycles of land degradation and scarcity of quality fibres (section 4.11.1.2).
- The emergence of high-street cashmere retailers has further incentivised herders to focus on lower-quality fibre production to sustain these vicious cycles (section 4.11.1.4).
- Dzud-induced goat deaths and forced animal slaughtering by the herders act as other accelerators of fibre scarcity and price fluctuations (section 4.11.1.2).

Taking these points together, shrinking grasslands due to climate change, growing goat numbers, and the market for low-quality fibres are triggering vicious cycles that incrementally erode fibre quality over time. However, the dzuds are accelerating land degradation, fibre quality erosion, and price fluctuations. This highlights how multiple disruptors impact the industry at different rates. Fig 5.4 summarises the interrelationship between politics, climate change and China's rise in the cashmere industry.

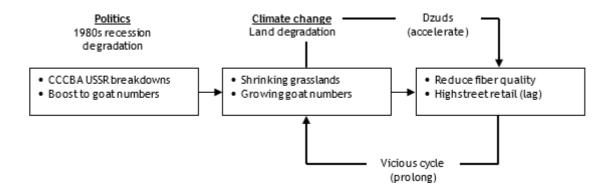


Fig 5. 4: Climate change and prolonging of climate change

Politics-induced financial recessions and government policies have led to China's rise in the international cashmere industry and caused reduced fibre supply to Western luxury segment customers, price fluctuations, and additional climate change for Mongolia's industry.

- The 1980s recession also caused the breakdown of the Centralised Chinese Buying Selling Agency (CCCBA), which triggered an influx of herders and a growth in the goat population in Mongolia (section 4.2.1).
- The 1994 World Trade Organisation (WTO) tariff removal incentivised China to pursue downstream integration and growth (section 4.2.6).
- In the post-tariff era, growth-mindset government policies have helped Chinese firms shift towards volume-based fibre trading, supply Western buyers with cheap products, and vertically integrate (section 4.2.5).
- Fewer fibres are now left for export to the West, triggering further fibre scarcity for Western customers and forcing them to either close or outsource to China (section 4.2.5).

Today, China controls the buying and selling of cashmere and has started to outsource its more polluting upstream processes to reduce its rate of land degradation and accelerate it for Mongolian businesses (section 4.2.6). Fig 5.5 extends Fig 5.4 to show how the Chinese outsourcing policy and dzuds accelerate vicious cycles that boost land degradation and climate change. The impact of these vicious cycles is also accelerated and reinforced by the politics of cashmere industry trade bodies (dashed lined rectangle in diagram).

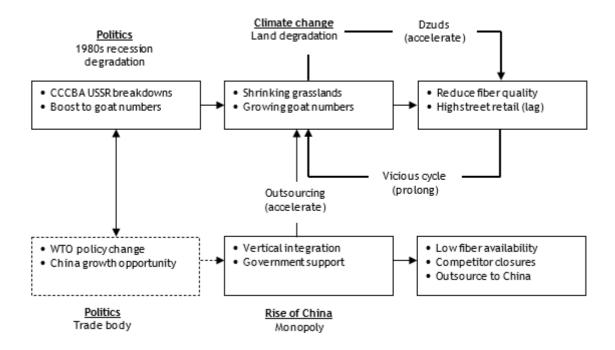


Fig 5. 5: Chinese firms and climate change

5.2.1.2 Climate Change and China's Impact on Labour

Section 4.2.2 showed that climate change and the rise of Chinese businesses have also negatively impacted global cashmere labour and forced key upstream (Asian herding) and downstream (Western manufacturing) actors to leave cashmere value chains (skill erosion).

- Climate change-based land degradation and dzuds, combined with the rise
 of Chinese businesses, have reduced the expertise, fibre, and product
 qualities at each value chain stage. This has forced Western firms to
 outsource their manufacturing to China further (section 4.2.5).
- The Western decision to outsource manufacturing to China has created an additional vicious cycle, allowing Chinese businesses to continually bolster their power at the expense of their Western counterparts (section 4.2.2).
- China's new outsourcing policy has caused 'negative skill growth' for Mongolian herders and accelerated goat numbers, land degradation, and fibre scarcity (section 4.2.2).

Technology has also had positive and negative impacts on labour, depending on the individual perspectives of the value chain actors. For example, cutting-edge production technology reduces Western manufacturers' dependence on large labour forces (section 4.2.4). It has also introduced unprecedented upstream transparently to accelerate herder skill erosions (section 4.2.2) and anti-fibre activism (section 4.2.3). Fig 5.6 summarises the above points.

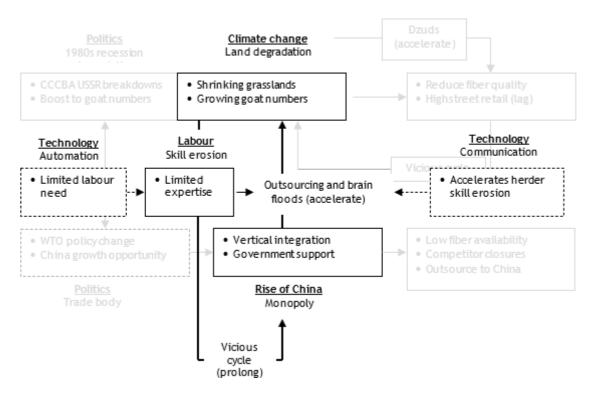


Fig 5. 6: Chinese firms labour, personal growth and climate change

Combining the above points, Western outsourcing to China has intensified the vicious cycle that allows Chinese businesses to continually bolster their power. Second, China's outsourcing policy to Mongolia accelerates Mongolian land degradation-induced climate change. Third, technology has introduced upstream transparency to accelerate herder skill erosions (section 4.2.2) and anti-fibre activism (section 4.2.3).

5.2.1.3 Anti-Fibre Activism and Sustainability Trend

Deteriorating fibre quality and labour issues have directly and indirectly triggered the anti-fibre activism disruptor, which is now endangering the industry's survival (section 4.2.3).

- Growing anti-cashmere activists and deteriorating fibre quality have triggered an industry shift towards sustainability (section 4.2.7).
- Poor mechanical processing and unethical fibre blending by processors have further reduced the reputation of cashmere as a luxury product and the quality of fibre to further embolden anti-fibre activism (section 4.2.4).
- Technology has also introduced eco-edits and directly connected consumers to the value chain, bolstering the sustainability trend (section 4.2.4).
- Big retailers continue to engage in deceptive marketing (false advertising) to prolong favourable trading conditions in line with the industry tradition of control (sections 4.1.2.3).

Considering the above points, sustainability (defined in Appendix 2B) represents a significant business opportunity and solution for tackling the alleged anticashmere propaganda by organisations like People for Ethical Treatment of Animals (PETA). Like section 5.2.1.2, technology again acts as a two-edged sword, accelerating anti-fibre activism, deceptive marketing by big retailers, and the sustainability trend (sections 4.1.2.3;4.1.3.4). Furthermore, big retailers and manufacturers use deceptive marketing to prolong the less sustainable cashmere industry business model and maximise their short-term value capture. Fig 5.7 summarises the relationship between anti-fibre activism and sustainability.

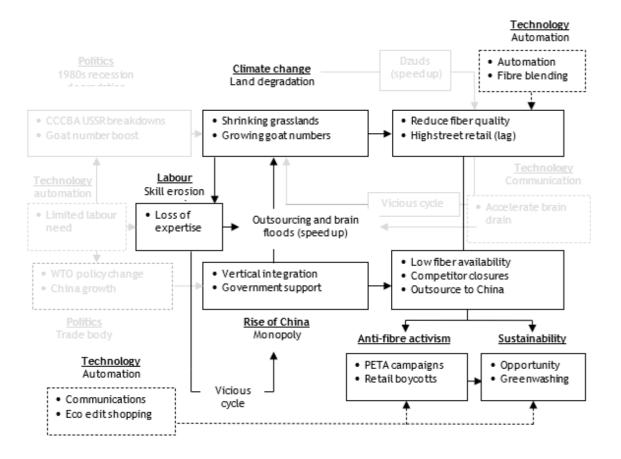


Fig 5. 7: Technology-based acceleration and deceptive marketing

5.2.2 Long- and Short-Term Impact of Disruptions

The overall data analysis in section 5.2.1 highlighted that the disruptors have positive and negative impacts. This includes climate change, technology, labour issues, the rise of Chinese firms, politics, anti-fibre activism, and sustainability.

- Seven disruptions are collectively causing a gradual decline, with the erosion of high-quality fibre, expertise, and industry reputation and fluctuating prices for the luxury end of the cashmere industry.
- Seven external disruptive forces and the root cause for their emergence are poor government, trade body and firm-level decision-making.
- Different disruptors also contribute to developing new business opportunities for the industry, including the rise of the high street cashmere retailer and the sustainability trend.

Fig 5.8 summarises the significant long- and short-term impacts of internal and external forces on the cashmere industry. The solid and dashed lines represent past and future predicted trajectories). Fig 5.8 identifies three key trends.

- The cashmere industry is experiencing a continuous decrease in cashmere quality and volume over time (D1). This makes the sector's eventual breakdown more likely with each passing business cycle.
- The past and possible future impact of the major disruptors (D1-4) and how each disruption compounds the next to accelerate the rate of decline.
- The intentional or unintentional formation of vicious cycles causes disruptions over time. This consolidates the influence of climate change and Chinese power to trigger new business opportunities.

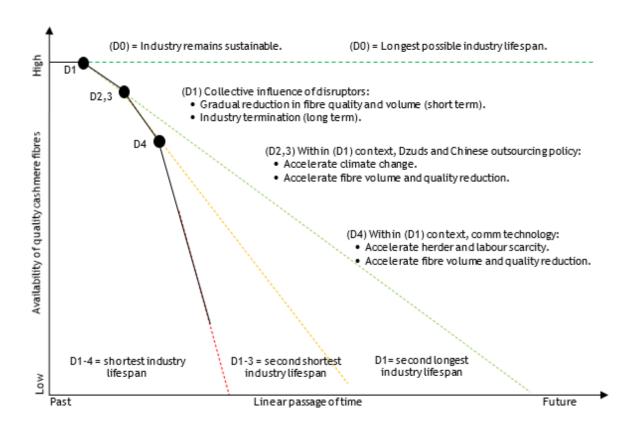


Fig 5. 8: Temporal implications for the cashmere industry

Therefore, intentional changes brought about by internal actors (behavioural lockin) lead to predictable new business opportunity formation and external disruptions. External forces (trade bodies) disruptions lead to predictable and unpredictable business opportunities (sustainability trends, high street cashmere retailers). The short—and long-term potential trajectories all point to the eventual termination of the cashmere industry. However, research is unclear on whether firms understand this threat and see sustainability as the solution or if sustainability represents a new opportunity. This represents grounds for future study.

5.2.2.1 Multiple Lock-ins

Fig 5.8 and the phenomenon it depicts provide empirical evidence to support the path dependency concept of multiple locks. Multiple lock-ins refer to "types of lock-in across different scales" or levels from which "there may not be a viable way out" (Goldstein et al., 2023, p.13). This research argues that Chinese businesses' current control has created vicious cycles for the Western manufacturing and Mongolian herder labour forces. However, the cashmere industry is transitioning from cost-efficiency to sustainability-based trading (section 4.2.7). This represents grounds for future studies to explore whether multiple lock-ins can be broken out.

The inter-partner learning theory identifies partner or market priority shifts and external shocks as disruptions impacting business environments (Hamel, 1991). This research extended what constitutes priority shifts and external shocks within the context of the cashmere industry. The seven external disruptors (section 5.1.1) complement the three internal disruptors discussed for RO1 including powerful retailers, ineffective value chain designs and branding competence.

5.3 Interpreting Data for RO3

The data analysis and discussion for RO3 cover three key areas: how cashmere businesses with different power dynamics engage in renegotiations (section 5.3.1), an examination of the key processes for managing descriptions (section 5.3.2), and how the power bases inform opportunism cycles (section 5.3.3).

5.3.1 Renegotiations

Section 4.3.2 identified two main power contexts and seven possible post-disruption renegotiation scenarios. Table 5.4 presents a summarised version of the contexts and scenarios using numbering in its first column to denote the different types. It shows that when one partner holds significantly more power than the other, powerful firms push any losses or risks onto their less powerful partners (1). Less powerful partners must comply to secure future business. If they refuse, the higher power firm can consider significantly reducing the orders (3), giving minor concessions (4), or even terminating the relationships (2).

Table 5. 4: Post-disruption renegotiations

No	Power contexts	Scenarios
1	One partner holds significantly more power	More powerful partners push risks/losses onto the weak.
2	than the other.	More powerful partners terminate relationships.
3		More powerful partners significantly reduce orders.
4		More powerful partners offer adjusted payment schedules.
5	Partners have even or insignificant differences in	Offer minor concessions followed by an ultimatum.
6	power.	Reciprocate coercive actions.
7		Enter arbitration.

Section 4.3.2 (Table 4.46) also showed that the customers at each value chain stage usually hold power over their suppliers to form a 'domino effect'. In this scenario, all the actors naturally conform to their customers' demands, starting with the retailers. As the risks and losses are pushed back onto the value chain members, they must do the same with their suppliers to survive with evershrinking margins. Therefore, the more risks and losses a business can get its

supplier to absorb, the fewer financial losses and risks it will need to absorb from their customers.

Section 5.1.3 detailed how high-power businesses can use illusionary collaborations to confuse partners into the standard and consensual opportunism cycles by ensuring that the partner continues to experience behavioural lock-in. Therefore, in that context, businesses unknowingly accept unfavourable conditions. However, the details regarding post-disruption renegotiations show that, in some cases, cashmere businesses do not have the choice to accept or decline risks and losses. When the supplier pushes the risks or losses back onto their suppliers to trigger the domino effect, the only option the firms have is how much risk and loss they can accommodate along the value chain.

Section 4.3.1.3 (Table 4.42, points 1-4) showed that cashmere businesses see vertical integration as a solution to managing disruptions like the domino effect. This allows them to absorb risks and losses across more units, reducing their impact while curbing opportunism and maximising profits and visibility. Therefore, the more stages a firm controls through vertical integration, the more flexible it can distribute any losses across its units and the more it can push onto other remaining firms. These insights validate the power architecture theory, which predicts that opportunism increases over time and that supply chain structures evolve from decoupled to vertically integrated (VI). This is because the increased control over more parts of the value chain allows fewer firms to extract more value capture to create positive lock-ins (Cox, 1991; Jacobides et al., 2006). The power architecture theory and its relevance to this research are further discussed in section 5.3.3.5).

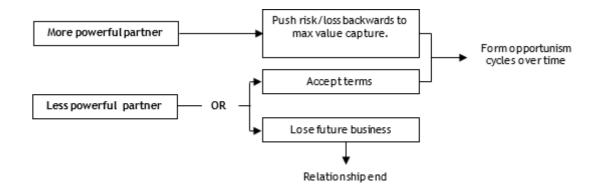


Fig 5. 9: Circumstances that trigger opportunism cycles.

Fig 5.9 summarises the discussion points in this section. It explains how and why less powerful businesses exist in unfavourable business conditions and become trapped in opportunism cycles.

5.3.1.1 Contracts and Arbitration

The findings suggest that firms must accept any disruptive impacts once a contract is signed and learn from their experience. If they do not comply, they are given an ultimatum to terminate the relationship (Table 5.6, point 7). Notably, three of the four interview respondents who made this claim represented highly powerful downstream actors (two former Western manufacturing and retail experts and one current Western manufacturer-retailer). For example, one of the Western manufacturers was quite open in discussing how they coerced their supplier to comply with their new requirements despite a contract already being in place.

"We renegotiated once because our customer wanted us to buy yarn from their portfolio company. As we were contracted to buy from our supplier, we had to return to them, and they weren't happy. They had to accept it because they wanted next year's business. So, they can take us to court, but that is a lot of work." (ManufacturerWU3).

Again, this is done by firms with high power threatening to take away future businesses that the partner relies on (section 4.3.2, Table 4.46, points 1, 6, and 8). The findings also identified that industry-level arbitration systems offer the cashmere industry a valuable alternative to resolve internal conflicts like post-

disruption renegotiations (section 4.3.2, Table 4.48, point 5). In this scenario, partners use the indirect pressure of losing face among peers rather than the direct pressure of legal action to convince the participants to find resolutions.

Considering these points, contracts act as an additional lever for powerful businesses. Still, they offer little protection against influential customers due to their dependence on them for future trade. This supports Hamel's view (1991) that contracts lose value over time, less direct isolation mechanisms offer better protection, and low-power firms can be further leveraged.

5.3.1.2 Mutual Opportunism Cycles

Section 4.3.2 (Table 4.33, points 7 and 8) from the findings chapter showed that the longer a relationship lasts, the harder it can become for high-power firms to terminate (section 4.3.2, Table 4.47, points 7 and 8). The findings also suggested that as businesses' sunk costs in their relationships with low-power partners increase, their decision-making becomes more clouded. In this context, high-power firms can even develop convenience-based dependence on their low-power partners. Although most interview respondents associated long-term relationships with high-quality trust and collaboration, long-term relationships can also reflect long-term prisoner-taking situations. This highlights three things.

- The length of the relationship acts as a more effective protection for the less powerful firms than contracts.
- Firms that develop more convenience-based dependencies on their lowpower partners will be more likely to offer more flexibility in their postdisruption negotiations.
- Long-term relationships must clarify whether they are associated with genuine or illusionary collaborations.

If consensual opportunism cycles last too long, the more powerful firms develop convenience-based dependencies. In that case, the opportunism cycle regresses from the consensual to a more mutual state, where the degree of opportunism by the high-power firms reduces. This research refers to this phenomenon as mutual opportunism cycles. The inter-partner learning theory also accepts that, over

time, businesses can experience inertia, become "hardwired" into specific roles and processes, and find unlearning or adapting a more significant hurdle (Hamel, 1991, p.97). Path dependence literature defies organisational lock-in as situations when firms experience a "comparatively narrow subset of routines, goals, and future growth trajectories." (David, 1995, p.214). Therefore, the mutual opportunism cycle stage supports the concept of organisational lock-in found in both the inter-partner learning and the path dependence theory. However, this research provided further context and identified sunk costs and convenience as two important ingredients in the formation of lock-ins, especially when discussing the international cashmere industry.

Interview respondents associated long-term relationships with high-quality trust and collaboration. However, long-term relationships can also reflect long-term prisoner-taking situations. Therefore, they also serve as a source of confusion for cashmere businesses. These findings dispute the long-term assumption that trust and cultural synergy are long-term and complex resources to acquire (Carvalho et al., 2019; Blome et al., 2023). Supply chain literature has typically linked long-term relationships to high-performing collaborations (Ralston et al., 2017; Whipple et al., 2010). However, this research challenges this view by examining the long-term relationship concept within the context of standard and consensual opportunism cycles, which are synonymous with prisoner-taking and adversarial relationships. Therefore, one possible reason collaborations fail is that some businesses may work with long-term partners, assuming they are engaged in genuine rather than illusionary collaborations. This provides the background and context for why competitive learning fails to address a key issue within the value capture literature (section 2.4.1, Table 2.10, issue 4).

Section 4.3.2 (Table 4.48, point 4) showed that when more evenly matched partners engage in competitive learning and fail, they can end up in negative reciprocal cycles. This means the partners will engage in coercive tit-for-tat interactions. To put this in context, firms normally use unilateral actions to facilitate collaborative formations sustained through incremental trust-building reciprocal cycles. These can later be used to engage in covert opportunism before transitioning into standard, consensual and mutual opportunism cycles as the

relationships strengthen (section 5.1.3, 5.3.2.1). However, if the firms cannot execute effective covert opportunism, they end up in tit-for-tat scenarios where the relationship incrementally dies.

Fig 5.10 looks at both scenarios together, showing that negative reciprocal cycles evolve, business relationships weaken, and distrust increases. On the other hand, as positive reciprocal cycles evolve, business relationships strengthen, and businesses slowly move towards the three types of opportunism cycles. Therefore, the success or failure to implement illusionary collaborations has significant positive and negative implications for business.

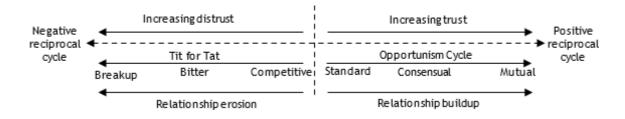


Fig 5. 10: Positive and negative reciprocal cycles

The Inter-partner learning theory sees competitive learning as key to power-based value capture over time (Hamel, 1991; Khanna et al., 1998; Ryall, 2013). Businesses use collaborations as short-term tactics to facilitate competitive learning before terminating the relationships (Hamel, 1991). However, there is also no clear explanation for what happens if firms fail to engage in competitive learning successfully. This research suggests that cashmere businesses sometimes overestimate their competitive learning capabilities, fail to extract their partners' resources and slip into tit-for-tat relationships. This represents one scenario for explaining what happens if a partner's attempt at competitive learning fails and addresses a key issue within the value capture literature (section 2.4.1, Table 2.10, issue 4).

5.3.2 Processes for Disruption Management

Section 4.3 of the findings identified four interrelated processes for managing disruptors: organisational learning, coordination, strategic repositioning, and control. Furthermore, these four processes are influenced by the firm's ability to implement strategic timing and luck in their business practices. Section 4.3 highlighted organisational learning as the first process for managing disruptions. This refers to the firm-level competency to develop valuable internal resources using experience, experimentation and analytical learning (section 4.3.1.1):

- Experiential learning is a low-risk and reward approach in which businesses
 use observations and reflections on past experiences to identify patterns
 within their business cycles and predict and adapt in the present.
- Experimental learning is a high-risk reward approach in which businesses use trial-and-error tests (experiential probes, creative problem-solving) to uncover innovations that try to predict present and future demand.
- Analytical learning focuses on data analysis to undertake decisions and underpins experimental and experiential learning.

Organisational learning is a continuous process that cashmere businesses engage in before, during, and after each business opportunity. Depending on how accurately they match their organisational learning and internal resources to emerging business opportunities, they inherit low, medium, or high power and form adversarial or collaborative relationships. This further details the discussion from section 5.1.3) and the process for determining:

- Relative bargaining power.
- Adoption of collaborative or adversarial relationships.
- Firms become victims or beneficiaries of opportunism cycles.

Control represents the second primary process for managing disruptions, and high-power firms use it (section 4.3.3). This process is divided into two stages: control A and B. Control A refers to businesses already holding high power and can leverage the whole value chain for maximum value capture. Control B relates to situations where businesses have medium power to leverage their suppliers in dyad

business relationships. As firms increase their control B over time, they achieve high power and control A. In both cases, firms adopt adversarial relationships to push disruptive impacts onto their lower-power counterparts to maximise their power-based value capture.

Table 5.5 summarises the patterns of events that have emerged over time regarding how cashmere firms implement control. The first column of the table uses numbering to denote the different stages that form the control strategy for managing disruptions. Section 4.3.3 (Fig 4.8) revealed that cashmere businesses have traditionally engaged in the same procedure for control. Cashmere businesses have relied on national governments for supportive policies (1,2), ambiguous features of the environment, naturally low visibility levels and personal communication competencies to create illusionary collaborations (section 5.1.3). Businesses engage in competitive learning as part of covert and overt opportunism to move towards medium or high power (3,4). This involves vertical integration to establish end-to-end value chain control and high power to maximise value capture and resilience to disruptive impacts (5,6,7). This last step also involves building brand businesses (8,9) and a domestic consumer market (10,11).

Table 5. 5: Emergent patterns of control over the cashmere industry lifespan

No		Details
1	Opportunism and govt support	Historically, the UK and China used their military and financial government support to inhibit their partners' performance before flooding consumer markets with cheap replications to undermine their partners' technical skills and brand value.
2	Oppo an su	Mongolian manufacturers now demonstrate similar adversarial behaviour with their smaller Western partners by asking them to fund their fibre supply and take on their risks.
3	Opportunistic learning	Historically, the UK and China utilised opportunistic learning with little regard for its impact on their reputations. Dawsons observed and mechanised the poorly protected Kashmiri core dehairing competency to undermine their competitiveness.
4	ddo 91	China, similarly, extracted this knowledge from Dawsons to show adversarial mindsets.
5	ration	Historically, the UK and China used their medium power (via the UK military occupation of Kashmir and China's control over global raw fibres) as foundations to engage in vertical integration and establish higher power over entire value chains.
6	Vertical integration	Mongolia, Afghanistan, and the UK governments are also gaining similar financial government support to build their competencies to establish (or re-establish, in the case of the UK).
7	Vertion	Vertical integration allows cashmere businesses to absorb risks and losses across more units to reduce their impact while curbing opportunism and maximising profits and visibility. Businesses do this over time by focusing on controlling critical resources.
8	Branding	Historically, the UK and China both undermined the brand value of others while building their own through vertical integration.
9	Brar	The UK is now in the same process of consolidating its brands into more prominent mega brands. Afghanistan and Mongolia also focus more on developing their home brands.
10	۲	Historically, the UK established a consumer market for Kashmiri shawls in the 1870s,
11	Consumer	China and now Mongolia have also developed their consumer markets for cashmere. This represents another step for the businesses in each country to reduce their dependence on others and move towards greater power.

These points show that adversarial relationships and vertical integration for optimal control represent the ideal strategy for managing disruptions and power-based value capture. Section 5.1.3 highlighted that firms with low power can fall victim to behavioural lock-in triggered by higher-power firms with internal resources more relevant to a business opportunity. Table 5.4 also showed that growth mindset government policies have historically triggered psychological change within Western, Chinese, Mongolian, and Afghan cashmere businesses (1,2). These changes have allowed the firms to break out of their traditional roles and pursue growth strategies. Therefore, a growth mindset government policy stimulates firm psychology and can help to overcome the negative impact of fixed-mindset government policies and behavioural lock-in.

This research argues that fixed-mindset government policies are a source of behavioural lock-in or negative lock-ins by hardening loose social dynamics into

cultural norms and, eventually, traditions that inhibit their ability to change. On the other hand, growth-oriented government policies represent a path-breaking mechanism. This is because they prevent social dynamics from hardening and slowly loosen or uproot already hardened behavioural lock-ins. Fig 5.11 shows how the two types of government policy influence the local social dynamics that harden into social norms and behavioural lock-in.

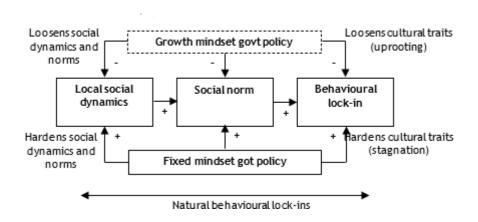


Fig 5. 11: Natural influence of govt policy types on behavioural lock-in

Sections 4.3.1 and 4.3.3 identified coordination as a third process for managing disruptions. It allows lesser power firms to benefit from collective advantages to reduce disruptive impacts and close the power gaps (control A scenario). Section 5.1.3 previously showed that low-power firms adopt collaborative relationships and coordination tactics to convince medium and high-power potential partners of their shared synergies and strategic fits to form collaborations. This protects them in an environment otherwise ripe with cultural clashes and adversarial. Collaborative relationships are underpinned by the need to demonstrate cultural matching through unilateral actions. Once collaborations are formed, firms use networking with direct and indirect contacts to optimise their access to knowledge and improve their collective and individual bargaining powers. This means collaborative relationships and coordination tactics counteract the partners' ability to use their high power in adversarial relationships and control to trap them in opportunism cycles. Therefore, cultural matching through collaborative relationships and coordination tactics represents a second intentional cultural uprooting.

Figure 5.12 updates Figure 5.11 to show that growth mindset government policies and cultural matching represent two path-breaking processes.

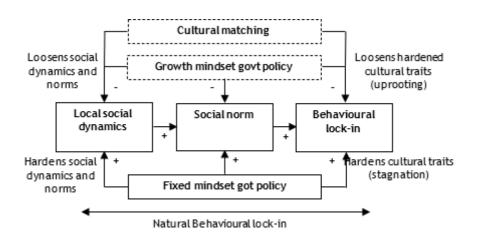


Fig 5. 12: Govt policies, cultural matching and behavioural lock-in

Table 5.6 shows that businesses with low power can also play the waiting game for their high-powered partner to make a mistake. This was evidenced in the cashmere industry, with examples of how the UK overtook Kashmir and China overtook the UK cashmere industries. The mutual opportunism stage provides further evidence that if the consensual opportunisms continue for too long, stronger firms can also let their growing sunk costs influence their decision-making to trigger mutual opportunism cycles (section 5.3.2.2). Business relationships that previously experienced overt opportunism tilt towards trust orientation and settle for a marriage of convenience over optimal performance. These insights provide essential insights to help address a key issue within the value capture literature (section 2.4.1, Table 2.10, issue 4). They also support Khanna's original conceptualisation that the power firms themselves experience psychological lockins due to being "hampered by strong personal ties" (Khanna et al. (1998, p.206).

The hesitant winner concept emerges under two circumstances within the cashmere industry. First, a firm with low power can use its communication ability to convince its more powerful counterparts of strategic fits and adopt suboptimal value capture regimes in the present (active approach). Second, firms with low power can wait for the more powerful partners to become hostage to their

convenience and sunk costs and slip into mutual opportunism cycles (passive approach). Taking these points together, this research has identified three scenarios contributing to issue four (Table 2.10) by explaining what happens if a partner's attempt at competitive learning fails.

- 1. If evenly matched partners fail to extract resources from their partners, they will become locked in tit-for-tat relationships and negative reciprocal cycles until the relationship breaks down (section 5.3.2.2).
- 2. If low-power firms (reluctant losers) fall prey to illusionary collaborations during standard and consensual opportunism cycles, they become hostages to stronger partners (section 5.1.3).
- 3. Powerful firms can become hostage to their sunk costs and the convenience of working with specific partners during the mutual OC stage (hesitant winners). The weaker firms can wait for these moments to take advantage of their partners' complacencies to increase their power and overtake the previous market leaders.

Strategic repositioning represents the fourth process for managing disruption and complements control and coordination mechanisms. Table 5.6 summarises the findings from section 4.3.1.4 to show the pattern of adaptions that cashmere businesses have undertaken over time to maintain their control over the broader industry. Column one uses numbers to denote the different adaption stages.

Table 5. 6: Emergent patterns of control over the cashmere industry lifespan

No	Adaptions	Details
1	The UK businesses adapted their approach to ensure no one extracted their	The Kashmir cashmere industry maintained end-to-end control but adopted little to no formal protection.
2	resources.	The UK needed more support in wiping out Kashmiri shawl businesses, moving their technical skills only to the UK, and developing their home brands.
3		Dawsons protected their mechanical dehairing process from their closest partners, even at the expense of their reputation.
4	Chinese businesses adapted their approach to ensure no one can extract its	China learned from history and focused on ensuring that no one replicates its stages to achieving end-to-end control by "shutting the doors behind them,".
5	resources.	Upstream, Chinese firms buy Mongolian and Afghan fibres before striping them of any identity and rebranding them as Chinese fibres.
6		Downstream, China's key adaptations include starving international buyers of raw and processed fibre and producing cheap replications to put them out of business.
7		Chinese businesses are hiring Western designers to build Chinese brand credibility.
8		Adopting the Unbranding-Rebranding strategy and warehousing, Chinese dehaired fibres in the EU for improved responsiveness.
9	The UK businesses are also adopting the unbranding-rebranding strategy.	The UK is now in the same process of consolidating its brands into more prominent mega brands.
10	Chinese businesses are adapting their power to maintain their advantages.	Chinese businesses have begun strategically repositioning themselves and maintaining their high power by shifting from control A to B strategies. It is trying to become the market leader in sustainability by setting up certifications, outsourcing toxic processes, and deceptive marketing.

Table 5.6 shows that the UK exploited the lack of protection by the Kashmiri cashmere trade to establish its cashmere shawl industry (1,2). The UK also learned from its predecessors' mistakes and has given more attention to protecting its internal resources to avoid having its resources extracted by partnering firms (3). Chinese businesses have modified the traditional approach for conducting vertical integration through what this research refers to as the unbranding rebranding strategy. Chinese firms use their monopoly over raw and processed fibre supply to starve Western fibre buyers and produce cheap replications to undermine their credibility, putting them out of business and buying them up (rather than establishing home brands like the UK before). This is complemented by moving warehouses closer to Western customers for improved agility (4,5,6).

The UK has also adapted and is engaging in the unbranding rebranding strategy to curb the control of Chinese businesses and show far more resistance than how the Kashmiri firms historically managed their market leadership position (7). Chinese firms aim for a major strategic repositioning by using their value chain control to

amplify their organisational learning ability to adapt to changing consumer trends and transition to a sustainable business model (8).

Taking these points together, cashmere businesses have followed a similar pattern to move towards a control-based strategy for optimising their power-based value capture and managing disruptions. However, they have also learned from historical mistakes. For example, the Kashmiri shawl industry relied on technical skills only to occupy the market leadership position (1). In contrast, Chinese businesses today adopt a multi-prong approach to maintain their market position. They simultaneously engage in the following: controlling upstream suppliers and curbing their ability to develop and identify as a quality cashmere supplier (4,5) while also acquiring Western brands as part of the unbranding rebranding strategy (6); building 100% Chinese brands (7); to improve their responsive as a processed fibres supply for western customers (8); and become the market leader in the new frontier of the sustainable cashmere trend (10).

Section 4.3.1 showed that firms use additional value chain-level organisational learning through coordination and control mechanisms for strategic repositioning depending on relative power. Businesses with high power (control A) can use organisational learning for strategic repositioning to redefine their bargaining power and value capture over time (control A to B and back to control A). This means that businesses incrementally reposition over time using minor and major strategic repositioning, like the sustainability trend and the micro-fractures caused by the diminishing fibre quality over time (section 5.2.1.4). Businesses with low power have two main evolutionary paths that they can pursue.

- 1. Focus on experimental learning inside their businesses and their collaborations to enhance information access and experimental learning. If successful, these firms can engage in a major strategic repositioning to redefine a market and move from allowing power position (coordination) straight into high power (control A).
- 2. Low-power firms focus on slowly closing the relative power gaps with medium—and high-power firms. Firms must maintain a higher rate of organisational learning to slowly overtake them and move to the market leadership position (coordination to control B and control A).

Fig 5.13 visualises the above evolutionary paths. It shows that low-power businesses can move over time towards medium power (control B) and on the cusp of high-power (control A), following the longest path (path 2,3A,3B).

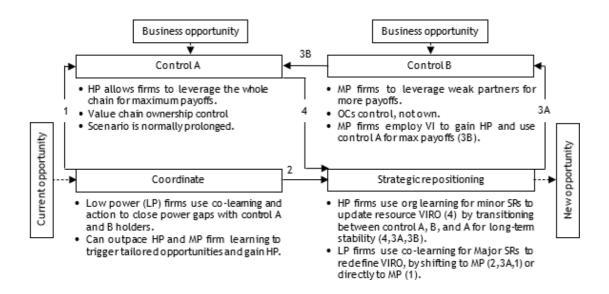


Fig 5. 13: Predicted path dependence for cashmere businesses (HP=High power; MP= Medium power; LP= Low power)

Fig 5.13 also shows that firms with less power engage in enough effective value chain-level coordination (co-develop or share resources) to improve firm-level organisational learning and reduce the power gaps. These firms can collectively outlearn the high and medium-power firms and disrupt the market to create new business opportunities that closely align their resources. This allows firms to shift to control B and A scenarios to gain high power (paths 2,2B,1). Firms with high power (control A) can use their additional organisational learning to engage in minor strategic repositioning to increase their resource value, bargaining power and value capture. This means that the high-power firms engage in rapid transitions between paths to achieve control A, B, and A for long-term stable market leadership and value capture (section 5.3.1). In this case, high-power firms engage in the following tactics to maintain power: learn from across their value chain business units to update their resources and trigger domino effects by pushing all risks and losses onto remaining value chain actors and making them comply by dangling next year's business (section 5.3.2); and trapping them in standard and consensual opportunism cycles (paths 4,3A,3b).

The power architecture theory (2.3.4; 2.5.5) extends the inter-partner learning theory to the network level. It sees collaboration as a short-term tactic for extracting resources using competitive learning. However, it also adds that this should be done to establish end-to-end vertical integration to create "hierarchies of structural dominance" (Cox, 1999, p.172). Therefore, the power architecture theory predicts that opportunism increases over time and that the cultural settings of business environments evolve from decoupled to vertically integrated (VI) supply chain structures. This creates positive lock-ins where increased control over more parts of value chains allows fewer firms to extract more value capture.

The evolutionary paths discussed above validate the predicted long-term evolution in the inter-partner learning and power architecture theories. The research also found vertical integration and end-to-end control, rather than collaboration, as the ideal long-term strategy for value capture. Businesses that achieve end-to-end control leverage these monopolies for as long as possible. This is done by rigging future opportunities to ensure their internal resource development processes remain relevant. High-power businesses use power to manipulate internal and external disruptors to create favourable business opportunities and behavioural lock-ins. This allows high-power firms to ensure new opportunities continue to complement their internal resource and inherent high power.

The above empirical evidence supports the power architecture theory's prediction for how networks evolve and negates those made by the social network theory. The social network theory predicts that as markets saturate, opportunism is naturally filtered out in favour of collaborative trust-based relationships for optimal value capture (Hughes-Morgan and Yao, 2016). This is because as the social norms become established, free riders become more susceptible to the threat of collective punishments by more organised network structures (Zhao et al., 2021A). By this logic, social network theory assumes that opportunism should not exist in mature industries. However, this research found that cashmere businesses have moved towards opportunism over time, which negates both social network theory points and addresses issues 9 and 10 (section 2.4.1 Table 2.10).

This research tries to reconcile the discrepancy between these opposing predictions of the social network and power architecture theory for the outcome of long-term network embeddedness. It argues that these theories may be underpinned by sampling choices representing very different contexts, and network embeddedness consolidates an industry's dominant cultural norms. For example, cashmere value chains have traditionally experienced monopolisation by dominant actors (Table 5.5). Powerful actors have demonstrated control and opportunism from the time of the Kashmir shawl industry in the 1800s to today (Table 5.4). Therefore, If adversarial social dynamics are the cultural norm, network density will reinforce opportunism and filter out collaboration and vice versa. This represents an important future direction for research. Fig 5.14 summarises two network density trajectory predictions depending on the initial cultural norms.

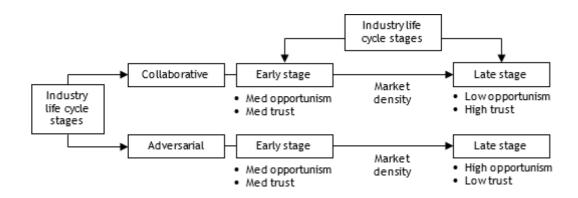


Fig 5. 14: Network density in different cultural contexts

Strategic timing (sections 4.3.1.5;4.3.3) represents the key determinants influencing the firm's ability to exercise disruption management processes. Strategic timing involves managing time to ensure flexibility in the organisational structures for optimal responsiveness (sections 4.3.1.5, 4.3.3; Table 4.10 and 4.43). There are three main strategic timing tactics. First, it is holding and releasing fibres and products to buy and sell when the cheapest buying costs and highest selling profitability are affordable. Second is prepayments to benefit partners in the present while possibly securing the stock at better prices and decreasing market volatility. Third is market monitoring, which identifies emergent patterns and uses them to improve decision-making regarding power

and value capture. Fourth, we must avoid long-term commitments and use a flexible structure (flat mills, standardised processes, and indicative price lists) for responsiveness.

Section 4.3.1.5 identified strategically timed prepayments as an important tactic within collaborative and adversarial relationships. Therefore, prepayments represent another source of confusion that blurs the firm's perceptions of whether they are involved in genuine or illusionary collaboration. This is because prepayments to vulnerable partners will undoubtedly help them through less stable periods. This is a genuine source of incentivising collaborations. In the long term, the less powerful partner is locked in, and the lender leverages these payments to secure products at below market price, even when the market demand is high, to disrupt the market for their competitors. Therefore, firms will only know if they are in a genuine or illusionary collaboration once it is too late.

Regarding luck (sections 4.3.1.5; 4.3.3), the findings identified two significant types. The first is passive luck, where businesses rely on the environment to become favourable and bolster their power-based value capture. Active luck refers to situations where businesses use their experiences to reduce risk and create their luck through speculative trading (section 4.3.1.5, Table 4.44). This differs from situations where firms have complete information on business opportunities and are therefore independent of luck or strategy.

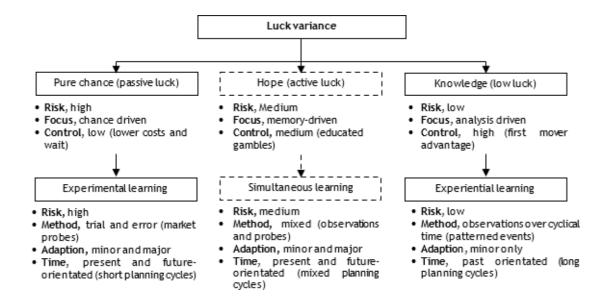


Fig 5. 15: Connecting luck and organisational learning.

Fig 5.15 shows that the three variations of pure chance, hope, and knowledge represent situations where businesses need complete information to benefit from high, medium and low risk and profitability. Two extremes of pure chance and strategy link to the experimental and experiential organisational approaches (sections 4.3.1.1;4.3.3). Therefore, following the logic of the two extremes and associated learning approaches, This research identifies a mixed or simultaneous learning approach as an appropriate option for the hope active luck approach.

5.3.3 Communication Power

The inter-partner learning theory and its central concept of competitive learning only account for coercive power and see trust and transparency as weaknesses (Hamel, 1991). However, the literature more specific to coercive power accepts that it represents a subjective mode of power (Cox, 2001; Cox, 2004; Nurhayati et al., 2021) and both threatening and non-threatening forms of power should be used interchangeably to achieve desired results (Sridharan and Simatupang, 2013). This identified a contradiction within the literature where trust is seen as a weakness and legitimate power. Section 5.1.3 (Table 5.2) linked the different power sources to the value chain actors.

Table 5.7 has adopted a similar approach to validate the existence of all six types of social power (French and Raven, 1959; Nurhayati et al., 2021) to address a poorly understood issue within the value chain literature (section 2.4.1, Table 2.10), issue 2). The first column uses numbering to denote the different social power sources. In addition to validating the existence of all six types of social power, the research also identified the interrelationships between the social power sources and how they underpin genuine collaborations and the standard and consensual stages of the opportunism cycle concept.

• For genuine collaboration: Businesses with low power emphasise the informational social power source to effectively communicate their referent social power. This improves their ability to help convince their partners to focus on strategic fits for future value capture potential and adopt optimal value capture in the present (Table 5.2, points 3).

- Standard opportunism cycles: Businesses with medium and high power use their informational social power to emphasise their referent powers to form illusionary collaborations for covert opportunism. Illusionary collaborations are maintained by using expert and legitimate social power sources to reinforce each other over time and develop the authoritative right needed to gain partner compliance (4,5). Both require time to build up. The legitimacy of social power improves as favourable behavioural lock-ins emerge, creating the perception of expert power. Similarly, expert social power improves over time as firm or alliance legitimate power grows.
- Consensual opportunism cycles and end-to-end control: Businesses with control over all or most of the value chain focus leveraging their control over multiple business units for improved learning and loss absorption. This is done by pushing all risks and losses onto the remaining value chain members (domino effect). These businesses focus on using their informational power to stress the combination of coercive and reward power to form a carrot-and-stick approach. If the partners conform, they get rewarded (carrot). If they fail to comply, the higher power firms limit or completely take away future business opportunities that their weaker counterparts rely on (stick) (section 5.3.2).

Table 5. 7: Value chain power sources connected to social power sources.

No		Description	Examples from research		
1	1 Coerce Actual or perceived punishment threats for non-compliance. At each stage of cashmere value chains, suppliers to conform to their demands renegotiations or risk losing future busin				
2	Reward	Actual or perceived promises of personal approvals or repeat business for compliance.			
3	Referent	High relational quality/cultural synergy potential with partners.	Low-power firms use cultural matching for strategic fits with stronger counterparts to minimise opportunism intensity.		
4	Expert	Credible reputation for technical skill and knowledge.	Herders, Western manufacturers, and retailers enjoy expert fibre quality, production, and brand reputations.		
5	legitimate	Authoritative right to dictate decision-making as prescribed by cultural and social norms.	Mongolian herders' and Western manufacturers' and retailers' technical skills represent long-term efforts underpinned by their unique contextual conditions.		
6	Information	Persuasive ability to convince partners to conform with orders.	Collectors and traders leverage low upstream visibility and downstream niche marketing to create and maintain information asymmetries that partners must depend on and are easily persuaded.		

Taking all three stages together, businesses must focus their informational power on stressing referent power to trigger illusionary collaborations before switching to expert and legitimate powers to strengthen the illusions until partners fall into consensual opportunism cycles. This nuanced use of different power types contradicts the limited understanding of power within Inter-partner learning theory. It highlights that various types of power can be communicated through informational power to make more persuasive arguments. Therefore, wielding informational power requires reinforcing communication with threatening and non-threatening social power sources to make them more persuasive or nuanced.

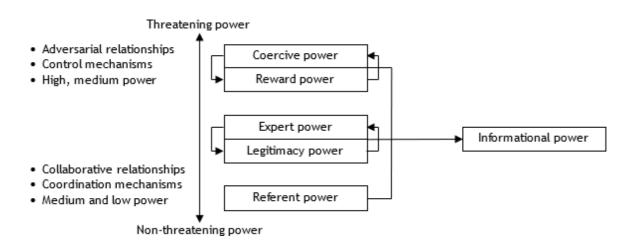


Fig 5. 16: Six power sources for nuanced power

Fig 5.16 shows that five of the six power sources describe power positions on a spectrum from purely threatening to non-threatening power. These five power sources and strategic timing power must be combined to amplify the effectiveness of the informational power by emphasising either end of the spectrum, depending on the relative power position of a firm compared to its value chain partners. This helps improve persuasiveness, manipulate the partner's perception of what is fair, and convince them to accept the desires of power-based value capture dynamics.

Section 5.2.1 mentioned that businesses and their relationships remain in flux due to emerging business opportunities. If they adjust to the changing circumstances, they can better perceive the nature of their relationships. This also provides the background for the issue of businesses often misperceiving power dynamics and

pursuing inappropriate strategies (Cox, 2004A; Nurhayati et al., 2021). However, informational power is a solution for resolving the issue of businesses often misperceiving power dynamics and pursuing inappropriate strategies (section 2.4.1, Table 2.10, gap 2).

5.4 Chapter Summary

The fifth chapter analysed the data collected in the findings chapter before comparing it to the theoretical framework (section 2.4.4, Fig 2.14). This was done to assess this research's original contributions to knowledge following the data analysis protocol (section 3.7.4). The chapter has organised the data analysis and discussion using the three research objectives. The first objective was to map out the key processes, business relationships, and value capture dynamics that form international cashmere value chains. The second objective was to identify the antecedents and impacts of the disruptors over time in international cashmere value chains. The third objective was to establish the effects of strategic decisions taken by value chain actors.

This research found that outcomes from these three ROs significantly overlap and help reinforce the opportunism cycle concept. For example, insights from RO1 and 2 explained how disruptors and the firm ability to take advantage of the change they trigger can help businesses form opportunism cycles (section 5.4.1). Insights covered in RO1 and three detail the first three phases of opportunism cycles: standard, consensual, and mutual (sections 5.4.2, 5.4.3). The insights from RO3 were used to identify how different social power sources underpin the opportunism cycle stages (section 5.4.4). Finally, insights from RO1 and 3 identified our path-breaking processes to help businesses remove themselves from opportunism cycles (section 5.4.5). These topics, theories, and issues they address are summarised in the subsections below.

5.4.1 Internal and External Disruptors

The inter-partner learning theory identifies partner or market priority shifts as internal disruptions impacting business environments like a value chain (Hamel, 1991). However, it provides no details regarding the forces that cause priority shifts. The discussion for the first research objective (RO1) identified the following disruptors that extend the priority shift concept.

- Powerful retailers represent the source of priority shifts within the cashmere industry and internal disruptors.
- Branding competency (heritage, deceptive, and unbranding rebranding strategy) is a key element influencing priority change.
- Cashmere value chains have ineffective structural designs (prone to human errors, weather issues, time cycle management, and sensitivity) and represent a third internal disruptor.

The second research objective (RO2) discussion identified seven key disruptors for the international cashmere industry and value chain: climate change, technology, labour issues, the rise of Chinese businesses, politics, anti-fibre activism, and sustainability (section 5.2.2). In the short term, these disruptors are collectively eroding the quality of fibre and labour and the industry-level reputation of the international cashmere industry. The past and possible future impact of the major disruptors and how each disruption compounds the next to accelerate the rate of decline for cashmere fibre quality and volume. In the long term, the sector's eventual breakdown is more likely with each passing business cycle. Poor government (govt), trade bodies, and firm-level decision-making are the root causes of the emergence of the seven disruptions. Therefore, businesses can intentionally or unintentionally create disruptions favouring specific firms. For example, climate change and the rise of Chinese businesses have created vicious cycles that consolidate their influence over cashmere value chains and the broader industry. These cycles have led to the formation of the high street cashmere retail and the sustainability trend business opportunities.

The consolidation of control achieved by Chinese businesses and the eroding environmental conditions due to growing climate change validated the path-dependence theory concept of multiple lock-ins, "types of lock-in across different scales" or levels (Goldstein et al., 2023, p.13). Table 5.8 summarises these contributions and uses numbering in column one to distinguish between the three types of lock-ins. Columns two and there identify the nature of the contributions, and column four identifies the relevant value capture theory.

Table 5. 8: Contributions

No		Contribution	Theory
1	Elite capture	Chinese businesses' current control over the cashmere value chains has created an "elite capture" lock-in for the Western and Mongolian businesses and labour forces forced to conform to the current regime.	Path dependence
2	Poverty traps	The labour forces of all non-Chinese businesses are experiencing 'poverty traps,' which refer to locks that ensure the "persistence of poverty".	
3	Rigidity trap	Due to continuing land degradation, slow erosion of fibre quality, and the threat of an eventual industry breakdown, the cashmere industry is locked in a "rigidity trap" on a more macro level.	

The discussions for RO1 identified three internal disruptors linked to the Interpartner learning theory concept of priority shifts (branding competency, ineffective value chain, and powerful retailers). The RO2 analysis and discussion identified seven complementary external disruptors. These disruptors extend the IPL theory concepts of partner or market priority shifts and external shocks as disruptions impacting business environments.

5.4.2 Standard and Consensual Stages

In section 5.1.2, the discussion for RO1 identified that cashmere value chains have ineffective structural designs (prone to human errors, weather issues, time cycle management, and time sensitivity). They also have a traditionally adversarial cultural setting and tactical business relationships. Within these specific circumstances, the business relationships of cashmere businesses shift between collaborative and adversarial depending on the relevance of internal resources to changing business opportunities. Businesses reconfigure their power dynamics and value capture expectations based on how well they fit in with changing retailer strategies.

Firms that inherit high power for a specific business opportunity use naturally low industry visibility levels, opportunity transitions, and proxy contacts to ensure partners understand whether they are engaged in genuine or illusionary collaborations. This represents covert opportunism. Over many business cycles, low-power firms develop psychological lock-ins and see social dynamics as norms and then traditions. This allows them to increase their power and switch from illusionary collaborations to explicit overt opportunism using vertical integration. These two phases make up the standard and consensual opportunism cycles. Firms with low power use unilateral actions (going native, cultural outsourcing) to convince high-power partners of their strategic fits and to accept suboptimal value capture in the present for more value capture in the future. Therefore, collaboration counters the influence of adversarial relationships, the formation of psychological and behavioural lock-ins and Illusionary collaborations.

The explanation of how high-power firms can trap their partners in opportunism cycles validated and extended the following key aspects of the path dependence (PD) theory (David, 1985; Goldstein, 2023) inter-partner learning (IPL) theory (Hamel, 1991; Khanna et al., 1998; Doz, 2017) and the power theory (Cox, 2001). Table 5.9 summarises these contributions and uses numbering in column one to distinguish between them. Columns two and there identify the nature of the contributions, and column four identifies the relevant value capture theory.

Points 2,3,4,5 also helped to address a poorly understood issue within the value capture literature: how competitive learning could be improved to extract idiosyncratic resources (section 2.4.1, Table 2.10, issue 3). Outside of contributions to theory, the discussion for RO1 found that transitions between opportunities represent a source of confusion because the partnering firms need to recognise whether they and their partners are pursuing the same business opportunity. This helps to provide context and partially addresses a poorly understood issue within the value capture literature: why firms misperceive power dynamics (section 2.4.1, Table 2.10, issue 2).

Table 5. 9: Contributions

No		Contribution	Theory
1	Validation	It showed the relationships between different types of lock-ins and how high- power firms force partners into negative behavioural lock-ins and benefit from positive elite capture lock-ins.	Path dependence
2	Extension	The concept of illusionary collaborations went beyond the firm-level determinants of competitive learning effectiveness. It showed how psychological slack allows firms to overcome firm-level protection beyond physical slack.	Inter-partner learning
3	Validation	Illusionary collaborations supported the three-legged fallacy (failures to recognise partner opportunism and continue focusing on collaboration), the reluctant loser prediction (firms knowingly not reacting to partner opportunism and preferring to maintain the status quo) and the hesitant winner prediction (high-power firms become hampered by strong personal ties and accept suboptimal value capture).	
4	Extension	The illusionary collaboration concept also showed that the three-legged fallacy, reluctant loser and hesitant winner predictions, could also be triggered by active partner efforts during opportunism cycle formations.	
5	Validation	Genuine collaborations are contingencies rather than an ideal strategy for value capture within a value chain setting. They are applicable where businesses are vulnerable to opportunism by a third party and are a short-term measure to facilitate opportunism cycles.	
	Negate	Collaboration is the ideal strategy for long-term performance (Queiroz et al., 2019).	х
		Collaboration does not account for power dynamics.	Power

The discussion for the third research objective (RO3) built on RO1 and showed that cashmere firms see vertical integration as key to long-term competitiveness. This is because it allows firms to more easily transfer risks and losses onto less powerful partners or absorb any risks or losses across more value chain stages to reduce the overall impact on the business. Table 5.10 details these tactics.

Table 5. 10: Contributions

No	Tactics
1	High-power firms pass losses or risks onto their less powerful partners, who must comply to secure future business on which they depend.
2	If they refuse, the higher-power firm can consider significantly reducing the orders, making minor concessions, or terminating the relationships.
3	At each value chain stage, the customer has power over the supplier, pushing risks and losses backwards to trigger domino effects (control B).
4	Once a contract is signed, low-power firms can only adjust terms and must learn from losses for the next year. They are given an ultimatum to terminate the relationship if they do not comply.
5	As firms increase their power, they can use vertical integration to control more value chain stages and eventually establish end-to-end control (control A).

In section 5.3.2, this research identified strategic repositioning as a key strategy for cashmere businesses to adapt over time and identified two major evolutionary paths that low-power cashmere businesses have undertaken.

- 1. Experimental learning inside firms and collaborations enhances information access and experimental learning. If successful, engage in major strategic repositioning to redefine markets and move from low-power positions (coordination) straight into high-power (control A).
- 2. Experiential learning is used to maintain a higher rate of organisational learning, slowly overtake them, and move them to the market leadership position (coordination to control B and control A).

Businesses with medium power control their suppliers (control B), while those with high power have vertically integrated to control multiple value chain stages (control A). Businesses with high power (control A) use organisational learning to redefine or increase their power over time (control A to B and control A). Each time a business with high power makes a minor adaptation to increase its power, it seamlessly transitions into new business opportunities as the market leader. Therefore, regardless of relative power, all cashmere businesses focus on eventually establishing end-to-end control over their value chains. The above explanations validated and extended aspects of inter-partner learning (IPL) theory (Hamel, 1991; Doz, 2017) and the power architecture (PA) theory (Cox, 1999; Jacobides et al., 2006). Table 5.11 summarises these contributions and uses numbering to distinguish between them in column one. Columns two and three identify the nature of the contributions, and column four identifies the relevant value capture theory.

Table 5. 11: Contributions

No		Contribution	Theory
1	Validation	The long-term goal of value chain businesses is to move from a decoupled to an end-to-end vertically integrated supply chain structure.	Power architecture
	Negate	Over time, value chain opportunism erodes, and trust and collaboration increase.	Social network
2	Validation	Contracts do not offer long-term protection against opportunism	Inter-partner learning
3	Extension	Instead of protecting low-power firms, contracts are used by high-power firms to exploit low-power firms further. This is done by threatening them with losing future business opportunities they depend on., if they do not comply.	-

These points covered in Table 5.11 address two poorly understood issues within the value capture literature (section 2.4.1, Table 2.10, issues 9,10):

- 1. Explain the discrepancy between social and power architecture theories on whether business networks with high network embeddedness or density levels minimise or optimise opportunism over time.
- 2. If network density filters out opportunism in favour of trust over time, does this mean opportunism should not exist in mature industries?

The discussion for RO3 also identified two additional sources of confusion that complement proxy contacts and opportunity transactions from RO1. These include long-term relationships and strategic timing of trades. Research has found that long-term relationships are primarily associated with collaboration (Queiroz et al., 2019). However, businesses trapped in opportunism cycles represent long-term behavioural lock-ins where they might be unable to distinguish between genuine and illusionary collaboration. Similarly, businesses can use strategic timing (prepayments, marketing monitoring, flexible structures) to improve their control or to enhance collaboration, making it another source of confusion. The first of the two points challenges the assumption that long-term relationships and collaboration (Whipple et al., 2010; Ralston et al., 2017) and provides further evidence to address the issue: what happens if and when competitive learning efforts fail (section 2.4.1, Table 2.10, issue 4).

5.4.3 Mutual Stage

The discussion of RO1 identified strategies collaborators use to reduce the impact of opportunism. The discussion for the RO3 builds on this by identifying that collaborators can play a waiting game and let high-power firms slip into mutual opportunism cycles before engaging in competitive learning and overtaking them. The mutual opportunism cycle concept found that the longer a relationship lasts, the more difficult it is for high-power firms to terminate their relationships with low-power partners because they develop convenience-based dependencies on their low-power partners. This explanation of the mutual opportunism phenomenon validated and extended key aspects of the path dependence (PD) theory (David, 1985; Goldstein, 2023) and the inter-partner learning (IPL) theory (Hamel, 1991; Khanna et al., 1998; Doz, 2017). Table 5.12 summarises these contributions and uses numbering to distinguish between them in column one. Columns two and there identify the nature of the contributions, and column four identifies the relevant value capture theory.

Table 5. 12: Contributions

No		Contribution	Theory
1	Validation	The growing costs and convenience elements explain how and why high-power firms adopt suboptimal value capture regimes to support the hesitant winner prediction (high-power firms become hampered by strong personal ties and accept suboptimal value capture).	Inter-partner learning
2	Extension	when partners are evenly matched, or one partner fails to implement their competitive learning successfully, the relationships slip into negative reciprocal cycles (or tit-for-tat relationships).	
3	Validation	The explanation of how the mutual opportunism cycles evolve supports the concept of behavioural lock-ins.	Inter-partner learning and Path dependence

These three points helped provide the context to partially address a poorly understood issue within the value capture literature: what happens if and when competitive learning efforts fail (section 2.4.1, Table 2.10, issue 4).

5.4.4 Underpinning Social Power Sources

Finally, section 5.3.3 linked the sources of bargaining power for cashmere businesses at distinct stages of their value chain to the six power bases (French and Raven, 1959; Nurhayati et al., 2021). This validated and extended the power theory by identifying interrelationships between the different power sources and their ability to explain the various stages of the opportunism cycle phenomenon and the collaborative and adversarial relationships.

- 1. For genuine collaborations, firms with low power use referent power to form and sustain collaborations, focusing on strategic fits.
- 2. To establish standard opportunism cycles and illusionary collaborations, high-power firms rely on referent power in the short term to facilitate collaborations. This is followed by a switch to focusing on legitimacy and expert power to create illusions for covert opportunism.
- 3. To establish consensual opportunism cycles before moving to end-to-end control, cashmere businesses rely on using reward and coercive power as the carrot and stick to gain compliance from low-power partners. The carrot and stick represent either giving partners next year's businesses or threatening to take it away.

In addition to linking specific types of social power sources to the opportunism cycle stages, the discussion for RO3 also identified that informational power represents the most important of the six power sources because it is used to communicate them. This validated the six social power sources within the power theory and contradicted the inter-partner learning theory assumption that trust and transparency are weaknesses that partners can exploit for opportunism (Hamel, 1991). These insights also helped provide the context to partially address a poorly understood issue within the value capture literature: why firms misperceive power dynamics (section 2.4.1, Table 2.10, issue 2).

5.4.5 Path-Breaking

The discussion for RO1 showed that besides improving visibility, proxy contacts can also be used in collaboration and adversarial relationships to instantly access high-quality trust and benefits. Cashmere businesses are using the unbranding rebranding strategy to displace Western businesses and gain instant access to the highly desirable branding value. The first of these two points challenges the assumption that trust and positive culture building represent long-term and difficult-to-acquire resources to underpin business competitiveness (Carvalho et al., 2019; Blome et al., 2023). The second point also challenges the long-held assumption in management research that branding is a long-term and difficult resource to acquire (Pecot and De-Barnier, 2017; Molinillo et al., 2022). These elements and their ability to challenge traditional sources of competitive advantage also represent path-breaking processes.

The discussion for RO1 also identified temporal buffering as a third path-breaking example (firms add buffer periods around vulnerable value chain stages to improve their ability to react and adapt to disruptions). Therefore, these three path-breaking processes contribute towards path dependence theory (Sydow et al., 2020; Goldstein et al., 2023) and address a poorly understood issue within the value capture literature: what happens in the post-lock-in stage, contributing to a key issue within the value capture literature (section 2.4, Table 2.10, issue 8).

The discussion for RO3 identified govt policy as an important fourth path-breaking process. This research found that govt support/policy influences the cashmere firm's ability to strategically reposition effectively over time. Fixed-mindset govt policies increase the likelihood that firms will have behavioural lock-ins. Growth-orientated govt policies help them break out of these lock-ins. This fourth path-breaking process contributes to path dependence theory (Sydow et al., 2020; Goldstein et al., 2023) and addresses a poorly understood issue within the value capture literature: what happens in the post-lock-in stage. This contributes to a key issue within the value capture literature (section 2.4, Table 2.10, issue 8).

Chapter 6: Research Conclusion

This chapter concludes this doctoral research by reflecting on the research journey and subsequent contributions. First, these include contributions to understanding poorly understood issues within the value capture literature (section 2.4, Table 2.10). Second, they include the inter-partner and path dependence theory. It draws broader conclusions regarding the conditions for effective supply chain collaboration and why inadequate collaborations happen (Ho et al., 2019; Bui et al., 2021). It also reflects on the practical and methodological contributions, limitations, and directions for future research.

Section 6.1 begins by summarising and reflecting on what this research has covered in chapters one to six. Section 6.2 first summarises the key research issues and how this research addressed them before considering their implications for the inter-partner learning theory and conditions for effective supply chain collaboration. Sections 6.3 and 6.4 cover the practical and methodological contributions, while sections 6.5 and 6.6 detail the limitations and the directions for the future. Section 6.7 provided a brief chapter summary.

6.1 Reflection of this Research

The first chapter introduced this research, outlining the background and significance of the chosen area of research, including the central problems in the supply chain collaboration literature and their significance. It then identified the research aim and objective used to guide this research. Finally, the structure of the thesis was presented. This research also used this chapter as an informal quality control, where the introduction chapter was revisited after completing each critical step in this research. This was done to assess the logical consistency between the chapters and their outcomes. It proved highly effective for shaping the chapters' narratives and establishing a strategic fit across this research, ensuring coherence and alignment.

The second chapter detailed this research journey to define an area of interest for further research within the supply chain management (SCM) domain, complete with research aims and objectives that promise original contributions to knowledge. The journey began with a modest scope study to comprehensively understand the SCM domain, revealing four interrelated research areas and associated research issues. This systematic approach, combined with an in-depth literature review, underscored the need to delve deeper into the interplay between power dynamics, value capture, the cultural and structural settings of business environments, and the changes they can undergo over punctuated time. This research reconfigured the relationship between these four elements into the following research aim (RA) and objectives (RO) (section 2.4.3).

(RA) Explore how power-based value capture is sustained over punctuated time by collaborative business alliances in international cashmere value chains.

- (RO1) Map value chain processes, relationships and value-sharing dynamics.
- (RO2) Identify the antecedents and impacts of the disruptors over time.
- (RO3) Establish the impact of strategic decisions taken by value chain actors.

The outcomes from this research aim and objectives were designed to be analysed against a theoretical framework (section 2.4.4, Fig 2.14) primarily driven by the inter-partner learning theory. This theory was chosen for its relevance to this research topic and its ability to understand the dynamics within business alliances. The remaining five theories and the path dependence theory represent secondary theories to cross-validate empirical research and reinforce the limitations of the inter-partner learning theory, ensuring the robustness of this research findings.

The third chapter detailed the practical steps to developing a suitable research methodology for the intended empirical research. The process began by examining the methods used by the empirical research papers in the literature review, which identified the need for additional longitudinal qualitative research (sections 2.4.3). These methodological issues were used to complement the requirements of this research aim and objectives to develop a high-impact research methodology. This research adopted a relativist ontological, normal

constructionist epistemological and relatively engaged axiological research philosophy (section 3.1.3) to support localised theory building (section 3.2.1). This was complemented with a holistic longitudinal single-case research design that used the value chain as its unit of analysis (section 3.3) and appropriate research quality criteria (section 3.4). The data collection strategy relied on 30 semi-structured interviews with historical documents and on-site observations of international cashmere value chain members (sections 3.5 and 3.6). The data analysis strategy relied on inductive coding (Gioia, 2013; Saldana, 2013) and Stake's (2005) categorical aggregation and direct interpretation analysis procedures (section 3.7).

The fourth chapter coded the collected raw data, categories, and themes in line with the categorical aggregation component of the data collection protocol (section 3.7.4). This involved using this research aim and objectives (ROs) (section 3.5.6) to isolate the relevant data for each RO. Before inductively organising it, this was done using open and axial coding (sections 4.1-4.3). A summary section accompanied the details for each RO to ensure reader comprehension by incorporating diagrams and tables to form transparent building blocks that would inform theory building in the next chapter (sections 4.1.4, 4.2.9, 4.3.3). Following Gioia (2012), this researcher did not interpret the data at this stage and only focused on showing the connections between the relevant codes, categorisation, and themes (section 3.7.4).

The fifth chapter analysed and discussed the data collected in the previous chapter, which was in line with the direct interpretation component of the data analysis protocol (section 3.7.4). The chapter was developed over the following two key stages. First, theoretical coding was used to interpret the relationships between the categories and themes (from the previous chapter) to form a theory that addresses the three research objectives and the broader research aim. This resulted in the identification of the opportunism cycle theory. Second, the interpartner learning-driven theoretical framework (section 2.4.4, Fig 2.14) was used to assess the opportunism cycle theory's original contributions to knowledge. The first stage relied on theoretical summary tables to show a transparent chain of evidence from data to theory (section 3.7.4) and ensure that the objective and

internal validity research quality criteria were met (section 3.4). The second stage aimed to contribute to issues specific to power base value capture and the evolution of cultural settings of business environments (section 2.4.1, Table 2.10). It examined the interrelationships between power-based value capture and cultural settings over time to understand the conditions for effective supply chain collaboration (Bui et al., 2021; Ho et al., 2019). The theoretical framework used the remaining five value capture theories and the path dependence theory (Fig 2.14) to cross-validate empirical research and reinforce the limitations of the inter-partner learning theory.

Fig 6.1 summarises the key components of the opportunism cycle theory.

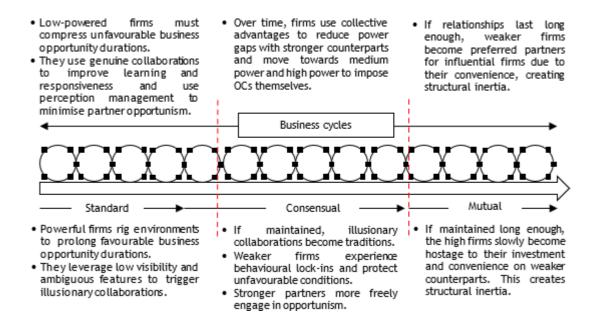


Fig 6. 1: Opportunism cycles

6.2 Theoretical Contributions

This research first addressed issues specific to power-based value capture and the evolution of cultural and structural settings in business environments (section 2.4.1, Table 2.10). These contributions are covered in section 6.2.1. Next, it contributed to the inter-partner learning theory, understanding the conditions for effective supply chain collaboration and why inadequate collaborations happen (Bui et al., 2021; Ho et al., 2019). These details are covered in section 6.2.2.

6.2.1 Contributions towards Research Issues

Table 6.1 updated Table 2.10 (section 2.4.1), showing the contributions made by this research to the preexisting literature research issues. Column one uses numbering to denote the ten issues, while column two puts them into broader categories. Columns three and four detail the issues and the degree to which this research addressed them. This research addressed seven of the ten issues, classifying them as "full" in the last column (issues 2,4,6-8,10). Two problems were partially addressed (issues 3 and 9), and one was not discussed (issue 5).

Table 6. 1: Summary of this research issues

No		Issues in the literature			
1	Х	Explore value capture in specific time ranges and cultural contexts.	-		
2	Value nd luck	Explore if the six power sources and their interrelationships can resolve the issue of partners misperceiving power dynamics and causing negotiation problems.	Full		
3	<u>, </u>	Assess whether competitive learning is effective for extracting idiosyncratic resources.	Partial		
4	Power, capture a	Explain what happens if an attempt at competitive learning fails with a partner.	Full		
5	S	Determine the role of luck in explaining value capture on the dyad and network levels.	Missed		
6		Use the path-dependent framework to interpret how business bargaining powers value capture evolve over different event patterns and cultural contexts.	Full		
7	ө	How do disruptions (external and internal) affect network density and business opportunities?			
8	d time	What comes after the formation of positive or negative lock-ins?			
9	Culture and	Explain the discrepancy between social network and power architecture theories on whether business networks with high network embeddedness or density levels minimise or optimise opportunism over time.	Partial		
10		If network density filters out opportunism in favour of trust over time, does this mean opportunism should not exist in mature industries?	Full		

Sub-sections 6.2.1.1 and 6.2.1.2 further detail how the empirical research study and the opportunism cycle theory addressed the abovementioned research issues to make original contributions to the knowledge of the value capture phenomenon. The subsections also link these outcomes to recent calls for academic research in supply chain management, further highlighting the significance of the original contributions to knowledge where appropriate.

6.2.1.1 Power-Based Value Capture

The second research issue called for further exploration of whether the six power sources and their interrelationships can resolve partners' misperceiving power dynamics (Table 6.1, issue 2). The empirical research study and the opportunism cycle theory accepted that partners misperceive power dynamics due to personal ineffectiveness but also identified that businesses take active steps to confuse their partners regarding relative power dynamics for personal benefit.

Within the cashmere industry, business opportunities and relationships remain in flux, and firms need help to adjust to the changing circumstances. Partnering firms must align the perceived value of their internal resources to business opportunities and whether they adopt collaborative versus adversarial relationships (section 5.1.2.2). This exemplifies how and why businesses can misperceive power dynamics due to personal ineffectiveness. Within the cashmere industry, firms with more power have a higher scope for more value capture and use illusionary collaborations to create misperceptions and further enhance their power structures. Illusionary collaborations involve firms using the vagueness of a business environment to manipulate the perceived scope for value capture and whether firms are engaged in adversarial or collaborative relationships (section 5.1.2.3). This allows businesses to increase their power and engage in overt opportunism. Cashmere businesses control multiple business units to improve learning, absorb losses, and push risks and losses onto partners (domino effect).

The combination of deceptive marketing and the unbranding-rebranding strategy represents how Chinese firms implement this strategy today to access Western branding competencies (section 5.1.2.1). At the same time, businesses with low power have a lower scope for value capture, adopt genuine collaborations and

deliberately do not account for power because it is outside their interest. Instead, they try to manipulate the perceived relative scope for value capture by shifting the focus towards potential strategic fits for future value capture (section 5.1.2.4). Therefore, high- and low-power businesses have a high and low scope for value capture. Firms use illusionary and genuine collaborations to manipulate the perceived relative scope for value capture to maximise their value capture. The critical ingredient to ensuring that partners accept the desired trading dynamics is that businesses must complement their valuable resources with informational power (sections 5.1.2.1 and 5.3.3). This involves emphasising the different social power sources relevant to collaborative and adversarial relationships.

- Overt opportunism: high-power firms stress coercive and reward power through their informational power. This gives their partners an ultimatum to conform and get rewarded (carrot) or face losing most or all of the future businesses they rely on (stick).
- Covert opportunism: firms trigger illusionary collaborations by stressing referent power before switching to expert and legitimate powers within their informational power-based communications. This strengthens illusions until partners fall into consensual opportunism cycles (section 5.3.3).
- Genuine collaborators: emphasise the same social powers as illusionary collaborations, stressing referent power for longer (section 5.3.3).

Academics have called for fresh research to address the following issues within the supply chain management literature:

- How are profits distributed in relationships with shifting power balances (Nurhayati et al., 2021)?
- How well do collaborations withstand multiple changes (Lis et al., 2020)?
- What are the long-term contributions of adversarial and collaborative relationships to business performance (Carter et al., 2020)?

Sections 5.1.2.1 and 5.1.2.2 showed that new business opportunities force businesses to reconfigure firm-level power dynamics and value capture based on the value of their internal resources and informational social power. This provides at least one explanation of how profits are distributed in relationships with shifting power balances in the cashmere industry to address the call by Nurhayati et al. (2021). Section 5.1.2.3 also suggested that businesses with high power can use illusionary collaborations to exercise covert opportunism. This involved trapping partners into long-term conceptual opportunism cycles and, eventually, overt opportunism for optimal value capture. This includes controlling multiple business units to improve learning, absorb losses, and push risks and losses onto the remaining value chain members (domino effect). Businesses with low power adopt genuine collaborations as a contingency plan to acquire more power over time to exercise covert and overt opportunism. This means covert and overt opportunism using illusionary collaborations and adversarial relationships represents the ideal strategy for longer-term value-capture performance. Within the context of the cashmere industry, it addresses the call to understand the long-term contribution of collaborative versus adversarial relationships to business performance (Carter et al., 2020). Furthermore, it suggests illusionary collaborations are more resilient to changes, while genuine collaborations represent a more temporary alternative. This offers a partial insight to address the call to understand how well collaborations withstand multiple changes (Lis et al., 2020).

The third research issue called for further assessment of whether competitive learning effectively extracts idiosyncratic resources (Table 6.1, issue 3). The empirical research study did not provide insights that directly explained the effectiveness of competitive learning for extracting idiosyncratic resources. However, they found that a firm's competitive learning, or alliance, can be improved by manipulating environmental conditions and adopting a combination of deceptive marketing and the unbranding-rebranding strategy. Building on the issue 2 discussion, medium and high-power cashmere firms use ambiguous environmental features, naturally low visibility, and fixed-mindset government policy to adopt low-risk and reward covert opportunism to trap value chain actors into standard opportunism cycles. If these illusions are maintained over many business cycles, partners culturally stagnate into consensual opportunism cycles.

This allows firms to increase their power and deliberately lower the visibility to engage in more overt opportunism (low-risk, high reward) and enhanced competitive learning. The shifts from covert to overt opportunism and standard to consensual opportunism cycles demonstrate how firms use environmental manipulation to improve their competitive learning ability (section 5.2.1). Researchers have called for research to understand the impact of the external environment (Ralston et al., 2017). This research further demonstrated how adversarial relationships contribute to higher business performance over time than collaborative relationships (Carter et al., 2020). It also showed how firms actively create illusionary collaborations using the environment, contributing to the call to understand the impact of external environments on value capture performance (Ralston et al., 2017).

The fourth research issue called for additional research to explain what happens if firms fail at competitive learning (Table 6.1, issue 4). This research identified three scenarios.

- Scenario one: If low-power firms (reluctant losers) fall prey to illusionary collaborations during standard and consensual opportunism cycles, they become hostage to their stronger partners. Stronger firms then leverage them and vertically integrate them into their business (section 5.2.1).
- Scenario two: influential firms eventually become hostage to their sunk costs and the convenience of working with specific partners during the mutual opportunism cycle phase (hesitant winners). In this context, sunk costs refer to the knowledge that if the high-power firm withdraws from the business relationship, "the whole investment will be lost" (Habimana, 2015, p.38). The weaker firms can wait for these moments to take advantage to overtake the previous market leaders (section 5.3.2).
- Scenario three: if evenly matched partners fail to extract resources from their partners, they will become locked in tit-for-tat relationships and negative reciprocal cycles that devolve in relational quality to bitterness, stagnate, and eventually break down (section 5.3.2).

All three scenarios demonstrate a zero-sum game where one partner wins and one loses if competitive learning is unsuccessful.

The fifth research issue called for additional research to understand the role of luck in explaining value capture on the dyad and network levels (Table 6.1, issue 5). In the previous chapter (section 5.3.2, Fig 5.11), this research redefined luck as the sum of three subcomponents: pure chance, hope, and strategic foresight. It also contextualised where each subcomponent is relevant by linking it to different learning approaches. However, the insights from this research's empirical study component are needed to explain luck's role in influencing value capture on the dyad and network levels.

6.2.1.2 Culture and Time

The seventh research issue called for new research to consider how external and internal disruptions influence network density and the emergence of business opportunities (Table 6.1, issue 7). This research identified cultural settings as a dynamic phenomenon that naturally hardens loose social dynamics into norms and traditions over time (section 5.1.1). Within the cashmere industry, internal disruptions, including poor government policy, are mostly the root cause of external disruptions and deviate the trajectory of natural and cultural settings and the business opportunities they afford (section 5.2.2). Sections 5.1.2.1 and 5.1.2.2 suggested that the emergence of each new business opportunity triggers value chain businesses to reconfigure their power and value capture expectations. This depends on the relevance of their independent or collective resources to the new demand. Businesses compete for value capture during each business opportunity, and the stages within these races are flexible. Depending on relative power dynamics, firms can manipulate their durations by prolonging or reducing them (section 5.2). Firms with high power can rig future opportunities by using the interrelationships between internal and external disruptions to manipulate the trajectory of natural cultural stagnations to ensure resource relevance. These cultural changes are reflected in the value chain structures (section 5.2).

Academics have called for additional research to understand the impact of the external environment (Ralston et al., 2017) and cultural attitudes on collaboration performance (Bui et al., 2021; Gupta and Gupta, 2019). To address issue three (section 5.1.2), this research showed that cashmere firms actively use the environment to create illusionary collaborations. This contributed towards the call to understand the impact of external environments on value capture performance (Ralston et al., 2017). The discussion on issue seven (section 5.2.2) also explained how businesses can continuously rig cultural and structural settings to offer favourable contexts. This allows high-power firms to inherit high power in the future by creating illusionary collaborations for covert and overt opportunism. Therefore, these insights offer a unique understanding of how external environments impact value capture performance (Ralston et al., 2017).

This research did not find significant evidence to suggest that the local cultural attitudes of cashmere actors from different locations influence their collaboration approaches. The data analysis consistently revealed that businesses with medium and higher power engage in covert opportunism (illusionary collaborations) and overt opportunism. In contrast, businesses with low power engage in genuine collaboration (section 5.1.2.4). This means local geographic cultures are less influential than the shared industry or value chain level cultures, at least within the context of the cashmere industry. Furthermore, it represents a unique insight contributing to the call to understand the impact of cultural attitudes on collaborative performance (Bui et al., 2021; Gupta and Gupta, 2019).

The eighth research issue called for new research to explore what comes after forming positive or negative lock-ins (Table 6.1, issue 8). This also aligned with previous calls to explore the potential for path-breaking mechanisms as solutions to negative lock-ins (Sydow et al., 2020; Stache & Sydow, 2022; Goldstein et al., 2023; Groote & Kammerlander, 2023). In this context, path-breaking refers to naturally occurring "rationality shifts" and "external shocks" (Sydow et al., 2020, p.720). This research identified that once businesses become trapped in lock-ins or structural inertia, they can actively remove themselves from these situations using two collaborative, two adversarial and two mixed tactics. The two collaborative tactics include collaborating to close relative power gaps with

support from growth-orientated government policies. The two adversarial path-breaking tactics include deceptive marketing and the unbranding rebranding strategy (section 5.4). Disclosed and undisclosed proxy contacts help businesses engage in collaborative or adversarial path-breaking efforts by optimising their information access. Finally, rather than breaking existing paths, temporal buffering refers to slightly altering conditions within an established path by building buffer periods around the vulnerable processes (section 5.4).

The ninth research issue called for additional research to resolve the discrepancy between the social network and power architecture theory on whether business networks with high network embeddedness or density levels minimise or optimise opportunism over time (Table 6.1, issue 9). The tenth research issue asked if high network embeddedness and density levels filter out opportunism in favour of trust over time. Does this mean opportunism should not exist in mature industries (Table 6.1, issue 10)? Zhao et al. (2021) also confirmed that this discrepancy between whether business networks minimise or optimise opportunism over time remains a grey area in the literature and requires further clarification.

The insights for research issue 3 validated the power architecture theory's network density-related prediction, not the social network theory. To explain why social network and power architecture theories have opposing network density predictions, this research found that these theories explain the network evolutions of industry contexts underpinned by different initial dominant cultural norms. If adversarial or collaborative social dynamics are the cultural norms, network density will reinforce opportunism and filter out collaboration and vice versa (section 5.2.1). Since the formal cashmere industry has a heritage dating back to the 1400s and continues to favour opportunism, this also contradicts the view that opportunism does not exist in mature industries. These findings provided empirical evidence to support the claim that one-third of strategic alliances fail due to trust deficits or a lack of a trust-based culture (Paluri and Mishal, 2020; Bui et al., 2021). It helped to clarify why the discrepancy between whether business networks minimise or optimise opportunism over time occurs (Zhao et al., 2021). They provided empirical support for previous research that predicted networks do not always mitigate opportunism (Moretti & Zirpoli, 2016) and contradicted

research that predicted high network embeddedness does lead to opportunism mitigation (Powell, 1990; Dong et al., 2015).

6.2.2 Inter-Partner Learning and Effective Collaboration

This research contributed to the inter-partner learning theory in four key areas. First, subsections 6.2.2.1 and 6.2.2.2 discuss the conditions for effective, genuine, and competitive collaborations and conclude the conditions for effective supply chain collaboration. Second, section 6.2.2.3 explains that the concept of relative scope is subjective and can be manipulated by businesses to optimise their power and value capture. Third, sections 6.2.2.4 and 6.2.2.5 detail what happens when competitive learning fails and how businesses can break out of lock-ins.

6.2.2.1 Genuine Collaborations

Supply chain management identifies genuine supply chain collaborations (SCC) as internal and external cooperation, coordination and integration (Flynn et al., 2010; Whipple et al., 2010; Ralston et al., 2017) used to develop interorganisational processes (Matopoulos et al., 2007; Ho et al., 2019). These processes achieve effective flows of products, services, information, money and decisions (Bui et al., 2021) and require the following: long-term relationships and joint communications; co-planning and goal setting; trust building and incentive alignment; and resource sharing among partnering firms (Barratt, 2004; Swanson et al., 2019). Collaboration benefits include shared risks and rewards (Soosay & Hyland, 2015; Bui et al., 2021), cost reductions (Swanson et al., 2019), innovative value creation (Zhao et al., 2020), competitive advantages and improved responsiveness for all involved parties (Ho et al., 2019; Bui et al., 2021).

Porter (1989) identified three conditions for effective collaboration. Condition 1: businesses must establish suitable shared cultures with potential partnering firms by adopting corporate identities that facilitate collaboration. This aligns with the requirements for inter-organisational processes, including long-term relationships and trust building, joint communications and information sharing, co-planning and goal-setting. The social network theory also supports the connection between

long-term relationships, high shared risks, and rewards. The said theory suggests that SCC becomes the dominant approach for value capture when networks experience high network embeddedness in the late stages of network lifecycles (Granovetter, 2005). The inter-partner learning theory suggests that a major condition for long-term collaborations is that the collaborators must feel vulnerable to opportunism from a third party (Hamel, 1991). Condition 2: Partnering firms must possess complementary resources and use specialist managers to ensure collaboration creates significant value. This aligns with resource-sharing for inter-organisational processes and promises higher value creation and competency-building levels. Condition 3: Businesses must ensure that profitability offsets the costs of managing collaborations to incentivise their continuation. This condition aligns with the incentive alignment requirement for inter-organisational processes and the promise of shared risks and rewards.

This research further detailed Porter's first condition. It found that if low-power firms in illusionary or genuine collaboration wait for markets to reach a mature life cycle stage, high-power firms can fall into mutual opportunism cycles. Within this context, high-power firms experience a growing dependence due to their increasing convenience and sunk costs, making them mutual prisoners (section 5.3.1.2). Therefore, collaborations do not necessarily offer optimal value capture in high network density situations like the social network theory predicts. Instead, mutual opportunism cycles can stabilise collaborations, allowing businesses to capture more value over a higher frequency of interactions over time.

Businesses with low power can manipulate the perceived relative scope of high-power partners to focus on strategic fits for future value capture rather than power dynamics for value capture in the present (section 5.1.2.4). This means positive culture building and the possession of complementary resources can be achieved by actively using communication skills to convince partners of their shared values and resource complementarity. This also extends Porter's second and third conditions for effective collaborations. This research identified growth-orientated government policies as a fourth condition for effective collaboration. Growth-orientated government policies represent the psychological shift needed

to help firms move out of consensual opportunism cycles. Firms can use active communications to manipulate the relative scope of high-power partners.

Table 6.2 summarises the key points from the above discussion. Column one of Table 6.2 uses numbering to denote the different conditions and letters to further expand on these conditions. Column two uses Porter's three conditions for effective collaborations as a framework (1A, 2A, 3A) and further details these conditions using SCC literature (1B,1C,2B,2C,3B) and the inter-partner learning theory (1D). Column three introduces the original contributions from the empirical research that extend Porter's three conditions for effective collaboration and the inter-partner learning theory. This research also identified growth-orientated government policies as a fourth condition for effective collaboration (4A).

Table 6. 2: Summary of genuine collaborations for common benefits.

	5 10 10	
No	Preexisting Literature	Contributions from empirical study
1A	Establish suitable cultures by adopting horizontal mechanisms or corporate identities that emphasise collaboration.	Weaker firms can wait for markets to reach maturity in their lifecycles, and higher-power partners become prisoners to their growing
1B	Inter-organisational processes require long-term relationships and trust building, joint communications and information sharing, co-planning and goal-setting.	convenience and sunk costs. Collaborations only sometimes offer optimal value capture in high network density situations. Mutual opportunism cycles can stabilise collaborations, allowing
1C	Genuine collaborations become the dominant approach for value capture in high network density or embeddedness states.	businesses to capture more value over a higher frequency of interactions over time.
1D	Genuine long-term collaborations are only possible if collaborators feel vulnerable to a third party.	
2A	Possess complementary resources and use specialist managers to facilitate collaboration.	Businesses with low power can manipulate the perceived relative scope of high-power partners to focus on strategic fits for future value capture
2B	Inter-organisational processes require resource-sharing.	rather than power dynamics for value capture in the present. These communications should stress
2C	Benefits include value creation and competency building.	the referent, expert and legitimacy of social powers. Therefore, positive culture building and
3A	Ensure enough collective profitability to offset the additional costs to facilitate collaborations.	the possession of complementary resources can be achieved by actively using marketing competencies to convince partners of their
3B	Inter-organisational processes require incentive alignment and the promise of shared risks and rewards.	shared values and resource complementarity.
4A	x	A fourth condition is growth-orientated government policies. They represent the psychological shift firms need to move out of consensual opportunism cycles and actively use marketing to manipulate the relative scope for high-power partners.

In sum, this research and opportunism cycle theory was first validated, further detailed, and minor extensions to Porter's three conditions for effective genuine collaboration and the inter-partner learning theory concept of common benefits. Second, it extended the literature on genuine collaborations by introducing growth-orientated government policies as a fourth unique condition. This helps contribute to the call to further understand the inter-partner learning process and contingencies (Doz, 2017).

6.2.2.2 Competitive Collaborations

Despite the long-held assumption that collaboration is central to good SCM (Ellram and Ueltschy-Murfield, 2019; Houlihan, 1985;), a growing body of empirical studies suggests that practitioners gravitate towards opportunism over collaboration (Fawcett et al., 2015; Daugherty et al., 2006; Kampstra et al., 2006; Storey et al., 2006). The discrepancy between theory and practice emerges from poor business mindsets (Fawcett et al., 2015) and relationship management (Quayle, 2003).

Outside of situations where firms are vulnerable to a third party, the inter-partner learning theory sees collaboration as a tactic to extract partner resources before terminating the relationships. This is called a competitive learning cycle (Doz, 2017). Hamel (1991, p.87) refers to this approach as "competitive collaboration", representing a second form of collaboration. The inter-partner learning theory suggests that physical attributes determine the firm's ability to pursue and defend itself against competitive learning. The ability to pursue competitive learning, or receptiveness, is reflected in the firm or alliance-level absorptive capabilities and capacities. The ability to protect against it is reflected in the weaknesses within organisational designs (structural slack) to protect their high-value resources (Doz, 2017; Ireland et al., 2002; Hamel, 1991). Khanna (1998, p.206) highlights that if there is enough slack in partner structures, they do not recognise that they are in a race and behave collaboratively, referred to as the "three-legged fallacy". Low or high-power firms that recognise these situations but do not react to their partners' growing value capture and remain in the status quo are respectively referred to as "reluctant losers" and "hesitant winners" (Khanna et al., 1998, pp.205-206).

This research argues that businesses choose opportunism over genuine collaborations. This is because partnering firms frequently adopt genuine and competitive collaborations within the same relationship, creating misalignments. The partners with low power pursue genuine collaborations and focus on longterm trust-based relationships and common benefits. The partners with higher power pursue competitive collaborations focused on short-term opportunistic relationships and mixed or private benefits (section 5.1.2.3). However, business partners can actively make their partners misperceive whether they are engaged in a competitive or genuine collaboration to make businesses more vulnerable to partner opportunism. This research also found that high-power businesses can rig their environments to create low-visibility settings with ambiguous features, trapping partners with fixed mindsets into illusionary collaborations (section 5.4.5). If these illusionary collaborations are sustained long enough, partners accept unfavourable terms as traditions and become more vulnerable to competitive learning (consensual opportunism cycles). As mentioned in section 5.3.1.2, if consensual opportunism cycles are maintained too long, weaker collaborating firms can use high-power firms' growing convenience and sunk costs to trigger mutual opportunism cycles.

The descriptions for standard, consensual and mutual opportunism cycles validate the inter-partner learning theory concepts of the "three-legged fallacy", "reluctant losers", and "hesitant winners". However, Khanna's original concept assumes that all three situations result from firm-level mistakes. Illusionary collaborations and effective communications by high and low-power firms that adopt adversarial and collaborative relationships can actively confuse their partners to trigger the "three-legged fallacy", "reluctant losers", and "hesitant winners" phenomenon. However, illusionary collaborations create psychological slack within partners, allowing firms to work around their partner's structural attributes regardless of how much protection they have embedded within their organisations (section 5.1.2.3). This highlights illusionary collaborations as a complementary and preceding condition that ensures competitive collaboration success for extracting partner resources before terminating relationships or acquiring partners to form end-to-end control (Jacobson et al., 2006; Cox, 1999).

Table 6.3 summarises the key points from the above discussion. Column one uses numbering to denote the conditions for competitive collaboration. Column two details competitive collaboration from the perspective of the inter-partner learning theory (1) and the broader literature (2,3). Column three introduces the original contributions from the empirical research before identifying illusionary collaboration as a complementary and preceding condition for effective competitive collaborations (4).

Table 6. 3: Competitive collaborations for mixed and private benefits.

No	Preexisting Literature	Contributions from empirical study
1	Collaboration is a short-term tactic used before introducing increasing opportunism in relationships and moving partners towards mixed and private benefits.	Businesses choose opportunism over genuine collaborations because the partnering firms frequently adopt genuine and competitive collaborations within the same relationship, creating misalignments. Therefore, business partners can actively make their partners misperceive whether they are
2	Practitioners gravitate towards opportunism over collaboration because business practitioners cannot upgrade their mindsets and manage relationships.	engaged in a competitive or genuine collaboration to make businesses more vulnerable to partner opportunism. Firms with low power pursue genuine collaborations, while partners with higher power pursue competitive collaborations.
3	The physical attributes determine the firm's ability to pursue and defend itself against competitive learning. The ability to pursue competitive learning or receptiveness is reflected in the firm or alliance-level absorptive capabilities and capacities. The ability to protect against competitive learning is reflected in businesses' level of transparency or slack and includes elements like organisational design, locations and contracting.	High-power businesses can rig their environments to create low-visibility settings with ambiguous features, trapping partners with fixed mindsets into illusionary collaborations. If these illusionary collaborations are sustained long enough, partners accept unfavourable terms as traditions and become more vulnerable to competitive learning (consensual opportunism cycles). Therefore, illusionary collaborations create a psychological slack within partners, allowing businesses to work around their physical attributes, including relative receptiveness and transparency.
4	x	Illusionary collaborations are complementary and preceding conditions that ensure the success of competitive collaboration. They allow the extraction of partner resources before terminating relationships or acquiring partners to form end-to-end supply chains.

In sum, this research and opportunism cycle theory first validated, further detailed and introduced minor extensions to the inter-partner learning concepts of the "three-legged fallacy", "reluctant losers", and "hesitant winners". Second, it extended the literature on effective competitive learning determinants by complementing the structural slack determinant with the additional concept of psychological slack. This helps businesses circumvent their partners' protective measures for effective competitive learning. In all of these cases, this research has contributed to the call to understand the inter-partner learning process and contingencies further (Doz, 2017).

6.2.2.3 Nuanced Power

The inter-partner learning theory literature agrees that the choice between common, mixed, and private benefits is determined by the "relative scope" for value capture (Hamel, 1991; Khanna et al., 1998; Inkpen, 2000; Ireland et al., 2002). It also assumes that partner firms objectively understand the relative scope and the common, mixed or private benefits align with collaborative mixed and adversarial relationships (Dyer et al., 2008; Kabiraj and Sengupta, 2018). Furthermore, the inter-partner learning theory only accounts for the firm's ability to use a coercive social power source to leverage bargaining power for value capture, and trust and transparency are seen as weaknesses (section 2.3.4).

The opportunism cycle theory validated the existence of seven types of social power sources, including interrelated coercive and non-coercive power sources (section 6.2.2, Table 6.3). Within these sources, informational power represents the firm's ability to communicate its power and persuade partners to adopt the desired power structures. Effective informational power requires businesses to combine the five main social power sources depending on a firm's relative power position compared to its value chain partners. This research found that across the standard, consensual and mutual opportunism cycle stages, businesses with high power adopt adversarial relationships for covert and overt opportunism and focus on mixed and private benefits.

- Covert opportunism: businesses establish illusionary collaborations for mixed benefits by stressing referent power to build trust and trigger illusions in the short term. They switch to expert and legitimate powers to strengthen illusions until partners enter consensual opportunism cycles.
- Overt opportunism: businesses stress coercive and reward power through their informational power, for ultimatums to conform and get rewards (carrot) or face losing future businesses that they rely on (stick).
- Businesses with low power adopt genuine collaborative relationships and focus on common benefits. These businesses stress referent power for the long term to build trust and later emphasise expert and legitimate powers

to convince their stronger partners to focus on strategic fits for the future rather than the power dynamics for value capture scope in the present.

Within the abovementioned approaches, informational social power within illusionary and genuine collaborations represents tactics to manipulate their partner's perception of the relative scope. It suggests that both the high and lower-power firms engaged in partnerships are constantly struggling to maximise value capture from one another. The inter-partner learning theory sees collaborations as a short-term tactic to trap partners into a competitive learning cycle, where firms engaged in opportunism are active, and the collaborators are passive when optimising value capture over time (Ireland et al., 2002; Dyer et al., 2008). Therefore, identifying that both high and low firms can be active represents an extension of the inter-partner learning theory. In sum, this research first extended the inter-partner learning theory, validating the existence of six interrelated types of social powers and linking them to common, mixed, private benefits and collaborative and adversarial relationships. Second, the opportunism cycle theory identified relative scope as a subjective phenomenon to contradict and extend the inter-partner learning theory assumption that considers relative scope objective.

6.2.2.4 Failed Competitive Learning

The competitive learning cycle represents the key mechanism to develop and leverage bargaining power over time for maximum value capture within the interpartner learning theory (Hamel, 1991). Within these cycles, businesses form collaborations as a short-term tactic to extract partner resources before terminating the relationship (section 2.4.3). However, it has previously not explained what happens if businesses fail to successfully move their partners across the different stages of the competitive learning cycle. The opportunism cycle theory and its mutual opportunism cycle phase suggest that if businesses fail to establish illusionary collaborations, they experience negative reciprocal cycles. Partners coerce each other tit-for-tat, eventually becoming too bitter, stagnating and breaking down. Therefore, illusionary collaborations focus on establishing

favourable or favourable reciprocal cycles because the relationship quality goes up, and the businesses that trigger the illusionary collaborations maximise their value capture at the expense of their partners. On the other hand, if they fail, both businesses experience negative reciprocal cycles until the relationship slowly erodes and terminates over time.

6.2.2.5 Path-Breaking

The inter-partner learning theory accepts that businesses that fail to adapt can become "locked into specific roles and hardwired processes" (Hamel, 1991, p.88). The "reluctant losers" concept by Khanna et al. (1998) represents situations where lower-powered firms become locked into consensual opportunism cycles. At the same time, the "hesitant winners" concept shows how high-power firms become locked into relationships due to convenience, sunk costs, and the informational power of partners. However, the inter-partner theory does not clarify what happens next. The opportunism cycle theory identified five path-breaking mechanisms that help cashmere businesses break out of unfavourable lock-ins. This includes growth-oriented government policies, collaborations, proxies, deceptive marketing, and unbranding rebranding strategies. In addition to these path-breaking mechanisms, the opportunism cycle theory identified that cashmere businesses use experiential learning over multiple business cycles to alter conditions within established path structures. This includes building buffer periods around the vulnerable parts of their value chains to reduce the impact of structural ineffectiveness previously embedded intentionally or unintentionally by other actors. Post-Covid research has identified 'safety stocks and capacities' as a potential solution for managing change, representing path-altering options (Sodhi & Tang, 2021; Choi et al., 2023). Temporal buffering similarly highlights the need to preserve 'safety time' and uniquely contributes to the literature on managing disruptions and the debate between the literature on "Just-In-Time" versus Just-In-Case" (Jiang et al., 2021, p.143).

6.3 Practical Contributions

A growing body of empirical research suggests that practitioners gravitate towards opportunism over collaboration (Storey et al., 2006; Fawcett et al., 2015). In practice, one-third of supply chain partnerships fail (Paluri and Mishal, 2020), only 20% of collaborations remain profitable, and 80% experience dampened "enthusiasm for subsequent attempts" (Zhao et al., 2020, p.104). This research identified that businesses can fail to distinguish between genuine and illusionary collaborations. It also identified the environmental circumstances that facilitate successful illusionary collaborations. This includes low visibility levels, ambiguous Environmental features, and fixed-mindset government policies. Illusionary collaborations are established and maintained over standard and consensual opportunism cycles, which should allow practitioners to recognise when and how they can both implement and avoid being trapped in opportunism cycles.

Within the cashmere industry, medium—and high-power businesses should adopt adversarial relationships to establish illusionary collaborations as part of standard and consensual opportunism cycle formations. If these businesses can maintain their power, this should lead to long-term and sustainable economic value. On the other hand, businesses with low power should focus on using genuine collaborations as tactics to erode and break out of opportunism cycles. For example, the upstream cashmere value chains have poor visibility, the herders do not always know what is happening, and the collectors and processors act unethically (Ellwood, 2020; Archer, 2019). Therefore, the upstream cashmere value chains represent fertile ground for establishing illusionary collaborations.

The buyers at each upstream stage (herders, collectors, processors) have the ideal conditions to implement illusionary collaborations. The sellers must be wary of buyers proposing collaborations because these will most likely be illusionary. Instead, they should try to counter the formation of opportunism cycles using two strategies. First, convince the high-power partners of their strategic fits and focus on future potential value capture potential rather than the current power dynamics. Second, reduce the relative power gaps by increasing their

organisational learning using collaborations. The herders in the cashmere industry are effectively demonstrating the second of these two strategies by forming herder cooperatives to improve their visibility over the collectors and processor value chain stages (section 5.1.1).

In the downstream, the cashmere value chain actors (independent or integrated spinners, knitters, wholesalers and retailers) experience better visibility (section 5.1.2). This makes trapping downstream businesses in new opportunism cycles using illusionary collaborations less likely. Instead, these downstream actors rely more on the following three types of branding competencies to convince partners of their value using long and short-term branding competencies.

- Heritage marketing refers to long-term efforts to create positive associations between products and services and high quality, expertise and reputations.
- Deceptive marketing refers to short-term false advertising without evidence and exploiting loopholes to acquire brand values more quickly.
- The unbranding rebranding strategy is a two-step process for instantly acquiring high-quality brand values. First, businesses with high power commodify and rebrand acquired products and services from their suppliers. Second, they use value chain control to put their buyers out of business before acquiring them to inherit their brand values instantly.

Western businesses have generally failed to pick up on the unbranding-rebranding strategy implemented by Chinese businesses. This is evidenced by the fact that some Western businesses still feel Chinese businesses can never replicate high-quality brands (section 5.1.2). Therefore, western businesses improve their ability to identify the unbranding rebranding strategy by asking themselves the following questions: Are our suppliers engaged in commodifying and rebranding products and services with the upstream partners? Have our suppliers been reducing our supply over time, and what could be the long-term implications of this trend? As a matter of policy, western businesses and governments should also consider the long-term implications of selling their brands to Chinese businesses and whether struggling Western brands could be incentivised to sell to other Western

businesses. The formation of herder cooperative in the upstream and the unbranding rebranding strategy in the downstream both represent vertical integrations as long-term solutions for sustainable economic value, not collaboration. This contradicts two key assumptions.

- Supply chain collaboration underpins sustainability (Mehdikhani and Valmohammadi, 2019; Lis et al., 2020; Bui et al., 2021).
- Collaborative SCM offers superior performance to vertically integrated supply chains (Ellram and Cooper, 1990; Mckinnon, 1990; Ellram, 1991).

This also highlights the need for a psychological shift within value chain practitioners to develop a more nuanced understanding of genuine collaborations as a short-term strategy. Businesses with low power adopt collaboration and aim to improve their relative power and value capture over time. It is not the ideal strategy for competition. The perfect strategy is end-to-end vertical integration. Therefore, collaboration represents a single tool rather than the entire toolbox for effective supply chain management.

6.4 Methodological Contributions

This research made minor contributions to research design and sampling-related methodology issues. Regarding research design, this research reviewed previous value capture-related empirical studies, revealing that only 3 of 15 qualitative papers used the single case study approach (Watson, 1999; Arino and Ring, 2010; Han et al., 2021). All three papers adopted the dyad as their unit of analysis. One of these papers adopted a cross-sectional time horizon (Watson, 1999), while the two adopted an undefined period (Han et al., 2021) and ten months for their longitudinal research (Arino and Ring, 2010). The only qualitative paper related to the inter-partner learning theory was a grounded theory study by Hamel (1991), which similarly adopted a dyad unit of analysis and a two-year time horizon.

Academics have also called for additional qualitative research using the case method (Flynn et al., 2020; Abdirad and Krishnan, 2021) and the value chain as its unit of analysis for context-specific theory building (Ellram and Ueltschy-Murfield,

2019; Carter et al., 2020). They also recommend longitudinal studies to adopt socially constructed event cycles over five to six years (Kogut, 1988; Hennart and Zeng, 2002) to capture patterned behaviours (Shipp & Jansen, 2021) and disruptive impacts (Craighead et al., 2020; Shi et al., 2021). More specific to the interpartner learning theory, academics have also called for new theory building using in-depth single-case studies that triangulate multiple sources (Kohtamaki et al., 2023). This research adopted a qualitative, holistic, and longitudinal single-case study approach, using the value chain as its unit of analysis (section 3.3) to support the building of inter-partner learning theory (section 3.2.1). Therefore, by adopting a single-case study approach to theory building the value chain as the unit of analysis, this research addressed the above-mentioned methodological issues within the value capture literature. This research adopted Johns's (2006) methodology to include an observational period beyond five to six years. It relied on thirty semi-structured interviews, on-site observations and historical documents dating back over one hundred years to cross-validate the interview data (sections 3.5 and 3.6). Path-dependence logic interprets power-based value capture over different event patterns (Table 6.1, issue 6). These methodological choices allowed this research to go beyond Hamel's two-year observational period to fully capture the evolution of business relationships and contribute important insights to the inter-partner learning theory.

Regarding sampling, only five of the fifteen qualitative papers covered in the literature review collected data from an Asian context. This context included Japan (Hamel, 1991; Johns, 2006), China (Han et al., 2021; Huang et al., 2020), Taiwan, and Malaysia (Johns, 2006). Academics have also called for new studies to focus on using developing countries for theory building. This includes the Oceanic and Asian continents (Bui et al., 2021) and lower-tech sectors like textiles (Lahne et al., 2020; Xu et al., 2020). This research used the international cashmere industry as its sampling context, representing a lower-tech industry focused on Western (UK, US mainly) and Asian countries (China, Mongolia, Afghanistan) (section 3.5.6). Apart from addressing the above-mentioned methodological issues, the cashmere industry represents a complementary industry and geographic context to Hamel's (1991) sampling choices. This includes high-tech industries (electronics, aerospace, automobile) based mainly in Japan and the US.

6.5 Research Limitations

Looking back at the literature review, the first and second questions used to structure it demonstrated significant overlap in their outcomes (section 2.1). The first question examined value capture and how it works, and the second focused on the fundamental theories explaining it. This is not necessarily a negative because it allowed for significant cross-validation. However, future literature reviews should:

- Ask more exclusive questions, including the nature of the methodologies used to underpin the empirical studies.
- Periodically assess the review outcomes holistically and consider updating or replacing them if they demonstrate significant overlaps.

This research experienced a similar problem during the data collection. Like the literature review, the three research objectives overlap, which built in a natural cross-validating function. However, this led to overwhelming volumes of very similar information. In many cases, the interview respondents covered multiple topics of the interview instrument within a single answer as they laid out their stories. When the same questions came up in the semi-structured interview process, the respondents did not repeat the information and said, "Yeah, it is the same as what I said before". These responses were too vague and left it up to the interviewee to interpret their responses, which can introduce personal biases.

In hindsight, the interviewer should have been more active during the conversations and included confirmation questions like "Would your answer be the same for question B?". This would allow the research to condense the information volume without compromising this research quality. Alternatively, two interviews with the same respondents could be used, following the "study 1 study 2 approach" (Kreiner et al., 2006, p.1036). In this context, the second interview ensures that the interviewee has not misinterpreted any responses.

Section 3.6 detailed the major problems experienced in data collection and their implications for the quality of this research (section 3.4). Table 6.4 summarises

the major problems, their impacts, and the adopted solutions, and column one denotes each collection.

Table 6. 4: Problems in the data collection process

No	Problem	Impact	Solution
1	Covid-19	It is unfeasible to conduct face-to-face interviews.	Conducted 40% of primary data collection interviews via video conferencing software (Skype, Zoom) and phone.
2	Lack of experience	Ineffectiveness within the interview instrument.	I developed and tested four interview instruments.
3		Difficulties in classing the participants into the different stages of the value chain.	Classified participants into broader classifications: harvesting and collection, processing and trading, manufacturing and retailing, wholesalers, and a panel of ex-professionals.
3	Significant trust deficit to overcome with industry	Uneven representation of participant interviews across the value chain.	Additional interviews were conducted with objective industry exprofessionals (two consultants, cashmere trade organisation heads and ex-professionals) with 20-50 years of experience in the wool industry and, to a lesser extent, the cashmere industry.
4	practitioners		I became involved in industry-related events and completed a report on doctoral research commissioned by one of the major trade organisations.

The table shows COVID-19 had the most significant impact on the data collection and analysis procedures (1). To tackle the inability to have face-to-face interviews, this research incorporated video conferencing and telephone calls for 40% of the interviews. However, online interviewing was a new experience, and the initial awkwardness impacted the interviewees' willingness to share information due to the inherent lack of connection.

6.6 Directions for Future Research

Section 6.5 highlighted that this research experienced an overwhelming volume of similar information due to the overlapping nature of the three research objectives and associated interview questions. It also identified that future research should include more confirmatory questions to condense the information volume without compromising this research quality and that the study 1 study 2 approach" (Kreiner et al., 2006, p.1036) could help. Therefore, a first future research direction is the need for research to adopt more advanced case study designs like this research one study-two approach to replicate this research but with built-in follow-up interviews to test the validity of research findings further.

This research used the international cashmere industry as its sampling context for localised theory building (section 3.5.6). However, cashmere businesses are small and family-owned, and the owner-managers control multiple processes and stages of a value chain (section 3.6). This made it challenging to classify the cashmere businesses into specific value chain stages and identify specialist collaboration managers. Porter (1989) sees this as critical for achieving collaboration effectiveness. Therefore, future research could replicate this in related industries where businesses have more defined roles and specialist collaboration managers. For example, future research could replicate the single longitudinal case study in other rare commodity industries like precious animal fibres, gold, and sapphire, with more defined business roles and specialised collaboration managers. Alternatively, future research could adopt comparative longitudinal case studies (Yin, 2014) to examine industry contexts that include and exclude specialist collaboration managers and have more or less defined roles across their value chains. Therefore, a second future research direction is to replicate this research methodology in other sampling contexts that include specialised collaborative managers to improve the generalisability of the opportunism cycle theory.

A third future research direction is to assess the value of specialist collaboration managers to business performance by using a comparative case study to analyse industry contexts where specialist managers are frequently used and not used. In line with the inter-partner learning and power architecture theories, this research found that cashmere businesses move towards opportunism over time to vertically

integrate more parts of their value chains and establish end-to-end control (section 6.2.1). This contradicts the social network theory, which predicts that as markets saturate and social norms become established, free riders become more susceptible to collective punishments by the network structures (section 6.2.1).

This research reconciled the discrepancy between these opposing network density predictions by linking them to different contexts depending on the initial cultural norms. If adversarial or collaborative social dynamics are the cultural norms, network density will reinforce opportunism and filter out collaboration and vice versa (section 6.2.1.2, Fig 6.1). Although logical, this requires further exploration. Therefore, a fourth direction for future research is to explore how an industry's initial cultural norms influence its development and network embeddedness.

Table 6.5 summarises the ambiguous environmental features businesses use to trap their partners into illusionary collaborations and the tactics for instantly accessing power sources that traditionally require long-term efforts to acquire (sections 6.2.1.1 and 6.2.1.2). Column one uses numbering to denote the five elements before column two classifies them into the two broader categories. Points 1-4A summarise these environmental features, including opportunity transitions, prepayments, long-term relationships and proxy contacts. A fifth direction for future research could be to adopt a more explorative approach to understanding the illusionary collaboration phenomenon by adopting a critical incident analysis study to help explore the actions and reactions before, during, and after firms implement and experience the impacts of illusions of collaboration.

This would also address the call by academics to adopt the critical incident analysis approach for understanding the impact of disruptions on businesses and their environments over time (Craighead et al., 2020; Gurtu and Johny, 2021). Points 4B-5 summarise the instant access tactics, including branding core competencies (Molinillo et al., 2022), positive business cultures, and trust-based business relationships (Carvalho et al., 2019). Therefore, a sixth direction for future research is to explore further the implications of these instant access tactics for the competitive landscape of cashmere and non-cashmere-related industries.

Table 6. 5: Sources of illusionary collaborations and instant access to complex resources

No	Element		Details
1	es	Opportunity transitions	Due to emerging business opportunities, business relationships remain in flux. Firms struggle to adjust to the changing circumstances and misperceive their relationships as strategic and collaborative, while partners feel otherwise.
2	Ambiguous features	Prepayment	Prepayments represent unilateral actions that underpin collaboration if used solely to help the business partners. However, they also control opportunism if the payers decide to time transactions for benefits at the partners' expense.
3	Ambigu	Long term relationship	Long-term relationships are typically associated with high-quality collaboration. However, they also reflect long-term adversarial hostage-taking where powerful firms have trapped their partners into standard and consensual opportunism cycles.
4A		Proxy contacts	Within collaborative arrangements, proxies afford businesses effective network learning and trust-building. However, they also give adversarial businesses instant access to trust and
4B		(Trust)	cultural synergy, which usually takes time to build.
5	Instant access	Branding	Chinese businesses use deceptive marketing (false advertising) and the unbranding rebranding strategy to build branding value quickly. They poorly replicate or withhold fibre supply for Western-branded products to undermine and put the Western firms out of business before buying them up to instantly access their qualities and erode a traditional competitive barrier within cashmere value chains.

This research identified temporal buffering as a nontraditional fifth path-breaking mechanism in which cashmere businesses use experiential learning over multiple business cycles to alter established path structures. This includes building buffer periods around the vulnerable parts of their value chains to reduce the impact of structural inefficiencies previously embedded intentionally or unintentionally by other actors (section 5.1.1.1). However, there were no clarifications on whether the buffers resulted from high-power businesses controlling their value chains to suit their requirements, collaborations among some or all value chain actors, or a mixture of both. Therefore, a sixth direction for future research is to explore how businesses develop temporal buffers within their value chains.

6.7 Chapter Summary

This chapter concluded the overall research. It began with a reflective research summary in chapters one to six. Next, this research detailed its theoretical contributions to this research issues related to power, value capture, culture, and time. The opportunism cycles validated and extended key aspects of the interpartner learning theory (section 6.2).

First, it contributed towards Hamel's (1991) priority shifts and concepts of external disruptors by identifying three internal and seven external disruptors. It also showed that these elements determine business developmental paths. This also validated the path dependence theory concepts of behavioural and multiple lockins (Goldstein et al., 2023). Second, it contributed towards Hamel's (1991) concept of competitive collaboration by showing how illusionary collaborations can facilitate and enhance a firm's ability to engage in competitive learning. While Hamel's concept sees a partner's protective capabilities as a limiting factor for competitive learning, illusionary collaboration relies on firms actively creating psychological slack within partners, making them vulnerable to competitive learning, regardless of the protective measures they previously adopted. Third, it contributed towards Khanna et al.'s (1998) three predicted outcomes of long-term learning races, including the three-legged, reluctant loser and hesitant winner fallacies. Khanna assumed that these fallacies occur due to organic mistakes and that the victims and beneficiaries are passive. However, the research found that businesses can actively trigger these fallacies using adversarial and collaborative relationships to optimise their value capture. Fourth, it validated the power architecture theory prediction that network embeddedness facilitates opportunism rather than collaboration over time (Cox, 1991; Jacobides et al., 2006; Zhou et al., 2021A). Fifth, it identified path-breaking processes to extend the path dependence theory. This includes growth-orientated govt policies, undisclosed proxy contacts, the unbranding rebranding strategy and temporal buffering. These contributed towards the path dependency theory (Sydow et al., 2020; Goldstein et al., 2023).

Regarding the practical contributions, the research explained that collaborations fail because practitioners fail to distinguish between genuine and illusionary collaborations and showed how practitioners could recognise when to implement and avoid opportunism cycles. The research also identified a series of cues businesses can use to recognise when to engage and prevent opportunism cycles (section 6.4).

The research concluded by identifying limitations and directions for future studies, including the need for future researchers to adopt more advanced research methodologies and explore the implications of instant access to difficult-to-acquire resources (sections 6.5 and 6.6).

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Appendix 2A: Literature Review Methodology

This section describes the methodology for conducting a literature review to build on the previously discussed scoping study. The literature review methodology outlines the review context, including the literature review type, aims and objectives, and clarifying critical terms using initial working definitions (section 2.1). The review also details the practical steps to source the study, including designing Boolean codes, using inclusion and exclusion criteria for quality control, and setting up a standardised paper reviewing process (sections 2.1.1 to 2.1.3). Section 2.2 summarises the results of the final paper retrieval procedure.

2.1. Review Approach

The study chose to conduct another scoping study to clarify the scope and significance of research agendas, looking more specifically at the relationship between value capture, time and business relationships for several reasons. First, while the traditional narrative literature review (NLR) is praised for its ability to offer in-depth and highly critical reviews for specific topics (Daemi et al., 2021), its practical procedures are considered to lack transparency and, therefore, research legitimacy (ibid). On the other hand, systematic reviews (SLR) are championed for their ability to eliminate these procedural biases by emphasising transparency and showing how researchers design and conduct reviews (Mair et al., 2020). However, SLRs are criticised for needing more depth and creativity due to the predetermined data sourcing and interpretation procedures (Hammersley, 2020). This means SLR can eliminate the inclusion of critical papers they could have accessed through chance encounters as part of more flexible searching procedures (ibid). Therefore, the NLR and SLR approaches represent opposite but complementary approaches that could be blended to balance research quality and procedural transparency better. Second, the scoping study uncovered a variety of SLRs that followed the procedures set out by Tranfield et al. (2003) to explore the SCM domain (Seuring et al., 2020). Arksey and O'Malley (2005) implicitly suggest that doing a complete SLR becomes less feasible if similar reviews exist.

Therefore, the value of additional SLR will diminish as the numbers continue to grow, and alternative review methods should be considered.

Table 2.1: Comparison of review types

Review type	Narrative	Scoping study	Systematic
Depth and quality of analysis	High	Medium	Low
Transparency and rigour in procedures	Low	Medium	High

Therefore, a middle ground is needed and potentially achieved by introducing some flexibility into the systematic data searching techniques of the SNR procedures and using them to identify the broadest ranges of relevant literature possible without submitting any personal biases. Regarding the actual literature review processes, the study will critically analyse the findings by mimicking the narrative tradition. This need to operate in between these polar extremes and benefit from their relative strengths is implicitly supported by Arksey and O'Malley (2005, p.4), who believe:

"Whilst criticisms have been levied at both 'traditional' and 'systematic' review methods, we contend that there is no single 'ideal type' of literature review, but rather that all literature review methods offer a set of tools that researchers need to use appropriately".

The only difference between a SLR and a scoping study is that the latter adopts broader review questions and emphasises quality assessments to a lesser extent (Arksey and O'Malley, 2005, p.5). This review adopted the same scoping study procedures as before to conduct an additional review using the now more defined boundaries to examine the relationship between value capture and time in business relationships. The practical steps for performing the scoping study are detailed in the following sub-sections.

2.1.1 Identify Relevant Review Questions.

Step 1 involves developing a research question that encompasses the key terms that can act as parameters, phrases that need to be defined and the keywords that can be used to conduct the data searchers in the next stage (Arksey and O'Malley, 2005, p.9). In line with this initial step, the study built on its scoping study findings to establish the overall scope of management literature for explaining the relationship between the value capture phenomenon and time dimension in business relationships. The following review objectives were used to structure the review:

- What is value capture, and how does it work?
- What are the fundamental theories that explain value capture?
- What is the temporal scope within value capture-related theories?

These review objectives are purposely designed to be quite general, to capture the broadest understanding of value capture over time and to leverage the holistic nature of the systematic review approach. This should then allow the reviewer some boundaries and investigate the various data in more detail with a critical eye, therefore bringing in some of the qualities of the narrative review.

2.1.1.1 Tentative Definitions

To establish tentative definitions for value capture, time and business relationships have either been taken from appropriate sources or developed in the following subsections. For value capture and the time dimension, the study initially relied on the following definitions taken from some initial Google Scholar searches for the terms "value appropriation" and "time dimension":

"Value appropriation (VA) is defined by the share of exchange rent a focal firm can capture. Also referred to as value claiming, capturing, or sharing, VA results from the capability of a firm to extract the rents generated in interorganisational exchange" (Ellegaard et al., 2014, p.2)

"Time is a non-spatial continuum in which events occur in an irreversible succession from past to present and future" (Halinen et al., 2012, p.12)

The broad nature of what can constitute an inter-organisational or business relationship makes it difficult to pick a definition from the literature. Therefore, it is essential at this point to establish definitional boundaries for business relationships to make the article searches more precise. Table 3 represents a classification of the descriptions used for business relationships in SCC literature. This classification process found three categories: pure-contractual, non-contractual and mixed relationships.

- First, pure contract relationships are highly controlled business relationships formed using contracts to collaborate on narrow, well-defined areas with pre-defined payoff structures. The contract is the start and end of the relationship without any deviations resulting in coercive power exercised by either participant. These relationships are synonymous with arm's length relationships (Kamstra et al., 2006; Min et al., 2019) used for outsourcing non-core or low asset specificity activities (Cox, 1994; Dyer et al., 2018).
- Second, pure, non-contractual relationships can be defined as highly trust-driven business relationships moderated by reputations and the broader social norms of a business environment (Mouaad et al., 2022). These types of relationships are referred to as "guanxi" and "blat" by Chinese and Russian businesses (Zhaou and Castka, 2021B, p.2). These relationships are strengthened as trust accumulates through superior performance over time (Han et al., 2021) with partners with similar strategic intents (Xu and Hao, 2021, p.28).
- Third, mixed relationships represent a middle ground between pure contractual and non-contractual relationships and rely on contract-based control and various levels of trust. Parkhe (1993, p.308) refers to these relationships as "social contract", where an administrative contract used to control a relationship is further moderated by external environmental factors or social norms.

These relationships are often interchangeably described as partnerships, alliances, and joint ventures (Soosay, 2008). Dussauge et al. (2000) further break down the link or scale alliances.

- Link alliance is where partners contribute different resources to the more volatile buyer-seller relationships.
- Scale alliance, where partners contribute similar resources at the same stage or stages of the value chain for stable economies of scale benefits.

Mixed relationships represent a more inclusive and dynamic understanding of the business relationship within the study, which has adopted this specific conceptualisation. Furthermore, as the link alliance is more volatile, these relationships will offer more opportunities to examine the potential issues that may arise in the value capture phenomenon over time. Therefore, this study decided to focus on the link alliance as its relationship context and adopt the following working definition for business relationships:

"Varying degrees of collaboration between two or more independent firms in buyer-seller relationships that are moderated by a mixture of contract-based control and trust levels developed in specific business conditions over time"

2.1.2 Choosing Relevant Studies and Selection

Steps 2 and 3 involve choosing the sources of information and searching boundaries before carrying out a test using the search phrases to check whether data that addresses the research questions is being retried. The study followed these instructions using three well-considered electronic databases: *Google Scholar*, *Scopus*, *and Web of Science*. The search strategy followed the general rules of reviewing abstracts until 20 continuous papers rendered nothing useful; both conceptual and empirical papers were considered; all purely vertical integration and M&A papers were removed. To keep the searches concise, only documents within the following categories were considered: social science and humanities domain, English language, defined authors, business, decision science, and multidisciplinary discipline. Each database was searched first without any time restrictions and then with a time range between 2018 and 2021. This was done to

ensure a maximum number of papers before and after COVID-19 could be captured to help the literature review findings remain relevant to the changing global conditions. The study also engaged in extensive snowballing of the more recent paper reference lists to capture any significant contributions the searches may have missed.

The practical process of conducting the searches was done using Boolean codes. These codes were developed through an iterative process of designing, testing, and adapting the codes in consultation with the social sciences specialist librarian. This process continued until the relevant papers emerged from the database searches. The study took inspiration from the narrative approach to avoid the danger of limited search results from the systematic searching approach (Hammersley, 2020, p.29). This was done by taking a typical Boolean code that would be used for systematic reviews and developing five versions of it with distinct levels of flexibility built into them to maximise the number of papers retrieved for the literature review.

Table 2.2: Sequential search strings to be used in each database

No	Search string/code
1	"Alliance" OR "joint venture" OR "supply network" OR "value chain" AND "value appropriation" OR "value capture" OR "value share" OR "value distribution" OR "value split" AND "time" OR "evolution" OR "change"
2	"Alliance" OR "joint venture" OR "supply network" OR "value chain" AND "value appropriation" OR "value capture" OR "value share" OR "value distribution" OR "value split"
3	"Value appropriation" OR "value capture" OR "value share" OR "value distribution" OR "value split" AND "time" OR "temporal" OR "evolution" OR "change"
4	"Value appropriation" OR "value capture" OR "value share" OR "value distribution" OR "value split"
5	"Value appropriation"

Table 2.2 shows that code 1 represented the strictest code with no flexibility and was intended to minimise the number of retrieved papers but with maximum relevance. Code 5 represents the highest level of flexibility and was designed to maximise the number of papers while accepting that many irrelevant papers would also appear and require the researcher to go through to find any additional papers the previous searches would not have found. In this context, the 5th search string replicates the same approach adopted within narrative reviews.

2.1.3 Charting Data

Step 4 involves synthesising and interpreting data by sorting data by issues and themes. This study followed Ryan and Bernard (2003, p.94) in its charting process by carefully reading each retrieved paper twice while 'cutting and sorting' by identifying and highlighting relevant keywords or text. The study recorded the following: author name and date of publication, key definitions and procedures of supply chain management, the critical theories for supply chain management, interesting directions for research, all recommended methodological issues, and snowballed papers. The essential data were copied and pasted into tables within Microsoft Excel, and each piece of information was paired with brief notes saying what the information was and why it was necessary. These pieces of information were then arranged into broader categories and subcategories.

2.2 Results

In step 5, cycling through the 5 Boolean codes on the Google Scholar, Scopus, and Web of Science databases led to identifying 83 papers that specifically looked at the value capture phenomenon and the time dimension. Further analysis of their reference lists led to the identification of a further 20 papers, and additional serendipity searches and recommendations by the senior University of Glasgow researchers led to the identification of another nine papers, a total of 112 papers. The review of the reference list of Ellegaard et al. (2014) found five additional studies that specifically focused on the time dimension. The reference lists for these papers identified 13 additional papers that offered valuable contributions to understanding time. Finally, the study included additional serendipity searches and recommendations by the senior University of Glasgow researchers, which led to the identification of another eight papers to a total of 26 'time specific' papers. Therefore, the 112 papers that looked at both value capture and time and the 26 papers that provided more details on the time dimension together give a total of 138 papers for this literature review.

Table 2.3: Final set of papers for a scoping study

Database	Papers
Value capture (VA) (83)	Adegbesan and Higgins, 2010; Alvarez and Barney, 2004; Arino and Ring, 2010; Ambrosini and Bowman, 2010; Anand et al., 2010; Arino and de la Torre, 1998; Bhattacharyya, 2021; Bowman and Ambrosini, 2000; Bowman and Swart, 2007; Brandenburger and Naleebuff, 1995; Brandenburger and Stuart, 1996; Brown and Eisenhardt, 1997; Boaventura er al., 2020; Brown and Eisenhardt, 1997; Corsaro, 2020; Coff, 2010; Contractor and Woodley, 2016; Cox, 1999; Cox, 2001; Cox, 2004A; Cox et al., 2004B; Di-Gregorio 2013; Dyer and Singh, 1998; Dyer et al 2008; Dyer et al., 2018; Dyduch and Bratnicki, 2018; Dyduch et al., 2021; Dussauge et al., 2000; Ellegaard et al 2014; Fierro and Perez, 2018; Gulati et al., 1994; Gulati et al 2008; Gulati and Singh 1998; Gulati, 1995; Hamel, 1991; Han et al., 2021; Henkel and Hoffmann, 2018; Huang et al., 2020; Hoffmann 2015; Huge-Morgan and Yao, 2016; Jacobides et al 2006; James et al., 2013; Jap, 2001; Johns, 2006; Kang, 2013; Kang et al., 2018; Khanna et al., 1998; Kim, 2016; Kumar, 2010; Kano, 2018; Lavie, 2007A; Lavie et al., 2007B; Lavie, 2009; Lepak et al., 2007; Letaifa, 2014; Letcher et al., 2021; Larsson et al., 1998; Mocciaro et al., 2005, p. 213; Mizik and Jacobson, 2003; Minerbo et al., 2020; Minerbo et al., 2021; Niesten and Stefan, 2019; Nurhayati et al., 2021; Pagani; 2013; Parkhe, 1993; Pitelis, 2009; Priscilla et al., 2013; Reitzig and Puranam, 2009; Ryall, 2013; Ritala and Tidstrom, 2014; Sridharan and Simatupang 2013; Simatupang et al., 2017; Sjödin et al., 2020; Teece et al., 1997; Tower et al., 2021; Volschenk et al., 2016; Watson, 1999; Wagner et al., 2010; Xu and Hao, 2021; Yang et al., 2021; Zhang and Du, 2019; Zakrzewska-Bielawska and Lewicka, 2021; Zeng, 2003.
Snowballed (20)	Woodruff, 1997; Madhok and Tallman, 1998; Prahald and Hamel, 1991; Teece, 2018; Porter, 2008; Adams, 1965; Donnerstein and Hatfield, 1982; Raven, 2008; Elias, 2008, French and Raven, 1959; Tema, 2014; Henderson et al., 2002; Freemans, 1984; Mitchell et al., 1997; Etzioni,1988; Barney, 1986; Barney, 1991; Barney and Hesterly, 2010; Wernerfelt, 1984; Williamson, 2008.
Serendipity (9)	Halldórsson et al., 2015; Hitt et al., 2021; Grundy, 2006; Goyal, 2020; Nye, 1979; Kabiraj and Sengupta, 2018; Krause et al., 2007; Burt, 2017; Knoppen and Christiaanse, 2007.
Time (5)	Das, 1987; Ancona et al., 2001; David,1985; Orlikowski and Yates, 2002; Davies, 1994
Snowballed (13)	Mosakowski and Earley, 2000; Das, 1991; Das, 1993; Medlin, 2004; Halinen et al., 1998; Butler, 1995; Speckman et al., 1998; Shu et al., 2011; Mitchell and James, 2001; Halinen et al., 2012; Ring and Van de Van, 1994; Van de Ven and Huber, 1990; Ancona and Chong 1996.
Serendipity (8)	Harvey and Novicevic, 2001; Reilly et al., 2016; Shipp and Jansen, 2021; Pettigrew, 1990; Ployhart and Vandenberg, 2010; Aguins and Bakker, 2021; Kogut, 1988; Hennart and Zeng, 2002.

Appendix 2B: Working Definitions

This section provides a more detailed discussion showing how the research arrived at each working definition used to underpin the key terms that make up the research aim (section 2.4.3). This research examined interdisciplinary research that covered the anthropological, sociological, philosophical, and psychological domains to explore the definitions of power and culture before drawing conclusions. The key outcomes are presented in sections 2.1 and 2.2 below.

2.1 Culture

In philosophy, one of the earliest understandings of culture is the cultivation of the soul, or "cultura animi" (Cicero, 1737). Seventeenth-century philosopher Pufendorf saw culture as the human ability to overcome his original barbarism through artifice and become fully human(Velkley, 2002). Therefore culture on a personal level makes us human. In the 1980s, Edward Casey described culture as having its roots in something you are responsible for, responding to caringly, and worshipping like a religious cult (Sorrells, 2015). This suggests that culture is not just an internal holistic phenomenon but something that could exist or be influenced by external stimuli. More recently, Velkley (2002) see the origins of the term culture to be rooted in the cultivation of the soul or mind, but that it has branched out into two ideas of "culture" or non-physical personal development and "civilization," more physical develops that manifest in the form of art architecture and observable patterned behaviours. This builds on Casey's perspective by suggesting that the interplay between peoples and their environments creates the meaning of what constitutes positive cultivation of the soul and being human.

Anthropologist Tylor (1871) described culture as a complex whole made up of knowledge, belief, art, morals, law, customs, and habits acquired by people as part of societies. A common and universal definition of culture also suggests that it is dependent on the human capacity to classify and encode their experience and communicate these encoded experiences to others (Teslow, 2014). Both the traditional and conceptual definitions of culture accept the interplay between

people and their environments found within the philosophical perspective, but the latter of these definitions also stress that culture is subjective and can change as people and their ability to communicate their experiences change.

Twentieth-century sociologist Simmel (1971) defined culture as the cultivation of humans through their interactions with external stimuli, "the cultivation of individuals through the agency of external forms objectified in history. More recently, sociologists have confirmed that culture is the human way of thinking and how it is shaped by non-material cultures or ideas (values, rules, morals) and material culture or physical evidence (made objects) (Macionis et al., 2011). Therefore, both definitions again confirm that culture represents a subjective interplay between people and their environments. However, Simmel feels that people's personal cultivation is more influenced by material or non-material cultural elements that have become popular, a tradition or norms.

Looking across these three domains, philosophy distinguishes the existence of culture on two levels, personal culture and civilisation, but also accepts that it is the interplay between people and their environments that determines what constitutes positive cultivation of the soul and being human. The anthropological perspective accepts the philosophical view but stresses that culture is subjective and can change as people and their ability to communicate their experiences change. Therefore, people drive culture, while the environment is passive. The sociological perspective contradicts this view and suggests that a person's cultivation is more influenced by material or non-material elements that are already popular or embedded in society to represent norms.

Within the business literature, Parkhe (1993, p.304) defines culture as "the web of norms, attitudes and perceptions that constitute the social contract". However, culture and its influences differ in terms of industries and sectors (Sridharan and Simatupang, 2013), supply networks (Jacobides et al., 2006); business dyads, organisations (Zeng, 2003), and individual people (Shipp and Jansen, 2021). Therefore, the business literature implicitly accepts the sociological perspective and feels that the dominant institutional or other norms of different industries and sectors will influence what constitutes culture for businesses.

The research defined cultural boundaries by focusing on limited contexts, including countries that comprise traditional value chain structures and link alliance business relationships. A traditional value chain refers to linear structures where firms add value at each stage, and their technological changes are incremental (Zakrzewska-Bielawska and Lewicka, 2021). This includes "complex governance arrangements" within exact and dispersed geographical locations (Corsaro, 2020, p.102). Therefore, traditional value chain structures represent clear linear structures that, in theory, afford well-defined added value at each stage. As these chains experience incremental technological changes, their relative stability makes it easier to observe changes in the environment, power dynamics and value chapter. The international nature of these structures also means that each value chain will have minor or major cultural differences from other value chains. Therefore, exploring one value chain will afford clearer opportunities to identify what the socialist perspective described as objectified in history in the form of cultural clashes, alignments, and embeddedness.

On the other hand, Dussauge et al. (2000) identified two types of business relationships, the link and scale alliance, where the former aligns with the linear buyer-seller context. Link alliances are "more volatile but better for learning and capability acquisition" (Dussauge et al., 2000, p.102). Therefore, adopting link alliances afforded the research a high frequency of interactions between firms for the emergence of collective business cultures, frequent learning exchanges and changes. The following definition for culture emerged by combining the original definition for collaborative business relationships (section 2.1), traditional value chain structure (network level) and link alliances (dyad level):

"Varying degrees of collaboration between independent firms in buyer-seller relationships to form link alliances and facilitate both value-creation and capture, influenced by a mixture of contract-based control and trust levels in specific business conditions over time".

2.2 Bargaining Power

Behavioural scientist Dahl (1957) states that individuals can influence others to obey commands they would not otherwise do. However, sociologists argue that the likelihood that this influence will not work and power conflicts will increase as the level of differences between the actors increases (Østerlund and Carlile, 2005). Each social system is usually independent, and power structures emerge as hierarchical authority or expertise (Bourdieu, 1998). Therefore, successful power execution requires asocial alignment between the actors.

Political philosophers identify power as being on a spectrum from purely coercive to non-coercive. Gramsci (1971) identifies with purely coercive power only and believes hegemonic power represents the ideal position because it ensures the continuity of privileged status for dominant groups. This is achieved by leading normative assumptions through institutional and material power and can only change through consensus between all parties (ibid). In contrast, Habermas (2015) only values non-coercive power and feels that In collaborative settings, only inclusivity and practical deliberation that seeks agreement and reciprocity among stakeholders renders positive outcomes. Therefore, inclusivity and effective deliberation, underpinned by collective outcomes, lead to power. Foucault takes a middle ground and sees knowledge and power as interwoven phenomena. Power does not always need to be coercive. It is strategic and exists in social networks, where it can influence behavioural changes through motivation (Beukes, 2023). Taking the three perspectives together, depending on the makeup of a given network, power dynamics will change, and the option to adopt hegemony or noncoercive power can vary.

Psychologist Raven (2008) argues that power changes are induced from one actor to another based on the interplay between five important power bases: reward, coercive, authoritative, referent, expertise and communication. This research argues that coercive and referent power represent the two extremes of pure opportunism and trust, while the remaining power types represent variances in the middle ground.

Business literature echoes many of the sentiments raised above. Following Dahl, Dyer et al. (2018) describe power as the firm's ability to alter agreement terms favourably and obtain benefits from partners based on relative dependence. *In line with* Gramsci, Cox (1999) identifies the complete power of suppliers and customers as the ideal position and refers to it as Janus dominance. However, while Foucault accepts power as a nuanced concept that varies depending on the idea, Cox et al. (2004) also add that regardless of the power structures in a social system, businesses can misperceive them. Within this context, Sridharan and Simatupang (2013) argue that traditional coercive power and trust represent two interchangeable power sources and apply in different situations. However, they offer limited theoretical details on how this would work in practice.

Therefore, Raven's (2008) six power bases represent the most complete understanding of the power concept and connect different power types to various situations (detailed in section 2.2.2, Table 2.9). Therefore, this research adopted Dyer's basic definition of power and integrated it with Raven's Psychological perspective to offer the following more nuanced power definition:

"The firm ability to favourably alter agreement terms and obtain benefits or accommodations from partners, based on relative dependence and the firm ability to wield different types of power."

2.3 Sustainability

Sustainability is widely seen as "an all-encompassing concept with no clear limits" (Damastus and Landrum, 2022, p.711). Something normative that can be disputed but not meaningless (Ramsey, 2015). This is because sustainability varies in meaning depending on the ethics and experiences of the individual. In general terms, sustainability is defined as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs" (Brundtland, 1987, p.41). Within a business context, it refers to "doing business without negatively impacting the environment, community, or society as a whole" (Spiliakos, 2018, p.112). Therefore, sustainability is the process of balancing its three main dimensions of economic, social and environmental sustainability (Purvis et al., 2019), by maximising economic growth without compromising the social and ecological dimensions.

Although logical, using fewer resources per output unit, even while growing, is difficult, if not impossible, in practice (Parrique et al., 2019; Vadén et al., 2020). This could explain the emerging pushback against sustainability, where some now recognise it as a buzzword because it represents an unachievable ideal (Apetrei et al., 2021). Kemp-Benedict et al. (2022, p.11) reinforce these sentiments:

"No country is delivering what its citizens need without transgressing the biophysical planetary boundaries".

One reason for the difficulty in attaining sustainability could be that measuring it is complicated and context-specific (Hardyment, 2024), and there are no universally agreed-upon environmental, social, and economic *sustainability indicators* (Bell and Morse, 2012). Taking these points together, this research argues that doing business without negatively impacting the environment is impossible, and businesses should simply try to minimise their negative impacts. Therefore, this study defines sustainability within a business context as:

"Maintaining a balance between the three dimensions of sustainability by doing business with minimal negative impacts on the environment and society".

Appendix 3: Research Methodology

This Appendix provides additional information to support the research methodology chapter. Section 3.1 details the ethical approval process. Section 3.2 explains why the cashmere value chain was used for sampling. Sections 3.3, 3.4 and 3.5 detail the primary and secondary data collection procedures.

3.1 Ethical Considerations

The additional evidence for the ethical approval process includes a sample of the ethical approval application form (Fig 3.1), the plan language statement (Figs 3.2 and 3.3) and the consent forms (Fig 3.4).



Fig 3.1: Approved ethical application form



Plain Language Statement

Study title: Towards understanding how changes over business cycles impact the relationships and performance of value chain participants: the case of the international cashmere industry

Researcher: Sayed Aiden Saeed Gilani

You are invited to take part in a University of Glasgow Doctoral research study. Before you decide it is important for you to understand why the research is being done and what it will involve. Please take your time to read through the following information carefully and discuss it with others if you wish. Please do not hesitate to ask if there is anything that is not clear or if you would like more information. Please also take your time to decide if you wish to take part in this study. Thank you for reading this.

What is this research project about?

The purpose of this study is to understand how changes over business cycles impact upon the relationships and The purpose of this study is to understand how changes over business cycles impact upon the relationships and performance of value chain participants. Firms believed to be more aware of their business cycles and how possible disruptions in them may trigger changes are, better positioned to manage these changes for optimal business performance. Furthermore, while most business research links performance to joint venture outputs [jointy created profits or resources that may lead to profits, bit sudy takes the view that true business performance goes beyond this to also consider how these joint benefits are captured by each of the businesses for themselves. Taking these points together, the study outputs should help businesses to understand and continuously enhance value (bottom line profits) across supply chains over time.

Why have you been approached?

You are being invited to participate in this research because you are knowledgeable about your company's supply chain activities and the benefits that it can capture from them over time. In addition, since you do have knowledge of supply chain activities, this means you will also be the best person to recommend relevant upstream value chain partner firms that could be used for the next phase of data collection.

It is up to you to decide whether you would like to take part. If you decide to take part, you are still free to withdraw at any time and without giving a reason.

If I agree to participate, what I will have to do?

If you agree to participate, you will be asked to take part in either a face-to-face or Internet based (Skype video conference) interview between 2018 and 2019 period. The interviews will last a maximum of 60 minutes and a follow-up interview may possibly be requested to clarify parts from the initial interview. With your permission the interviews will be recorded (audio and/or video), to ensure maximum accuracy within the collection and analysis of data. If you do not wish the interview to be recorded you can still be a part of the study and extensive notes will instead be taken during the

To properly address the overall aim of the study, you will be asked to talk about: your organisations the typical business cycles and relationships; past disruptions to it, why you feel these disruptions occurred; and how the business measures

1

Fig 3.2: Plan language statement 1

Will my taking part in this study be kept confidential?

All data collected during the research project will be analysed under the supervision of my doctoral supervisors and will be kept strictly confidential. Your identity, as well as the company's identity, will remain anonymous and pseudonyms or 10 numbers will be used in any documentation or presentations produced from the research. Any information you provide will be stored in password-protected computers or in locked cabinets at the University of Glasgow. Please note that assurances on confidentiality will be strictly adhered to unless evidence of wrongdoing or potential harm is uncovered. In such cases the University may be obliged to contact relevant statutory bodies/agenc

What will happen to the results of the research study?

The findings of this study will be presented within a doctoral thesis and they may be published in academic journals and reports, conference proceedings or books. Data collected may be used in future related studies. In all cases your identity will remain anonymous.

What are the possible risks and benefits associated with my participation?

There are no significant risks for participants involved in this study. Participants may indirectly benefit from participation in this study, as the outcomes will provide information on how to improve the value capture processes of a company over

Who is organising and funding the research?

This research is part of a PhD research conducted by Mr. Sayed Aiden Saeed Gilani at the Adam Smith Business School of the University of Glasgow. The research is self-funded by the researcher.

Who has reviewed the study?
This research project has been reviewed and approved by the College of Social Sciences Research Ethics Committee of the University of Glasgow.

If you have any questions or concerns, or you would like to know more about this research project please feel free to in you have any questions to collection, or you would not be contact. Mr. Sayed Aiden Saeed Gilani by sending an email to signiant. @research place. Lift from you have any concerns regarding the conduct of the research project, please contact the College Ethics Officer by contacting Dr. Muir Houston at Muir. Houston@glasgow.ac.uk

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University of Glasgow

Email: Alison.Smart@glasgow.ac.uk

2

Fig 3.3: Plan language statement 2

University of Glasgow	
College of Social Sciences	
	Consent Form
	hanges over business cycles impact upon the relationships n participants: the case of international cashmere industry
Name of Researcher: Sayed Aiden Saeed Gilani (Do Name of Supervisors: Prof Robert Paton and Dr Aliso	
I have read and understood the Plain Language ask questions.	e Statement for the above study and have had the opportunity to
 I understand that my participation is voluntary reason. 	and that I am free to withdraw at any time, without giving any
I acknowledge that participants will be referred	d to by pseudonym.
 I acknowledge that there will be no effect on n this research. 	ny employment arising from my participation or non-participation i
 I consent / do not consent (delete as applicable (I acknowledge that copies of transcripts will b 	e) to interviews being audio-recorded. e returned to participants for verification if they so wish)
I consent / do not consent (delete as applicable)	e) to access to relevant company documents.
	ess to this data and use my words in publications, reports, web agree to preserve the confidentiality of the information as
	kept in secure storage for the duration of the study and destroyed preservation is for additional academic research purposes only.
 All names and other material likely to identify in 	ndividuals will be anonymised.
I agree to take part in this research study	
l do not agree to take part in this research study	
Name of Participant	Signature
Date	Date
Name of Researcher: Sayed Aiden Saeed Gilani	Signature

Fig 3.4: Consent statement

3.2 Pictures from Observational Visits in Mongolia

This part of the appendix provides visual evidence of observational visits to the cashmere markets, local processing units, and manufacturers, as well as a conference, where contact was made with herders and traders for primary data collection through interviews and observations. This was also a good opportunity to meet representatives from the western downstream businesses and set up additional interviews.

3.2.1 Visit to Open Markets

Ten years ago, a lot of cashmere and wool were traded at the open markets, but now no one trusts the traders because they mixed some bad things into the fibres, so nobody buys from them. The pictures below were taken at the season peak, and as can be seen, there was no trading here. At the same time, one of the interviewed processors was sourcing eight trucks a day (70 tonnes of fibre), which is \$4 million daily.



Fig 3.5: Visit the open cashmere markets in Mongolia

3.2.2 Visit to Processor and Conference

During the Mongolia visit, visits and observations were made to the herder farms, processing and manufacturing units to conduct interviews in the participant's natural business settings. Figs 3.6-3.9 cover some of the critical steps in the cashmere production process.



Fig 3.6: Fibre sorting, washing and drying



Fig 3.7: Quality inspections and yarn rewinding for waste reduction



Fig 3.8: Garment manufacturing



Fig 3.9: Sustainable cashmere conference

3.3 Data Collection Problems and Solutions

In practice, the data collection process faced several challenges that were remedied using several solutions with implications on the five quality criteria identified in the section (Chapter 3, 3.4). These included the following challenges: inefficiencies within the interview instrument, gaps in interviewee participation, and difficulties in allocating participants to specific cases based on their relevant processes. Each of these challenges, their solutions and quality implications are discussed below.

3.3.1 Inefficiencies in the Interviewing

The research project developed an initial interview instrument by deriving six significant questions from the three primary research objectives. These six questions were further supported by additional probes or trigger phrases to help the interviewees and interviewer ensure that all the concerned areas are covered within the data collection process. Attempt one (Table 3.1) involved six questions mapped against the three research objectives and supporting probing questions. Each of these questions was paired with summative questions to clarify the participant responses further using the following questions: "Can I just confirm that? Have I got that correct? Is there anything you would like to add? etc.". The interview instrument was changed four times based on the interviewer's experience applying the instruments for optimal data collection. Tables 3.1 to 3.4) show the evolution of the interview instrument.

Table 3.1: First version of the interview instrument used for the primary data collection

Aim	Explore how power-based value capture is sustained over punctuated time by collaborative business alliances in international cashmere value chains.		
Objectives	Map key processes, relationships and value sharing within value chains	Establish key antecedents and impacts of value chain disruptors.	Establish the specific impact of strategic decisions on value chains.
Questions	What processes and relationships typically make up cashmere business cycles? • What happens monthly • Activities that support occurrences. • Their relative importance • Frequency of these processes and duration of the business cycle Can you please tell me about the business relationships that support the above processes? (Direct and Indirect) • Nature of relationships? • Impact and importance When and how is business performance measured over business cycles? • Timing of performance measurements • Intervals between interactions and performance measurements • Partner performance measurements? • Process for partner performance measurement	How do disruptions in business cycles trigger changes in performance and relationships • Previous disruption impacts • Disruption causes • Disruption frequencies • Impact on business • Partner reactions and call for renegotiations Do you think this was/would be fair, and why? • Nature of relationships and impact • Maturity level and nature? • Process unfolds	Does the business feel that there are any specific determinants that, when altered- affect your business performance? • Controllable and uncontrollable determinants

Table 3.2: Second version of the interview instrument used for the primary data collection

Aim	Explore how power-based value capture is sustained over punctuated time by collaborative business alliances in international cashmere value chains.			
Objectives	Map key processes, relationships and value sharing within value chains	Establish key antecedents and impacts of value chain disruptors.	Establish the specific impact of strategic decisions on value chains.	
Questions	What are the key processes and relationships that make up the business cycle, and when do they occur (months, seasons) • Process details (direct) • Support processes (indirect) • Value added by each process • Timings of processes • Relationships (strategic, arm's length) When and how do businesses measure their own and partner' financial performance • Measurement process (own and partner) • Timing of measurements • Value distribution and conflict resolution	What have been the critical disruptions, and how have they triggered changes in value capture and relationships? • Responsible • Frequency • Caused by partners • Impact on performance • Impact on relationships	How have your strategic choices affected the value chain and broader industry? • Choice, frequency and timing • Partner reactions • Impact on performance • Impact on relationships (breakups, renegotiations, fairness) How do businesses in the past and present predict and react to these disruptions? • Process • Skills/competencies required (rank importance) • Historical outcomes • Controllable and uncontrollable variables	

Three summing-up questions were also asked after each main question to clarify points further. However, this felt too clunky in practice, making the interview flow more like an interrogation than a conversation. Therefore, these three questions were replaced with a single question "included

Table 3.3: Third version of the interview instrument used for the primary data collection

Aim	Explore how power-based value capture is sustained over punctuated time by collaborative business alliances in international cashmere value chains.			
Objectives	Map key processes, relationships and value sharing within value chains	Establish key antecedents and impacts of value chain disruptors.	Establish the specific impact of strategic decisions on value chains.	
Questions	Can you please describe the critical processes carried out by the various cashmere industry participants on a month-bymonth basis? • Details of processes (direct) • Support processes (indirect) • Risk taken within processes • Timings of processes • Relationship nature (strategic, arm's length).	Can you please tell me about the historical, current and future disruptions to the industry/ business and their impact on performance and relationships? • Frequency • Responsibility • Partner involvement • Impact on performance • Impact on relationships • Measurement process • Timing of measurements • Renegotiations.	How do businesses predict and react to disruptions/changes? • Process • Skills/competencies required • Planning cycles • Historical impacts on performance and relationships) • Controllable-uncontrollable variables to the firm.	
			How have your strategic choices affected the value chain and broader industry? • Choices and frequency • Partner reactions • Impact on performance • Impact on relationships (breakups, fairness)	

This effort has been made partly to allow The research project to fully meet the confirmatory criteria for qualitative research quality by making the research methodology as transparent as possible (Chapter 3, section 3.4).

Table 3.4: Final interview instrument used for the primary data collection

Aim	Explore how power-based value capture is sustained over punctuated time by collaborative business alliances in international cashmere value chains.		
Objectives	Map key processes, relationships and value sharing within value chains.	Establish key antecedents and impacts of value chain disruptors.	Establish the specific implications of strategic decisions on value chains.
Questions	What key activities do organisations (relevant to your experience) do monthly or seasonally? • Details of step-by-step processes (herders, traders, processors, manufacturers, retailers) • Timing of processes and activities What is the typical relational closeness between business partners in the industry? • Strategic relationships • Transactional relationships • Relational trends in the industry	What are the critical disruptions and their impacts on the value chain? Name and impacts of disruptions Responsibility for disruptions What is the frequency of these disruptions? Frequency of their occurrence.	How do businesses try to predict and react to disruptions/changes? • Formal or informal processes • Impact of own choices on business partners. How to do business negotiations in fold post disruption? • Renegotiations after a disruptions
	How is financial value created and distributed across cashmere value chains? • Value sharing from highest to lowest • Fairness of value sharing • Value contributions. • Risk-taking from highest to lowest • BP/core competencies		

3.3.1.1 Framing the Interviews

The research project's central issue in attracting potential downstream interviewees (EU manufacturers and retailers) from the offset was their hesitation to engage with the research. This was due to three reasons: first, the concepts of value capture and distribution force businesses to discuss to some extent how much money they are making and whether it is fair. This put them in a far more uncomfortable position, knowing the potentially higher chances of being seen negatively than discussions on collaborative relationships where they can regurgitate much of their ethical business practice marketing information. After careful consideration, the research project reframed it in the context of sustainability. This is because, by definition, supply chain sustainability is:

"The balancing of social, economic and ecological dimensions using collaboration and coordination to allow a continuity of maximum economic development by remaining within the short and long term social and ecological limitations" (Sustainability report done by the researcher)

Therefore, sustainability creates sustained or continuous business performance by balancing economic, social and environmental elements. Since the intended study is about understanding how disruptions to business cycles impact the collaborative relationships and value capture processes of value chain participants, it could be argued that understanding the impact of disruptions is essentially a study on continuity (or sustainability) of performance, where value capture could represent the economic dimension and the collaborative relationships the economic dimension. These points demonstrate the precise alignment between the intended project and the current sustainability trend without considering the environmental dimension. All participants were made aware of this by the following statement within the introduction of the interview instrument:

"This interview aims to understand how disruptions impact the sustainability of luxury-end animal fibre value chains over business cycles. Here, sustainability refers to the social dimension of the longevity of business relationships and the economic dimension of business financial benefits. Value chain refers to the journey the cashmere takes from initial grower to final consumer."

The participants understood this, and despite not mentioning sustainability in any of the questions, they were happy to answer them.

3.3.1.2 Map Processes, Relationships and Value Sharing (RO1)

The table below shows that the research project started with three major questions to address the first research objective. The research project realised within the first two interviews that the three questions for mapping value chains ended long because the respondents would go in various directions telling their stories. Secondly, it also became clear that the participants were uncomfortable discussing value capture-related topics like performance measurements, power leveraging and value distribution. To address these issues, The research project first began by trying to cut down the number of questions for this first research objective from three to one (instrument one to three) and replacing any questions about "value capture" or "performance measurement" with the term "risk". This was done on the premise that a discussion on relative risk may help the respondents indirectly provide some clues about relative value sharing or ease into

conversations about value capture, which implicitly aligns with the association between risk and rewards suggested in the literature (sections 3.3.3 and 3.3.4).

Table 3.5: Instrument comparison for research-objective 1

Instrument 1	Instrument 2	Instrument 3	Instrument 4
What processes and	What are the key processes	What are the key	What are vital activities that
relationships	and relationships that make	processes and	organisations (relevant to
typically make up	up the business cycle?	relationships that make up	your experience) do monthly
cashmere business	 Process details (direct) 	the business cycle?	or seasonally?
cycles?	 Support processes 	Process details (direct)	 Details of step-by-step
 Monthly activities 	(indirect)	• Support processes	processes
Impact of	 Value added by the 	(indirect)	 Timing of processes and
activities	process	 Risk within processes 	activities
 Frequency 	 Timings of processes 	 Timings of processes 	
 Duration of the 	 Relationships (strategic, 	 Relationship (strategic, 	
business cycle	arm's length)	arm's length)	
Can you please tell	When and how do		What is the typical relational
me about the	businesses measure their		closeness between business
business	own and partner' financial		partners in the industry?
relationships that	performance		 Strategic relationships
support the above	Measurement process		 Transactional
processes?	(own and partner)		relationships
Nature of	Timing of measurements		 General relations
relationships	Value distribution and		
 Impact and 	conflict resolution		
importance			
When and how is			How is financial value
business			created and distributed
performance			across cashmere value
•			_
9			Trotaci vo i alli ricos
•			
			Bargaining power
•			
measurements			
measured over business cycles? • Timing of performance measurements • Partner performance measurements			chains? Value sharing Relative Fairness Value contributions Relative risk sharing

Regarding impact, firstly, reducing the number of questions reduced the time and allowed the interviews to allocate more time to discuss the second two ROs. In hindsight, The research project realised that these long-detailed stories revealed many critical insights about the antecedents and impacts of value chain disruptors (RO2) and the specific implications of strategic decisions on value chains (RO3), which the respondents did not reveal when asked more directly in the line of questioning later. Therefore, in instrument 4, The research project reverted to having the three broader questions for RO1. Secondly, the use of the term "risk" rather than "value capture" or "performance measurement" worked quite well. Therefore, instrument 4 took this strategy a step further and used five questions

that implicitly touch on value capture determinants, as covered within the literature (Chapter 2, sections 2.2.3.2; 2.3.2). This worked far better than more direct inquiries into value capture.

3.3.1.3 Antecedents and Impacts of Value Chain Disruptors (RO2)

Table 3.6 shows two significant questions to address the second research objective. Instrument one covered a variety of probes to establish the causes and effects of industry disrupters, including an exploration of the maturity level of the relationships and industry (Chapter 2, section 2.3.3). However, the participants seemed puzzled by questions about the length of the industry lifecycle and maturity levels. Furthermore, including the renegotiation probe within RO2 led to participants repeating significant amounts of information twice. Therefore, to reduce this, the research project moved questions regarding renegotiations into the questions for RO3.

Table 3.6: Instrument comparison for research-objective 2

Attempt 1	Attempt 2	Attempt 3	Attempt 4
How do disruptions to business cycles trigger changes in performance and relationships Disruption causes Disruption frequencies Impact on business Partner reactions and call for renegotiations	What are the critical disruptions, and how have they triggered changes to value capture and relationships? • Frequency and responsibility • Partner involvement • Impact on performance • Impact on relationships	What are the critical disruptions, and how have they triggered changes to value capture and relationships? • Frequency and responsibility • Partner involvement • Impact on performance • Impact on relationships	What are the critical disruptions and their impacts on the value chain? Name and impacts of disruptions Responsibility for disruptions
Do you think this was/would be fair, and why? • Nature of relationships and impact • Maturity level • Process unfolding			What is the frequency of these disruptions? • Frequency of their occurrence.

Instrument two was streamlined into one question and explored the impact of disruptions on relationships and performance, and it worked well. The same format was used in Instrument three. However, when asking for responsibility and frequencies in the same question, the respondents tended to answer one of the other. The research project divided the question into two parts in instrument four, where frequency and responsibility were featured separately. Second, the

responses for the impact on relationships and performance significantly overlapped, and the participants seemed to lose motivation when they had to repeat themselves. In instrument four, the research project also asked the participants to talk about the impacts in general, hoping the participants would end up discussing the effects on both the performance and the relationships.

3.3.1.4 Impact of Strategic Decision on Value Chains (RO3)

Table 3.7 shows that the research project started with one question to address the third research objective and establish the impact of strategic decisions undertaken by the participants themselves. The questions were generally interested in seeing if the participants understood their influence by asking them to identify the controllable and uncontrollable elements in Instrument One. However, this did not extract the required information and needed clarification on participants. In hindsight, the research project realised the question needed to be revised to address the research objective requirement.

Table 3.7: Instrument comparison for research-objective 3

Attempt 1	Attempt 2	Attempt 3	Attempt 4
How do your own strategic choices impact the value chain and broader industry? • Controllable and uncontrollable variables	How do businesses in the past and present predict and react to these disruptions? • Process • Skills/competencies required (rank importance) • Historical outcomes • Controllable and uncontrollable variables	How do businesses predict and react to disruptions/changes? • Process • Skills/competences • Planning cycles • Impacts on performance and relationships • Controllable-uncontrollable variables.	How do businesses try to predict and react to disruptions/changes? • Formal or informal processes What is the impact of strategic choices on business partners? What is the impact of one's own choices on business partners?
	How do your own strategic choices impact the value chain and broader industry? • Choice, frequency and timing • Impact on relationships (breakups, renegotiations, fairness)	How do strategic choices impact the value chain and broader industry? • Choices and frequency • Partner reactions • Impact on performance • Impact on relationships (breakups, fairness)	How to do business negotiations in fold post-disruption? • Renegotiations after disruptions

To remedy the abovementioned issue, the research project included two more directed questions within instrument two, where the initial question regarding the impacts of one's own strategic decisions was paired with another question focused

more on understanding how businesses predict and react to changes. While this worked, The research project found it difficult to get the respondents to explicitly discuss the impact of their decisions or how negotiations unfold. Having refined the two questions in Instrument Three, Instrument Four broke the two questions down into four direct questions. This worked well and prevented the respondents from only discussing hypothetical solutions or decisions businesses could take to resolve various industry issues. This is because by asking them about strategic choices in general first and then their own decisions, the respondents were indirectly forced to address the required area of interest.

3.3.2 Gaps in the Interview Perspectives

The research project ensured an even representation of all participants' perspectives to meet the credibility and adequacy of research quality criteria (Chapter 3, section 3.4). The research project did not directly interview Afghan or Chinese herders and big Western brand retailers. Furthermore, the research project felt it needed to have initially interviewed enough cashmere industry exprofessionals as part of its expert group of interviewees.

3.3.2.1 No Afghan or Chinese Herder Perspectives

To address the blind spots created by missing interviews for Afghan and Chinese herders, The research project included additional consultations with relevant experts. For example, The research project interviewed the following: one exprofessional with 50 years of experience working with both Afghan and Chinese herders (ExpertLA5); two consultants who directly worked with the Afghan herders (ExpertKAF5; ExpertRAF5) with 1-3 years of experience; and one interview with a China-based trade organisation head with around three years experience (ExpertBC5).

3.4.2.2 No Significant Retailer Perspectives

To address the gap in interviews created by no big retailers agreeing to do the interviews, The research project had to rely on conducting three interviews with three trade organisation heads which directly deal with downstream brand

retailers (ExpertFG5; ExpertBC5; ExpertJM5) with 3 to 7-year experience; one former managing director for a heritage brand retailer herders (ExpertLA5); and two manufacturers who are small brand retailers themselves who supply to the more prominent brand retailers and have seven and 31-year experience respectively (ManufacturerRetailerCU3; ManufacturerRetailerSU3).

3.4.2.3 Limited Ex-Professional Expert Perspectives

Within the group labelled as experts, The research project managed to conduct interviews with two Afghanistan industry consultants with 1-3 years' experience (ExpertKA5; ExpertRA5), three trade organisation heads covering the Chinese Mongolian, EU and US territories with 3-7 years of experience each (ExpertFG5; ExpertBC5; ExpertJM5); but only one interview with an ex-professional, albeit this individual did have 50 years of experience (ExpertLA5). Therefore, more discussions were needed with ex-professionals with similar long-term experiences in the industry. To address this issue, the research project was compromised by including two interviews with ex-professionals from the wool industry who also have experience within the cashmere industry. While not ideal, they demonstrated high-quality insights into the cashmere industry from 20 to 50 years, working directly with the previous market-leading cashmere conglomerate Dawsons International (ExpertPW5; ExpertDW5).

3.3.3 Difficulties in Allocating Participants to Specific Value Chain Stages

While The research project had initially hoped to use the various process stages of the cashmere value chain as the individual cases, the practical interviewing process uncovered that actors within the cashmere industry could undertake multiple roles and continue to control more and more of the value chain. This made it difficult to classify some of the participants. For example, one Mongolian participant currently engages with all stages of the value chain, from initial fibre herding to final retail in the West, using a small retail arm (TraderProcessorBM2).

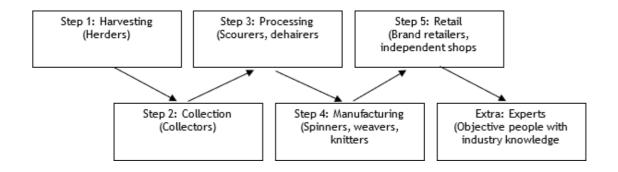


Fig 3.10: Tradition value chain structure

To simplify allocating the participants to specific case groups, The research project combined the processes within clusters of two or three before placing the fibres into the various groups based on what they identified as their core business. So, for example, if we take the same Mongolian participant, he was assigned to the "trader-processor" case group. This is because the participant himself admitted that supplying processed fibres makes up the bulk of his business. Secondly, the participant talked about buying raw fibre processing and selling it as one process at times, which made it difficult to discuss each process individually without risking a significant volume of repeated statements or taking the risk of taking words out of context. Therefore, the new case structure is as follows:

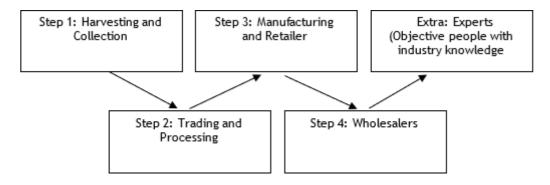


Fig 3.11: Reconfigured value chain structure

3.3.4 Trust Deficit

The research project intended to initially interview EU-based retailers and brand manufacturers before using their referrals to move backwards and interview their upstream partners to form a complete set of buyer-seller relationships within a single value chain. This, however, proved more difficult than initially anticipated, which in part may be because the cashmere industry is by nature secretive, as understood by the following participant comments: "It's a very close shop in the cashmere industry, people sort of keep information to themselves" (TraderProcessorLA2); "It is tough to try and get information and information that is credible" (ExpertLA5). In addition to the generally secretive industry culture, participants highlighted the potential for cashmere businesses to act in unethical ways. This may also mean that actors will be more worried about either themselves or their partners being accused of greenwashing. The following participant comments further detail this point:

"Some EU businesses use very deceptive marketing and may only buy 1% sustainable cashmere from Mongolia. But if you read their marketing, it is sustainable and comes from Mongolia. The main Chinese region where cashmere goats are located is called Inner Mongolia. That's their loophole"

(ManufacturerSM3)

However, regardless of the reasons, there is apparent mistrust between the cashmere industry actors and all outsiders. Efforts were made to get involved in industry-related events. Based on initial discussions of the doctoral research and potential contributions, a cashmere-related trade organisation commissioned the author of this research project to conduct a cashmere sustainability feasibility report for them. This was used to form direct and indirect relationships with all parts of the value chain to facilitate additional primary data collection opportunities. Fig 3.12 provides a sample of the feasibility report.



Global businesses are amid a sustainability revolution, with growing consumer numbers now demanding certified and highly traceable products without compromise. Businesses who can meet this need, can expect higher levels of consumer loyalty and improved profit margins; while those who cannot, should expect significant financial and reputational losses. The Mongolian cashmere industry represents one such high-risk industry and struggles to demonstrate traceability due to several barriers that include: a complex supply chain structure; no consensus on what sustainability and traceability represent; NGOs like the SFA who support industry level traceability, lack the resources, trust and technical skills to have an impact.

The purpose of this report was to explore the feasibility for developing a traceability system that could be implemented within the Mongolia cashmere industry and managed by the SFA. This broader aim was supported using the following objectives: define value chain traceability; identify key academic and industry models and technologies for traceability; and offer a tentative framework for implementing traceability into the industry. The study adopted a systematic approach for conducting a review of industry reports and academic papers. This involved using 4 key search strings to search Google and Google Scholar and led to the identification of 68 relevant sources in total (42 academic papers, 26 industry reports).

The key findings are as follows: First, a coherent definition of traceability was developed, and specific conditions were identified that are necessary for traceability to work appropriately. Furthermore, traceability requires specific conditions to work that include: a collaborative supply network; managed by well trusted, highly skilled and influential traceability captains (retails or NGOs). Second, it is proposed that traceability systems can be categorised into three main types (product segregation, book and claim, mass balance) that align with different traceability qualities and market segments. These traceability types can be used to adjust the three main components of traceability systems (governance, collaboration, tracking and tracing) to meet specific market segment requirements by adapting specific variables (actors, enablers, barriers). Furthermore, three major ID technologies (Biotagging, RFID, barcoding) and different data integration technologies (e.g., IoTs) were identified that correspond to different traceability qualities, traceability types and market segments. Third, the study identified a tentative model for implementing traceability using a 5-step model that included: understanding your market dynamics; establishing the system parameters; mapping and analysing the supply chain; testing the traceability system; and look to continuously improve the system over time.

The study has also provided several recommendations on how the SFA could adjust by addressing specific preconditions for more successful traceability systems. Recommendations have been made on how the SFA can: become trusted and experienced enough to take on the role of an effective "traceability captain"; developed a collaborative network for successfully running a traceability system; and map the complex Mongolian cashmere supply chain structures.

pg. 5

Investigation of Traceability Systems Mongolian Cashmere Value Chain

Fig 3.12: Executive summary of feasibility report produced for a significant cashmere industry organisation

3.3.5 Interview and Observation Breakdown

Table 3.8 summarises the primary data collection.

Table 3.8: Breakdown of primary data collection.

No			Case	Surname and code	Experience	Location	Languag	ge mode	Duration
1			SFA Affiliate	Sarantuya (HerderSM1)	Unknown	Mongolia	Mongol	F2F	55 mins
2		<u>}.</u>	Independent	Ishee (HerderIM1)	7 years		English	F2F	33 mins
3	v	Herder	NZ cashmere	Shaw (HerderSZ1)	7 years	NZ		Online	1h 25 mins
4	ctor		Independent	Sarantsetseg (HerderSM1b)	40 years	Mongolia	Mongol	F2F	20 mins
5	-colle			Khandsuren (HerderKM1)	43 years				
6	Herder-collectors		SFA Affiliate	Bayarmaa (CollectorBM1)	7 years	Mongolia, China		F2F and tour	25 mins and 30 mins (T)
7	_	ctor		Oyuntsetseg (CollectorOM1)	10 years				
8		Collector		Narantsesteg (CollectorNM1)	16 years				
9				Nyamsuren (CollectorNM1b)	30 years				
10			G.Schneider	Gallia (TraderProcessorWM2)	4 years	Mongolia, EU, US	English	Online	57 mins
11			Traitex	Jami (ProcessorJA2)	11 years	Afghanist an, China		Phone	50 mins
12	essor	Processor	Bodio	Bodio (TraderProcessorBM2)	27 years	Mongolia, China, EU, US		F2F and tour	1h 21 mins and 1h 15 mins (T)
13	Trader processor		Cashmere Fibers	Lee (TraderProcessorLA2)	35 years	Afghanist an mainly, China, Mongolia		Online	1h 16 mins
14		Trader	Independent	Malin (TraderMM2)	40 years	Afghanist an, Mongolia, China, EU, US			1h 45 mins
15			Alex Begg	White (ManufacturerWU3)	11 years	EU		Phone	1h 3 mins
16	retailer	Manufacturer	Blue Sky Cashmere	Scott (ManufacturerSM3)	30 years	Mongolia, EU, US		Online and tour	1h 27 mins and 30 mins (T)
17	lanufacturer retailer	Ma	Todd and Duncan	Thompson (ManufacturerTU3)	34 years	EU, US		Online	1h 3 mins
18	Manul	Retailer	Johnstons	Cotton (CUManufacturerRetailer3	7 years	Mongolia, EU, US		F2F and tour	1h and 1h 10 mins (T)
19		Ret	Hawico	Sanderson (ManufacturerRetailerSU3)	31 years	EU		Phone	1h 20 mins
20			DZ Group	Toli (WholesalerBC4)	5 years	China		Online	1h 28 mins
21	Wholesaler	Wholesaler	Hangai	Bill (IWholesaler4)	6 years	Mongolia, US			3h 15 mins
22	Ř	W	Madame Seguin	Klaartjic (GWholesaler4)	10 years	Mongolia, EU			2h 28 mins
23		nt	<u>Texhydra</u>	Kasirajan (ExpertKA5)	1 year	Afghanist an			1h 27 mins
24	Expert	Consultant	USAID	Jawad Rai (ExpertRA5)	3 years	Afghanist an (2013- 2016)		Phone	20 mins (not recorded)

25	org	GCS	Christian (ExpertBC5)	3 years	China	Online	1h 30 mins
26	Trade or	CCMI	Gadelli (ExpertFG5)	7 years	US, EU		1h 9 mins
27	Tra	SFA	Jones (ExpertJM5)	7 years	Mongolia- EU		1h 45 mins
28	onals	J.Dawsons	Porter (ExpertPW5)	20 years	EU (not involved since 2000)		1h 40 mins
29	Ex-professionals	H. Dawsons	Dawson (ExpertDW5)	50 years	EU	F2F	37 mins
30	Ex-pro	Forte, Crombie, USAID	Lamb (ExpertLA5)	50 years	Afghanist an, China, Mongolia	Online	1h 21 mins

3.5 Secondary Sources

In line with the chosen research design framework and data collection strategy (Chapter 3, section 3.5), the intended study used secondary data sources to build the historical perspective to address the overall research aim and objectives. To ensure The research project meets the confirmatory and dependability criteria for high-quality qualitative research (Chapter 3, section 3.4), The research project has provided a transparent chain of evidence below.

3.5.1 Secondary Data Breakdown

The searches identified 70 secondary documents divided into categories based on quality from categories 1 to 7 (highest to lowest quality). Categories 1, 2 and 3 were academic sources (with references) and therefore were the highest-quality sources. These sources made up 23/70 or 26% of the total. Categories 4 and 5 were industry reports and articles that may contain personal industry biases. Despite having direct quotes and references from industry sources, they were classified as mid-level quality sources. These sources made up 28/70 or 41% of the total. Categories 6 and 7 had newspapers, and general cashmere-related websites tended to blur personal opinions with facts to justify these sources as low quality. These sources made up 19/70 or 33% of the total. Only 26% of secondary data sources are high quality, 41% are medium quality, and 33% are low-quality secondary data sources, which is not an ideal mix. It should be noted that the purpose of the secondary data was to validate the primary data collection and help build up a detailed historical picture for understanding cashmere value chains rather than conduct independent research where quality would become an issue.

Table 3.9: Breakdown of online resources used for the secondary data collection process

	Categories	Found	Sources	Snowball	Sources	To tal
1	Journal article	11	Ansari-Renani et al., 2013; Ansari-Renani et al., 2015; Ariunchimeg, 2017; Castelli and Sianesi, 2015 Faust, 2013; Faust and Surchi, 2015; Heine and Gutsatz, 2015; McGregor et al., 2011; Towers et al., 2013; Waldron et al., 2011; Waldron et al., 2014;	1	Maskiell, 2002	12
2	Book	6	Ishrat et al., 2018; Karthik et al., 2015; Kozlowski and Mackiewicz, 2020; Lakshmanan et al., 2016; Tharoor, 2016; Wilson, 2016.	3	Bolts, 1772; Bairoch and Levy- Leboyer, 1981; Thomlinson, 1996	9
3	Thesis	2	Burwell, 2017; Danka et al., 2017.	0		2
4	Industry report	12	Archer, 2019; Cobb, 2014; Crowley et al., 2015; Danforth, 2017; De-Weijer, 2007; Kerven and Toigonbaev, 2010; Krishna et al., 2014; McEwen, 2011; Mintel, 2018; Okamoto and Jamsranjav, 2019; Russel, 1998; Songwe and Magwan, 2003.	2	Lecraw et al., 2005; Kerven, 2007	14
5	Website article	14	Abnett, 2015; Bayartsogt, 2019; Brown, 1995; Cernansky, 2022; Cook, 2021; Economist, 1999; Ellwood, 2020; Floyd and Shardlow, 2019; Hall, 2021; Hounslea, 2016; Laukhuf, 2017; Pasotti, 2020; Tolo News, 2018; Zarya, 2017.	0		14
6	Newspapers	12	Birrell, 2021; Cocozza, 2017; Cochrane, 2018; Cowell, 2004; Gonsalves, 2014; Kingsley, 2017; ; O'Donnell, 2015; Pepinstter, 1995; Timmins, 2020; Ungoed-Thomas and Gillespie, 2016; Walker, 2016; Yuanqing, 2016.	0		12
7	Website	7	Baldwin, 2016; Fiddes, 1996; Håkansson, 2022; John Lewis Partnership, 2020; Krosofsky, 2021; Scotland- China Association, 2015; Umbra touring, 2018.	0		7
	Total	64		6		70

The data sources covered a historical range from the 15th century when the first formal cashmere industry was set up in the subcontinent (Maskiell, 2002; De-Weijer, 2007), to its growth and decline in the 18th and 19th centuries (Bolts, 1772; Bairoch and Levy-Leboyer,1981; Maskiell, 2002; De-Weijer, 2007; Tharoor, 2016); the 1980s-1990s transition of power from western to Asian businesses (Brown, 1995; Songwe and Magwan, 2003; Kozlowski and Mackiewicz, 2020; Ellwood, 2020; Timmins, 2020; DW, 2020; Chimedtseren, 2006); to the present situation. Although the secondary data collection could not claim to be exhaustive, it did cover most of the significant historical events that could validate or extend the primary data collection to help identify key behaviour patterns over time by the cashmere businesses in line with the research aim and objectives (Chapter 3, section 3.5.6). This means that the secondary data collection process was successful. The research project has provided a full reference list of secondary data sources in section 3.5.2 for additional research rigour.

3.5.2 Secondary Data Reference List

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Appendix 4: Research Findings

Appendix 4 provides additional quotes from the primary data collection process that support the findings chapter. Section 4.1 provides additional quotes related to the first research objective (RO1), Section 4.2 provides additional quotes related to the second research objective (RO2), and Section 4.3 provides additional quotes related to the third research objective (RO3).

4.1 Research Objective 1

This section provides additional interview quotes related to the cashmere value chain processes, relationships, and value capture dynamics (sections 4.1.1- 4.1.4).

Table 4.1: Cashmere value chain processes

No	Comments	Source
1	"The lambing/offspring follows. Mid-April, laxative and parasite treatment is to treat	CollectorNM1
ļ .	weak or diseased animals. In mid-May, we move from our spring to summer camp	Concession
	(fresher/ rich grass), depending on the structure of regional plants. For example, wormwood grass and wheatgrass areas are preferred to help the animals gain lean	
	meat. For fat gain, wild leek and ramson rich areas chosen."	
2	"These animals are the people's livelihoods, and they look after them like members of	TraderProcessorLA2
	the family and when it's minus 40 degrees, and there is sick or prematurely born kid goats that are kept in the herdsmen own tent to benefit from the heat."	
	3-11- 11-11-11-11-11-11-11-11-11-11-11-11	
3	"The main purpose of our Afghanistan project was cashmere quality improvement	ExpertRA5
	through crossbreeding. We imported 10 Italian bucks with light cashmere colour to	
	crossbreed them with Afghan goats to improve the colour and quality of Afghanistan cashmere."	
4	"Different pattern of cashmere outcome year to year depends on the climate conditions	HerderKM1
	of that particular year, as the main specialty of different herders".	
5	"When you're combing you remove a lot of the impurities like the dust, sand, grass, and	ExpertLA5
	shrubs that they pick up as they wander along the hillside. The process of combing helps	
	you to remove a lot of that. But things like dandruff which can be inherent in a lot of cashmere goats. But the minute you shear you take the whole fleece so that the skill for	
	them is in shearing as close to the skin as possible. rolling up the fleece and bundling,	
	and then putting it in Hessian or polypropylene bug). But in doing that they are trapping	
	everything".	
6	"In Mongolia, that is done by traders, who don't really pay for quality but instead for	ManufacturerWU3
	weight".	manaractar cr vv ob
7	"Chinese buy fibres by the sack load, but once the cashmere has been sorted, scoured	ExpertJM5
	and dehaired, the best cashmere fibres can demand a far better price than lower	-
	quality ones".	
8	"So there used to be a lot of middlemen who travelled around with their trucks and	HerderIM1
	bought the cashmere on site from the herders. it is such a valuable product that we had, only once a year, the major cashmere income; we also understood the risk because	
	the price can fluctuate, and we could lose a lot of money if we waited too long and	
	didn't sell it on time".	
9	"You will have to follow the nomads, go there, catch hold of them, collect the stuff and	ExpertKA5
	then they bring it to the traders. Then, they batch them in huge quantities in large	
	warehouses. Some even separate the fibres from visible impurities, by employing local women".	
10	"If herders deliver 200kg, from my region to the capital it is 1600km return and 100km	TraderProcessorBM2
	would cost \$106.4/kg. Then they need to spend 2-3 days during this. Also, they must have a large volume to sell to the Chinese. if I have 500 tonnes, we can sell for a high	
	price but with 100-200 kgs the Chinese will pay lower."	
11	Whithout the collectors who everyone wants to get sid of these days it is a soll.	Wholesalaw 4
11	"Without the collectors who everyone wants to get rid of these days, it is nearly impossible to buy yarns from the bigger producers like Gobi for locals."	WholesalerG4
	, ,	

Table 4.2: collaborative relationships

No	Comments	Source
1	"A lot of the information would be shared among the herders, so they would discuss the price of cashmere and that was the baseline that we relied on"	HerderIM1
2	"I had good connections with local herders and officials, that also helped me to collect over 40 tons in less than 2 weeks"	CollectorBM1
3	"EU businesses have people on the ground in places like China, I actually went around with a guy who the business has employed from past 15 years whose based up in Inner Mongolia and we visited people who were buying directly from the goat herders"	TraderMM2
4	"So, we buy directly from dehairers or agents who buy from the dehairers. These agents effectively work as our buying agents, know our quality policies very well, and do the testing to give us full visibility in that area. So that is it, its relatively simple the shipping etc is the seller's responsibility we don't organize freight or anything like that everything else is done internally"	ManufacturerRet ailerCU3
5	"We still have an office in Mongolia and have people working for us there, we have them go to the factories and monitor the product before it is boxed for shipment, we are rejecting 10-15% in every single one of the factories we work with. If it were to get shipped, you can imagine how expensive that would be"	WholesalerI4
6	"Money wise, Afghan herders produce the cashmere, and the traders go and collect from them and stock it. As herders need money, the traders pay them upfront"	ExpertKA5
7	"Herders become short of money is in January we have a Mongolian New Year, Chinese New Year (same time), they give the herders prepayments for the fibres because the herders are trusted people. That kind of approach has been used for years"	ExpertJM5
8	"We have quite strong relationships with the traders who have strong relationships with the dehairers, some of them even fund the greasy fibre purchases and so the middle guy almost acts like a backup. So rather than us risking our money he will risk his cash"	ManufacturerRet ailerCU3
9	"We give helping hand and organize charity among the community. Such as a food support for funerals, presents handed to children on Children's Day etc in the scope of our soum. This year we are handing presents to 500 children on 1st of July, the Children's Day"	CollectorBM1
10	"This year a manufacturer bought 70 tonnes of raw cashmere from me because they can't buy themselves because they don't have a network and if they check all cashmere from the herders, the herders don't like it. Because I know the herders and qualities, I buy from them without checking so the herders are	TraderProcessor BM2

Table 4.3: Competitive relationships

No	Comments	Source
1	"Every time there is new manager, they completely changed strategies. Now they want to be the number 1 coat producer in the world. But up until 18 months ago they might even have a machine to make this"	WholesalerG4
2	"We tried a couple of different tactics notably I have told them to charge me more for platinum which in modest degree has worked, I have tried to dye the chocolate to create black, which at least gives us a couple of other opportunities to consume, but they didn't want to do that, but it is indicative of a different market philosophy"	Wholesaleri4
3	"Chinese are not very good managers of a market. They are greedy people. They're a little bit cheap"	TraderProcessorLA 2
4	"They are losing their identity. So, it's almost being bought like a commodity. It is like saying anyways, I'm going to downgrade your product"	ExpertKA5
5	"I don't think the Chinese would want to risk their lives going to the real villages. So, they locals dispatch from here, ship them out, and then collect at the Chinese point, and then they pay the money to their own counterparts of traders operating out of Afghanistan. So, no Chinese involvement"	ExpertKA5
6	"There is no proper fair cashmere demand from herders, traders can easily decrease the price of raw cashmere. The Chinese traders are responsible, they are not interested to let raw cashmere get the necessary processes inside the country because they have the monopoly of exporting raw cashmere to China"	ExpertRA5
7	"If you look back at my time, The number of players has consolidated considerably and long gone from an operational perspective, but still there as brands but consolidated into three big merchants. They basically mopped up over the 50 years period, but retained the brands."	ExpertPW5
8	"So, the price you bought it was controlled, the price you sold it for was controlled, so it was nice and all you had to decide then was what the margin is going to be"	TraderMM2
9	"US businesses were wiped out before China, probably by European competition, but in the last 20 to 30 years a lot of the production has been wiped out not only by China and Eastern EU and middle east. So of course, the manufacturing is still present in EU is because the high end is high quality and/or better connected"	ExpertFG5
10	"20 years ago, the Chinese were not in the game. I used to go to China and buy raw cashmere. But suddenly the Chinese got wise, and they thought hang on a minute, if these guys see a value in the cashmere. Why can't we see it? So over time they have built their industry. But at the same time, they have shut doors behind them. They've said OK if we don't sell them the raw cashmere. Then, they cannot be as competitive as we are and follow them"	ExpertLA5
11	"If you look at the British textiles Industry since the second world war, its declined. Dawson were the biggest dehairers in the world and we bought from them mostly. Then Dawsons went into a joint venture with a guy in China and jointly built a plant in China. When Dawsons initially moved they took their own staff over but slowly the Chinese took over the operations, citing some financial irregularities but I don't know much about that. "Going into a joint venture in China is a risky business"	ManufacturerRetai lerCU3

Table 4.4: Tactical relationships

No	Comment	Source
1	"It is very difficult to say how the value chain works; big brands sell into China, which is their main market. But equally Chinese are selling a cheaper product out into European or Western markets and undercutting the Italians and everyone else."	TraderMM2
2	"All the Cashmere producers are competitors. But we must even pick competitors from China on our advisory board. There are two big producers in China, both on our advisory board and it is working quite well."	ExpertBC5
3	"I think it's a mixture of both competitive and collaborative relationships within cashmere supply chains. It depends on, of course, a lot of opportunities for business. Where, for example, for this season, I'm going to work with you, maybe next season not, and then again in a couple of years, we are going to work again together".	ExpertFG5
4	"One of our major customers, 2 years ago, was doing lightweight worsted yarns. So, we bought it from a particular Italian spinner. However, that business disappeared, so it wasn't our fault. So, it's just our customer (who are a well-known brand) changed what they were selling, and we had to adjust".	ManufacturerW U3

Table 4.5: Bargaining power from branding abilities

No	Comments	Source
1	So, it's branding and marketing versus just a logo because it's easy to just slap on the logo, but it's a lot harder to capture value and differentiate your product to get more than another competitor would get.	HerderSZ1
2	Nobody really respects China as a quality manufacturer. There are no international Chinese brands. Cashmere is a quality luxury product. It commands relatively high prices, which means people will look to a Burberry scarf or a Hermes or something like that instead before they would ever consider a Chinese brand.	TraderProcessor LA2
3	Cuccinelli is a big Italian guy that sells mainly in the States. His prices are ridiculous, but he's making something that people perceive to be worth it. Brands make money if they are at the right level.	TraderMM2
4	The Europeans have design and reputation. So, it's very difficult that the Chinese have never broken through with a brand. A lot of that has to do with design, and that comes over time.	ExpertLA5
5	"They are very happy to say, oh, Mongolian fibres! its brilliant for marketing things but they don't really deal with Mongolia."	WholesalerG4
6	"That's their loophole. It's like you and I saying, 'made in Strathclyde' rather than 'made in Scotland'. If you do an international textile labelling then it must be country of origin, not region of origin".	ManufacturerSM 3
7	As brands go out of business in the West, the Chinese are buying them up. The Chinese first try to put their overseas competition out of business. Then, they start undercutting each other, and eventually, they self-destruct.	TraderProcessor LA2
8	"J Dawson is currently in administration, which is a technicality on its own because the Chinese have bought it and want to get its trademarks, and a dispute is going on. They previously bought part of Dawson International, and Todd and Duncan were part of that".	ExpertDW5

Table 4.6: Bargaining power from technical skills

No	Comments	Source
1	"Gobi is trying; in short, this is in part of what I suspect explains why we haven't seen any Mongolian maiufcrturers marketing in the US. I think it will be more problematic and the rea5ons are associated with regulation, so branding labelling, fire retardancy things like that there is a problem with qudity control QAQC"	Wholesaleri4
2	"The one thing that Europeans have got is design and reputation. The Chinese have never broken through with a braid. It's got a very ethnic look. So, they are not Louis Vuitton, Burberry or Aqua5cutum. They're not even the likes of Johnson of Elgin. A lot of that has got to do with skills that come over time"	ExpertLA5
3	"It's up to the manufacturer and their experience. They'll blend different origins together; they may produce a cloth with ai Afghan warp aid a Chinese or Mongolia, weft, which would still maintain the body aid drape of the cloth while giving it a soft hand feet. So, things like that are tricks of the trade and you're never really going to lean cbout those because the people who have that information, that's the secret of their success. They're not going to share that."	TraderProcessorLAZ
4	"Dehaired fibre is about \$125/kg aid the most expensive one that we have is \$1301 kg. Part of my job is to look at those fibres and say where it will end up. We will make a blend of this this and this to achieve specific chaacteristics that will be required for our products. So, I will buy 15 different fibre types with 15 different price points aid spedfications for specific products"	ManufacturerRetailerC U3
5	"So here we have a room for a key client, where people just work on their stuff, and everything is hand checked to crhieve the required qudity levels. For these guys the labels must be hand sewn. We do have a tabbing machine that can do that but it's not accurate in terms of where it hits it"	ManufacturerRetailerC U3
6	Afghan qudity is not the inferior quality. Burberry scarves are mooe from Afghan cashmere, and they are very expensive. One sea{ cost usually £40 \$600 and that is Afghan ca5hmere, not Chinese or Mongolian.	ProcessorJAZ
7	Mongolia, ca5hmere is the longest natural aid finest cashmere in the world. This is because the winters here ae so extreme. If you're in China then it starts to wam up quite nicely around February and they can take the fibre off in February. In Mongolia, we can't take off until April and sometimes May, therefore we get that additional length.	ManufacturerSM3
8	"Afghai wool has its own charcrteristics which are totally different from Chinese and Mongolian."	ExpertKA5
9	"We seem to spend more money maintaining them that anything else. Some of it is old kit. 40 to 50 years old. Still, they are well-maintained and do the job, but it is old. In the modern age you can sit in a room aid adjust the rollers and the feeders, but these guys here ae dealing with feeder ga.iges maiually".	ManufacturerRetailerC U3
10	"China have built a number of big factories and developed a huge, big capadty which is near to fibres aid value is added there. The supply chain in outer Mongolia (Mongolia), we don't have that big factory to add value at this stage, but there is work being done to build that capacity in the next 4 yeas."	ExpertJM5

Table 4.7: Bargaining power from control

No	Comment	Source
1	"Collectors stat supplying herders with money and goods they need from winter. However, now I an reciising that it is not a good method to get locked into a single buyer and become more and more dependent on them."	CollectorNM1b
2	"Traders can stock the cashmere fibre for quite a long time becaise the fibre is durable Clld will not deteriorate/ rust, providing you stock it in the correct conditions. So, in the past stock has been stored and lasted for 10 years. so. That's difficult to say".	ExpertFG5
3	"A few big players influence the prices going up and/or down. As the season progresses, they can drop the fibre and make the price go low, for the next regions by devaluing the fibre. Traders create many fluctuations, but I don't think it's redly documented in any way."	ExpertJM5
4	"So, let's say Ulaanbaata has 10 different Chinese traders, and each has 5 collectors. This means 50 collectors will be in the countryside at one time, Clld they will run the price up by competing for the fibres."	Trad <i>erProc</i> e ssorBMZ
5	"If you go into a village in Mongolia in the moulting season, you will find 5 or 6 collectors competing for that fibre, and that means that the herder is getting the best value."	ManufacturerRetailerCU3
6	"So, if you hate driven 10 hours out into the Mongolian grasslands to make a deal, you don't want to drive 10 hours back without making a deal. \bu will hate wasted 2 days of your life, and then you will need to go somewhere else".	Manufactu rerWU3
7	"Cashmere industry in AfghanistC11 is in the hC11ds of limited traders, and the process is not very competitive".	ExpertRA5
8	"I think that cashmere is a finite supply. So that must be call area with power, Clld I mean the Chinese ccall hold the purse strings there".	ManufacturerRetailerSU3
9	if they ae big enough, they can make money becaise they can control the market."	TraderMM2
10	"The bigger Chinese dehairers can control the market to a certain extent because if they want to dump some stock, they'll dump it. If they want to push the price, they will push it, and everyone will follow".	TraderMM2
11	"Chinese businesses receive very soft loans from the Chinese government to encourage them to build factories by machinery; export rebates to encourage them to ean foreign currency. These things undermine Western manufacturers, who don't receive these types of benefits and consequently can't compete. That's why you see the industry in the West diminish, Clld China prosper".	TraderMM2
12	"10-year interest-free loans, non-repayable until year 11, heavy subsidies for things like IC11d leases, buildings, utilities and 13-17% export tariff rebates among others"	ExpertLA5

Table 4.8: Relative bargaining power and contributions

No	Comments	Source
1	"First, I'd say the big high-end brands have the most power. The big high-end brands will always have the advantage over everyone."	TraderMM2
2	"Retailing is the portion of the supply chain that makes the most money. Because they have the money, they tend to be the most powerful in the club ".	ExpertFG5
3	"Brand manufacturers like the Italians have very strong negotiation positions."	ExpertDW5
4	"China will dominate. They will! Nobody will be able to compete with them. Even the strong brands like Louis Vuitton and Prada. We've just got to live with what the Chinese are doing. They are dominating."	ExpertLA5
5	"In the upstream you have less bargaining power. I guess it's just because it depends on who has the money and who is paying who? So, our customers have the most power, then us then our manufacturers."	WholesalerBC4
6	"I know Loro Piana, use 700 tons of dehaired cashmere a year so get buying power advantages, but equally, people know you need the cashmere, so are in a slightly weaker position from that point of view."	TraderMM2
7	"I don't think that there is a third, I guess the people selling the fibre would probably be third, but the reality is if you're dealing with a company that sells the fibre then they have bargaining power."	ManufacturerSM3
8	"The farmers, have something to some extent but they are not a cohesive unit, they are all individuals and so, while they have the internet, they will always sell at what they think is a suitable price."	TraderMM2
9	"If you are buying off of a herder directly, then the bargaining power is fairly limited because they just want fast cash. they want what they can get quickly."	ManufacturerSM3
10	"In the upstream you have less bargaining power. It is just because it depends on who has the money and who is paying who."	WholesalerBC4
11	"I know that I am certainly not the price setter my market influence is extremely limited."	WholesalerI4
12	"There is no investment available as most of them are tribal, they have about a 100, 200 goats and what they produce is not much, it is about 500 grams per annum or something like that. They do not have much control over the market price, and they must take that comes to them."	ExpertKA5
13	The middlemen have no bargaining power at all, they just go with the flow".	TraderMM2
14	"Afghan traders in cashmere, honestly, their situation is not good. In the international markets, they do not have the power of negotiations."	ProcessorJA2

Table 4.9: Value sharing and fairness

No	Comment	Source
1	"The only way to make a huge amount of money is to do a huge amount of volume. Sometimes you can get lucky with speculation and buy at rates that are cheaper than the market, but that is just speculation, and you can just as easily lose money like that."	ManufacturerRetailerCU 3
2	"Regardless of the product, the person closest to the final customer can capture the most. In terms of value distribution across the chain, it is very commercial and "there are usually a lot of intermediaries."	HerderSZ1
3	"Mongolian and Chinese white cashmere are \$118-120/kg and \$133/kg so there is a dramatic difference. Even if you were to put 20% of Mongolian in with Chinese, even someone like me would find it difficult to tell. Everyone talks about Loro Piana being the best, but it is made up of Mongolian and Chinese blends."	TraderProcessorBM2
4	"Sometimes we feel that the price they (Chinese dehairing factories or Chinese buyers) sell further must be extremely high, as we see some big swings in the price, they buy from us. Therefore, we should not be limited to only Chinese buyers. We would like to know more and meet other buyers such as European ones."	CollectorNM1b
5	"I don't think it's truly reflective. A high street boutique that sells something for £150, Johnson's of Elgin might be selling the same product for £279. Johnsons have higher manufacturing costs because they buy, manufacture, and finish in Scotland. But that still doesn't mean it should be double the price at retail."	ManufacturerSM3
6	"I don't think it's fair, the largest margin is pocketed by the brands just because of the name on it. They expect us to take the least amount and pressurise our manufacturers to get the cheapest amount."	WholesalerBC4
7	"Growers, herders, producers are not making a fair, and they do not have a great living standard."	TraderProcessorWM2
8	"Afghan herders get 50% of what the traders get from the processes. Now, the trader does incur some expenses but doesn't amount to double the price. The Chinese are slightly different because it's very difficult to know what they do, but they do suppress herders. The final place is not a function of the starting place."	ExpertLA5
9	"Collection is the dirtiest, most dangerous work, and deep down, there is a feeling that they are not getting what is due to them. But then there are no more options; that is the only thing they do. And since it is not an around-the-year job, they are dependent on this business to keep their life going."	ExpertKA5

4.2 Research Objective 2

This section provides additional interview quotes related to the disruptions that impact the cashmere industry and who is seen as responsible for their positive or negative impacts.

Table 4.10: Climate change disruptor

No	Comments	Source
1	"Harsh winters that effect the herds, which effect the fibre volumes and price"	ManufacturerRetail erCU3
2	"Between 2009-2011 dehaired fibre cost for \$35-40/kg, then in 2011, there was a Dzud and prices went up to \$70/kg"	ManufacturerSM3
3	"Goats are unable to dig low enough to get the grass underneath and die. Once the herding community have no more people, then families will lose their livestock's and won't be able to sustain their way of life"	ExpertJM5
4	"11 years ago, Dzud disaster took my 600 heads of goats out of 1200. That came hard on my feeling as well as financially devastating. We had to slaughter most of the surviving herd to pay off our bank loans. I felt dreadful looking at my empty corral after losing so much livestock. That taught me a lesson to be mentally prepared for this type of loss. In front of the mighty nature, we are helpless sometime. Dzud brought many herders to their knees both financially and emotionally".	CollectorBM1
5	"Dzuds but also helps higher quality animals to emerge so in one way this is good because people can continue to vaccinate their weaker animals who will not die and overpopulate. This way from time to time the weaker animals are removed".	TraderProcessorBM 2

No	Comments	Source
6	"Personally, I sometimes have concern about quality of fibre, is reduced in some regions due to poor maintenance of the natural local breed, as well as pastureland. Some people take quantity over quality that is a factor in some cases for breeding with goat that has thicker fibre"	HerderSM1b
7	"China's output of raw cashmere is decreasing over time and vice versa Mongolia output raw cashmere is increasing over time. Also because of the environmental factors that Chinese factories face because environmental regulations are getting stricter in China. It is really difficult to find the land for the herders in China now"	WholesalerBC4
8	"I sometimes have concern about quality of fibre, is reduced in some regions due to poor maintenance of the natural local breed, as well as pastureland. Some people take quantity over quality that is a factor in some cases for breeding with goat that has thicker fibre"	HerderSM1b
9	"Another issue that affects the supply chain is the environment, government seemed to get blamed for desertification because of the way the goats graze. I don't think it's so much that as possibly overgrazing due to greater numbers. When we first started traveling directly to Mongolia which was when the Iron Curtain fell in 1990, the annual production of cashmere from Mongolia was 2500 tons, 2.5 million kilos per year. Last year it was over 10 million. That's a fourfold increase in less than 30 years".	TraderProcessorLA2
10	"On the commodity end of cashmere, there's a lot of washing involved, and you have five or 10% actual cashmere that is poor quality (short and coarse). So, it's called cashmere so that the person putting a label on it can get high price but then the consumer gets this garment that is not really cashmere and thinks cashmere is crap it falls apart or pills something else like that"	HerderSZ1
11	"People like Marks and Spencer and even H&M are now increasing demand for cashmere and many people would say that it is degrading the cashmere brand as a luxury item. They are using short fibres in blends that can be 10% cashmere and 90% wool. And so that is changing the nature of cashmere"	ManufacturerWU3
12	"There is fairly wide concern about desertification in Mongolia and China and there is a lot of sudo-science that is quoted and written articles appearing and blaming the cashmere industry for the desertification. While it is true that the number of goats has risen, these numbers have only now reached the same levels as sheep"	ManufacturerWU3

Table 4.11: Labour and politics

No	Comments	Source
1	"In 1991 there were 30 companies right. There are now four. We've existed on pre- trained people because as mills closed, we could hire the workers. Now that's not the case. Yeah, it calls into question the whole. viability of manufacturing in Scotland."	ManufacturerRetailerSU3
2	"Lots of herders are moving away from the herding way of life. Young herders are moving away and want to live in the city. I think the young people are seeing the glitz and glamour of living in the city and as a result, the capital city of Ulaanbaatar has become over-crowded and there's bad air pollution happening in Mongolia."	ExpertJM5
3	"We had we had one of the buyers in the factory then the last year from Burberry. So, all the brands are starting to come. Ultimately if you were a buyer, you must be very aware of price points. It's all about the margins. and getting your target costs. The only way that they're going to continue to meet their target cost in the future is to move manufacturing offshore and unfortunately out of Scotland and Italy and into places like Mongolia."	ManufacturerSM3
4	"Universities should have been doing this quite a while back. I mean there are other issues with that. They seem to fill the design course requirements, but we do not need designers. It's not necessarily a graduate it's we need a sewer or collar linker or stitcher, these are these tailoring dexterous skills."	ManufacturerRetailerSU3
5	"The key reason why the herding way of life is not supporting them financially and the land is degrading, and people don't want to live somewhere that isn't able to give them much hope. An income for survival going forward is important."	ExpertJM5
6	"The introduction of new technology and prosperity in these parts of the world, people are now maybe not so interested in kind of herding and harvesting fibres move towards working abroad, university and getting strategic level jobs."	TraderProcessorLA2
7	"Before 2005-2007, all cashmere went to Belgium for processing then UK, Italy, Switzerland for dehairing but the economic problem, led to businesses shutting down and the cashmere business from Afghanistan has also reversed back to China."	ProcessorJA2
8	"The Russians used to have huge flocks of sheep, but back in the 80s, because of their economic situation the farmers had to kill a lot of the sheep to survive using the meat. So, the whole wool and cashmere supply just disappeared. So that was a big disruption."	ExpertDW5
9	"Iran produces just about as much cashmere as Afghanistan but because of sanctions they're unable to export legally. But it comes out through Afghanistan through Pakistan and finds its way in the West. So, Iraq is a player. But it's a see No Evil, Hear No Evil, Speak No Evil"	ExpertLA5

Table 4.12: Anti animal activism

No	Comments	Source
1	"Groups like PETA are not reliable and have Ideological biases Most of the information that I have seen that they provide is just rubbish, it's just not true and that's sad because you there are other organisations like Greenpeace are more science based and you can talk with them. With PETA you cannot open a channel. Just forget about it. So that's been my experience".	ExpertFG5
2	"We used to be involved with Angora, but PETA basically killed off the industry overnight about five years ago. PETA are really an organization of Extremists almost terrorists and they are anti anything to do with animals.	TraderProcessorLA2
3	"1/3 of Mongolians are herding people and so herding, and cashmere are really the backbone of our economy. So, it's a very important system and if brands and retailers were convinced by a campaign by let's say PETA or other organisations that cashmere is bad, then that would impact the herding communities. The brands and retailers could move into something else, but the nomadic people would be really hit by this".	ExpertJM5

Table 4.13: Technology

No	Comments	Source
1	"We invested in machinery around 2000, which is allowing us to reduce our headcount by about 40% because we basically got rid of some of the manual work. It's called whole garment making. So instead of knitting a jumper and opens back from impromptu sleeves and sewing together, it is a readymade garment. So that was a major technical improvement, and we were first adopters in that."	ManufacturerRetailerSU3
2	"What I see now is that as the population starts to change the shopping habits and moving from traditional sales in from shops to purchasing online, then more and more that those buyers that are educated and want to buy something that's made in Mongolia because they understand that that's where the cashmere comes from."	ManufacturerSM3
3	"There are no longer any secrets. Yes, the Mongolian herdsmen knows what price cashmere garments are selling for our customers and the garment retailers know roughly what the raw material cost is. No one wants anyone else to have a profit. So, it's the industry has become very cutthroat competitive. Too competitive".	TraderProcessorLA2
4	"Russians and Chinese have developed "technology that allows them to shoot sulphur into the rain clouds when they need rain, this prevents rain coming into Mongolia. 40 years ago, this was not the case."	TraderProcessorBM2

Table 4.14: Rise of China and customer opportunism

No	Comments	Source
1	"China is doing it all themselves effectively with garments being made there and exported. In terms of fibre the quantities of cashmere very little is coming out now."	ExpertDW5
2	"The day of the merchants' is gone in some ways because it's too expensive to hold stock, there is no margin because the Chinese will always undercut you."	TraderMM2
3	"Afghan traders and Afghan people who are involved in cashmere, honestly, their situation is not good. In the international markets, they don't have the power of negotiations. The Chinese decide, they control the market, this is the problem. This is how we are working and how we are struggling. China is totally manipulating the market."	ProcessorJA2
4	"With the number of people in China, you know if they all wanted to buy a pair of cashmere gloves that there wouldn't be enough cashmere in the world to produce them. They are a huge manufacturer and a huge market. They have 14.2 billion potential customers in China."	TraderProcessorLA2
5	"There's been a big push to increase their business in China. Because they have a strong name, reputation, high quality products, tradition of quality, different brand concepts. These are all things that you can sell well there. So, the potential is Wow."	ExpertFG5
6	from 1987 to 1990, the price of dehaired white Chinese started at \$65-\$70 a kilo, got as high as \$225 a kilo and then it dropped back to \$65 a kilo. That was the most disruptive thing at the time. It was a 6-year cycle. Now it's more stable because the Chinese have stabilised it. They have chosen to create a stable market, which is good.	TraderMM2
7	"So, there are more and more Chinese spinners emerging and many are vertical and will offer the big American brands a total vertical supply."	ManufacturerTU3
8	"It's a bit sad but that's what companies that still deal with Mongolia are. Everybody else that I know left the country. Yes. There has been a strong decrease. They are shifting to Nepal, China and some even go back to Italy."	WholesalerG4
9	"I think the most difficult one is stricter demands from the brands. They now do not pay for the sample development; they want products delivered asap but at the same time 90-day payment terms. We are constantly adjusting our financials in such a way that we can absorb the small losses to secure the business because competition is quite fierce, and we must manage everything."	WholesalerBC4

4.3. Research Objective 3

This section provides additional interview quotes related to the processes cashmere businesses use to predict and react to disruptions (section 4.3.1), understand the impact of strategic decisions made by the firms themselves (4.3.2), and how they engage in post-disruption renegotiations (section 4.3.3).

Table 4.15: Organisational learning and flexible structures

No	Comments	Source
1	"Two more Dzud happened later years, but we were well prepared and survived with minimal loss. We had better work force, truck and financial means by then. We evaluate the pastureland and move about. Leaving the grazed and degraded grassland for at least 2 years".	CollectorBM1
2	"Herders now prepare the hay beforehand but that's about it. I don't think I don't think there has been much adaption by the herders to their surroundings, it's still a pastoral nomadism".	HerderlM1
3	"In my experience I have tried vacuum cleaning the combed fibre to reduce dust and spoils. 10kg gets taken off from a ton of fibre. One way it seems risky for us to lose weights on product but in other way it increases the quality. Better solution needed to have cleaner fibre while still on the goats."	CollectorNM1
4	"We show a collection at the beginning of the years and based on the feedback we will decide what we will and sell that to the retailers. The customers start to understand around September October if the products are selling well or not and come back to us and say which ones need to be removed and which need to be reordered."	ManufacturerWU3
5	"I typically for fall make two trips to the US in the first quarter of the year with my list of clients and targes by making appointments, seeing them, make presentations by May time. They either place an order or not. And now it's all on one spreadsheet so I can see what the results have been so far by this time of the year, we can normally have a nine-month order book filled. So, you know the lion's share is done."	ManufacturerRetailerS U3
6	"By 6:00 every night, I get a text which tells me what the value of sales have been in all shops. And weekly that is put on a report, and we compare to previous years of similar weeks. So, we have a check on what's happening in our retail stores, but there is a rudimentary reporting system."	ManufacturerRetailerS U3
7	"The retailers they will just look at the previous seasons sales and base their forward buying on what they sold in the previous year. If they see specific colours and styles are outperforming others, then they will use them again. There will come a time when colour palettes and trends change but you will find most firms are working a couple of seasons with a certain colour way."	ManufacturerSM3

Table 4.16: Hope/luck strategy

No	Comments	Source
1	"To be brutally honest, we absolutely do not have anything in place for managing changes. We face price issues, so quote the prices based on educated gambles on how the weather has been and what that might mean".	ManufacturerSM3
2	"We have very imprecise forecasting. Purchasing depends on consumer reactions, which may also depend on the weather. So, it is difficult to forecast, but it works somehow."	ManufacturerWU3
3	"If you were sitting in one of those group divisions, then you were just sitting waiting for the fashion to come back to you and controlling your costs in the meantime. It was and is a dark art, predicting things. Businesses hope that the product will start returning if something is not popular. Businesses used old sample books, memories and look at fashion capitals".	ExpertPW5

Table 4.17: Collaboration

No	Comments	Source
1	"We are getting a much stronger position by putting value into our structure and tightening the bonds, by working closely with suppliers and clients. So, I think that being closer is going to help in any case, to find the solutions and compromises that we would need and confront any major disruptions".	TraderProcessorWM2
2	"I try to keep track of prices, which is not particularly good, by communicating with our manufacturers and getting the prices they anticipate working with UNOPS folk."	Wholesaler14
3	"I am in regular contact with many people, if my supplier in Switzerland tells me that the market is going up, I've got to believe him. Same with my Chinese suppliers."	TraderMM2
4	"Office in Mongolia and the people there going to the factories, monitoring the product before it is boxed for shipment and rejecting 10-15% from every single factory before shipping".	Wholesaler14
5	"So, we buy directly from dehairers or agents who buy from the dehairers. These agents effectively work as our buying agents know our quality policies very well and, do the testing for us to give us full visibility in that area. They make sure the same thing has gone into dehairing, and then they check if the same thing has come out after dehairing and no one has been into it and give us a certificate before checking against the same thing has come out before shipping."	ManufacturerRetaile rCU3
6	"The SFA has good contacts on the ground in Mongolia and has alerted us more than once of things that are happening in Mongolia. That is the main thing. I guess in Mongolia and China, the production cycle is very short. Goats get combed from March to June. Well, the SFA are starting to look at doing work in China."	ManufacturerWU3
7	"Projects need government support for longevity, and I think for the period that you are looking at, textile in general grew up in part around family businesses, and they were very poor at engaging with governments and lobbying for their industry".	ExpertPW5

Table 4.18: Control

No	Comments	Source
1	"If the world market goes down by \$5, we as dehairers will lose money. But if we do brand garment business as well it doesn't matter whether the world market goes up or down, we can manage the price ourselves"	TraderProcessorBM2
2	"Goyo have tried to break into US and got cleaned out, they showed up and tried to have a complete Value-chain, they had this horrible awakening because labour, utility and rent costs are very expensive there"	WholesalerI4
3	"We fortunately are not in a position where any one shop is more than 5 percent, two or three percent would be the biggest single customer that we have. If you've got shops that are trading well then you don't run that risk and can get around that"	ManufacturerRetailerSU3
4	"Orders could be cut, or their sizes could be cut or ask a price reduction to maintain the order. Retailers back then did business like this and protected their margins and passing risk down the chain"	ExpertPW5
5	"Middlemen hold fibre until the market is there for it. We also have conversations with our key suppliers, I'll say to them this year will be much the same as last year, but I can give you a forecast for the next 4,5 months of what might be need, if you want to risk covering that then that's your risk" and most of them will do it"	ManufacturerRetailerCU3

Table 4.19: Strategic choices of western firms

No	Comments	Source
1	"The Chinese company Eros deals with 60% of their fibres and they spun out a company called 1436 based on it dealing with 14-micron fibre diameters and 36 mm lengths because they say this represents then top 1%. Well, we can produce that here with our own branding systems in isolation, sot the potential is to grow it".	HerderSZ1
2	"To start with the European brands, they should be willing to put money and start their own offshore systems. They should train the people in Afghanistan to make, to knit, to produce, to have those manufacturing systems here in Afghanistan. So that kind of involvement if it becomes possible, then the Afghan system can then easily pass the volume, value that is otherwise being lost to the Chinese system."	ExpertKA5
3	"If the brands and retailers get involved, it's something that the market forces can change. We are developing now our 10-year strategy in line with these development goals. This year we have got far more Chinese stakeholders joining us this year. Most of our other brand members work with the Chinese supply chain, so we are looking to developing our approach with China, the brands and retailers."	ExpertJM5
4	"Do you know of the American brand? There is a big controversy around them in Mongolia because they claim to produce in Mongolia, but they don't. They are limited now but they were very big disruptors in Mongolia they were cutting out the middleman they were traders and giving so much back to the herders. But the stories are not very accurate. But they have put Mongolian cashmere on the map, with millions of pounds spent on marketing efforts."	WholesalerG4
5	"Some players have been around for centuries and survived many disruptions by adapting. This continuity is also related to sustainability. I mean there cannot be sustainability without continuity. Sustainability is not something that you can exploit as a exploit unless they're turning it into something more real."	ExpertFG5

Table 4.20: Strategic choices of Mongolian firms

No	Comments	Source
1	"We need to change some of its production skills, customer service etc. and mix with heritage of centuries of experience of traditional herding culture and global effort of sustainability."	HerderSM1
2	"I recognise that we have a different market position than our suppliers who is producing and now selling direct through domestic retail in Europe. However, he can take his factory price and convert that into a significant multiple at the retail level. We are buying at factory, and we are selling at a multiple then the retailer to who we are selling is going to market again."	Wholesaleri4
3	"People laugh at me, and I tell them that it's not Paris, New York, Rome or Tokyo or London where most cashmere garments are sold, its Ulaanbaatar. It's not that a Burberry, It's not \$1000 dollars it's probably \$100, so that's within the reach."	ExpertLA5
4	"If they dehair then they are not going to see any money till quite a bit later in the year. Let's say they dehair in June July, they will not get paid till August, whereas now they get paid in April. That's a big deal if you're living on the land."	ManufacturerWU 3

Table 4.21: Strategic choices of Chinese firms

No	Comments	Source
1	"The day of the merchant is gone in some ways because it's too expensive to hold stock. There is no margin because the Chinese will always undercut you."	Trader/WV2
2	"So over time, they have built their industry. But at the same time, they have shut doors behind them. They've said OK if we don't sell them the raw cashmere. Then, they cannot be as competitive as we are. So, they gradually stepped up and closed those doors behind them so that you couldn't follow them."	ExpertLA5
3	"The beauty is that while Dawsons felt that the brand would survive being made in China, the Chinese viewed the value of remaining in Scotland, which is what our customers want"	ManufacturerTU 3
4	"The Chinese government and the bigger Chinese companies are now trying to put together some sustainability system so that they can trace the fibre, make sure it is sustainable, and certify it. So, it's a bit like what the SFA are trying to do in Mongolia."	Trader/W/2
5	"Mongolia used to produce 2-3 million kilos of dehaired fibres a year. Last year, they produced 7 million. In China, it's probably gone down 10-15%."	

Table 4.22: Own strategic choices

No	Comments	Source
1	We are just now trying to work with an area of about 1200 miles just outside Ulaanbaatar that generates 10 tons of cashmere. I think there were I think 7000 herders there working on having sustainable fibre by inoculating and vaccinating the animals. So, you know we are trying to build up the relationships because when that happens, we want to be in a position where we can come in buy all that fibre and not Johnstons of Elgin buy it."	ManufacturerSM3
2	"Everybody that buys a lambswool garment and see the Woolmark swinger knows that they are buying a garment that performs to a set standard so they are effectively buying a garment from which they will get their money's worth. That for me is the target regarding having sustainable fibre in Mongolia branded products"	
3	"One thing we're doing is setting up some a stock colour palette, to be able to sell finished garment product. So that should make our life easier because obviously we've got stock, but what that means is that effectively we're working about a month in advance of when if need the yarn, to allow us to fulfil orders."	
4	"For 15-16 years, I traded with a single buyer. Now we are almost like relatives, both the Chinese factory buyers and my herders. We started supplying herders starting in winter, with money, but now I realize that it is not a good method that we get locked with a single buyers and become more and more dependent on them. I realise our market should be more open with multiple options. Therefore, we should not be limited to only Chinese buyers. We would like to know more and meet other buyers such as European ones."	CollectorN/M1b
5	"There was a certain degree of concern regarding Eastern EU, although it was dismissed on the grounds of quality "Oh they can't do it as well as we can" that was a completely misguided view. The bottom line being that the quality is in the eye of the beholder and the perception of quality has changed over time, both from the perspective of the consumer and the supply chain. Now that was a massive error. I always remember being in a boardroom, looking at some samples from Poland and I remember someone saying that "they are crap" and someone replied, they are not crap enough. In other words, we couldn't match that quality level at that price level. So, it was a problem."	ExpertPW5

Table 4.23: Post-disruption renegotiations

No	C omments	Source
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