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An exploration of the influence of online parasocial interaction and parasocial relationship on consumer behaviour

by

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Abstract

This thesis advances the understanding of parasocial Interaction (PSI) and parasocial relationship (PSR), which are critical for understanding consumer behaviour in media environments. PSI refers to media users' perceptions of one-to-one communication with media characters during media exposure, while PSR refers to an individual's psychological attachment to media characters. Despite their significance in marketing research, conceptual ambiguities and inappropriate PSR measurement persist, overlooking PSR's dynamic nature and development process. Therefore, this thesis aims to address these gaps by differentiating between them, improving their conceptualisation, introducing a new PSR measurement tool, and exploring the PSR development process and its outcomes.

Conducted in six phases, this research began with Phase 1: a systematic literature review of 172 articles. It identified seven prerequisites that distinguish PSI from PSR and laid the foundations for a PSR development model. A sequential mixed-method approach followed, starting with Phase 2, which comprised qualitative interviews with 25 participants to understand PSR and the PSR development process. This groundwork led to the operationalisation of PSR through Phase 3, an expert survey (n=11), and Phases 4 and 5, which were two consumer surveys (n=205 and n=206), resulting in a valid PSR measurement tool. A final survey (n=405) validated the PSR development model and tested the research hypotheses.

The findings reveal that PSR is a multidimensional construct characterised by intimacy, maintenance, and real-life relationship intention dimensions. A PSR development process is established, including exposure initiation, experimentation, intensification, and integration, highlighting the roles of PSI, perceived value, and trust. Subsequently, PSR fosters consumer intention to support and brand attitudes, positively affecting purchase intentions.

This thesis has theoretical contributions and practical implications. Theoretically, it advances the conceptualisation of PSR, elucidating its complex and dynamic nature, and advances the operationalisation of PSR by creating a reliable and valid measurement instrument for PSR in online environments. It also advances and validates the PSR development process. Practically, it guides marketers and influencers in developing long-term relationships step-by-step and generates more effective influencer marketing strategies.

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Acknowledgement

"A journey of a thousand miles begins with a single step" - Lao Tzu.

Reflecting on my doctoral journey, no ancient wisdom resonates more profoundly than this. This journey, enriched by the unwavering support, encouragement, and companionship of many, has culminated in the successful completion of this thesis.

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Author's Declaration

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

Signature:

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Abbreviations

ABDC - Australian Business Deans Council

AIDA - Attention, Interest, Desire and Action

AVE - Average Variance Extracted

BCa - Bias-corrected and Accelerated

CFA - Confirmatory Factor Analysis

CFI - Comparative Fit Index

CR - Composite Reliability

DF - Degrees of Freedom

E-WOM - Electronic Word-of-Mouth

EFA - Exploratory Factor Analysis

HARKing - Hypothesising After the Results are Known

HSM - Heuristic-Systematic Model

HTMT - Heterotrait-Monotrait Ratio

ICC - Intraclass Correlation Coefficients

IMC - Instructional Manipulation Check

KMO - Kaiser-Meyer-Olkin

NFI - Incremental Fit Index

PRISMA - Preferred Reporting Items for Systematic Reviews and Meta-Analyses

PSB - Parasocial Bond

PSI - Parasocial Interaction

PSR - Parasocial Relationship

r - Pearson Correlation Coefficient

RMSEA - Root Mean Square Error of Approximation

SDT - Self-Determination Theory

SEM - Structural Equation Modelling

TLI - Tucker-Lewis Index

U&G - Uses and Gratifications Theory

WOM - Word-of-Mouth

Chapter 1: Introduction

1.1 Research background

Parasocial interaction (PSI) and parasocial relationship (PSR) have been integral to marketing research for nearly three decades. Initially introduced by Horton and Wohl in 1956 in the field of psychology, PSI and PSR aimed to understand the interaction and relationship between television viewers and hosts. Horton and Wohl (1956) observe that viewers often respond to a TV host's farewell as if engaged in a direct conversation and perceived a conversational give-and-take feeling, a phenomenon they termed PSI. PSR, on the other hand, refers to the illusion of face-to-face relationship viewers develop with television personalities, further extending the understanding of media consumption from the audience's viewpoint (Horton and Wohl, 1956).

These groundbreaking concepts provide a nuanced understanding of media consumption from the viewer's standpoint, enriching existing theories on social interaction and relationship within media-mediated environments (Liebers and Schramm, 2019; Tukachinsky et al., 2020). Subsequent research has extended the application of PSI and PSR across various research disciplines, including media science (Tsfati et al., 2022), psychology (Balaban et al., 2022), tourism (Ma et al., 2023), management (Hu et al., 2020), marketing (Xie et al., 2023) and interdisciplinary studies (Knupfer et al., 2023), exploring their implications in both traditional and digital media environments.

Initial studies within traditional media explored the impact of PSI and PSR on phenomena such as TV shopping experiences (Stephens et al., 1996), product placements in soap operas (Bernhold and Metzger, 2020), and consumer donation behaviour (Bentley, 2014). These findings indicate that PSI and PSR with media characters can influence consumer behaviour positively (Knoll et al., 2015; Bi et al., 2021). For instance, Lim and Kim (2011) discover that loneliness predisposes consumers to form PSI with TV shopping hosts, enhancing their shopping satisfaction. PSR with soap opera characters has been shown to enhance attitudes towards embedded products (Dias et al., 2017).

In the digital age, there are new kinds of influencers beyond TV hosts and soap opera characters, such as social media influencers. Social media influencers refer to people who actively gain other users' attention on online platforms and can influence their followers'

behaviour in a particular field by generating texts, images, videos, and live streaming (Sokolova and Perez, 2021). Influencers act as intermediaries between consumers and brands and significantly influence consumer behaviour and decision-making (Sakib et al., 2020). Previously, consumers relied on direct interaction and brand communication to get information, such as through advertising (de Vries et al., 2017). Consumers now turn to these influencers, perceived as friends and field experts, for authentic and credible information, moving away from traditional direct interactions and brand communications (Kapitan et al., 2021; Yousaf, 2022). Consequently, brands view these influencers as essential long-term partners, leading to complex relationships encompassing consumers, brands, and influencers (Kim and Kim, 2021).

Influencer marketing has become an integral part of digital marketing strategies (Kim, 2022). According to statistics, the global influencer marketing size reached $21.1 billion in 2023 and projected to grow at a 33% CAGR (Dencheva, 2024; Grand View Research, 2023). Marketing managers regard influencer marketing as highly effective, significantly influencing multiple stages of the marketing funnel, from boosting brand awareness to driving sales with varied and engaging content (Traackr, 2024). Employing these strategies can result in extensive reach, enhanced customer engagement, and interactive communication (Traackr, 2024).

Academic research supports that collaboration with influencers helps brands achieve their marketing and marketing communication objectives, such as improving brand attitude (Choi et al., 2023), attitude towards advertising (Vrontis et al., 2021), and purchase intention (Ashraf et al., 2023). PSI and PSR have been identified as key factors in the success of influencer marketing, influencing consumers' perceptions and their purchasing decisions (Gong and Holiday, 2023; Masuda et al., 2022). For example, Gong and Holiday (2023) find that consumers high levels of PSI can significantly enhance their perceptions of authenticity and their intention to purchase. Furthermore, when viewers develop PSR with influencers, this tends to elevate their attitude towards the brand, as well as their trust in the brand and their intention to purchase the products recommended by the influencer (Reinikainen et al., 2021).

Understanding the roles of PSI and PSR and their impact on consumer behaviour and decision-making is crucial, as these phenomena have become as integral to daily media consumptions as traditional social and interpersonal activities (Fazli-Salehi et al., 2022; Leite and Baptista, 2022). Despite some academic contention over the prevalence of PSI and PSR

in everyday life, numerous studies have confirmed their significance as psychological states that commonly arise during and after media use (Noor et al., 2022; Lo et al., 2022). Consumers frequently experience PSI during media consumption, feeling engaged in a two-way communication (Oliver et al., 2019; Gong and Holiday, 2023). People have established PSR with social media influencers across a range of fields, such as lifestyle (Sheng et al., 2023), fitness (Kim et al., 2022) and gaming (Zhang et al., 2023), further highlighting its significance.

1.2 Research rationale

When PSI and PSR were introduced to the marketing field, scholars initially treated these two concepts as well-established, overlooking the conceptual disputes between them. As a result, despite existing studies highlighting the significance of PSI and PSR in marketing, several conceptual issues remain unresolved. One primary issue is the lack of clarity regarding the main domain characteristics of PSI and PSR in both online and offline environments (Lu et al., 2023). A significant number of studies on PSI suggest that its main domain characteristic is "*relationship*", rendering it indistinguishable from PSR. For instance, Aw and Labrecque (2020) define PSI as "*one-sided relationships that individuals form with mediated personae, including celebrities*", emphasising "*relationship*" as the main domain characteristic. Furthermore, some scholars, such as So and Shen (2016) and Penttinen et al. (2022), argue that PSI and PSR represent the same concept, though this stance lacks robust evidence. Contrarily, a meta-analysis by Tukachinsky et al. (2020) indicates that PSI and PSR are related yet conceptually distinct. Supporting this differentiation, a recent empirical study by Lu et al. (2023) identifies PSI as an antecedent to PSR, further validating the distinction between the two concepts.

The inconsistency in definitions has led to the interchangeable use of PSI and PSR by many scholars (e.g., Liao et al., 2022; Conde and Casais, 2023), resulting in conceptual ambiguity. This lack of precision in defining constructs can lead to incorrect operationalisation and, consequently, biased research outcomes violating the criteria for a good definition (MacKenzie, 2003; Wacker, 2004). For instance, certain studies on PSI have employed measurement tools designed for PSR (e.g., Chen et al., 2022; Olfat et al., 2023), casting doubt on the validity of their empirical findings and the theories subsequently developed (MacKenzie, 2003; Cummins and Cui, 2014). Although attempts have been made to differentiate PSI from PSR, this debate remains underexplored, leaving the issues largely

unresolved (Hartmann and Goldhoorn, 2011; Lu et al., 2023). Several researchers have highlighted the differences between PSI and PSR to rationalise their choice of concept within particular study contexts, yet they have not fundamentally addressed this issue (e.g., Zafar et al., 2020; Utz et al., 2021).

Systematic literature reviews by Giles (2002) and Liebers and Schramm (2019) have provided valuable insights into PSI and PSR from psychological and media science perspectives, respectively. However, both reviews exhibit certain gaps and limitations in their coverage and analysis. Giles (2002) proposes four models of PSI formation and a conceptual framework for future research, but this review, being over two decades old, does not account for the dramatic shifts in media consumption towards social media and away from traditional media (Bruhn et al., 2012; Liu et al., 2018). Liebers and Schramm (2019) conduct a comprehensive literature review on PSI and PSR, encompassing 261 articles spanning from 1957 to 2015. Their systematic analysis covers the research contexts, methodologies, antecedents, and outcomes of PSI and PSR within the field of media science. Nevertheless, the focus of their review is primarily on the contemporary state of research on parasocial phenomena, without delving into the underlying conceptual challenges. Moreover, since 2015, the body of research on PSI and PSR has significantly expanded (see Figure 1.1), with over 150 studies published post-2016 not covered by the existing reviews. This surge in literature underscores the value of revisiting these topics through updated scientific frameworks (Paul et al., 2021; Paul et al., 2023).

Figure 1.1 The trend of publishing PSI and PSR research based on the ABDC journal ranking list
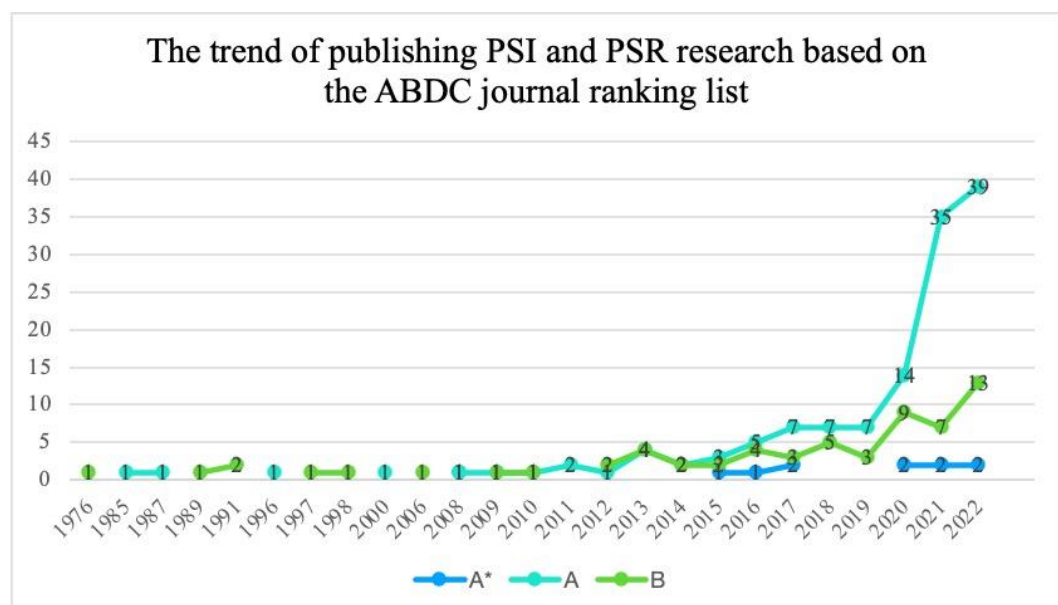
Based on the discussion above, there is considerable research on PSI and PSR, yet efforts to clearly differentiate between the two are limited, leaving the issue largely unresolved (e.g., Utz et al., 2021; Zafar et al., 2020). This ambiguity underscores the need to delineate the relationship between PSI and PSR more clearly, and to establish distinct prerequisites for distinguishing between them. Consequently, the first research objective of this thesis is to identify the differences between PSI and PSR in both offline and online environments.

In addition, existing conceptualisations overlook the differences between offline and online environments. While PSI and PSR were originally conceptualised within the context of traditional media (Horton and Wohl, 1956), subsequent research has exemplified their presence in digital environments (Noor et al., 2022). The digital age extended PSI and PSR to include social media (Leite and Baptista, 2022; Burnasheva and Suh, 2022), AI (Dhiman et al., 2023), chatbots (Li and Wang, 2023; Youn and Cho, 2023), and more. This transition from offline to online platforms has not only broadened the conceptual scope of PSI and PSR but also introduced variations in their conditions, reflecting the fundamental differences between traditional and digital media landscapes. These changes mandate further investigations into PSI and PSR in both the online and offline environments.

Additionally, existing studies regard PSR as a static concept, implicitly assuming that the quality, strength, and stage of PSR with the mediated persona are consistent (Tukachinsky and Stever, 2018). However, in reality, individuals navigate through stages of forming, maintaining, and dissolving relationships, indicating that relationship development is a dynamic process with varying levels of strength. Thus, treating PSR as a static concept does not adequately capture its complexity and diversity (Tukachinsky and Stever, 2018). Hence, due to the above conceptual and contextual ambiguities, new and distinct conceptualisations and definitions of PSI and PSR are necessary (Gilliam and Voss, 2013; Murrow and Hyman, 1994) to facilitate new knowledge development on a more solid theoretical basis (Hempel, 1952; Gilliam and Voss, 2013). Therefore, the second research objective is to propose definitions of PSI and PSR based on their unique prerequisites.

The disagreement over conceptualisation between PSI and PSR has resulted in the use of inconsistent measurement scales that do not match their respective conceptual foundations. For example, Hudders and De Jans (2022) define PSI as "*one-sided mediated form of social interaction between audience and media characters*", highlighting its interactive essence. Yet, they employ PSR scales for measurement, which contradicts their conceptualisation. Similarly, Hsieh and Lee (2021) define PSI as a conversational give-and-take between users

and media performers but also resort to PSR scales for assessment. This misalignment is exacerbated by the existing scales' failure to clearly differentiate between PSI and PSR. The commonly utilised scales for PSI and PSR, developed by Rubin et al. (1985) and Rubin and Perse (1987), characterise the main domain feature of PSR as "*involvement*", a broad term that encompasses a range of psychological processes including transportation, PSI, identification, and worship (Brown, 2015). Therefore, these existing scales perpetuate the inconsistency between the conceptualisation of PSI and PSR and the scales chosen for their measurement.

Moreover, while the existing literature extensively explores the antecedents and consequences of PSR, the process of PSR development remains ambiguously outlined. For instance, Lim et al. (2020) demonstrate that individuals' wishful identification and emotional engagement significantly foster PSR, which in turn enhances consumers' behavioural loyalty. Leite and Baptista (2022) find that intimate self-disclosure heightens consumers' PSR with female beauty influencers, leading to increased brand trust and purchase intention. Additionally, influencers' attitudes, homophily, physical attractiveness, and social attractiveness are shown to positively influence consumers' PSR with YouTubers, subsequently boosting their purchase intention (Masuda et al., 2022). Despite these insights, the underlying mechanisms and the progression of PSR development remain inadequately understood.

A handful of scholars suggest that repeated PSI experiences with a persona are prerequisite for developing PSR (Bernhold and Metzger, 2020). This notion is in line with theories of social interaction and social relationships, yet it largely remains conceptual and is scantily supported by empirical evidence. In light of this, this thesis adopts the perspective of PSR as a multifaceted and dynamic process to explore the PSR development process. Based on the discussion above, an exploration of the mechanisms of PSR development is needed to advance the knowledge of PSR and the outcomes of PSR. Therefore, the third research objective is proposed to explore the formation process of PSR and test its outcomes.

1.3 Research aim and objective

To address the research gaps highlighted above, this thesis aims to resolve the long-standing definitional debate and propose prerequisites to identify PSI and PSR in the offline and online environment, respectively. Moreover, this research aims to advance the understanding

of PSR as a dynamic process, scientifically measure PSR, and investigate the PSR development process and its relevant outcomes. To fulfil these aims, the thesis outlines the following three research objectives:

1. To identify differences between PSI and PSR in the offline and online environments
2. To propose definitions of PSR and PSI based on their unique prerequisites
3. To explore the formation process of PSR and test its outcomes

Following this, this thesis aims to answer the following research questions:

RQ1: Should PSI and PSR be treated as distinct concepts?

RQ2: How does the complexity of the online environment further inform the conceptualisation of PSI and PSR?

RQ3: How does PSR with influencers on social media platforms develop, and what are the outcomes of PSR?

1.4 Research methodology

The philosophical stance of this research is rooted in post-positivism, guiding its methodological approach. Ontologically, the thesis adopts the realist view, acknowledging that while reality exists, it cannot be precisely captured (Zinkhan and Hirschheim, 1992). From an epistemology perspective, this thesis employs the view of modified objectivity and asserts that researchers should objectively capture and measure the phenomena (Hunt, 1993). Nevertheless, researchers can never be entirely objective because of the bias. However, it is crucial for researchers to aim for objectivity and minimise bias to approach the truth as closely as possible (Hunt, 1993). To enhance validity and reduce bias, the research methodology involves a meticulous process of hypothesis formulation, data collection, and rigorous analysis and review of findings (Ryan, 2006). Consistent with post-positivist, a mixed-methods approach, incorporating both qualitative and quantitative techniques, is employed to thoroughly investigate the PSR phenomenon (Johnson et al., 2007). The research commences with an exploratory qualitative phase to delve into PSR, followed by quantitative phases aimed at developing a new PSR measure, generalising qualitative insights, and testing the PSR development model (Harrison and Reilly, 2011).

First, Phase 1 of this thesis is a systematic literature review guided by the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) protocol to address the first research objective. A systematic literature review is a historical method that helps

to review the debates about PSI and PSR from 1956 to 2022 in the fields of media science, psychology, management, marketing, social science and interdisciplinary fields to inspire further and solve the conceptual debates (Hunt, 2011; Torraco, 2005). Based on the systematic analysis and the views from existing literature, this thesis 1) argues that PSI and PSR are two similar but conceptually different concepts, 2) proposes seven prerequisites that can distinguish PSI and PSR in both offline and online environments, 3) identifies twelve aspects that PSI and PSR differ between offline and online environment and 4) propose PSI and PSR working definitions.

Then Phase 2 of this thesis is a qualitative study utilising semi-structured interviews to achieve Research Objectives 2 and 3. It is beneficial to understand the nature of PSR deeply through qualitative study, how people generate and develop PSR with the other party and confirm the conceptual model. Meanwhile, conducting qualitative research is an adequate approach to developing a new scale because it can contribute to the initial item creation (Hinkin, 1995; Carpenter, 2017). The semi-structured interview can generate a more relevant foundation for the initial item pool (Churchill, 1979). This study used snowball sampling and recruited 25 respondents to participate. The qualitative data is analysed by using content analysis and thematic analysis.

Next, Phase 3 comprises an expert survey, and Phase 4 involves a quantitative study (Quantitative Study 1). These two phases can address Research Objectives 2 and 3, aiming to reduce scale items, explore the dimensionality of the PSR scale, and assess the PSR scale's reliability and validity. In Phase 4, an online survey method is employed, and the questionnaire is designed on Qualtrics to collect data via Prolific. This study collected 220 responses and obtained 205 valid responses for data analysis. Utilising exploratory factor analysis through SPSS (28.0) and confirmatory factor analysis through SPSS AMOS (28.0), the study confirms that PSR comprises three dimensions and retained eight scale items.

Subsequently, Phase 5, Quantitative Study 2, is undertaken to achieve Research Objectives 2 and 3, aiming to refine and test the reliability and validity of the newly developed PSR scale. Phase 5 also used the online survey method by developing a questionnaire on Qualtrics to collect data via Prolific. This study collected 220 responses, out of which 206 were deemed valid for data analysis. The reliability and validity of the PSR scale were established through the use of confirmatory factor analysis, path analysis, and test-retest, all conducted via SPSS (28.0) and SPSS AMOS (28.0).

Finally, Phase 6 of this thesis, Quantitative Study 3, aims to generalise the findings from the qualitative research and empirically test the PSR development process model, addressing Research Objective 3. This study involves designing a questionnaire on Qualtrics to gather data through Prolific, resulting in 454 responses, with 405 considered valid for data analysis. The PSR development model is tested using confirmatory factor analysis, path analysis, mediation analysis, and moderation analysis, conducted through SPSS (28.0) and SPSS AMOS (28.0).

1.5 Contributions

This thesis aims to make significant contributions in two areas: academic contributions and practical implications. From an academic perspective, first, this thesis advances the conceptualisation of PSR by emphasising its complex and dynamic nature. It broadens the application of PSR, contributing significantly to the literature across fields such as media, psychology, management, marketing, social science, and interdisciplinary studies. Second, this thesis distinguishes between PSI and PSR, addressing the need for studies on this distinction as highlighted by scholars like Hartmann and Goldhoorn (2011) and Lu et al. (2023). It proposes seven prerequisites for differentiating PSI and PSR in both offline and online contexts. These prerequisites are instrumental in conceptually separating PSI from PSR, thereby resolving the confusion and interchangeable use of these terms among academics.

Third, by analysing the transition of PSI and PSR from traditional to online environments, this thesis enhances our understanding of the conditions under which these concepts operate in various settings. This offers a systematic understanding of the key attributes of PSI and PSR across multiple media environments. Fourth, this thesis advances the operationalisation of PSR in the online environment. A new PSR measurement instrument, developed based on the new conceptualisation of PSR, comprises eight items across three dimensions, capturing the main domain characteristics of PSR in the online environment. This initiative addresses the need for PSR scales in the online context, as existing scales are primarily grounded in the offline environment (Kim, 2022). The development of this new, valid, and reliable PSR measurement instrument promises to support future empirical studies requiring a refined measure of PSR in the online environment.

Fifth, this thesis enriches the existing literature by exploring the complex process of PSR development, assessing its formation process and key outcomes. Previous research has investigated the antecedents and consequences of PSR in different contexts, such as social media marketing (Labrecque, 2014) and AI marketing (Lee and Cho, 2020). Focusing on PSR within influencer marketing, this thesis modifies the conceptual model of PSR development stages proposed by Tukachinsky and Stever (2018), identifying crucial concepts at each stage of PSR development and thereby enriching our understanding of consumer behaviours in influencer marketing. Sixth, by employing a quantitative research method, this thesis validates the conceptual framework of PSR and generalises the PSR development process across various industries. It also validates the positive outcomes of PSR, shedding light on the effectiveness of influencer marketing.

From a practical perspective, this thesis will benefit practitioners by providing a stronger conceptual foundation, leading to improved operationalisation of PSR (MacKenzie, 2003), useful in industry-driven research for a deeper understanding of consumer behaviour. This knowledge enables brands to forge long-lasting customer relationships and execute successful online marketing campaigns (Leite and Baptista, 2022; Wahab et al., 2022). It can guide companies to pursue collaborations with influencers strategically, enhancing brand attitude and consumer purchase intention (Hudders and De Jans, 2022; Gomes et al., 2022). The effectiveness of influencer marketing is significantly influenced by the strength of PSR between consumers and influencers (Reinikainen et al., 2021). Additionally, this thesis offers marketers and policy makers a detailed roadmap for developing and maintaining consumer relationships, from the initial encounter to ongoing engagement, underlining the importance of PSI, perceived value, and trust in these dynamics.

1.6 Thesis structure

This thesis includes eleven chapters. Chapter 1 introduces the thesis, providing a comprehensive overview, including the background of PSI and PSR, the thesis rationale, research aims and objectives, the mixed-method research methodology adopted, and the expected academic contributions and practical implications.

Chapter 2 presents a systematic literature review focusing on PSI and PSR. It critically evaluates existing literature from 1956 to 2022, especially debates around these concepts, their conceptualisation, and main domain characteristics. It proposes seven prerequisites for

distinguishing PSI and PSR across environments and discusses their differing dynamics offline and online. This chapter concludes by identifying research gaps and the necessity of treating PSR as a developmental process.

Chapter 3 delves into the analytical framework, starting with a discussion on post-positivism as the guiding research paradigm, emphasising its ontological and epistemological foundations. It then outlines the exploratory sequential mixed-methods design, detailing the qualitative and subsequent quantitative studies. Lastly, it describes the data collection approaches, including semi-structured interview, quantitative study 1 consumer survey, quantitative study 2 consumer survey and quantitative study 3 consumer survey.

Chapter 4 details the methodology and design of the qualitative phase, including the interview guide design, sampling approach, data collection process, interviewee characteristics, and data analysis techniques. It also addresses potential biases and measures to enhance the rigour of the qualitative research.

Chapter 5 presents the findings from the semi-structured interviews, utilising content analysis and thematic analysis. It offers an in-depth examination of how interviewees develop PSR with their favourite influencers and discusses key factors influencing PSR development through the four stages, including exposure initiation, experimentation, intensification, and integration stages.

Chapter 6 proposes a conceptual framework for the PSR development process, identifying four key stages based on literature and qualitative data. It examines critical concepts within each stage, especially focusing on involvement, perceived value, PSR, and purchase intention, leading to the formulation of twelve research hypotheses.

Chapter 7 discusses the methodology and design of the quantitative phase, covering the operationalisation of constructs, questionnaire design, sampling approach, data analysis techniques, and a pilot test. Efforts to minimise bias are also summarised.

Chapter 8 is dedicated to the amendment of the PSR definition and the development of a new PSR measurement instrument. It outlines the rationale for the new scale, followed by the steps involved in its development, including item generation, purification, dimension exploration, and testing for reliability and validity.

Chapter 9 presents the testing and findings related to the research hypotheses. Utilising confirmatory factor analysis, path analysis, mediation analysis, and moderation analysis, this chapter offers insights into the conceptual framework empirically testing outcomes.

Chapter 10 systematically reviews the research objectives and the thesis's approach to addressing them. It discusses additional findings, including the PSR scale development and empirical studies' additional relationships.

Chapter 11 concludes the thesis by summarising the academic contributions, practical implications, and reviewing the study's limitations. It also suggests directions for future research, offering a roadmap for continued exploration within the field.

Chapter 2: Systematic literature review

2.1 Chapter introduction

In marketing, the concepts of PSI and PSR are important in understanding and explaining consumer behaviour in media environments (e.g., consumer behaviour in influencer marketing). Despite their importance, there remains a lack of consensus regarding the main domain characteristics of PSI and PSR across both online and offline contexts. Efforts to distinguish between the two have been made, yet the debate has garnered limited attention, leaving the core issues unresolved. These issues have been identified as the **first research gap**. Therefore, this chapter focuses on resolving the long-standing definitional debate by proposing seven prerequisites for their identification in both the offline and online environments. Recognising the evaluation of historical research as a valuable method for addressing existing literature gaps (Hunt, 2011), this chapter conducts a systematic literature review by reviewing 172 published works on PSI and PSR from 1956 to 2022 in the field of management, marketing, media science, psychology, tourism and information systems to achieve the first research objective of this thesis: to identify the differences between PSI and PSR in offline and online environments.

The structure of this chapter is organised as follows. Firstly, the chapter introduces the concept and methodology of a systematic literature review. Subsequently, the chapter discusses the debates surrounding PSI and PSR within offline environments, proposing seven prerequisites to differentiate between the two. Following this, the discussion extends to PSI and PSR in online contexts, presenting seven prerequisites that facilitate their identification in digital environments. Furthermore, this chapter conducts a comparative analysis of the potential conditions affecting PSI and PSR in offline versus online settings. Subsequently, a content analysis of the existing PSR definitions highlights the necessity to propose a new definition of PSR that captures its complex and dynamic nature within online environments, marking this as the **second research gap**. Lastly, the chapter highlights the importance to further investigate the development process of PSR, identified as the **third research gap**.

2.2 Rationale for conducting a systematic literature review

PSI and PSR are two critical concepts in marketing that help understand consumer behaviour in media environments. Despite the wealth of research on PSI and PSR, certain conceptual ambiguities persist. Current literature does not adequately delineate the main domain characteristics of PSI and PSR within online and offline contexts (Lu et al., 2023). Some scholars contend that "*relationship*" should be the main domain characteristic of PSI, thereby entangling it with PSR (e.g., Zhu et al., 2023). While there are claims that PSI and PSR represent the same concept (e.g., So and Shen, 2016; Penttinen et al., 2022), these lack substantial support. This inconsistency in definitions has resulted in the terms PSI and PSR being used interchangeably by some scholars (e.g., Liao et al., 2022; Conde and Casais, 2023), thereby exacerbating the conceptual ambiguity surrounding the two constructs. It needs to be noted that the conceptual ambiguity might lead to operationalisation issues and violate the criteria for a good definition (MacKenzie, 2003; Wacker, 2004).

PSI and PSR are two different concepts that can be proved based on the differentiation of social interactions and social relationships. Social interaction and social relationship are two distinct concepts (Bales, 1950), PSI and PSR act as media-mediated phenomenon, supplementing the understanding of how people interact and develop relationships in media environments, thereby substantiating their distinctiveness (Perse and Rubin, 1989; Lim and Kim, 2011). Social interaction emphasises that people do some activities that affect people based on their automatic psychological activities, which can be reflected through verbal or non-verbal communication (Argyle, 2017). Such social interaction can promote or change social relationships and only occurs when people encounter each other face-to-face or through media (Miell and Dallos, 1996; Hall, 2016). However, social relationship emphasises the connection between people and needs to be established through multiple social interactions, and both parties agree to develop the relationship (Goffman, 1972). The duration of the relationship is from the time the relationship is formed to the time the relationship is broken up.

Although some scholars have tried to distinguish between PSI and PSR, the debate has not received much attention to date. Some researchers identify the differences between PSI and PSR to explain why one of the two related concepts is chosen in the context of their study (e.g., Zafar et al., 2020; Utz et al., 2021). Other researchers distinguish the difference between PSI and PSR to discuss the problem of using them interchangeably in the current literature (Yuan and Lou, 2020). Two systematic literature reviews of PSI and PSR, Giles

(2002) and Liebers and Schramm (2019) provide detailed research progress and future research directions from the perspective of psychology and media science, respectively, but do not focus on the conceptual issues. Although some scholars have tried to explain the differences between PSI and PSR (e.g., Hartmann and Goldhoorn, 2011), key issues remain unsolved. Therefore, this is identified as the first research gap, and aims to address it in this chapter.

To solve the key issues, this thesis employs a systematic literature review. A systematic literature review is an evidence-based research method that allows researchers to systematically identify and review relevant existing research to achieve specific research objectives (Siddaway et al., 2019). Although systematic literature review is not widely used in marketing research, it has been regarded as a useful approach to evaluating the existing literature to solve the remaining issues in the literature and reconceptualise them in a historical way (Snyder, 2019). Different from traditional narrative reviews, the systematic literature review employs explicit and scientific methodology, which can generate comprehensive, transparent, and replicable findings (Tranfield et al., 2013; Siddaway et al., 2019).

The systematic literature review approach is well-suited for this thesis for three main reasons. Firstly, it provides a historical perspective to address longstanding issues in the literature (Hunt, 2011), facilitating the differentiation between PSI and PSR based on contemporary research. Systematically reviewing the current literature will benefit from state-of-the-art insight to advance the understanding of PSI and PSR (Paul et al., 2020). Compared to traditional narrative reviews, a systematic literature review produces a more comprehensive understanding of the nature of PSI and PSR and elucidates their distinctions, significantly enriching marketing knowledge. The adoption of a clear and reliable procedure in this systematic literature review can minimise bias, decrease subjectivity, and yield more practical and beneficial outcomes for implications (Snyder, 2019).

Therefore, this systematic literature review aims to address the first research gap to resolve the long-standing definitional debate, propose prerequisites to identify PSI and PSR in the offline and online environments, respectively, and address this thesis's first research objective. Therefore, this systematic literature review aims to **1) propose prerequisites that can distinguish PSI and PSR in offline and online environments 2) explore how PSI and PSR change from offline to online environments**.

2.3 Systematic literature review method

This systematic literature review is guided by the Preferred Reporting Items for Systematic Reviews and Meta-Analysis (PRISMA) 2020 statement developed by Page et al. (2021), which aims to increase the transparency and rigour of systematic literature reviews (Liberati, 2009; Pahlevan-Sharif et al., 2019) and increase the quality, reliability of the review findings (Tranfield et al., 2003, Siddaway et al., 2019). The full PRISMA 2020 is presented in Appendix 1.

2.3.1 Eligibility criteria

This systematic literature review has two sets of eligibility criteria for selecting reviewed papers: inclusion criteria and exclusion criteria, to increase the transparency of the review (Siddaway et al., 2019; Snyder, 2019). This review proposes six inclusion and two exclusion criteria (as listed in Table 2.1) based on the research objective and journal quality. First, PSI and PSR originally rooted in psychology, have found application across a spectrum of disciplines. This review, therefore, includes pertinent studies from a variety of fields, such as media, psychology, marketing, management, tourism, and information systems, to ensure a comprehensive examination of these concepts. Conversely, studies from unrelated disciplines where PSI or PSR are applied with divergent meanings, such as in zoology or chemistry, are excluded.

To ensure the high quality and rigour of the reviewed literature, the reviewed paper should be published in peer-reviewed academic journals. Conference papers are excluded since conference papers only show the most essential part of the research and do not present the whole paper, which could lead to bias in reviewing the paper. Moreover, the paper reviewed should be published in English to minimise bias that could be caused by misunderstanding the translation.

In addition, to guarantee the quality of sources, the Australian Business Deans Council (ABDC) Journal List has been chosen as the criterion for screening high-quality articles. The ABDC list is widely regarded as a highly dependable resource capable of identifying premier academic research on a global scale, free from regional biases (Grossmann et al., 2019). The ABDC list is extensively utilised in systematic literature reviews for the selection of articles, establishing its reputation as a trusted instrument for identifying high-quality research (e.g.,

Kashif and Udunuwara, 2020; Mondal and Chakrabarti, 2019). It encompasses a wide array of fields and disciplines, covering all areas specified in the inclusion criteria for this review. Consequently, to facilitate solid theoretical development, the journals under review are required to be ranked as A*, A, or B within the ABDC journal quality list.

Table 2.1 Inclusion and exclusion criteria of the systematic literature review

Inclusion Criteria
Fields of publication: Academic journals in the areas of media, psychology, marketing, management, tourism, and information systems
Publication type: Published in peer-reviewed academic journals
Language: English
Journal Ranking: Journal classified as A*, A, or B in the ABDC journal list
Time period: 1956–2022
Research focus: empirical research on PSI and PSR in the offline or online context
Exclusion Criteria
Irrelevant fields: Fields unrelated (e.g., zoology and chemistry)
Paper types: Conference paper and meta-analysis

Furthermore, to ensure the replicability of this review, the period for this review is restricted to published and in-print journal articles between 1956 and 31st December 2022. The first PSI and PSR paper is published by Horton and Wohl in 1956. The reason starting from 1956 is that reviewing historical research helps identify controversial issues and potential solutions (Hunt, 2011). Articles published up to 31st December 2022 are incorporated in this review to cover the latest developments in understanding PSI and PSR.

Furthermore, the articles selected for review must be empirical in nature and situated within either an offline or online context, enabling the review to comprehensively explore the evolution of PSI and PSR from traditional to digital environments. However, meta-analysis papers are excluded from this review as they do not align with its scope and purpose, which is to offer an in-depth understanding of the parasocial phenomenon based on individual empirical studies rather than a synthesis of findings across various studies as seen in meta-analyses (Paul et al., 2021; Paul and Criado, 2020). Such analyses aggregate results from multiple studies, which could result in redundant information.

2.3.2 Information sources and search strategy

For the search engine, Scopus and EBSCO are two databases used for paper selection in this systematic literature review. In business management, Scopus is a world-leading database with broader publication coverage than other data databases, such as the Web of Science (Mongeon and Paul-Hus, 2015; Zhu and Liu, 2020). Scopus is considered the primary database for searching papers for systematic literature reviews in marketing (Chatterjee et al., 2021; Mariani et al., 2021). EBSCO is another professional and high-quality research platform covering various peer-reviewed journals from multiple research fields (EBSCO, 2023). EBSCO is also widely used in systematic literature reviews in marketing (e.g., Hassan and Rahman, 2021; Mandler et al., 2021). Scopus and EBSCO cover academic journals, especially English papers, which are appropriate databases for this systematic literature review.

This review adopts keyword searches and sets restrictions on the selection of articles. This review set up several search terms because there are many ways to express the concepts of PSI and PSR. The entire search terms in this review are presented in Table 2.2. In terms of study record, according to search terms and restrictions, the author's name, title, year of publication, DOI, abstract and keywords of all literature are exported to a Microsoft Excel spreadsheet.

Table 2.2 Search terms in Scopus and EBSCO

Search terms in Scopus and EBSCO
parasocial interaction/para social interaction/para-social interaction/PSI parasocial relationship/para social relationship/ para-social relationship/PSR

2.3.3 Data selection process

To ensure the effectiveness of the data selection and article review process, the researchers conduct a pilot test on data selection and management for the online PSR articles. Every article is carefully read during the pilot test, and an Excel sheet is used for data management. After reading each article carefully, this review records the information accordingly in Excel sheets: research aim, the definition of PSI/PSR, media type, research method, sample region and size, platform, characters, character type/field, research findings, antecedents of

PSI/PSR, consequences of PSI/PSR and moderator. The formal systematic literature review is subsequently conducted after the successful completion of the pilot test.

The data selection process contains four stages, and the whole process is shown in Figure 2.1. The first step is searching articles in Scopus and EBSCO based on the search terms and criteria discussed above. In total, 815 articles are identified. Afterwards, the researcher checks whether the journal articles qualify for the A*, A, and B standards in the ABDC journal list. At this stage, 501 articles have been removed due to being duplicates or not meeting the required standards, leaving 314 articles retained. The third stage is checking whether the retained articles are eligible for other criteria. The researcher screens the remaining 314 articles based on their titles, abstracts, and eligibility criteria. Then, the researcher carefully read the full text of each paper to make the final decision. In the third stage, 142 articles are removed since these papers do not qualify for the criteria, and 172 papers are retained.

Figure 2.1 The process of selection of reviewed articles
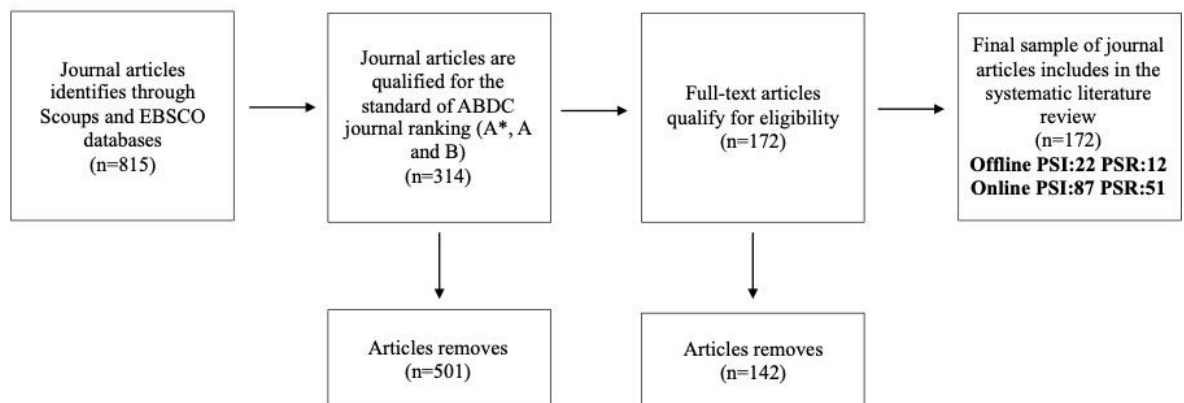
Finally, to thoroughly understand PSI and PSR, the 172 articles are divided into four groups: offline PSI, offline PSR, offline PSI and online PSR. The rationale for reviewing PSI and PSR in offline and online environments separately is that they have distinct characteristics in offline and online environments. PSI and PSR are first investigated in offline environments, such as TV (Papa et al., 2000) and then studied in online environments (Farivar et al., 2022). The offline and online environments have different characteristics, such as convenience and media consumption patterns, which affect the scope of PSI and PSR. Additionally, the media characters that people can have PSI and PSR are broader in the online environment compared with offline environments. Therefore, the definition scope and research contexts differ in offline and online environments. Reviewing these papers

separately allows for a more robust understanding of PSI and PSR and contributes to understanding how PSI and PSR transit from offline to online environments. Based on this, 22 offline PSI papers,12 offline PSR papers, 87 online PSI papers and 51 online PSR papers are identified for review.

2.4 Debates on identifying the main domain characteristics of PSI and PSR in the offline environment

The very first definitions of PSI and PSR were proposed by Horton and Wohl in 1956, providing the initial theoretical underpinnings for these phenomena. In their work, they defined PSR as:

> "*We propose to call this seeming face-to-face relationship between spectator and performer a para-social relationship*".

They posited that PSR represents an illusory form of relationship where viewers feel a sense of connection with media characters. Horton and Wohl further elaborated on the concept of PSI, suggesting it as the conversational exchange that occurs between the audience and media figures. They described PSI as:

> "*This simulation of conversational give and take may be called para-social interaction*".

The proposal of these two concepts was ground-breaking. On the one hand, it is the first time describing two different processes between viewers and media figures when they participate in media activities from the audience's psychological perspective, and thereby, more theories related to PSI and PSR are developed and tested in various fields. For example, TV shopping viewers' PSI can increase viewers' satisfaction with TV shopping (Lim and Kim, 2011). Consumers' PSR with soap opera characters enhances consumers' attitudes toward the placed products (Dias et al., 2017).

On the other hand, PSI and PSR can be regarded as a supplement to relevant theories of interpersonal interaction, social interaction, interpersonal relationship and social relationship, which fills in people's daily interactions and relationships mediated by the media (Perse and Rubin, 1989; Lim and Kim, 2011). Interaction and building relationships are important

activities in people's daily lives, and the PSI and PSR are beneficial for understanding people's virtual interaction and relationship-building with media characters. Although real-life interactions and relationships differ from PSI and PSR in the virtual environment, they have similar elements that can lead people to have the same feelings and experiences (Giles, 2002). In other words, PSI and PSR capture the two critical people's psychological activities related to media activities and help to understand people's behaviour in the media environment (Rubin and Perse, 1987).

While Horton and Wohl's (1956) introduction of PSI and PSR marked a significant advancement in understanding individual's behaviour in media environment, their work has been critiqued for its lack of precise definitions and clear differentiation between these two similar concepts, leading to potential ambiguities (Dibble et al., 2016). This vagueness is evident in their discussion of PSR, for instance, where they describe it as having an asymmetrical "*interaction relationship*" during television viewing, a characterisation that blurs the lines between PSI and PSR.

2.4.1 The five views of the main domain characteristics of PSI in the offline environment

To understand the viewpoints of PSI definition in the offline PSI studies, this thesis critically reviews the 22 offline PSI studies and focuses on the various conceptualisations of PSI. The 22 reviewed PSI definitions in the offline environment are presented in Appendix 2.

Scholars mainly hold five different views on the main domain characteristics of PSI in the offline environment, including users' interaction/experience/perception, users' relationship, user's process, users' involvement, and users' communication (Table 2.3). Specifically, more than half of the papers conceptualise PSI as a "*users' relationship*", which does not align with the original definition of PSI as the conversational give-and-take interaction proposed by Horton and Wohl (1956). Only three out of 22 papers followed the original definition of PSI as "*users' interaction*".

The first view of the main domain characteristic of PSI is "*users' interaction*", aligning with Horton and Wohl's (1956) original definition. This viewpoint emphasises the viewer's direct and personal interaction experience with media characters during media exposure (Hartmann and Goldhoorn, 2011). PSI is characterised by a perceived conversational exchange with media entities, a form of virtual interaction that persists only when engaged in media

environments (Giles, 2002). Furthermore, this view of conceptualisation of PSI can be seen as a supplement to social interaction literature, with viewers often equating these media interactions to their everyday social interactions (Giles, 2002).

Table 2.3 Main domain characteristics of PSI in the offline environment

Main Domain Characteristics of PSI Definition in Offline Environment		
Main domain characteristics	Definition Example	Sources
Users' interaction - experience/perceptions	The *experience* of TV viewers to be engaged in an immediate, personal encounter with a TV performer.	Cummins and Cui (2014); Oliver et al. (2019); Hartmann and Goldhoorn (2011)
Users' relationship	An imaginary face-to-face *relationship* of audience members with media personalities.	Rubin and Perse (1987); Perse and Rubin (1989); Grant et al. (1991); Conway and Rubin (1991); Kim and Rubin (1997); Papa et al. (2000); Greenwood (2008); Greenwood and Long (2009); Moyer-Guse and Nabi (2010); Sun (2010); Lim and Kim (2011); Tian and Yoo (2015); So and Shen (2016); Bi et al. (2021)
Users' involvement	Interpersonal *involvement* of the media user with what he or she consumes.	Rubin et al. (1985); Skumanich and Kintsfather (1998); Bentley (2014)
Users' process	Viewer different cognitive, emotional, and/or behavioural *processes* when responses to media characters.	Knoll et al. (2015)
Users' communication	Users' *communication* phenomenon	So and Nabi (2013)

Although "*users' interaction*" accurately reflects the main domain of PSI, it has gained limited support among scholars. Among the 22 papers reviewed on PSI in offline contexts, only three, specifically those by Hartmann and Goldhoorn (2011), Cummins and Cui (2014), and Oliver et al. (2019), adopt this viewpoint. Hartmann and Goldhoorn's (2011) advocacy for a return to PSI's original definition and their provision of a precise definition that aligns with the "interaction" perspective may have been a crucial factor in this resurgence. As a result, the notion of "users' interaction" as the main domain characteristic is gradually gaining broader acceptance among scholars.

The second view of the main domain characteristics of PSI is the "*users' relationship*", which is the most controversial view in the PSI definition. As is shown in Table 2.3. 13 out of 22 papers reviewed endorse this viewpoint, positing "users' relationship" as PSI's main domain characteristic and framing PSI as an illusory connection between audiences and media personas (e.g., Tian and Yoo, 2015; Bi et al., 2021). Moreover, some researchers support that PSI and PSR are the same concepts (e.g., Rubin and Perse, 1987), leading to a blurring of conceptual boundaries and making it challenging to distinguish between the two. Such ambiguities could further complicate the operationalisation of these concepts and violate the criteria for a good definition (MacKenzie, 2003; Wacker, 2004).

While some scholars advocate for "*users' relationship*" as the main domain characteristic of PSI, the evidence for this viewpoint is not robust. According to Horton and Wohl (1956), PSI and PSR as related, each capturing separate psychological processes. Thus, PSI and PSR possess unique definitions and main domain characteristics (Dibble et al., 2016). Conceptualising PSI as a type of relationship markedly deviates from Horton and Wohl's (1956) original conceptualisation of PSI, signifying a shift away from their foundational intent.

The third perspective on PSI's main domain characteristics is termed "*users' involvement*", a concept introduced by Rubin et al. (1985) that builds upon Horton and Wohl's (1956) foundational work by integrating PSI and PSR. This viewpoint encompasses a wider range of interactions than "users' interaction", including "seeking guidance from a media persona, seeing media persona, imagining being part of a favourite program's social world, and desiring to meet media performers" (Rubin et al., 1985). Some papers adopt this view, such as Skumanich and Kintsfather (1998) and Bentley (2014).

However, this perspective fails to consider that PSI should be restricted to the duration of media consumption, as the notion of "users' involvement" implies a virtual friendship between the audience and media characters that extends beyond the act of media consumption (Oliver et al., 2019). Furthermore, "users' involvement" encompasses a wide array of psychological processes, including transportation, PSI, identification, and worship, thereby expanding the PSI concept to include diverse psychological phenomena and extending its scope beyond the original scope (Brown, 2015; Nordlund, 1978).

Another view on PSI's main domain characteristic is the "users' process," a view exclusively adopted by Knoll et al. (2015). They argue that PSI encompasses the cognitive, emotional,

and behavioural processes of viewers. While PSI could involve these psychological phases, defining PSI solely in terms of such processes is problematic. This is because many other constructs, like consumer engagement, exhibit similar psychological dynamics (Claffey and Brady, 2014; Claffey and Brady, 2019). Moreover, the psychological experiences of viewers during PSI are not uniform (Giles, 2002), indicating that the "users′ process" may not precisely capture the main domain characteristic of PSI.

The final view of PSI is "*users' communication*", proposed by So and Nabi (2013), which highlights the exchange of information, both verbal and non-verbal, between the parties involved (Belch and Belch, 2021). This perspective suggests that during PSI experiences, audiences engage in a communicative process, receiving both verbal and non-verbal cues from media characters. Verbal interactions might include the content of the message, fostering a sense of dialogue with the media figures (Horton and Wohl, 1956), while non-verbal interactions could involve gestures or expressions conveyed by the characters (Cummins and Cui, 2014).

In conclusion, drawing from Horton and Wohl's (1956) initial conceptualisation of PSI, five distinct interpretations have emerged within the offline context. This suggests that Horton and Wohl (1956) did not clearly define PSI and PSR and adequately differentiate between these two closely related constructs. Their definitions were ambiguous, which has caused confusion for some researchers.

2.4.2 The four views of the main domain characteristics of PSR in the offline environment

To understand the viewpoints of PSR definition in offline PSR studies, this thesis critically reviews the 12 offline PSR research studies and focuses on the various conceptualisations of PSR. The reviewed PSR definitions in the offline environment are presented in Appendix 3.

Unlike the discourse surrounding the conceptualisation of PSI, the literature on PSR consistently treats it as a distinct "relationship", clearly separating it from PSI concepts. However, their focus on the defining characteristics varies, with terms such as "*relationship*", "*attachment*", "*bond*", and "*psychological connection*" being employed to describe these nuances. Detailed insights into these varied interpretations are provided in Table 2.4. Three studies specifically describe PSR as a "people's bond" (e.g., Bond, 2021), suggesting it

represents a more intensified form of relationship established between parties (Arantola, 2002). Meanwhile, another study posits PSR as "people's attachment" to another entity, implying a deeper level of relationship (e.g., Sun and Wu, 2012). Although there is debate regarding the depth of PSR relationships, the consensus among scholars is that PSR among researchers is that PSR signifies the connection established between individuals and another party.

Table 2.4 Main domain characteristics of PSR in the offline environment

Main Domain Characteristics of PSR Definition in Offline Environment		
Main domain characteristics	Definition Example	Sources
Media users' relationship	Viewer has the illusion of a face-to-face *relationship* with a fictional or real media character.	Stephens et al. (1996); Hoffner and Cohen (2014); Behm-Morawitz et al. (2017); Bernhold and Metzger (2020); Dias et al. (2017)
Media users' attachment	The emotional *attachment* to characters	Sun and Wu (2012)
Media users' bond	Viewers durable and continuing *bonds* with television characters.	Gabriel et al. (2018); Bernhold (2019); Bond (2021);
Media users' psychological connections	Viewers psychological *connections* with media figures	Young et al. (2013)

2.4.3 The interchangeable use of PSI and PSR in the offline environment

The ambiguity in defining PSI and PSR has led some scholars to use the terms interchangeably. For example, some authors use both PSI and PSR to describe the relationship between viewers and media characters (e.g., Lim and Kim, 2011). Table 2.5 shows the terms PSI and PSR are used in PSI in the offline environment. Of the 22 articles, nine papers use PSI and PSR interchangeably, and only four explicitly differentiate between the two concepts.

The same issue uses PSI and PSR interchangeably, also found in PSR studies in offline environments. Table 2.6 presents the terms PSI and PSR used in PSR studies offline. Two papers use PSI and PSR interchangeably, and one uses PSR and PSB (parasocial bond)

interchangeably. Some scholars identify PSI and PSR as distinct concepts (e.g., Bernhold and Metzger, 2020).

Table 2.5 The use of the terms PSI and PSR in the offline PSI studies

The use of the terms PSI and PSR in the offline PSI studies	
Use PSI and PSR interchangeably	Rubin et al. (1985); Perse and Rubin (1989), Grant et al. (1991); Papa et al. (2000); Greenwood (2008); Greenwood and Long (2009); Moyer-Guse and Nabi (2010); Sun (2010); Lim and Kim (2011)
Identify PSI and PSR as different concepts	So and Nabi (2013); Oliver et al. (2019); Cummins and Cui (2014); Hartmann and Goldhoorn (2011)
Use PSI (EPSI)	Rubin and Perse (1987); Conway and Rubin (1991); Kim and Rubin (1997); Skumanich and Kintsfather (1998); Bentley (2014); Tian and Yoo (2015); Knoll et al., (2015); So and Shen (2016); Bi et al. (2021)

Table 2.6 The use of the terms PSI and PSR in the offline PSR studies

The use of the terms PSI and PSR in the offline PSR studies	
Use PSI and PSR interchangeably	Stephens et al. (1996); Dias et al. (2017)
Identify PSI and PSR	Sun and Wu (2012); Behm-Morawitz et al. (2017); Bernhold and Metzger (2020)
Use PSR	Bernhold (2019); Derrick et al. (2009); Young et al. (2013); Bond et al. (2021); Bonus et al. (2021); Hoffner and Cohen (2014)
Use PSR and PSB (parasocial bond)	Gabriel et al. (2018)

The practice of using PSI and PSR interchangeably undermines academic rigour, potentially leading to confusion and misinterpretation (Hartmann and Goldhoorn, 2011). Ambiguous definitions can result in improper operationalisation and fail to meet the good definition criteria (MacKenzie, 2003; Wacker, 2004; Stern et al., 2001). For instance, some studies on PSI employ PSR measurement tools, casting doubt on the validity of their findings and the

theories derived from them (Bi et al., 2021; Tian and Yoo, 2015; MacKenzie, 2003; Cummins and Cui, 2014). Furthermore, this lack of clarity hampers effective communication of research outcomes to the academic community (Stern et al., 2001).

2.5 Prerequisites of PSI and PSR in the offline environment

Although efforts have been made to distinguish PSI from PSR and to define PSI more precisely (e.g., Dibble et al., 2016), the issue remains unresolved. For example, Hartmann and Goldhoorn (2011) revisit the concept of PSI, focusing on its interactive nature but not clarifying its distinction from PSR. Identifying clear prerequisites for PSI and PSR could effectively address the ongoing debate that has persisted for nearly seven decades. To date, no scholars have outlined such prerequisites to aid in differentiating these closely related concepts. The subsequent section discusses the prerequisites for PSI and PSR in traditional media settings and examines their similarities and differences. The seven prerequisites are presented in Table 2.7.

2.5.1 Prerequisite 1: One of the parties participating in PSI/PSR

The first prerequisite for distinguishing PSI and PSR is the identification of the parties involved. Typically, these phenomena require two distinct entities: a human participant and a media character. For instance, in the context of television viewership, the human viewer constitutes one party, while the media character, such as a TV show host, represents the other.

Scholarly works have employed various terminologies to denote the human participant in PSI and PSR. Regarding PSI, the terms "TV viewers" (Oliver et al., 2019) and "audience members" (So and Nabi, 2013) are commonly used to describe the human element. Additionally, terms like "users" (Cummins and Cui, 2014) and "media users" (Bentley, 2014) are also noted, underscoring the role of the individual engaging with the media. Conversely, the literature on PSR less frequently specifies the human participant, though some references use "viewer" (Bernhold, 2019) or "audience" (Bond, 2021) in this context as well.

Hence, the first prerequisite emphasises the importance of identifying the specific 'one party' involved in PSI and PSR, despite the overlap in the terminologies used. To delineate between PSI and PSR, it is crucial to decide whether 'one party' is engaged with the media. If 'one party' is a traditional media user, the interaction qualifies as PSI. In contrast, PSR encompasses a broader range of individuals and not limited to media users.

Table 2.7 Prerequisites for distinguishing between PSI and PSR in the offline environment

Prerequisites for distinguishing between PSI and PSR in offline environment		
	Offline PSI	Offline PSR
1. One of the parties participating in PSI/PSR	media users (Oliver et al., 2019)	individual (Bernhold and Metzger, 2020)
2. The other parties participating in PSI/PSR	media characters, includes real and fictional characters (Cummins and Cui, 2014)	media characters, includes real and fictional characters (Cummins and Cui, 2014)
3. The nature of PSI/PSR	one-way unequal interaction	an individual's connection (Dias et al., 2017)
4. The main domain characteristics of PSI/PSR	perception of direct and reciprocal communication (Cummins and Cui, 2014; Oliver et al., 2019)	the connection (Dias et al., 2017)
5. The process of PSI/PSR (from the viewer's perspective)	triggered by mutual awareness, attention, and adjustment (Hartmann and Goldhoorn, 2011)	triggered by experiencing at least one-time parasocial interaction or a cross-situational, stable, and schematic cognitive pattern of images and interaction scripts that includes affective aspects (Bernhold and Metzger, 2020)
6. The time when PSI/PSR can occur	occurs during the media exposure period (Cummins and Cui, 2014; Oliver et al., 2019)	occurs from the moment the relationship is established to the breakup
7. The platforms where PSI/PSR can occur	traditional media (Bentley, 2014)	

The one party in PSI specifically refers to individuals engaging with traditional forms of media, such as television, radio, movies, and books. PSI occurs when individuals interact with media characters, facilitated by the consumption of traditional media (Skumanich and Kintsfather, 1998; Oliver et al., 2019). This interaction often mirrors a conversational exchange, where the audience feels a sense of give-and-take with the media character (Horton and Wohl, 1956; Oliver et al., 2019). During their interaction with media characters, individuals can perceive verbal and non-verbal cues from media characters, which in turn, can initiate PSI (Cummins and Cui, 2014). Media performers employ various professional techniques, such as body language, warm tones, and eye contact, to enhance the audience's

PSI (Cummins and Cui, 2014; Oliver et al., 2019). If individuals are not media users, they would not experience these cues, and consequently, PSI would not occur. Thus, PSI is exclusive to traditional media users (Stephens et al., 1996).

Contrastingly, the one party of PSR is broader and not confined to media users alone. PSR can exist among individuals regardless of their engagement with traditional media. Once established, PSR can persist beyond the duration of media exposure, indicating that PSR can last without media consumption (Bond, 2021). This enduring nature means that individuals can form and maintain PSR whether they consume traditional media or not. Certain traits are common among individuals who form PSR with media personalities. For instance, individuals with materialistic tendencies and low self-esteem are more inclined to develop PSR (Sun and Wu, 2012). Similarly, those with fewer personal connections and lower quality friendships might seek PSR with media figures for companionship (Hoffner and Cohen, 2014). The tendency to form PSR is closely linked to personal traits and attachment styles (Bernhold and Metzger, 2020).

2.5.2 Prerequisite 2: The other parties participating in PSI/PSR

The other party in both PSI and PSR encompasses a range of media characters within the traditional media landscape, including both real and fictional entities. This aspect is the only common prerequisite for PSI and PSR. In the literature, researchers employ a variety of terms to describe the other party. In PSI research, terms such as "media personalities", "performer", and "media character/character" are prevalent. Conversely, in PSR studies, "personae" and "characters" are frequently used to refer to the other party of PSR.

Real characters constitute a significant portion of the other party in PSI and PSR. This group includes media characters like TV program hosts (Hartmann and Goldhoorn, 2011), TV shopping hosts (Grant et al., 1991), athletes (Sun, 2010), and political figures, such as Donald Trump (Gabriel et al., 2018). These media characters, often celebrated or professional figures, have the platform to appear in traditional media and become recognised by the public. They strive to align with their character portrayal, enhancing PSI and strengthening PSR through effective performance and affective empathy (Horton and Wohl, 1956; Cummins and Cui, 2014).

Fictional characters also serve as the other party in PSI and PSR. These are characters crafted within narratives, who, despite their fictitious nature, possess distinct personalities and are perceived as real within their contexts (NFI, 2023). They commonly appear in various media formats, such as TV series, movies and video games (Young et al., 2013; Brown, 2015). The attractiveness and representation of these fictional characters often influence the likelihood of forming PSR (Knoll et al., 2015). Typically, audiences develop PSR with central characters in television series. However, it is also possible for viewers to establish PSR with antagonistic characters, driven by a mix of antipathy and hostility towards these negative personas (Dias et al., 2017; Bernhold, 2019).

2.5.3 Prerequisite 3: The nature of PSI/PSR

Within the scholarly domain, there exists a limited discussion concerning the real definition of PSI and PSR. However, it is essential to differentiate PSI and PSR by identifying their real definition because it can capture the nature of the concepts even though the real definitions are not often used in research (Gilliam and Voss, 2013). Based on the analysis, this paper argues that the nature of PSI and PSR are different.

PSI is characterised by a one-way, asymmetrical interaction between media viewers and media characters. When individuals engage with media characters through viewing or listening, it mimics a social interaction (Hartmann and Goldhoorn, 2011). However, the nature of traditional media as a channel imposes limitations, resulting in a lack of reciprocity. The absence of reciprocity means that media characters emerge solely as initiators of social interaction, unable to discern the viewers' focus or receive any form of feedback (Ellis and Holmes, 1982; Masse et al., 2018). Consequently, media consumers are relegated to passive recipients of the interaction, unable to reciprocate or establish a real two-way social exchange, which underscores the lack of reciprocity and the unequal nature of PSI.

Conversely, PSR embodies a connection between individuals and media characters. From the media characters' standpoint, there is an intentional design for them to seem open and appealing for sustained relationships with the audience, serving as a fundamental prerequisite for relationship formation (Miell and Dallas, 1996). Real media figures might view their connection with fans collectively, rather than on an individual basis. Fictional characters, by their nature, lack the capacity to acknowledge such relationships. From the audience's perspective, the selection of media characters based on attractiveness and appeal

facilitates the formation of PSR, fostering a sense of connection with the characters (Young et al., 2013). However, this connection is not acknowledged by the media characters and thus cannot reciprocate the feelings or acknowledge the relationships formed by the audience.

2.5.4 Prerequisite 4: The main domain characteristics of PSI/PSR

Given the prevalence of PSI and PSR among media audiences and the rich insights gained from examining these phenomena from the viewers' standpoint, this study aligns with current literature by adopting the perspective of media viewers to explore PSI and PSR. Some scholars suggest that the main domain characteristic of PSI is the "relationship", deeming it indistinguishable from PSR (e.g., So and Shen, 2016; Bi et al., 2021). This paper posits that PSI and PSR are distinct constructs, each with unique main domain characteristics.

The main domain characteristic of PSI is the media viewers' perception of engaging in direct and reciprocal communication with media characters (Oliver et al., 2019). The transportation effect plays a pivotal role, enabling viewers to perceive media personas as though they share the same physical space, facilitating direct communication as if they were co-located (Brown, 2015). Furthermore, the attention and focus viewers dedicate to media characters, coupled with the reception of feedback, cultivate a virtual experience of conversational exchange, akin to real-life interactions. The verbal and non-verbal cues emitted by media characters serve as mechanisms for viewers to feel as though they are engaged in genuine social exchanges, fostering a sense of reciprocity in the interaction (Cummins and Cui, 2014).

Contrastingly, the main domain characteristic of PSR is the formation of a personal connection with media characters, mirroring the dynamics of real-life social relationships (Bernhold and Metzger, 2020). PSR encapsulates the connection individuals establish with media entities, which can engender feelings of intimacy and the perception of a real social tie (Hoffner and Cohen, 2014). For some, this connection may manifest as a friendship with the media character, indicative of a deeper, more enduring relationship (Bernhold, 2019; Bernhold and Metzger, 2020). Thus, PSR represents a long-standing relationship sustained through ongoing interactions with the media characters.

2.5.5 Prerequisite 5: The process of PSI/PSR

The differentiation between the mechanisms of PSI and PSR is not extensively explored, yet it is fundamental for distinguishing between the two concepts. PSI and PSR are initiated by different stimuli, leading to distinct processes. One perspective on PSI suggests that it develops gradually over time, with Greenwood and Long (2009) treating PSI as a long-term relationship between media users and media figures, which contrasts with the fundamental nature of PSI as a more immediate, interaction-based phenomenon, rather than an enduring relationship. This paper contends that such a view is more applicable to PSR, as it conflates the gradual development characteristic of relationships, thereby misrepresenting the PSI process.

PSI is triggered by media viewers' awareness, attention, and adjustment to media characters, mirroring real-life social interactions where individuals actively perceive and adapt their behaviour towards others (Malle, 2005; Hartmann and Goldhoorn, 2011). Techniques employed by media characters, such as eye contact and body language, foster an illusion of reciprocity, making viewers feel as though there is a mutual adjustment, as media characters' responses are pre-planned and not directly reactive to viewers' inputs (Cummins and Cui, 2014; Hartmann and Goldhoorn, 2011).

On the other hand, PSR formation needs at least one time PSI, requiring time to develop, similar to the formation of real-life social relationships (Bernhold and Metzger, 2020). The passage of time is a critical precursor to PSR, with prolonged and frequent media exposure increasing the likelihood of PSR formation (Tian and Yoo, 2015; Greenwood, 2008). Regular viewers, through extended viewing time, tend to establish deeper connections with media characters than occasional viewers, with increasing PSI leading to a stronger connection due to growing confidence in the media characters (Perse and Rubin, 1989; Greenwood, 2008).

Furthermore, PSR can sometimes emerge from atypical situations, where individuals develop cross-situational, stable cognitive patterns and affective interaction scripts that transcend the conventional 'fourth wall' of media interaction (Hartmann et al., 2008; Dibble et al., 2016). However, PSR formed under such unusual circumstances deviates from the long-term, stable relationships typically discussed in PSR literature and represents an unconventional trigger of PSR (Tukachinsky and Stever, 2018). Therefore, PSR arising not directly from PSI signifies an exception rather than the norm in PSR formation.

2.5.6 Prerequisite 6: The time when PSI/PSR can occur

Understanding the timing of PSI and PSR is crucial for distinguishing these two similar concepts. In the context of PSI within offline environments, only a few studies explicitly state that PSI occurs during media exposure (e.g., Cummins and Cui, 2014; Oliver et al., 2019). Conversely, the literature on PSR does not commonly specify the exact timing of its occurrence.

PSI takes place when individuals engage with traditional media, such as watching television, reading books, or listening to the radio (Cummins and Cui, 2014). This suggests that PSI occurs during the media consumption period, suggesting that PSI is ephemeral, existing only during the time of media exposure (Oliver et al., 2019). The exposure to traditional media allows individuals to perceive and engage in a semblance of reciprocal communication with media characters, undergoing a psychological process of awareness, attention, and behavioural adjustment essential for PSI (Behm-Morawitz et al., 2017; Hartmann and Goldhoorn, 2011). This interaction fosters a sense of direct communication with the characters (Cummins and Cui, 2014).

Conversely, while PSR and PSI may occur concurrently, their durations differ significantly due to the nature of PSR as a connection. The duration of PSR starts from the establishment of the relationship to its ends, implying that PSR can persist beyond direct media exposure, which is the same with real-life relationships (Rubin et al., 1985; Bond, 2021). Individuals can continue to maintain PSR with media characters beyond their media consumption sessions. However, when individuals decide to relinquish their connection with media figures, the PSR ceases to exist and transitions into parasocial breakup (Hu et al., 2016).

2.5.7 Prerequisite 7: The platforms where PSI/PSR can occur

The platforms on which PSI and PSR can occur serve as another key differentiator between the two concepts. Analysis of PSI literature reveals that PSI typically necessitates a media platform for its occurrence, with television (Hartmann and Goldhoorn, 2011) and radio (Lim and Kim, 2011) being common mediums. In contrast, PSR's existence is not bound to a specific medium or platform.

PSI can manifest across a variety of media forms within the traditional media landscape. Viewers can engage in PSI with media or fictional characters through television (Grant et al., 1991; Tian and Yoo, 2015; Bi et al., 2021), movies and books (Ingram and Luckett, 2019; Bonus et al., 2021), and radio (Lim and Kim, 2011). Conversely, the occurrence of PSR transcends the need for a media platform. Once established, PSR embodies a more enduring psychological process that remains relatively stable over time, independent of continuous media exposure (Tukachinsky and Stever, 2018). This distinction highlights the media-dependent nature of PSI, in contrast to the more enduring and media-independent nature of PSR.

2.6 Debates on identifying the main domain characteristics of PSI and PSR in the online environment

The scope of PSI and PSR has broadened from traditional to online media, enabling these phenomena across various platforms. Traditionally, PSI and PSR have been observed through such as television (Bi et al., 2021) and radio (Lim and Kim, 2011). The digital age extends these phenomena to include social media (Leite and Baptista, 2022), among other online mediums. Despite this expansion, there remains ongoing debate around the conceptualisation of PSI and PSR in digital spaces. The distinctions and overlaps between PSI and PSR, previously contested in traditional media contexts, persist online, with some scholars using the terms interchangeably (e.g., Wei et al., 2022) or treating them as the same concepts (e.g., Zhang et al., 2022), without a consensus or clear resolution.

2.6.1 The four views of the main domain characteristics of PSI in the online environment

This thesis critically reviews the 87 online PSI research, particularly their various conceptualisations. The 87 reviewed PSI definitions in the offline environment can be found in Appendix 4. Of the reviewed 87 articles, ten do not define PSI.

There are mainly four different views of PSI's main domain characteristics in the online PSI studies, including "*users' interaction*", "*users' relationship*", "*users' involvement*", and "*users' intention and relationship*" (Table 2.8).

Table 2.8 Main domain characteristics of PSI definition in the online environment

Main domain characteristics of PSI definition in the online environment		
Main domain characteristics	Definition example	Sources
Users' interaction - experience	Parasocial interaction refers to the one-sided mediated form of social *interaction* between audience and media characters	Lee (2013); Labrecque (2014); Kim and Kim (2017); Hu et al. (2017); Gong and Li (2017); Daniel et al. (2018); Zhou and Jia (2018); Breves et al. (2019); Sakib et al. (2020); Kelton and Pennington (2020); Yuksel and Labrecque (2016); Choi et al., (2019); Nanda and Banerjee (2020) ; Hsieh and Lee (2021); Lee et al. (2021); Lo et al. (2022); Hudders and De Jans (2022)
Users' relationship (intimacy/ connection)	Parasocial interactions can be defined as a viewer's perceived *relationship* with a media personality.	Keng et al. (2011); Men and Tsai (2015); Chiu and Huang (2015); Lueck (2012); Colliander and Erlandsson (2013); Kim and Song (2016); Xiang et al. (2016); De Jans et al. (2018); Lee (2018); Phua, Lin and Lim (2018); Jin (2018); Jin and Muqaddam (2019); Liu et al. (2019); Aw and Labrecque (2020); Shan et al. (2019); Jin and Ryu (2020); Sokolova and Kefi (2020); Boerman (2020); Kim (2020); Ledbetter and Meisner (2021); Yuksel and Labrecque (2016); Lee and Lee (2017); Handarkho (2020); Kang et al. (2021); Yılmazdoğan et al. (2021); Handarkho (2021); Hoabin Ye et al. (2021); Jin et al. (2021); Penttinen et al. (2022); Yousaf (2022); AW et al. (2022); Chen et al. (2022); Wang and Hu (2022); Chang and Kim (2022); Tseng et al. (2022); Kim (2022); Masuda et al. (2022); Zhang et al. (2022); Kim (2022); Lee and Lee (2022); Wei et al. (2022); Manchanda et al. (2022); Liao et al. (2022); Deng et al. (2022)
Users' involvement	Interpersonal *involvement* of the media user with what he or she consumes.	Thorson and Rodgers (2006); Goldberg and Allen (2008); Men and Tsai (2013); Tsai and Men (2013); Zheng et al. (2020); Kim et al. (2020); Tsai et al. (2021)
Users' interaction and relationship	The *intimacy* between media users and media characters can be regarded as a one-sided *interaction*.	Xu et al. (2021); Youn and Jin (2021); Kim and Kim (2021); Chen et al. (2021)

The views of PSI's main domain characteristics are reduced from five in the traditional media environment to four views in the online environment. In the online environment, the "*users' process*" and "*users' communication*" have disappeared, but a new view argues that PSI is "*users' interaction and relationship*" is emerged.

Despite some scholars, such as Hartmann and Goldhoorn (2011), distinguishing between PSI and PSR in traditional media, similar disputes endure in online studies without resolution. Over half of the papers (46 out of 77) conceptualise PSI as "users' relationship", viewing it as the connection users form with media entities (e.g., Liao et al., 2022). This interpretation, however, conflicts with the definition of PSR. Conversely, 17 out of 77 papers adopt PSI's main domain characteristic is "users' interaction", which in line with PSI's interactive nature (e.g., Hudders and De Jans, 2022).

Some studies advocate for PSI as "users' involvement" (e.g., Tsai et al., 2021), as discussed above, a term encompassing a range of engagements with media personas as outlined by Rubin et al. (1985). However, this broader interpretation, suggesting a continuous connection beyond mere media exposure, diverges from the immediate nature of PSI (Oliver et al., 2019).

A novel perspective proposes that PSI embodies both interaction and connection, suggesting an intimacy akin to a unilateral interaction (e.g., Xue et al., 2021). For example, Xue et al. (2021) define PSI as "the intimacy between media users and media characters can be regarded as a one-sided interaction". This view essentially merges the concepts of PSI and PSR but lacks clarity in differentiating the two, failing to adequately define PSI's conceptual scope.

In conclusion, the definition of PSI in online studies remains a subject of varied interpretations. Despite calls from scholars to clarify the distinction between PSI and PSR (e.g., Cummins and Cui, 2014), a significant portion of online PSI research continues to conceptualise PSI as a form of "relationship", thereby blurring the lines between PSI and PSR. Moreover, an emerging perspective attempts to combine "interaction" and "relationship" as a unified definition for PSI. However, this approach does not align with the criteria for good definition criteria as outlined by MacKenzie (2003), indicating a need for more precise and distinct conceptualisations and effective prerequisites to distinguish the two concepts.

2.6.2 The three views of the main domain characteristics of PSR in the online environment

The reviewed 51 PSR definitions are presented in Appendix 5, reveals three primary perspectives on PSR's main domain characteristics within the online context. Information about the three views is presented in Table 2.9. The three views of PSR's main domain characteristics are in line with the offline studies, including "*people's relationship*", "*people's bond*", and "*people's attachment*". Notably, the "people's psychological process", a view previously considered in offline PSR studies, is absent, as it fails to encapsulate the essence of PSR. This is because psychological activities related to media, such as psychological ownership, differ from PSR and involve distinct psychological processes (Kwon, 2020).

The majority of scholars underscore "relationship" as the main domain characteristic of PSR (e.g., Jacobson et al., 2022; Burnasheva and Suh, 2022), viewing it as the connection between media users and media entities, resonating with the foundational work of Horton and Wohl (1956). Few scholars define PSR as "people's bond" (e.g., Hu et al., 2020;), interpreting it as an enhanced relationship fostered between individuals and media figures (Arantola, 2002). Additionally, one study frames PSR as "people's attachment", indicating a deeper form of relationship (e.g., Farivar et al., 2022).

2.6.3 The interchangeable use of PSI and PSR in the online environment

The interchangeable use of PSI and PSR persists in online studies, mirroring a problem initially identified in offline contexts. Table 2.10 illustrates this issue within online PSI research, where, among 87 reviewed papers, 23 employ PSI and PSR interchangeably (e.g., Wei et al., 2022; Manchanda et al., 2022). Conversely, a minority of these papers (8 out of 87) acknowledge and highlight the distinction between PSI and PSR (e.g., Deng et al., 2022; Hudders and De Jans, 2022), drawing attention to this critical issue.

Table 2.9 Main domain characteristics of PSR definition in the online environment

Main domain characteristics of PSR definition in the online environment		
Main domain characteristics	Definition example	Sources
People's relationship (connection)	Parasocial relationships can be defined as unilateral *relationships* that a media audience develops with a media character.	Richards and Calvert (2015); Tsiotsou (2016); Yuan et al. (2016); Escalas and Bettman (2017); Chung and Cho (2017); Hwang and Zhang (2018); Lim and Kim (2018); Han and Yang (2018); de Bérail et al. (2019); Munnukka et al. (2019); Lee and Cho (2020); Zafar et al. (2020); Lim et al. (2020); Reinikainen et al. (2020); Agnihotri and Bhattacharya (2020); Sokolova and Perez (2021); Tsiotsou (2015); Iannone et al. (2018); Feder (2020); Hwang et al. (2020); Farivar et al. (2021); Utz et al. (2021); Chen et al. (2021); Breves et al. (2021); Reinikainen et al. (2021); Aw and Chuah (2021); Yuan et al. (2021); Whang and Im (2021); Breves et al. (2021); Yang and Ha (2021); Tsfati et al. (2022); Balaban et al. (2022); Wahab et al. (2022); Sundermann and Munnukka (2022); Liao et al. (2022); Cheung et al. (2022); Leite and Baptista (2022); Burnasheva and Suh (2022); Jacobson et al. (2022)
People's bond	The emotional *bonds* that audiences form with media personas.	Hu et al. (2020); Yuan and Lou (2020); Noor et al. (2022)
People's attachment	Parasocial relationship is a bond-based *attachment*, in which followers consider that they are in a relationship with an influencer.	Farivar et al. (2022)

Table 2.10 The use of the terms PSI and PSR in the online PSI studies

The use of the terms PSI and PSR in the online PSI studies	
Use PSI and PSR interchangeably	Thorson and Rodgers (2006); Chiu and Huang (2015); Kim et al. (2016); Kim and Song (2016); Xiang et al. (2016); Kim and Kim (2017); Gong and Li (2017); Sanz-Blas et al. (2017); Jin (2018); Fu et al. (2017); Kim and Kim (2020); Kang et al. (2021); Yılmazdoğan et al. (2021); Chen et al. (2021); Tsai et al. (2021); Penttinen et al. (2022); Chang and Kim (2022); Tseng et al. (2022); Kim (2022); Masuda et al. (2022); Zhang et al. (2022); Wei et al. (2022); Manchanda et al. (2022)
Identify PSI and PSR	Boehmer (2016); Zhou and Jia (2018); Breves et al. (2019); Yuksel and Labrecque (2016); Daniel et al. (2018); Lee et al. (2021); Deng et al. (2022); Hudders and De Jans (2022)
Use PSI	Goldberg and Allen (2008); Keng et al. (2011); Men and Tsai (2013); Lee (2013); Men and Tsai (2013); Lee and Jang (2011); Tsai and Men (2013); Labrecque (2014); Men and Tsai (2015); Lueck (2012; Colliander and Erlandsson (2013); Kassing and Sanderson (2012); Lee and Watkins (2016); Hu et al. (2017); Tsai and Men (2017); De Jans et al. (2018); Lee (2018); Esteban-Santos et al. (2018); Phua et al. (2018); Jin and Muqaddam (2019); Liu et al. (2019); Aw and Labrecque (2020); Shan et al. (2019); Jin and Ryu (2020); Zheng et al. (2020); Sokolova and Kefi (2020); Boerman (2020); Sakib et al. (2020); Kim (2020); Kelton and Pennington (2020); Kim et al. (2020); Ledbetter and Meisner (2021); Lee and Lee (2017); Choi et al., (2019); Handarkho (2020); Nanda and Banerjee (2020); Xu et al. (2020); Xu et al. (2021); Youn and Jin (2021); Kim et al. (2021); Handarkho (2021); Kim and Kim (2021); Tsai et al. (2021); Hsieh and Lee (2021); Hoabin Ye et al. (2021); Jin et al. (2021); Yousaf (2022); Lo et al. (2022); AW et al. (2022); Chen et al. (2022); Wang and Hu (2022); Kim (2022); Lee and Lee (2022); Liao et al. (2022); Fazli-Salehi et al. (2022); Shen et al. (2022)

In online PSR studies, the interchangeable use of terms is also evident, as shown in Table 2.11. Out of 51 reviewed PSR studies, 11 papers use PSI and PSR interchangeably (e.g., Leite and Baptista, 2022), while a larger proportion (14 out of 85) differentiate between the two, recognising them as distinct constructs. This lack of clarity and consistency undermines the conceptual rigor, potentially leading to misinterpretations between the intended message by the researchers and the understanding by the readers (Peter, 1981; MacKenzie, 2003).

Although some scholars attempt to distinguish between PSI and PSR, their efforts are often confined to the context of their individual studies, aiming to justify the selection of either PSI or PSR based on the research context (e.g., Utz et al., 2021) or to provide conceptual clarity specific to their study's framework (e.g., Sokolova and Perez, 2021). Additionally, comparisons between PSI and PSR are sometimes made to provide some discussions regarding the interchangeability issue that exists in existing literature (Yuan and Lou, 2020).

Table 2.11 The use of the terms PSI and PSR in the online PSR studies

The use of the terms PSI and PSR in the online PSR studies	
Use PSI and PSR interchangeably	Tsiotsou (2016); Pressrove and Pardun (2016); Berkelaar (2017); Lee and Cho (2020); Hu et al, (2020); Lim et al. (2020); Quelhas-Brito et al. (2020); Agnihotri and Bhattacharya (2020); Yang and Ha (2021); Liao et al. (2022); Jacobson et al. (2022)
Identify PSI and PSR	Zafar et al. (2020); Reinikainen et al. (2020); Yuan and Lou (2020); Sokolova and Perez (2021); Utz et al. (2021); Farivar et al. (2021); Whang and Im (2021); Tsai et al. (2021); Zhong et al. (2021); Breves et al. (2021); Balaban et al. (2022); Sundermann and Munnukka (2022); Noor et al. (2022); Leite and Baptista (2022)
Use PSR	Richards and Calvert (2015); Yuan et al. (2016); Finsterwalder et al. (2017); Escalas and Bettman (2017); Chung and Cho (2017); Hwang and Zhang (2018); Lim and Kim (2018); Han and Yang (2018); de Bérail et al. (2019); Munnukka et al. (2019); Yuan et al. (2021); Tsiotsou (2015); Iannone et al. (2018); Feder (2020); Hwang et al. (2020); Breves et al. (2021); Reinikainen et al. (2021); Aw and Chuah (2021); Yuan et al. (2021); Yuan et al. (2021); Tsfati et al. (2022); Wahab et al. (2022); Farivar et al. (2022); Cheung et al. (2022); Burnasheva and Suh (2022)
Use PSR and parasocial identification	Chen et al. (2021)

2.7 Prerequisites of PSI and PSR in the online environment

The above analysis underscores the persistent confusion surrounding the definitions and the main domain characteristics of PSI and PSR, along with their interchangeable usage in the current literature. Addressing this issue is essential, as precise and clear construct definitions are crucial for theory development (MacKenzie, 2003) and can significantly impact the theoretical advancement process (Gilliam and Voss, 2013). To navigate these challenges, the subsequent discussion focuses on applying seven prerequisites in the offline environment to the online environment. The seven prerequisites for identifying online PSI and PSR are presented in Table 2.12.

2.7.1 Prerequisite 1: One of the parties participating in PSI/PSR

As discussed in the previous section, PSI and PSR necessitate the involvement of two entities: individuals and media characteristics. In the context of influencer marketing, for instance, the individual is represented by a social media user, while the media characteristic is embodied by a social media influencer.

Table 2.12 Prerequisites for distinguishing PSI and PSR in the online environment

Prerequisites for distinguishing between PSI and PSR in online environment		
	Online PSI	Online PSR
1. One of the parties participating in PSI/PSR	people who are exposed in the online environment, e.g., new media or technology product users (Kelton and Pennington, 2020)	individual (Burnasheva and Suh, 2022)
2. The other parties participating in PSI/PSR	real person, media characters, and anthropomorphic objects (Lee, 2018; Kim et al., 2020)	real person, media characters, and anthropomorphic objects (Han and Yang, 2018; Hwang et al., 2020)
3. The nature of PSI/PSR	one-way unequal interaction	An individual's connection (Farivar et al., 2022)
4. The main domain characteristics of PSI/PSR	perception of direct and reciprocal communication (Choi et al., 2019; Kelton and Pennington, 2020)	the connection (Wang and Hu, 2022)
5. The process of PSI/PSR (from viewer perspective)	triggered by mutual awareness, attention, and adjustment (Hartmann and Goldhoorn, 2011)	triggered by experiencing at least one-time parasocial interaction or a cross-situational, stable, and schematic cognitive pattern of images and interaction scripts that includes affective aspects (Bernhold and Metzger, 2020)
6. The time when PSI/PSR can occur	occurs during the exposure period (Yuksel and Labrecque, 2016; Kelton and Pennington, 2020)	occurs from the moment the relationship is established to the breakup
7. The platforms where PSI/PSR can occur	through new media (Tseng et al., 2022)	

An examination of the terminology used in existing literature on online PSI and PSR reveals a variety of terms employed to describe the individual involved in PSI and PSR. In online PSI studies, researchers have referred to the individual as "customer" (Lee and Lee, 2017) and "viewer" (Kim, 2022), indicating the diverse roles individuals assume in PSI contexts. Conversely, some studies have adopted broader terms such as "individuals" (Handarkho, 2021) not specifying the group of people in PSI. For online PSR studies, researchers have

used terms, such as "consumers" (Cheung et al., 2022) and "followers" (Farivar et al., 2022) to describe the other party in PSR.

The distinction between the individual's role in PSI and PSR is particularly important in the online environment. Kelton and Pennington (2020) argue that recognising the presence of the individual in the online environment is an essential step in identifying PSI and PSR. For PSI to occur, individuals must be engaged with the media, thereby facilitating interaction with the media entity (Chiu and Huang, 2015). The absence of online exposure prevents the possibility of experiencing PSI.

The advent of Web 1.0 and Web 2.0 has expanded the scope of PSI in online environments compared to offline environments. Traditional media interactions, such as eye contact or verbal exchanges, have been supplemented by digital platforms, enabling interactions with a wider array of entities (Men and Tsai, 2013). This technological evolution has broadened the opportunities for PSI through media with characteristics such as smart speakers (Lee and Cho, 2020) and virtual assistants (Noor et al., 2022).

In contrast, PSR remains consistent across online and offline contexts, with individuals as one party (Burnasheva and Suh, 2022). The formation of PSR does not necessitate media or technological engagement as is the case with PSI (Zafar et al., 2020). However, the chance to develop PSR varies among individuals and is influenced by factors such as personal motivations, psychological conditions, and personality traits (As and Chuah, 2021). For instance, individuals using social media for entertainment and relationship-building purposes are more inclined towards PSR (Yuan et al., 2016). Similarly, individuals with high social anxiety or a strong need to belong are more likely to form PSR (De Berail et al., 2019).

2.7.2 Prerequisite 2: The other parties participating in PSI/PSR

In the context of both offline and online environments, the second prerequisite for PSI and PSR remains consistent: they share the same other parties. The range of entities with which individuals can form PSI and PSR in the online environment is considerably more extensive than in traditional media contexts. Within traditional settings, the scope is primarily limited to media characters, such as television hosts (Bernhold and Metzger, 2020). Conversely, the online environment facilitates PSI and PSR with a wider array of entities, encompassing

media characters like influencers (Farivar et al., 2022) and technological products (Lee and Park, 2022).

The diversity of entities for PSI and PSR online mirrors the second prerequisite identified in offline contexts but on a broader scale, including real individuals, media characters, and anthropomorphic objects (Han and Yang, 2018; Lee and Park, 2022). Real individuals, such as celebrities, sports stars, and politicians (Escalas and Bettman, 2017; Ledbetter and Meisner, 2021), influencers with significant online followings (Lou and Yuan, 2019), members of online communities (Choi et al., 2019), serve as potential focal points for PSI and PSR. Notably, this extends to animal influencers as well (Jacobson et al., 2022).

Media characters continue to play a significant role as the other party in PSI and PSR in the online environment. With the advent of digital streaming platforms, such as Netflix, viewers have the opportunity to engage with series and programs in an on-demand manner (Nanda and Banerjee, 2020). This accessibility allows audiences to foster PSI and subsequently develop PSR with these media characters (Nanda and Banerjee, 2020).

Anthropomorphic objects have emerged as a novel category of entities involved in PSI and PSR, which refer to non-human objects endowed with human-like characteristics, (Noor et al., 2021). Websites represent the initial non-human objects identified by researchers as capable of eliciting PSI and PSR among users (Thorson and Rodgers, 2006). This offers a valuable opportunity for businesses, as it enables them to disseminate comprehensive information and enhance engagement with their target audience (Goldberg and Allen, 2008).

The evolution of social media and applications has further expanded the scope to include applications (Lee, 2018) and platforms themselves, such as Facebook (Chiu and Huang, 2015). The relationships formed with these platforms are influenced by users' motivations and dependency relations, promoting continued engagement with the technology (Lee, 2018). Companies and brands have become the other parties for the generation of PSI an PSR, as individuals anthropomorphise brands, attributing them with human characteristics, including gender and distinct brand personalities (Wang and Hu, 2021). Consumers often follow brands' official social media accounts to stay updated, mirroring the way they connect with friends (Ohlwein and Bruno, 2021). In response, businesses and organisations actively cultivate personas on social media, aiming to have informal, conversational, and enduring interaction with their audience, thereby facilitating the development of PSR with brands (Yuan et al., 2021).

Furthermore, advanced technological products have also become significant to the other parties in the formation of PSI and PSR. These products and services are designed with human-like interaction capabilities, such as smart speakers (Kim and Choudhury, 2021), augmented reality (AR) try-on features (Yuan et al., 2021), and intelligent personal assistants like Siri (Han and Yang, 2018) and Amazon Echo (Whang and Im, 2021). Individuals can establish and sustain PSR through repeated interactions with these anthropomorphised electronic devices, fostering a sense of relationship (Lee and Cho, 2020).

2.7.3 Prerequisite 3: The nature of PSI/PSR

The nature of PSI in digital contexts is the same as that of traditional media, characterised by an asymmetrical interaction between the entities involved. The online environment, however, enhances perceived interactivity, leading individuals to believe in two-way communication. For instance, engaging with an influencer's vlog through likes and comments may simulate a two-way interaction (Reinikainen et al., 2020). Yet, the lack of direct response from the influencer highlights the unequal nature of PSI. Moreover, the bridging functions in the online environments allow viewers to interact socially rather than PSI (Kassing and Sanderson, 2012).

Similarly, the nature of PSR lies in the connection between two entities, consistent with offline environments. Individuals are inclined to form and maintain relationships with entities, including real individuals, media characters, and anthropomorphised objects, who are perceived as appealing, trustworthy, and relatable (Sokolova and Perez, 2021). However, this relationship is predicated on the individual's wistfulness and imagination, given the unawareness and non-consentness of the other party. Thus, the relationship is fundamentally one-sided, rooted in illusion and imagination (Reinikainen et al., 2020).

2.7.4 Prerequisite 4: The main domain characteristics of PSI/PSR

The debates on the main domain characteristics of PSI and PSR transcend from traditional to digital environments, which remain unresolved. For example, scholars define PSI as "relationship" (Manchanda et al., 2022) or "interaction and relationship" (Kim and Kim, 2021).

This paper posits that the main domain characteristic of PSI is the "perception of direct and reciprocal communication" (Kelton and Pennington, 2020), which aligns with traditional media. The digital environments, enhanced by cutting-edge technology, foster a more realistic and immersive interaction, leading individuals to feel actively involved in mutual interactions with the other parties. Content creators in PSI often adopt a direct conversational style, as exemplified by the famous Chinese influencer Jiaqi Li, who engages viewers with direct appeals during live-streaming commerce, which makes viewers have high PSI. This perceived immediacy of interaction fosters a sense of mutual recognition (Hartmann and Goldhoorn, 2011). Moreover, the possibility of sending messages to celebrities, influencers, or brands via social media reinforces the illusion of "direct communication" (Lee and Jang, 2013).

However, despite the perceived two-way interaction, the nature of this interaction remains unreciprocated. Primarily, reciprocity implies an exchange of information, yet PSI often lacks real two-way communication. The communication is predominantly controlled by the other party, with selective or non-existent responses to viewer engagement (Stever and Lawson, 2013). Consequently, PSI should be considered a one-directional interaction rather than a reciprocal communication. Furthermore, interactions with virtual assistants may simulate a bidirectional exchange of information, but these are devoid of emotional reciprocity, being based on pre-programmed responses.

Consistent with traditional media, the main domain characteristic of PSR is the connection formed by individuals. Despite attempts by the other parties to cultivate relationships, the development and maintenance of PSR are unilateral, with the viewers fully aware of the connection while the other parties remain unknown. Thus, the relationship is essentially a figment of the audience's imagination (Reinikainen et al., 2020). Notably, the strength of PSR may be stronger online compared to offline, where diverse media and technological platforms bolster confidence in the relationship. The online environment also enhances the potential for companionship, with constant access via devices, such as mobile phones and computers, fostering habitual activity. Through sustained interaction and exposure, individuals may form deeper PSR (Farivar et al., 2022).

2.7.5 Prerequisite 5: The process of PSI/PSR

In line with the offline environment, PSI and PSR are distinct psychological phenomena, each with unique trigger mechanisms. PSI is triggered by a sense of mutual awareness,

attention, and adjustment when individuals interact with media personas (Hartmann and Goldhoorn, 2011). Conversely, the development of PSR is a relatively long process, necessitating prolonged exposure and experiencing multiple interactions with the media figures (Reinikainen et al., 2020). The formation of PSR begins with dedicating time to the other parties, leading to repeated encounters with them (Lim et al., 2020). Essentially, the establishment of PSR requires at least one time of PSI experience (Dibble et al., 2016). Moreover, PSR is characterised by a consistent and enduring cognitive pattern of perceptions, encompassing emotional elements, which further differentiates it from the more immediate and interactive nature of PSI (Lim et al., 2020; Dibble et al., 2016).

2.7.6 Prerequisite 6: The time when PSI/PSR can occur

The differentiation between PSI and PSR can be significantly informed by understanding the timing of their occurrence, an aspect often overlooked in studies. Concerning PSI, there are primarily three perspectives on its timing: during media exposure (Lee et al., 2021), in the absence of direct interactions (Kelton and Pennington, 2020), and through frequent interactions (Aw et al., 2022). This paper posits that PSI occurs during the exposure period, supporting the view of Lee et al. (2021).

In both online and offline settings, PSI necessitates the user's interaction within the media environment (Balaban et al., 2022), confined to the duration of media consumption (Lee et al., 2021). PSI is activated when users interact with the other party and perceive communication from them, fostering mutual awareness, attention, and adjustment (Hartmann and Goldhoorn, 2011). Once viewers stop media consumption, PSI also stops due to the absence of media stimulus. Hence, the notions that PSI can occur without direct interaction (Kelton and Pennington, 2020) or through frequent interactions (Aw et al., 2022) do not accurately capture the time when PSI can occur.

Regarding the timing of PSR occurrence, Balaban et al. (2022) suggest that PSR results from repeated media exposures and can extend beyond the immediate exposure period. This paper argues that the timing of PSR in the digital landscape aligns with that in offline environments, beginning with the relationship established and concluding with the ending of the relationship. In online environments, individuals are inclined to form connections with favoured entities and away from content they dislike. Consequently, users are more likely to

develop PSR with the other parties they find appealing and with whom they share similarities (Xiang et al., 2016; Lee and Watkins, 2016; Bernhold, 2019).

2.7.7 Prerequisite 7: The platforms where PSI/PSR can occur

In digital environments, PSI can transpire across a multitude of platforms, extending beyond the limitations of traditional media. Research has identified a range of online mediums that can trigger PSI, including websites (Kim and Kim, 2017), social media platforms (Gong and Li, 2017), e-commerce sites (Liao et al., 2022), mobile applications (Lee, 2018), and chatbots (Hsieh and Lee, 2021). Unlike the unidirectional communication characteristic of traditional media, the online environment offers a broader and more dynamic platform for interaction, facilitating more immediate and effective communication. This enhanced interactivity affords a level of personalisation in exchanges that closely resembles face-to-face communication (Zeng et al., 2009; Men and Tsai, 2015).

Moreover, the diverse functionalities of these platforms cater to a global audience, delivering both entertainment and information across various cultures and regions. Localised social media platforms further tailor the user experience by incorporating elements that resonate with specific cultural contexts (Men and Tsai, 2013).

Aligns with the offline prerequisite, the formation of PSR in online environments does not necessarily need the use of media or technological platforms. Once established, PSR tends to exhibit a degree of stability, persisting until the time when PSR ends (Tukachinsky and Stever, 2018), underscoring the enduring nature of PSR.

2.8 The difference between PSI and PSR in offline and online environments

PSI and PSR were originally conceptualised within the context of traditional media (Horton and Wohl, 1956), but subsequent research has validated their presence in digital environments (Noor et al., 2022). The transition from offline to online platforms has not only broadened the conceptual scope of PSI and PSR but also introduced variations in their conditions, reflecting the fundamental differences between traditional and digital media landscapes. This part aims to compare PSI and PSR across offline and online settings through a typological analysis, shedding light on the distinct conditions that facilitate these phenomena in each environment.

2.8.1 Frequency of potential PSI

The frequency of PSI in the online environment significantly surpasses that within traditional media contexts, primarily due to the unrestricted access and consumption afforded by online platforms. In contrast to the offline environment, where PSI primarily occurs through television with real and fictional characters (Rubin et al., 1985; Knoll et al., 2015), the digital environment removes the constraints of fixed locations and scheduled consumption. Traditional media consumption, often confined to specific settings like home viewing, is characterised by planned behaviour, limiting the opportunities for PSI to designated times and places (Rubin and Perse, 1987; Cummins and Cui, 2014).

Conversely, the online environment enables PSI across diverse platforms, such as social media and virtual assistants. This accessibility has led to the integration of media usage into daily routines, with the habitual use of mobile phones unconscious and repetitive interaction with media (Chiu and Huang, 2015). For instance, the act of following influencers and regularly checking their updates on social media platforms has become a common practice (Men and Tsai, 2013; Leite and Baptista, 2022), heightening the frequency of PSI opportunities online. Consequently, the pervasive nature of digital media consumption significantly increases the likelihood of experiencing PSI.

2.8.2 Speed

For PSI, the immediacy of the experience remains consistent across both online and offline environments. PSI represents an automatic, immediate mental response that media users experience upon exposure to a media environment (Hartmann and Goldhoorn, 2011). Consequently, individuals undergo PSI instantly and reflexively when they interact with the other party when perceive the feeling of having a conversational give-and-take during media exposure, ensuring that the speed at which PSI occurs is uniform across different media environments.

Regarding PSR, the formation process accelerates in digital environments compared to traditional environments. The development of PSR typically necessitates at least one time of PSI, followed by repeated interactions with the media figure (Lim et al., 2020). In traditional contexts, the sequential dissemination of media content means that users must adhere to predetermined schedules to interact with specific media personalities, leading to infrequent

opportunities for interaction (Rubin et al., 1985). For instance, an individual might develop PSR with a news host by consistently watching a scheduled broadcast. Conversely, online media facilitates more frequent and diverse interactions through various digital platforms (Burnasheva and Suh, 2022). This heightened frequency of interaction expedites the development of PSR, enabling users to establish relationships with media figures more swiftly in the digital environment than is possible with traditional media.

2.8.3 Convenience

The digital environment significantly enhances the ease with which individuals can have PSI and develop PSR compared to traditional media environments. The accessibility of digital media allows individuals to immerse themselves in a media environment via electronic devices at any moment, fostering PSI (Tsiotsou, 2015). This constant connectivity also facilitates more frequent interactions with media personas, thereby streamlining the process of developing and sustaining PSR (Bernhold and Metzger, 2020). Conversely, traditional media confines users to specific locations and schedules, primarily through stationary devices like TVs and radios (Rubin and Perse, 1987), limiting the opportunities for PSI and PSR.

Furthermore, the online environment offers customised content, enabling users to access up-to-date information effortlessly, such as browsing the latest social media posts, engaging in live streams, or interacting with smart speakers (Aw et al., 2021). This personalised approach not only increases the frequency of PSI occurrences but also aids in the maintenance of PSR. Additionally, the active search capabilities inherent to digital platforms empower users to seek out interactions with media figures at their convenience, moving beyond the passive consumption model typical of traditional media.

2.8.4 Time (continuity)

The 24-hour accessibility of the Internet significantly extends the duration of PSI compared to traditional media contexts. In traditional media environments, the episodic and scheduled broadcasting of content inherently limits the length of PSI, as engagement typically concludes with the end of a program (Rubin and Perse, 1987). Conversely, the digital environment, with its vast array of content, facilitates prolonged exposure to media, enabling extended periods of PSI. For instance, individuals can interact in lengthy live streaming

(Shen et al., 2022) or watch entire series online without the constraints of scheduled broadcasts.

However, the potential for extended PSI in the digital environment is not uniform. The rise of short-form content platforms like TikTok introduces PSI experiences of significantly shorter duration, sometimes lasting no more than 15 seconds (Ledbetter and Meisner, 2021). Additionally, various levels of attention among users can influence the duration of PSI, with reduced attention to media environments potentially reducing PSI opportunities (Lueck, 2012). Hence, the duration of PSI online can vary widely, offering both longer and shorter experiences relative to traditional media.

PSR in the online environment also tend to be more enduring. PSR, as a virtual connection between viewers and media figures, strengthens based on repeated interactions (Escalas and Bettman, 2017). The limited information channels and content availability in offline environments can hinder the continuous development and maintenance of PSR. In contrast, the digital environment offers an abundance of channels and a wealth of information, enabling individuals to engage frequently with media figures and actively seek out information.

2.8.5 Available ways of communication

Online environments significantly enhance the ways for PSI and PSR compared to traditional media. In offline contexts, interactions between media viewers and media characters are primarily one-way, with limited opportunities for viewers to respond to interactive cues, especially verbal ones, from media figures (Lee, 2013). For instance, in TV shopping programs, audience interaction with TV shopping hosts is typically confined to telephone communication, offering minimal interaction (Grant et al., 1991). Moreover, information about PSR entities is often disseminated unilaterally by media journalists, precluding reciprocal communication (Kim and Song, 2016).

Conversely, digital platforms break away from the one-directional communication model of traditional media, offering interactive opportunities for two-way communications (Men and Tsai, 2015; Shen et al., 2022). Viewers can actively interact with the other party through comments, likes, reposts, and private messaging (Gong and Li, 2017). Live streaming platforms facilitate real-time interactions between viewers and streamers, further enriching

the scope for interaction (Lim et al., 2020). Additionally, advancements in technology enable direct conversations with smart speakers and virtual assistants, providing an opportunity for interpersonal communication (Whang and Im, 2021).

It is crucial, however, to acknowledge that despite the multiplicity of interaction channels in online environments, the nature of communication often remains primarily one-sided. The control of communication typically lies with the media figures or platforms, with actual responses to user interactions being infrequent (Stever and Lawson, 2013; Kim and Song, 2016). Thus, while digital environments offer expanded platforms for interaction, the essence of these exchanges frequently retains a unilateral characteristic, mirroring traditional media's communication dynamics, albeit with greater interactivity.

2.8.6 Opportunities to become two-sided interaction/relationship

The digital environment offers the potential to transform the traditionally one-sided nature of PSI and PSR into more reciprocal interaction and relationship. Social media platforms, in particular are designed to facilitate two-way communication, enhancing perceived interactivity and enabling users to engage directly with the other party of PSI and PSR (Labrecque, 2014). This two-way interaction and communication can foster a sense of authenticity and similarity, reminiscent of real-life interactions (Thorson and Rodgers, 2006).

Moreover, automated responses from celebrities, influencers, and social commerce entities can simulate real-life conversations, further blurring the lines between parasocial and social interactions and relationships. Advanced technologies like AI-driven smart speakers offer real-time, interactive communications (Whang and Im, 2021). However, the perception of automated responses can decrease the expectation of real two-way communication (Labrecque, 2014).

Despite these advancements, the control of communication largely remains with the media figures, who may not engage with every message, thereby maintaining the one-way nature of PSI and PSR. Nonetheless, social media's bridging functions offer a sense of reciprocity; some celebrities and influencers may actively respond to their follower's messages, potentially transforming PSI into actual social interactions (Kassing and Sanderson, 2012).

Certain online contexts provide the opportunity for evolving PSI and PSR in a two-way manner. Live streaming, for example, allows live streamers to interact with viewers in real-time, often responding to comments and fostering personal connections, especially when incentivised by viewers' virtual gifts (Zimmer et al., 2018). Similarly, online communities facilitate direct interactions among members, making the transition from parasocial to social relationships more feasible (Choi et al., 2019). These dynamics underscore the internet's role in making interactions more accessible and conducive to forming social relationships (Sanz-Blas et al., 2017).

2.8.7 Variety of entities/actors that can become the other parties in PSI/PSR

The online environment significantly expands the diversity of entities with which individuals can develop PSI and PSR. Unlike the traditional media environment, where interactions were mainly with professional or fictional characters within limited media forms, the digital environment provides a broader scope of potential the other parties.

In online environment, individuals not only continue to engage with traditional media figures like TV hosts, celebrities, and fictional characters but also with a wider array of entities, including ordinary people and technology products (Masuda et al., 2022; Yuan et al., 2021). Celebrities transitioning from traditional to digital platforms, influencers who command significant online followings (Farivar et al., 2022).

Moreover, brands and digital assets have become the other parties of PSI and PSR. Consumers, for instance, have been found to develop PSR with brands, for example, Huawei (Liao et al., 2022). The advent of AI-based assistants such as chatbots and smart devices like Amazon Echo further diversifies the entities with which PSR can be established (Youn and Jin, 2021; Zhong et al., 2021). In addition, some advanced technology, such as AR try-on, has been confirmed that people can develop PSR (Yuan et al., 2021).

2.8.8 The volume of information about the character (richness)

The advent of new media in the online environment has significantly enhanced the capacity for media characters and companies to enrich the information they provide, fostering deeper connections and facilitating the maintenance of long-term relationships (Leite and Baptista, 2022). Brands, in particular, leverage the creation of distinct corporate personas to engage

the public, using social platforms to deliver information about brand values, new product launches, and promotional activities, thereby developing PSR with consumers (Men and Tsai, 2015).

Media characters benefit from the expansive reach and immediacy of social media to increase their self-disclosure, sharing personal and professional information that draws followers closer (Kim and Song, 2016; Leite and Baptista, 2022). The level of openness fosters an intimacy similar to that experienced with real-life friends, contrasting with the more scripted and rehearsed nature of traditional media appearances (Lee and Jang, 2011). Such direct insights into the lives of media characteristics enhance not only PSI but also PSR by offering a glimpse into the authenticity of these media figures (Kim and Song, 2016).

Moreover, professional self-disclosure, which includes sharing details about work or upcoming projects, can bolster followers' interest and support, reinforcing their interaction with the media character (Kim and Song, 2016). Both personal and professional self-disclosure on social media serve as effective marketing strategies for the other parties, enabling them to develop and maintain longer-term relationships with their followers.

2.8.9 Expression function

The mode of expression in the online environment tends to be more relaxed and authentic compared to traditional media. In conventional environments, even when hosts adopt a conversational style, the delivery of content is often formal, bound by the structured nature of traditional media formats. This formality necessitates the use of carefully scripted language and a professional demeanour by television hosts and other media figures (Horton and Wohl, 1956; Grant et al., 1991).

In contrast, the rise of social media has transformed how messages are conveyed by media personalities, allowing for a more casual and interactive communication style (Tsai and Men, 2017). This shift enables individuals, companies, and even technology products to employ more straightforward, interpersonal communication techniques. By adopting tones and styles that mimic everyday conversation, they can foster greater interaction and develop stronger relationships with their audience (Zeng et al., 2009).

2.8.10 Geographical barriers

The advent of online technologies and social media has transcended the geographical limitations traditionally associated with PSI and PSR. Digital platforms decrease physical barriers, facilitating connections across the globe and allowing individuals to interact with media figures from any location (Chiu and Huang, 2015; Yuan et al., 2021). Social networking sites (SNS) have become global communication hubs where celebrities and influencers, irrespective of their geographical origins, establish official accounts to interact with a worldwide audience (Men and Tsai, 2013).

This global accessibility enables media users to form PSI and PSR with entities across diverse geographical landscapes, effectively creating a boundary-less platform for interaction. Such widespread connectivity contrasts sharply with traditional media, which often prioritises local content and is constrained by regional broadcasting limitations. The online environment, therefore, not only broadens the scope for PSI and PSR but also fosters a more inclusive and diverse media environment, unbounded by geographical constraints.

2.8.11 Media Accessibility

The online media environment, with its broader accessibility features, opens up opportunities for a more inclusive range of individuals to experience PSI and PSR, transcending some of the limitations inherent in traditional media. The level of accessibility in traditional media often imposes constraints on the ability of individuals to have PSI and develop PSR, particularly affecting those with disabilities. Traditional media, such as television, primarily rely on verbal and visual cues to facilitate PSI (Cummins and Cui, 2014). However, for individuals with hearing or visual impairments, these modes of communication may not be fully accessible, hindering their ability to receive interactive signals from media characters.

In contrast, digital media offers enhanced accessibility features that can accommodate a wider range of needs, thereby increasing the potential for PSI and PSR. Online platforms provide functionalities such as videos with subtitles, catering to individuals with hearing difficulties by translating auditory information into text. While some traditional media, like news programs, might offer sign language interpretation, this is not a widespread practice across all content. Moreover, digital audio content, such as podcasts, can serve as an

alternative for individuals with visual impairments, allowing them to engage with content and form connections with media characters.

2.8.12 Opportunities for PSI/PSR

The analysis shows that the digital environment affords enhanced opportunities for the formation of PSI and PSR surpassing traditional media due to various facilitative factors inherent to online platforms. Despite this, both traditional and digital media serve as vital medium for the generation of PSI and PSR. While the scope for PSI and PSR is considerably broader online, it is improbable that digital platforms will entirely supplant traditional media (Boehmer, 2016). Boehmer (2016) highlights that, in the context of sports consumption, traditional media remains predominant, with platforms such as Twitter ranking lower in terms of usage. This enduring preference for traditional over digital media is partly due to ingrained habits and familiarity with traditional information sources. Furthermore, it is essential to acknowledge that cultural diversity may significantly influence individuals' media consumption preferences and information-seeking behaviours (Men and Tsai, 2011).

2.9 Research gap identification

The above analysis aims to bridge the first research gap by delineating PSI and PSR as fundamentally distinct concepts. Through a systematic literature review, this gap is addressed by introducing seven prerequisites that facilitate the clear identification of these two concepts. Furthermore, based on the insights gained from the systematic literature review, this chapter brings to light another two critical research gaps.

The second research gap identified concerns the conceptualisation of PSR. Despite the prior review proposing seven prerequisites that could differentiate PSI and PSR in both offline and online contexts, it becomes evident that the definition of PSR requires further refinement. The third research gap highlighted pertains to the existing perception of PSR as a static concept, thereby overlooking its dynamic nature (Tukachinsky and Stever, 2018). Current literature explores the antecedents and consequences of PSR, yet there exists a notable deficiency in understanding the PSR development process.

2.9.1 The conceptualisation of PSR

While there are disputes regarding the main domain characteristics of PSI, the existing literature has advanced the conceptualisation of PSI and has developed an appropriate measurement instrument to measure it. Hartmann and Goldhoorn (2011) systematically improve the definition of PSI, aligning it with the "interaction" view of PSI and precisely capturing the interactive nature of viewers' experiences when exposed to the media environment. According to Hartmann and Goldhoorn (2011), PSI is conceptualised as "the experience of TV viewers engaging in an immediate, personal, and reciprocal encounter with a TV performer". Their work significantly contributes to understanding PSI and capturing viewers' psychological processes during PSI experiences.

Although scholars generally agree that PSR describes the connection between individuals and another party, debates persist regarding the types of connections and strengths of the connections within PSR. For example, some scholars only point out that PSR is a "relationship" (e.g., Leite and Baptista, 2022), while other scholars argue that PSR is a deeper "bonding" (e.g., Yuan et al., 2021). Apart from the disagreement of the main domain characteristics, there are still some issues regarding the conceptualisation of PSR.

To analyse PSR definitions and the components deeply, this section evaluates the existing definitions of PSR in both offline and online environments. It is a practical and helpful procedure to critically review the existing definitions, which can provide insights into the critical components of the concept (Murrow and Hyman, 1994). The technique uses in this section is content analysis, which helps to identify the keywords and main components of PSR definitions in the existing literature (Bos and Tarnai, 1999). 12 PSR definitions in the offline environment and 51 PSR definitions in the online environment are reviewed and evaluated.

The researcher first read the definitions and became familiar with them definitions. Excel is used for the subsequent data analysis. The unit of content is words, including phrases and single words. One hundred-seven keywords are identified in total. After identifying the keywords, the researcher manually groups them to find the categories. PSR definitions provide valuable information to capture the main domain of PSR. 10 themes are identified, including "connection", "inequity", "psychological closeness", "dynamic", "develop", "viewers", "characters", "perception", "interpersonal", and "illusion".

Theme 1: One party

One party is an essential part of PSR, which is the subject of PSR. Researchers use a variety of terms to describe the one party, and there are 18 different words and terms identified in the previous definitions, such as "*one party*" (Lim and Kim, 2018) and "*one*" (Bernhold and Metzger, 2020). Among these, some of the studies limit one party of PSR as the specific group based on their research context, for example, "consumers" (Cheung et al., 2022), which are appropriate in their research. However, this practice limits the definition to the specific research group and research context, and a broader group of people is excluded from the scope of PSR. Most definitions discuss one party of PSR, but some definitions neglect to point out the one party in the definition (e.g., Sun and Wu, 2012; Gabriel et al., 2018). In other words, the existing definition of one party in PSR is inaccurate and has parsimonious issues (Gilliam and Voss, 2013; Murrow and Hyman, 1994). Therefore, this thesis argues that a good definition of PSR should include one party of PSR.

Theme 2: The other party

The other party is also a significant part of the definition of PSR, similar to one party. Twenty-six terms are identified in the reviewed definitions to refer to the other party, such as "media performer" (Lim et al., 2020) and "celebrities" (Hwang et al., 2020). These terms are limited since they are included only in the research context and neglect another group of objects. While this approach is appropriate, it fails to provide readers with a full picture of who the other party of PSR is. According to this review, people can develop PSR with a broader range of targets, including media characters, community members, organisations, social media platforms, websites, and technology products (Lee and Watkins, 2016; Choi et al., 2019; Labrecque, 2014; Kim and Kim, 2017; Lee and Cho, 2020). Therefore, in the existing PSR definition, the other party is inaccurate and has parsimonious issues (Gilliam and Voss, 2013; Murrow and Hyman, 1994). Therefore, this thesis proposes that a good definition of PSR should include the other party of PSR.

Theme 3: Connection

Connection is the main domain characteristic of PSR (Feder, 2020). Researchers who use the connection as PSR's main domain characteristic accurately capture that PSR is a connection between one party and the other party. However, researchers use inconstant

terminology to express this relationship, such as "r*elationship*" (Iannone et al., 2018) and "*bond*" (Yuan et al., 2021). The disagreement of the terminology reflects the conceptual theme of PSR, which is unclear (Gilliam and Voss, 2013). Also, using unambiguous terms, such as "*link*", does not align with the good definition standard (MacKenzie, 2003). Therefore, the above analysis suggests the need to explore the main domain of PSR further and contribute to the conceptualisation of PSR (Murrow and Hyman, 1994).

Theme 4: Perception

Perception is identified as a theme of PSR, which is another view of PSR's main domain characteristics. Scholars who hold this view believe that PSR is people's perception rather than that there is a connection between one party and the other party. For example, Stephen et al. (1996) define PSR as "*Feelings of friendship and intelligence on the viewer's part with remote" personalities such as soap opera rules, news anchors, and talk-show hosts*". When researchers hold the view that PSR is a perception, they usually use terms including "*feelings*", "*feel*", "*perception*" and "*a sense of*" as main domain characteristics. Scholars hold this view mainly because they define PSR from one party's perspective and focus on how one party perceives this connection.

Theme 5: Real relationship

Real relationship is identified as one of the themes, but it raises ambiguous issues because it could lead readers to fail to distinguish between PSR and real-life relationships. Some researchers use ambiguous terms such as "*interpersonal*" (Tsiotsou, 2016) to help readers understand this similar connection developed in the media environment, but this is not a good definition standard (Gilliam and Voss, 2013). Therefore, a good PSR definition should avoid these terms and clearly distinguish between PSR and real-life relationships (MacKenzie, 2003).

Theme 6: Inequality

Inequality as a theme clearly illustrates the unequal nature of PSR. In the reviewed PSR definitions, scholars use "*unilaterally*" (Yuan et al., 2016), "*one-sided*" (Lim et al., 2020) and "*asymmetrical*" (Utz et al., 2021) to express the unequal nature of PSR. Although PSR has two parties, one party and the other party, the connection is developed based on one

party's wish because the other party of PSR does not have consent to establish the relationship. In other words, people unilaterally develop this connection with the other party (Hwang and Zhang, 2018). Some scholars may argue that one of the aims of the other party is to establish a relationship with more people to gain more followers, and they know their fans and the relationship exists, so the connection is not one-sided. The other party knows the relationship exists with their fans, but it is a relationship with their fans as a group of people. Still, they do not know specific individuals in the relationship. Therefore, this connection is inequality, which means only one party know the exact other party, but the other party do not know who one party are (Lim et al., 2020; Feder, 2020). Therefore, this thesis proposes that a good PSR definition should imply the unequal nature of PSR.

Theme 7: Psychological closeness

Psychological closeness is identified as a theme. Based on the analysis, scholars use 15 different words in the existing PSR definition to define what kind of connection is, such as "*psychological*" (Bernhold, 2019) and "*intimate*" (Dias et al., 2017). Dynamic emerges from this theme since previous research used various words and terms to reflect this psychological connection's various strengths and status. For example, some researchers assert that this connection is imitated, so they use "*close*" and "*intimate*" (Dias et al., 2017). However, "*passive*" as a keyword is also used by Lim and Kim (2018) to reflect another strength and status of PSR. Therefore, this thesis argues that a good PSR definition should imply the dynamic nature of PSR.

Theme 8: Time

Time is another theme identified in the existing literature. Some of the research argues that the development of PSR needs time, and some scholars regard PSR as a long-term connection. According to the analysis, "*continuing*" (Bernhold, 2019), "*durable*" (Bernhold, 2019), "*over time*" (Whang and Im, 2021), "*long-lasting*" (Balaban et al., 2022) and "*long-term*" (Leite and Baptista, 2022) as keywords, and scholars use them to describe PSR as a long-term connection. Indeed, PSR development needs time and repeated exposure and interaction with another party (Lim et al., 2020). Therefore, this thesis argues that a good PSR definition should imply time.

Theme 9: Develop

"Develop" is a theme identified in defining PSR. Seven words are used in the PSR definition, such as "*develop*" (Lee and Cho, 2020) and "*form*" (Hu et al., 2020). Although these words do not imply a specific time, such as "long-term", they suggest PSR may need time or over time. Therefore, this thesis argues that a good PSR definition should imply time.

Theme 10: Illusion

Illusion as a theme represents one of the characteristics of PSR. In the reviewed PSR definition, five words are identified, such as "*imaginary*" (Han and Yang, 2018) and "*illusionary*" (Munnukka et al., 2019). The illusion shows that the connection between one party and the other party is not a real-life relationship imagined by one party. However, including illusion in the PSR definition is non-parsimonious since inequality also reflects the illusion characteristics of PSR (Murrow and Hyman, 1994).

In addition, the existing literature implies that PSR development needs time but neglects to include how the connection developed. Therefore, this thesis argues that a good PSR definition should also include how the connection developed.

Based on the review, the study proposes the working definition of PSR as **people unilaterally establishing dynamic connections with the other party (real people, media characters, and anthropomorphic objects) through media**. The new definition adds value to the existing PSR definitions in terms of clearly stating the dynamic nature of PSR. However, this working definition needs further validation. To focus on this issue is essential since the conceptualisation of a construct is the foundation of science (MacKenzie, 2003). Marketing researchers need to focus on the conceptualisation issues at the first stage of research, which will benefit the subsequent theory testing and development (Gilliam and Voss, 2013).

2.9.2 The need to explore the PSR development process

Reflecting on the analysis from the previous section, it is clear that PSR should be regarded as a dynamic and complex construct. Nevertheless, the current literature treats PSR as a static and monolithic construct, failing to capture its complex and dynamic nature (Tukachinsky

and Stever, 2018). Conceptually, some studies highlight the temporal aspect of PSR development, underscoring that it is not a static construct. For instance, the formation of PSR necessitates viewers' repeated encounters with a media figure (Lim et al., 2020; Feder, 2020). This indicates that the relationship development with a media figure is a gradual process, unfolding over time (Whang and Im, 2021). Additionally, a handful of studies provide empirical evidence supporting the temporal element of PSR development (Pressrove and Pardun, 2016). Farivar et al. (2022) find that the duration of Instagram users' followings of influencers positively impacts PSR, further corroborating the dynamic aspect of PSR development.

While the existing literature recognises the complexity of PSR, empirical research often regards it as a more simplistic construct, primarily focusing on examining its antecedents and consequences, as detailed in Appendices 6 and 7. A notable oversight in these studies is their assumption that the quality, strength, and stages of PSR are uniform (e.g., Leite and Baptista, 2022; Brevers et al., 2021). While such studies contribute significantly to the development of PSR-related theory, they do not adequately capture and reflect the dynamic and complex nature of PSR.

The limited exploration of the PSR development process has been underscored in certain studies. Joshi et al. (2023) stresses the importance for future research to delve into the PSR development process and strategies for maintaining relationships with consumers. Tukachinsky and Stever (2018) have theoretically conceptualised the PSR process from a media standpoint. Drawing on Knapp's model of relationship development, they outline four stages in the PSR development process: initiation, experimentation, intensification, and integration. This framework significantly aids in understanding the stages of PSR development. Nonetheless, further investigation is needed for three key reasons.

Firstly, the PSR model proposed by Tukachinsky and Stever (2018) is mainly rooted in the traditional media landscape (e.g., TV). This thesis shifts the focus towards influencer marketing, examining how consumers develop PSR with influencers within the social media context. Consequently, there is a necessity to modify the model to suit the influencer marketing context. The traditional media environment differs markedly from influencer marketing, particularly in terms of the interactive and personalised content prevalent on social media platforms. This leads to a shift in consumer behaviour, from passive consumption to active engagement. Moreover, as discussed in Section 2.8, the conditions underpinning PSI and PSR differ between offline and online environments, highlighted by

a greater potential for PSR development and a quicker pace of PSR formation in the digital environment. Thus, it is important to modify the PSR model that can capture consumers PSR development with social media influencers.

Secondly, while Tukachinsky and Stever (2018) identify key predictors in the PSR development process, they do not hypothesise about the relationships among these predictors, nor do they empirically test the model. Their work lays a theoretical foundation for understanding the PSR development process, serving as a valuable starting point that offers initial insights. However, the absence of empirical testing leaves the model's validity and reliability in question, and its practical applicability remains unclear.

Thirdly, recent advancements in PSR research suggest that the model proposed by Tukachinsky and Stever (2018) could be refined to achieve a more profound understanding of how individuals develop PSR and the outcomes of these relationships. Over 40 high-quality journal articles have contributed further insights into the antecedents and consequences of PSR. Notably, attributes such as trustworthiness (Yuan and Lou, 2020) and perceived value (Zhong et al., 2021) have been identified as significant predictors in the development of PSR. Similarly, positive outcomes like brand attitude (Balaban et al., 2022) and purchase intention (Wahab et al., 2022) have been linked to PSR in the context of social media. Given the evolving landscape of PSR research, there is a compelling need to refine the model in light of the latest literature.

2.10 Chapter Summary

This chapter reviews the existing literature on PSI and PSR, identifies the current arguments in PSI and PSR, and identifies the research gaps. By adopting the historic systematic literature review approach, this chapter reviews 172 PSI and PSR studies and finds that existing research fails to clarify the main domain characteristics of PSI and PSR in online and offline environments. Following an examination of existing definitions and the criteria for good definition as proposed by Murrow and Hyman (1994), this review formulates seven prerequisites for differentiating PSI and PSR in traditional settings, along with an additional seven prerequisites in the online environment.

This chapter also discusses the changes in PSI and PSR in online environments (compared to traditional environments) and the expansion of their conceptual scope. As technology

continues to evolve, the definition scope of PSI and PSR can be expected to expand. In addition, using a typology approach, potential conditions for PSI and PSR in the online environment are discussed.

Moreover, employing content analysis techniques, this chapter conducts a critical evaluation of the existing definitions of PSR, identifying ten key components. However, given the discovery of several issues in the conceptualisation of PSR and theoretical disputes concerning its main domain characteristics, the second research gap has been identified as the necessity to reconceptualise PSR. To confirm the key components of PSR and to gain an in-depth understanding of PSR, a qualitative study is designed using semi-structured interviews. The qualitative study design is presented in Chapter 4, and the research findings are discussed in Chapter 5. The refined conceptualisation of PSR is subsequently evaluated by experts, with the final PSR definition presented in Chapter 8.

Additionally, this chapter highlights the complex and dynamic nature of PSR and underscores the importance of investigating the PSR development process, delineating this as the third research gap. A qualitative study using semi-structured interviews has been designed to gain novelty and an in-depth understanding of the PSR development process, which is presented in Chapter 5. Based on existing literature, Chapter 6 involves theoretically constructing the PSR development process. Empirically validating the PSR development model is detailed in Chapters 7 and 9. To systematically address the above-mentioned two research gaps, the next chapter outlines the analytical approach adopted in this thesis, which includes six research phases, laying the philosophical foundation for the research design.

Chapter 3: Analytical approach

3.1 Chapter introduction

The last chapter critically reviewed offline and online PSI and PSR literature, identifying pivotal research gaps to be addressed in this thesis. This chapter presents the methodological decisions made in this thesis to address the research gaps and their underlying rationale. These choices are crafted to fill the research gaps scientifically underscored in Chapter 2, with a comprehensive discourse on the research process and its justifications. Notably, these methodological decisions are congruent with one another and align seamlessly with the research objectives.

The structure of this chapter is outlined as follows. Initially, it elaborates on post-positivism as the guiding research paradigm for this investigation, with a particular emphasis on two fundamental underpinnings: ontology and epistemology. Subsequently, it examines the analytical framework and the exploratory sequential mixed-methods design. The thesis comprises six phases, each with its detailed rationale and justification thoroughly discussed.

3.2 Research paradigm

The whole research is guided by the research paradigm, which is the foundation of research (Ugwu et al., 2021). A research paradigm embodies a set of assumptions, beliefs and principles guiding the researchers to formulate the research focus, the theory development process, and the research design (Marsden and Littler, 1996). Researchers need to consider these assumptions and develop coherent, consistent and well-thought-out assumptions to design credible and scientific research (Easterby-Smith et al., 2018). Two fundamental assumptions are critical for researchers to consider, the assumptions concerning the nature of reality (ontology) and the assumptions regarding the nature of knowledge (epistemology) (Gannon et al., 2022). Given the diverse backgrounds and experiences of researchers, they possess varying assumptions about the nature of reality and knowledge, which subsequently influence their choice of methodology and interpretation of data (Goulding, 1999). The author of this thesis has adopted the post-positivism stance towards these assumptions, guiding the entire research design.

Ontology pertains to how researchers perceive reality (Bryman and Bell, 2011). The researcher adopts a realist perspective, positing that reality exists but cannot be precisely captured (Zinkhan and Hirschheim, 1992). It is assumed that reality is a complex system that exists independently of human perception, rather than being contingent upon the existence of social actors (Hunt, 1993). This research is centred on influencer marketing, examining the PSR between consumers and influencers on social media, and posits that this phenomenon objectively exists. Social media facilitates communication between individuals. As long as social media continues to provide this capability, users will form relationships with influencers they favour and imitate the behaviours of these influencers. For example, people engage in influencer marketing activities (Leite and Baptista, 2022). On one hand, people watch influencers' posts, videos and live streaming on social media and like and comment on these contents to represent their interactions (Lim et al., 2020). These behaviours exist globally on social media in the real world. On the other hand, individuals also contemplate influencers and process information regarding them (Shen et al., 2022), and these cognitive processes also hold objective existence.

While reality indeed exists, capturing it in its entirety remains elusive for researchers. The diversity of researchers' backgrounds and cultures significantly influences their perceptions of reality (Zinkhan and Hirschheim, 1992). As a result, researchers can comprehend reality through developed models and interpret it according to their beliefs, knowledge, and existing theories. Nevertheless, creating law-like generalisations and uncovering the truth, as advocated by positivism, proves challenging (Zinkhan and Hirschheim, 1992). The critique of positivism has intensified as researchers acknowledge their limitations in fully and objectively explaining reality or acquiring definitive insights into complex social phenomena (Marsden and Littler, 1996; Hunt, 1993). These limitations stem from the constraints imposed by their language and culture, making it impossible to transcend these boundaries (Zinkhan and Hirschheim, 1992).

Consequently, achieving objective and absolute perspectives is unattainable. The subject of this thesis, influencer marketing, is a continuously evolving phenomenon shaped by the variety of social media platforms, the expanding spectrum of influencers, and the intricacies of influencer mechanisms, underscoring the complexity of influencer marketing. Additionally, the dynamic nature of PSR is influenced by individuals' emotional and psychological processes, their unique needs, and also by social and cultural factors. Hence, while researchers can strive to approach reality as closely as possible, attaining a precise understanding of the truth remains unfeasible (Hunt, 1993).

Epistemology concerns the nature of knowledge, perceived as "a way of looking at the world and making sense of it" (Al-Ababneh, 2020), constructed through a scientific process that builds upon new observations and is informed by existing theories (Bryman and Bell, 2011). Given the tentative nature of knowledge, theories are refined and expanded based on new observations and evidence. Researchers should employ scientific methods to test and develop theories, thereby enhancing our understanding and explanation of reality (Baker, 1995). The author of this thesis adopts the view of modified objectivity, advocating that researchers should aim to capture and measure phenomena objectively. Nevertheless, complete objectivity is unattainable due to potential biases. Despite this, researchers should aim to be objective and try to reduce bias as much as possible to strive to get as close as possible to the truth (Hunt, 1993).

The bias can stem from multiple sources. First, context significantly influences knowledge, especially since marketing is a context-driven discipline, making it challenging to formulate law-like generalisations without context (Gamble et al., 2011; Sheth and Sisodia, 1999). For the focal construct of this thesis, PSR, individuals can generate PSR with various parties through various media, such as people developing PSR with influencers (Sokolova and Perez, 2021), brands (Liao et al., 2022) and virtual assistants (Yuan et al., 2021). Therefore, it is impracticable to investigate PSR without a specific research context.

Secondly, the research method possesses inherent limitations that may introduce bias (Podsakoff et al., 2012). For instance, qualitative research approaches are limited in their generalisability, whereas quantitative research methods may lack depth in understanding and explanation (Hair et al., 2021). Furthermore, the selection of research method and the interpretation of data are influenced by the researcher's prior knowledge and experience, which can also contribute to bias.

To endeavour to approach reality more closely and attain objectivity, the researcher ought to contemplate the potential bias and its impact on the research process (Hunt, 1993). Reflecting on the biases discussed earlier, the focus of this thesis is specifically on PSR within the context of influencer marketing, aiming to comprehend how individuals establish PSR with influencers and the subsequent influence of PSR on consumer decision-making. Secondly, the researcher employs triangulation of methods to mitigate the limitations inherent in any single method (Oppermann, 2000). This approach helps to address the weaknesses of a specific method, thereby offering a more rounded perspective. A mixed-methods strategy is adopted, balancing the shortcomings of both qualitative and quantitative

research, and providing the flexibility needed to tackle more complex problems (Harrison and Reilly, 2011). Moreover, methodological decisions in this thesis are made with clear rationale, ensuring adherence to the scientific research process.

3.3 Overall research design

Guided by the assumptions discussed above, the overall research design incorporates triangulation of methods to overcome the limitations inherent in any single approach and aims to reduce bias associated with a singular research methodology (Oppermann, 2000). Method triangulation involves employing various methods and techniques to fill research gaps, thereby enhancing the credibility and validity of the research findings (Archibald, 2015). Concurrently, diverse approaches facilitate a more comprehensive and in-depth exploration of the research phenomenon (Gibson, 2016). In general, there are three types of method triangulation: multiple quantitative approaches, multiple qualitative approaches, and mixed-methods approaches (Harrison and Reilly, 2011). This study employs a mixed-methods approach.

The mixed methods design combines both quantitative and qualitative methods (Johnson et al., 2007). Although not traditionally common in marketing, an increasing number of scholars are adopting this approach (Harrison and Reilly, 2011). Aligned with post-positivism, which typically utilises quantitative methods to test theories and ensure objectivity, the researcher also aims for objectivity through quantitative methods. However, given the complexity of reality, employing qualitative methods is advantageous for providing new and in-depth insights and perspectives from consumers. This contributes to theory development and facilitates a closer approximation to reality (Healy and Perry, 2000). Moreover, both quantitative and qualitative approaches have their own sets of strengths and weaknesses; thus, their integration can mitigate the biases inherent in a single-method approach, compensate for individual methodological weaknesses, and yield more robust conclusions (Harrison and Reilly, 2011; Gunbayi, 2020; Dawadi et al., 2021). Another benefit of the mixed methods approach is its capacity to offer diverse viewpoints by combining the perspectives of existing literature and participants, thereby enriching and deepening the overall understanding of the PSR phenomenon (Bryman, 2006).

Some scholars may criticise the mixed methods approach for potentially producing conflicting findings, underscoring the importance of cross-validating results to confirm

research accuracy (Freshwater, 2007). Additionally, the mixed methods approach suffers from a lack of standardised procedures and guidelines for data analysis, leading some studies to neglect thorough analysis and presentation of either quantitative or qualitative findings (Harrison and Reilly, 2011). For instance, Harrison and Reilly (2011) observe that in marketing, many exploratory mixed-methods designs lack detailed development and data analysis for the qualitative component. To mitigate this potential issue, this thesis commits to conducting comprehensive analyses of both quantitative and qualitative data, ensuring that findings and discussions for each are thoroughly presented.

The researcher has chosen an exploratory sequential mixed methods design, wherein the sequence of employing quantitative and qualitative approaches significantly influences the research design and its emphasis, with different design types facilitating the achievement of various research objectives (Harrison and Reilly, 2011). This thesis is guided by three research objectives, each of which necessitates distinct consideration. The first research objective aims to identify the differences between PSI and PSR in online and offline contexts. Given that this objective primarily engages with the ongoing debates within the existing literature rather than aiming to uncover new aspects of reality, it necessitates an initial understanding of the current body of knowledge. This approach aligns with the post-positivist perspective, which holds that new knowledge can be informed by existing theories (Synder, 2019). Therefore, the attainment of the first research objective is best approached through a systematic literature review, thus excluding it from the exploratory sequential mixed-methods design's purview.

The exploratory sequential mixed methods design is deemed appropriate and optimal for addressing research objectives 2 and 3, given their nature. Research objective 2 is aimed at understanding the nature and conceptualisation of PSR and PSI, which serves as a necessary foundation for tackling research objective 3: exploring the process of PSR development. In essence, a comprehensive understanding of PSR is required before the process of its development can be effectively examined. The current literature's failure to fully encapsulate the dynamic aspects of PSR necessitates a qualitative approach for an in-depth exploration, which aids in conceptualising PSR and delineating its key components (Hair et al., 2021). Concurrently, the existing literature's inadequacy in explaining the PSR development process, coupled with the employment of a qualitative approach, sets the stage for subsequent quantitative research (Crick, 2020). Insights derived from qualitative studies enable quantitative research to test emerging theories and generalise findings from an objective standpoint (Crick, 2020). This ongoing back-and-forth process, employing both

inductive and deductive reasoning, significantly contributes to the development of theory (Zaltman et al., 1982).

Furthermore, the necessity to develop a new PSR measurement instrument for measuring online PSR further advocates for the application of the exploratory sequential mixed methods design. Current PSR scales fail to capture the main domain characteristic of PSR as proposed in this thesis, thereby underscoring the imperative to develop a new PSR measurement to enhance construct validity (MacKenzie, 2003; Peter, 1981). While qualitative research is not an essential step in the scale development process, it provides significant advantages by facilitating the generation of more relevant scale items and laying a solid foundation for the initial development of the scale item pool (Churchill, 1979). As indicated by Harrison and Reilly (2011), the exploratory sequential mixed methods design proves to be effective in the creation of new scales items, which is evident in the current literature. Notable instances of employing the exploratory sequential mixed methods design in developing new measurement tools include the online brand community engagement scale (Baldus et al., 2015) and the luxury brand attachment scale (Shimul et al., 2019).

The analytical framework delineated in Figure 3.1 outlines six distinct phases within this research, each contributing to the comprehensive exploration of parasocial phenomenon. Phase 1 initiates the study with a systematic literature review aimed at distinguishing between PSI and PSR and have an in-depth understanding of parasocial phenomenon. This phase sets the foundational understanding necessary for subsequent research stages. In Phase 2, a qualitative study is employed through semi-structured interviews. This approach is designed to deepen the conceptualisation of PSI and PSR, and PSR development process. Following this, Phase 3 involves conducting an expert survey. This phase is critical for evaluating the conceptualisation of PSR and the new developed PSR scale items, offering an opportunity to gather feedback from experts with specialised knowledge in the field.

Phase 4 progresses to quantitative research method, utilising online survey to validate the PSR scale. This phase is pivotal in ensuring the reliability and validity of the PSR measurement instrument. Similarly, Phase 5 continues with the use of an online survey, further refining and validating the PSR scale. This ongoing process is essential for refining and validating the PSR scale. Finally, Phase 6 conducts online consumer survey aimed at examining and confirming the PSR development process. This phase seeks to empirically test the theoretical model developed to understand how consumers develop PSR with social media influencers. The rationale for using these methods is discussed below.

3.3.1 Phase 1: Systematic literature review

A systematic literature review is an evidence-based research methodology that enables researchers to methodically identify and review relevant existing research to fulfil specific research objectives (Siddaway et al., 2019). Researchers undertake distinct steps to rigorously conduct the systematic literature review, aiming to yield comprehensive, transparent, and reproducible findings within a particular domain (Tranfield et al., 2013; Siddaway et al., 2019). Consequently, employing a systematic literature review as the initial phase of this study facilitates a profound comprehension of PSI and PSR and aids in distinguishing between these two concepts. This approach addresses ongoing debates in the extant literature (Hunt, 2011; Paul et al., 2020). Utilising this method can efficiently address Research Objective 1: to identify differences between PSI and PSR in the offline and online environments.

Hence, this systematic literature review targets Research Objective 1 to resolve the persistent definitional debate and propose prerequisites to identify PSI and PSR in both offline and online contexts. Specifically, this systematic literature review seeks to:

- propose prerequisites that can distinguish PSI and PSR in offline and online environments
- explore how PSI and PSR change from offline to online environments

Adopting a precise and reliable procedure in this systematic literature review helps to diminish bias, reduce subjectivity, and generate more feasible and beneficial solutions for implications (Snyder, 2019). Neglecting the scientific review process could adversely affect the credibility of research outcomes. Moreover, a systematic literature review entails evaluating the quality of the papers reviewed, which might lead to the exclusion of low-quality papers, possibly restricting insights (Xiao and Watson, 2017). Nonetheless, in this instance, the systematic literature review's goal is to enhance the understanding and conceptualisation of PSR, emphasising the importance of reviewing high-quality papers.

Figure 3.1 Analytical framework

	Phase 1: Systematic literature review	Phase 2: Semi-structured interview	Phase 3: Expert survey	Phase 4: Online Survey	Phase 5: Online Survey	Phase 6: Online Survey
Research objectives	Objective 1	Objective 2 and 3	Objective 2 and 3	Objective 3	Objective 3	Objective 3
Purpose	To address RQ1 and comprehensively understand PSI and PSR	To address RQ2 and RQ3, informing PSR conceptualisation and PSR development process	To address RQ2 and RQ3, evaluating PSR conceptualisation and increasing face validity	To address RQ3, developing PSR scale	To address RQ3, refining and validating PSR scale	To address RQ3, examining and confirming PSR development process
Study design	• Guided by protocol • Six inclusion and two exclusion criteria • Review 172 journal articles (Offline PSI:22 PSR:12 Online PSI:87 PSR: 51)	• Conduct 25 Zoom interviews with people who have established PSR with influencers • Use snowball sampling	• Email 35 experts in the PSR research area • Get 11 valid responses	• Main study: Use Prolific to recruit 220 qualified respondents. • Get 205 valid responses for data analysis	• Use Prolific to recruit 220 qualified respondents. • Get 206 valid responses for data analysis	• Pre-study identify qualified respondents. • Get 405 valid responses through Prolific
Data analysis	Systematic literature review	• Content analysis to address RQ2 • Thematic analysis to address RQ2 and RQ3	Item retention analysis	EFA and CFA	EFA, CFA, Path analysis and Test-retest	EFA, CFA, Path analysis, Mediation and Moderation analysis

Research objective 1: To identify differences between PSI and PSR in the offline and online environments
Research objective 2: To propose new definitions of PSR and PSI based on their unique prerequisites
Research objective 3: To explore the formation process of PSR and test its outcomes

RQ1: Should PSI and PSR be treated as distinct concepts?
RQ2: How does the complexity of the online environment further inform the conceptualisation of PSI and PSR?
RQ3: How des PSR with influencers on social media platforms develop, and what are the outcomes of PSR?

3.3.2 Phase 2: semi-structured interview

This study employs a qualitative approach, utilising semi-structured interviews to achieve Research Objective 2: To propose new definitions of PSR and PSI based on their unique prerequisites and Research Objective 3: To explore the formation process of PSR and test its outcomes. This approach enables a profound understanding of PSR from the consumer's viewpoint, significantly contributing to the conceptualisation of PSR. Furthermore, it facilitates a comprehensive exploration of how consumers develop PSR with influencers, thus aiding in investigating the formation process of PSR.

Among various qualitative methods, such as interviews and focus groups, interviews are deemed more suitable for this research. Although focus groups are recommended for initial item pool generation (Churchill, 1979), interviews provide deeper insight into individual attitudes and independent data, surpassing what is typically achieved in focus group settings (Stokes and Bergin, 2006). Focus groups, characterised by their group discussion format, can sometimes lead to ideas being influenced by the group's dominant views, a limitation acknowledged by some respondents (Stokes and Bergin, 2006). In contrast, interviews, being conversational in nature, offer a more focused environment where individuals can express their thoughts and feelings about their relationship with influencers more freely and comprehensively. Hence, the interview method is preferred for its ability to elicit more depth and personal responses.

The semi-structured interview, a widely utilised interview format, refers to the technique in which the interviewer asks questions and communicates with the interviewees based on a drafted question but also has the flexibility to ask probing questions to get in-depth responses (Bryman and Bell, 2011). During the interview process, the interviewee has a one-on-one conversation with the interviewer, which can limit their scope of thought and prevent them from being inspired by others (Stokes and Bergin, 2006; Hoover et al., 2018). To overcome this limitation, the interviewer needs to utilise professional techniques to create a detailed interview guide that can elicit deeper insights from the interviewee (Bryman and Bell, 2011).

Thus, semi-structured interviews are instrumental in achieving Research Objectives 2 and 3 by:

- obtain an in-depth understanding of PSR from the consumers' perspective.
- contribute to the conceptualisation of PSR.

- gain insights into the PSR development process.
- generate more relevant PSR scale items for PSR scale development.

3.3.3 Phase 3: expert survey

The expert survey is a crucial phase in the development of measurement tools, enhancing face validity and contributing to the refinement of PSR definitions (Hardesty and Bearden, 2004; Rossiter, 2002). It involves a process wherein experts assess proposed scale items, ensuring they accurately measure the construct in question (Hardesty and Bearden, 2004). Although face validity and content validity are often used interchangeably, face validity specifically refers "*the extent to which the "objects" (people) that were measured with the instrument agreed that the instrument was valid*" (Knapp, 2002, p.102). The significance of face validity lies in its fundamental role in ensuring construct validity (Churchill, 1979; Hardesty and Bearden, 2004).

The selection of experts is critical, as their familiarity with PSR-related research could significantly influence the survey's outcomes. Experts are likely to offer meaningful suggestions if they have a comprehensive understanding of PSR studies. Therefore, this study identifies academic experts based on their prior research experience and publication records in the field of PSR, guaranteeing their capacity to provide constructive feedback. Given that researchers may offer varying perspectives and recommendations, the complexity and depth of these suggestions necessitate careful consideration. Thus, it is important to establish a clear criterion for item retention prior to the analysis of data (Hardesty and Bearden, 2004).

In this research, the expert survey effectively addresses Research Objective 2: to propose new definitions of PSR and PSI based on their distinct prerequisites, and Research Objective 3: to explore the formation process of PSR and test its outcomes. The experts not only offer valuable recommendations for amending the PSR definition to meet Research Objective 2 but also contribute to the development of PSR measurement tools. This, in turn, facilitates the precise measurement of PSR and the empirical testing of the PSR model. Therefore, the objectives of the expert survey are to:

- increase face validity.
- improve the conceptualisation of PSR.

- reduce scale items of PSR scale.

3.3.4 Phase 4: online consumer survey

In Phase 4, online survey is used for testing new developed PSR scale validity and reliability. This is the first step in testing the newly developed PSR scale validity and reliability, which can effectively help to address Research Objective 3: to explore the formation process of PSR and test its outcomes.

Surveys are among the most prevalent methods in quantitative research, involving data collection through standardised questions (Bryman and Bell, 2011). They enable the documentation of people's attitudes and opinions via self-report (Saunders et al., 2023). Surveys can be administered in various formats, including online, email, and telephone. This study opts for the online survey due to its ability to reach participants without geographical limitations (Bryman and Bell, 2011). Online surveys offer considerable advantages over other formats, such as being cost-effective and straightforward to implement (Claycomb et al., 2000; Couper, 2011). Nonetheless, given that surveys rely on self-reporting, they are susceptible to potential biases. For instance, differences in respondents' response styles may introduce response bias (Baumgartner and Steenkamp, 2001). Additionally, some participants may not fully engage with online surveys, which could decrease the validity of the data collected (Kostyk et al., 2019). To mitigate these issues, this study employs various data cleaning techniques to identify and exclude inattentive responses, such as analysis of response times (Leys et al., 2013; Berger and Kiefer, 2021) and checks for extreme responses (Hyman and Sierra, 2012).

This study aims to address research objective 3 by developing an appropriate PSR scale. In particular, the consumer survey helps to:

- reduce PSR scale items (Gerbing and Anderson, 1988).
- explore PSR dimensions (Gerbing and Anderson, 1988).
- check the PSR scale's internal reliability and validity.

3.3.5 Phase 5: online consumer survey

Phase 5 of the thesis involves the use of an online survey method, serving as the subsequent step in evaluating the reliability and validity of the newly developed scale. Validation is an ongoing procedure that generally requires multiple phases of testing to ensure the accuracy and reliability of a measurement tool. During this phase, the PSR scale is subject to additional tests to assess its internal consistency, test-retest reliability, and construct validity. This step is imperative for the refinement of the PSR measure, guaranteeing its applicability for the subsequent study and future study use. Thus, the objective of this phase is to contribute to Research Objective 3: to explore the formation process of PSR and test its outcomes. The specific aim for this phase includes:

- to refine and valid the PSR scale based on Phase 4.

3.3.6 Phase 6: online consumer survey

In Phase 6, the study employs an online consumer survey as a strategic tool for testing the conceptual framework, with a specific focus on Research Objective 3: to explore the formation process of PSR and assess its outcomes. This phase is critical for empirically examining the PSR development process model, providing significant insights into the formation of PSR and the impact of PSR on consumers subsequent behaviour. The aims of this phase include:

- to empirically test PSR development process model.
- to confirm PSR dimensions.

3.4 Chapter Summary

This chapter focuses on the research philosophy and the overarching research design. Initially, it introduces the guiding post-positivist view of the entire research design. From an ontological standpoint, the researcher embraces a realist perspective, positing that reality exists, albeit its precise capture remains elusive (Zinkhan and Hirschheim, 1992). Epistemologically, the thesis author advocates for a stance of modified objectivity, arguing that researchers should endeavour to capture and measure phenomena objectively. Yet, it is acknowledged that absolute objectivity is unattainable due to inherent biases. Nonetheless,

researchers are urged to strive for objectivity and minimise bias to approximate the truth as closely as possible (Hunt, 1993).

Moreover, this chapter outlines the comprehensive research design, informed by an exploratory sequential mixed methods approach, prioritising qualitative research followed by quantitative research. The initial phase involves systematic literature review to thoroughly grasp the concepts of PSI and PSR, detailed in Chapter 2. The second phase consists of semi-structured interviews to gain deeper insights into PSR and to create an initial pool of items for the PSR scale development. The intricate design of these semi-structured interviews is discussed in Chapter 4. The third phase utilises an expert survey to collect feedback on the face validity of PSR scales and to refine the definition of PSR. Subsequently, phases four and five encompass two online consumer surveys aimed at assessing the reliability and validity of the newly developed PSR scale. Finally, phase six involves an online consumer survey to empirically test the conceptual framework associated with the PSR development process. The meticulous quantitative research design is elaborated in Chapter 7. The next chapter will elaborate on the detailed design of the qualitative phase (Phase 2).

Chapter 4: Qualitative methodology for exploring PSR

4.1 Chapter introduction

The previous chapter introduced the overall exploratory sequential mixed-methods design, underpinned by post-positivism. This chapter concentrates on the qualitative research design, specifically employing semi-structured interviews as the approach to address the second research objective: proposing new definitions of PSR and PSI based on their distinct prerequisites, and the third research objective: exploring the formation process of PSR development and testing its outcomes. The selection of semi-structured interviews with consumers who have cultivated long-term relationships with influencers allows for:

- Obtain an in-depth understanding of PSR from the consumers' perspective.
- Contribute to the conceptualisation of PSR.
- Gain insights into the PSR development process.
- Generate more relevant PSR scale items for PSR scale development.

The structure of this chapter is outlined as follows. Firstly, this chapter introduces the design of the interview guide and the sampling approach. Subsequently, it provides a detailed description of the data collection process, the characteristics of the interviewees, and the techniques employed for data analysis. Additionally, this chapter addresses potential biases and discusses measures undertaken to enhance the rigour of qualitative research.

4.2 Interview guide

An interview guide consists of a pre-prepared list of questions that are posed during an interview (Bryman and Bell, 2011). Interview guides can take various forms, such as visual prompts; however, this study utilises a detailed list of questions to enhance the dependability of the research (Bryman and Bell, 2011). In order to create an interview guide that is both clear and logically structured, this study follows the structure proposed by Kallio et al. (2016). The interview guide is divided into five sections, detailed in Appendix 8.

The first section of the interview guide is an introduction outlining essential information to be communicated to the interviewees. This includes reminders of the interview's research topic and the ethical considerations involved. Particularly, it emphasises the importance of

seeking the interviewee's consent to record the conversation. Recording is crucial for ensuring transcription accuracy and for generating objective data for later analysis (Saunders et al., 2023). This introductory part of the guide is designed to put interviewees at ease and boost their confidence, encouraging them to share their experiences and thoughts openly (Magnusson and Marecek, 2015).

The second part of the interview guide consists of warm-up questions designed to help interviewees become comfortable with the interview context and the topic of influencer marketing, thus facilitating engagement in the subsequent discussion (Arsel, 2017). This study's warm-up questions are centred around the interviewees' use of social media and their general online behaviour. For instance, the question, "*Can you tell me about the video-based social media platforms you generally use*?" prompts respondents to reflect on their everyday social media activities, easing them into the topic of influencer marketing.

The third section delves into the interviewees' PSR with their favourite influencers on social media. Initially, the interviewer encourages the interviewees to think of one or two favourite influencers they follow, focusing their attention solely on these individuals for the subsequent questions regarding their relationships with influencers. The questions are formulated to gain insights into the interviewees' general perceptions of and interactions with these influencers, including interactions beyond the online environment.

The fourth section is aimed at uncovering how interviewees establish connections with influencers. It begins by inquiring about the first time the interviewees noticed the influencer and proceeds to investigate the evolution of their relationship. This part also seeks to understand the influencers' impact on the interviewees, including any influence-driven purchasing behaviours.

The fifth and final section of the interview guide focuses on the interviewees' perceptions of their relationships with influencers, asking, for example, "*In your own words, how would you describe your relationship with this influencer?*" This line of questioning is intended to shed light on the dynamic nature of PSR. The interview concludes by requesting demographic information, with the interviewees' consent, and expressing gratitude for their participation (Magnusson and Marecek, 2015).

The question design within the interview employs several techniques to explore the interviewees' experiences with their favourite influencers effectively. The core of the

interview utilises open-ended questions, to delve into the participants' experiences (Magnusson and Marecek, 2015; Saunders et al., 2023). Open-ended questions are chosen for their ability to allow respondents the flexibility to express their thoughts and opinions in their own words, enabling researchers to obtain developmental and nuanced answers (Saunders et al., 2023). Probing questions are strategically prepared to extract rich and in-depth insights from the interviewees, based on the responses they provide (Bryman and Bell, 2011; Robinson, 2023).

To minimise bias and enhance the reliability of the collected data, the researcher carefully ensures that none of the questions are leading or loaded. Avoiding such questions is crucial as they could potentially influence the interviewees' responses, hindering the capture of their genuine feelings and perceptions (Granot et al., 2012; Cairns-Lee et al., 2021). This attention to question formulation aids in reducing bias and increasing the reliability of the findings (Cairns-Lee et al., 2021). Furthermore, the structuring of interview questions follows a progression from general to specific. This ordering is designed to initially encourage broader responses, gradually focusing on more detailed aspects of the interviewees' experiences (Brinkmann, 2022).

In addition, the interview questions are crafted to encourage interviewees to reconstruct their experiences rather than merely recall them. This approach aims to circumvent potential memory biases, allowing for a more accurate and detailed recounting of experiences (Granot et al., 2012). Through these meticulous question design techniques, the study aims to achieve a thorough and insightful exploration of the participants' interactions with their favourite influencers.

4.3 Sampling approach

The target population for this semi-structured interview should meet three criteria: being aged 18 years and over, being users of online and video-based social media, and having already established long-term relationships with influencers. Given that this study seeks to gain a deep understanding of PSR and how consumers develop PSR with influencers, it is essential to interview participants who are active on social media. Additionally, participants must have already established PSR with influencers to provide insights into their perceptions, feelings, and evaluations of their relationships with these influencers. Consumers with experience can offer more in-depth insights regarding the research topic (Churchill, 1979).

The existing literature supports selecting participants who have already developed a PSR with another party. For instance, it may require participants to identify their favourite influencers or celebrities (Lim et al., 2020). Accordingly, this study verifies the names and brief details of participants' favourite influencers and the duration of their acquaintance with these influencers.

Purposive sampling represents an optimal approach for identifying interviewees who meet the above criteria. As a form of non-probability sampling, purposive sampling necessitates that the researcher selects participants based on specific characteristics and criteria (Saunders et al., 2023). Since the objective of this study is to explore the PSR between consumers and social media influencers in depth, choosing participants through purposive sampling is crucial for selecting qualified participants. This method enables researchers to gain profound insights into PSR and the development of such relationships by consumers with social media influencers (Hair et al., 2021).

Regarding participant recruitment, the snowball sampling technique was employed (Robinson, 2013). Snowball sampling, a non-probability sampling technique, involves researchers starting with a few qualified participants and then expanding their sample through recommendations (Bryman and Bell, 2011). This technique proves efficient when the target participants are challenging to identify within the population (Hair et al., 2021). In this study, identifying participants who are long-term social media users and have followed an influencer for a long period was particularly challenging. Therefore, the research began with finding qualified participants known to the researcher and then expanded the participant group through recommendations.

One major advantage of snowball sampling is its time and cost efficiency, as all information about potential participants comes directly from the participants themselves, making it suitable for this semi-structured interview (Noy, 2008; Hair et al., 2021). Although snowball sampling may be criticised for its lack of representativeness, such as producing a homogeneous sample, this study aims to delve deeper into understanding PSR rather than to generalise the findings (Easterby-Smith et al., 2021). Furthermore, to minimise bias, the researcher sought participants from diverse backgrounds who followed influencers in various fields (Robinson, 2013).

This study aims to gather at least 20 respondents for the sample. Given that the sampling frame comprises individuals who have established long-term relationships with influencers,

regarded as a homogeneous population, a minimum sample size of ten is considered appropriate for such populations (Francis et al., 2010). Adopting the viewpoint of Marshall et al. (2013), to ensure research rigour and gather sufficient information from participants, a sample size of 20 to 30 respondents is deemed suitable. Moreover, this interview focuses on collecting in-depth information on how consumers evaluate their relationships with influencers, obviating the need for a larger sample size (Boddy, 2016). Additionally, this study employs data saturation to determine the adequacy of the sample size. If data analysis yields no new ideas, it indicates that the current sample size is sufficient and there is no need for further data collection (Guest et al., 2006).

4.4 Interview modality

The semi-structured interviews were conducted virtually using Zoom. Zoom is a professional collaboration platform that offers real-time video conferencing capabilities and has become widely adopted for interviews, particularly in the aftermath of COVID-19 (Oliffe et al., 2021). It is recognised as an easy-to-use tool for efficient data management during interviews (Archibald et al., 2019). Conducting interviews via Zoom from the comfort of their own homes likely makes candidates feel more at ease and more inclined to speak openly, thereby yielding richer data (Oliffe et al., 2021). An additional clear benefit of this method is its cost-effectiveness (Maulana, 2022). The flexibility in scheduling afforded by Zoom allows both interviewers and interviewees to choose convenient dates and times for the interviews, thus saving on potential expenses such as transportation and accommodation (Archibald et al., 2019). Furthermore, Zoom interviews are not constrained by geographical boundaries, enabling the researcher to engage qualified participants globally, which helps in reducing sampling bias.

Despite some scholars pointing out the limitations of online qualitative research, including a perceived lack of interaction and the inability to read body language effectively (Bruggen and Willems, 2009), current technologies have made it possible to conduct online "face-to-face" interviews. This study employed Zoom to facilitate interviews, enabling real-time verbal and non-verbal communication, as well as written discussions, through video (Zoom, 2023). Another potential challenge of online interviews is the dependency on the quality of the internet connection. Poor internet connectivity can adversely impact the quality of the interview; therefore, the interviewer ensures a stable and high-quality internet connection before commencing the interview.

4.5 Data collection procedure

This study follows the ethical guidelines, having first received ethical approval from the College Research Ethics Committee before starting data collection (see Appendices 9 and 10). Before the formal semi-structured interviews commenced, the researcher undertook pilot tests with three qualified participants. These preliminary sessions aimed to validate the clarity and comprehensibility of the interview questions, assess the length of the interviews, and refine the data analysis process (Majid et al., 2017). Such pilot studies are invaluable for novice researchers, providing an opportunity to build confidence. By examining the procedures and outcomes of these pilot tests, the researcher can identify and rectify any weaknesses, thereby enhancing the robustness of the study (Malmqvist et al., 2019). Following these preparatory steps, the researcher proceeded with the formal semi-structured interviews.

The data collection for the semi-structured interviews was in Glasgow, UK, employing Zoom as the medium of communication. This phase spanned three months, from November 2022 to January 2023. Utilising a snowball sampling technique for participant recruitment, the initial point of contact was a group of acquaintances (Robinson, 2013). From this starting point, six respondents met the criteria and agreed to participate. These initial participants then recommended an additional nineteen respondents. Formal invitations to participate were extended via email (Sappleton and Lourenço, 2015). Upon confirming the eligibility and willingness of these prospective respondents, the researcher forwarded the Participant Information Sheet (Appendix 9) and Consent Form (Appendix 10) to them, subsequently arranging the interviews. Ensuring ethical considerations, the interviews were conducted only after receiving signed consent forms from the participants. In total, twenty-five interviews were carried out via Zoom, with the discussions transcribed for subsequent data analysis.

4.6 Characteristics of Interviewees

The profile of the 25 interviewees is presented in Appendix 11. Regarding the gender distribution, there are more females (n=16) than males (n=9). Initially, the researcher approached potential male and female interviewees. However, only a few male potential participants had followed influencers for a long time. In other words, it appears that females are more inclined to establish and maintain long-term relationships with influencers, and

PSR are more commonly associated with female users than male users. This finding aligns with previous research indicating a significant difference in the way male and female viewers interact and build relationships, emphasising that female viewers are more likely to engage in PSR with influencers than male viewers (Sokolova and Perez, 2021).

The age range of the interviewees spans from 24 to 45, with a mean age of 29. This is consistent with the global age distribution of social media users, where users aged 20-29 constitute the largest group at 32.2%, followed by those aged 30-39 at 22.2% (Newberry, 2023). The occupations of the interviewees vary, including students (40%), those working part-time (13.33%), and full-time employees (33.33%). The amount of time interviewees spends on social media ranges from 45 minutes to five hours. They utilise a variety of social media platforms, such as YouTube, TikTok and Instagram. The duration of the interviews ranged from 15 to 45 minutes, with an average of 32 minutes. The influencers followed by the interviewees span a broad array of fields, such as lifestyle (e.g., Xenia Adonts), beauty and makeup (e.g., Lisa Eldridge), fitness (e.g., Greg Doucette) and entertainment (e.g., Sam Chui).

4.7 Data analysis process

This study utilised the Voice Memos application to record conversations, with the consent of the interviewees. The audio files were securely stored for transcription purposes. For transcription, this study employed Otter.ai, which offers a professional automatic transcription service capable of converting audio into editable text (Otter, 2023). Upon completion of the transcription process, the audio files were deleted to maintain confidentiality. NVivo software was utilised for the qualitative data analysis, serving as a professional tool for coding and analysing qualitative data (Woods et al., 2016).

The research incorporates two methods for data analysis: content analysis and thematic analysis (Bryman and Bell, 2011). Content analysis was conducted following a deductive approach, guided by the concept of PSR (Mayring, 2014). This method aids in gaining a comprehensive understanding of PSR and its conceptualisation (Razzaq et al., 2023). Content analysis is selected for its objective, systematic, and quantitative analysis of content, facilitating the identification of keywords and their frequency counts (Kassarjian, 1977; Bos and Tarnai, 1999).

Given the concept-driven nature of content analysis in this study (focusing on PSR), the researcher ensured familiarity with the definition of PSR through extensive literature reviews. This preparation allowed for systematic coding of keywords related to PSR while avoiding confusion with other constructs. Objectivity was maintained by considering words, including phrases and single words reflecting PSR, as the units of content.

Thematic analysis was employed as an additional method aligned with qualitative data analysis principles. This approach provides flexibility in data analysis and effectively identifies patterns and themes (Braun and Clarke, 2020), including both explicit and implicit ideas (Braun and Clarke, 2006). The study conducted two thematic analyses to achieve its objectives: the first aimed at deepening the understanding of PSR and generating relevant PSR scale items, while the second focused on exploring the PSR development process.

Following the guidelines by Braun and Clarke (2006), the analysis process involved four steps: transcription of data, thorough data familiarisation, inductive coding for insights into PSR through NVivo, and the transfer of initial codes to Excel for sub-theme and theme categorisation (Braun and Clarke, 2022). The identification of themes was theoretically grounded, with a continuous review of literature to ensure relevance and coherence. Some codes were eliminated due to redundancy or irrelevance, ensuring that the interpretation process was iterative, aiming to identify the most suitable themes. Finally, each theme was defined, and comparisons were drawn with earlier analyses of interview content and PSR definitions (Nowell et al., 2017).

4.8 Possible bias

To enhance the rigour and reduce potential bias in this study, peer debriefing sessions with supervisors were integrated. Conducted regularly, these sessions enabled a critical review of the research design, the development of interview guides, the conduct of the interview process, and the techniques used in data collection and analysis. This iterative consultative approach played a crucial role in refining the study's methods and interpretations, thereby safeguarding the integrity and credibility of the research findings and minimising bias.

Reflecting on and minimising bias is crucial for approximating reality more closely (Hunt, 1993). Consequently, the researcher identifies several biases that could impact the study's rigour, as detailed in Table 4.1. Despite previous discussions on enhancing rigour, a

comprehensive summary of potential biases and efforts to mitigate them is beneficial. In the context of this semi-structured interview study, biases may arise from five areas: interviewer bias, question bias, interviewee bias, sampling bias, and data analysis bias.

Firstly, interviewer bias is a significant concern. The interviewer plays a pivotal role in organising and conducting interviews (Saunders et al., 2023). Essential skills for effective interviewing include procedural, interpersonal, and reflexive capabilities (Hoover et al., 2018). Inappropriate or unprofessional conduct by the interviewer can adversely affect the interview process. To reduce this bias, the researcher follows Hoover et al.'s (2018) recommendation for training, systematically preparing through relevant courses to conduct interviews, design questions, and analyse qualitative data professionally.

Question bias can also affect outcomes. As interviews are fundamentally communicative processes, the construction and phrasing of questions can influence interviewees' responses. Non-scientific question types, such as leading and loaded questions, may not accurately capture interviewees' true feelings, introducing bias (Granot et al., 2012). To mitigate this, the study meticulously develops an interview guide devoid of leading and loading questions and employs scientific question design principles, such as using open-ended questions and a progression from general to specific queries (Saunders et al., 2023; Brinkmann, 2022). A pilot test was also conducted to ensure question comprehensibility before the formal study.

Interviewee bias represents another potential source of bias. The research aims for interviewees to provide accurate and detailed accounts of their experiences and feelings. However, factors such as negative emotions or discomfort can impact their willingness to share (Oliffe et al., 2021). Ensuring a comfortable and familiar interview setting can enhance the accuracy of the data provided (Oliffe et al., 2021). Therefore, this study implements several strategies to foster a positive environment for interviewees, including informed consent procedures and the use of comfortable online Zoom interviews. Moreover, to counter memory-related limitations, interview questions are crafted to facilitate the reconstruction of experiences rather than direct recall (Granot et al., 2012).

Sampling bias is another concern. Inadequate participant qualification can introduce bias. This study employs a purposive sampling strategy, targeting participants who meet three

Table 4.1 Semi-structured interview justification

Semi-structured interview justification				
Timeline	Objective	Rationale	Possible bias	Efforts to reduce bias
November 2022 - February 2023	To address research objective 2: To propose a new definition of PSR (and PSI) based on their unique prerequisites. To address research objective 3: To explore the formation process of PSR development and test its outcome.	1. Obtain an in-depth understanding of PSR from the consumers' perspective. 2. Contribute to the conceptualisation of PSR. 3. Gain insights into the PSR development process. 4. Generate more relevant PSR scale items for PSR scale development.	• Interviewer bias: Inappropriate or unprofessional behaviour and manner. • Question bias: Includes leading, unclear, or lengthy questions. • Interviewee bias: social desirability bias, emotional states, and discomfort. • Sampling bias: Not qualified or non-representative participant selection. • Data analysis bias	• Interviewer training: Systematic qualitative research training, unbiased question design and data analysis techniques. • Interview guide: Detailed interview guide with clear questions. • Pilot testing: Practice the interview with three participants to check questions clarity and data analysis. • Informed consent: Provide participant information sheets and collect signed consent forms. • Purposive and snowball sampling: Ensure geographic diversity of interviewees. • Transparency: Record all processes by using professional transcription and data analysis tools. • Multiple data analysis approach: Employ both deductive content analysis and inductive thematic analysis.

specific criteria outlined in the research design. This approach ensures only qualified individuals are interviewed.

However, a homogeneous sample may limit the generalisability of findings (Easterby-Smith et al., 2021). To address this, the study aims to include participants from diverse backgrounds and those following various influencer fields to minimise bias. Additionally, to counteract potential biases from small sample sizes, the study adheres to scientific sampling size guidelines, aiming for 20-30 participants and considering data saturation as a criterion for sample adequacy (Marshall et al., 2013; Guest et al., 2006).

Finally, the data analysis process itself can introduce bias. To counter this, the study utilises both content analysis and thematic analysis as data analysis techniques, thereby aiming to reduce bias (Archibald, 2015). Pre-defining data analysis techniques and adhering to scientific guidelines, such as those proposed by Braun and Clarke (2006) for thematic analysis, further ensure the reduction of bias.

4.9 Chapter Summary

This chapter discusses the methodology of Phase 2 of the thesis, specifically the semi-structured interview, effectively addressing research objectives 2 and 3. It focuses on the qualitative research design, explaining and justifying the use of semi-structured interviews. Initially, the chapter introduces the design of the interview guide and the techniques employed to develop questions. Subsequently, the purposive and snowball sampling approaches are examined. Utilising these two sampling methods, a total of 25 interviewees were recruited for this study. The chapter then details the online interview processes and the profiles of the 25 interviewees. Furthermore, it discusses the data analysis process, particularly the content analysis and thematic analysis approaches. Lastly, the chapter summarises this study's potential biases and the efforts made to mitigate them. The following chapter will present the findings from the semi-structured interviews, including the results of content analysis and thematic analysis to understand the PSR, and the process by which consumers establish PSR with their favourite influencers. The evaluation of a new PSR definition and the development of a PSR measurement instrument in the online environment are presented in Chapter 8.

Chapter 5: Qualitative findings on consumer insights into PSR

5.1 Chapter introduction

The previous chapter delineated the design of the semi-structured interviews. This chapter is dedicated to presenting the findings from interviews with 25 participants, exploring their perceptions of the relationships they have developed with their favourite influencers, alongside the processes they have developed with them. These qualitative study findings are pivotal for an in-depth understanding of PSR and contribute significantly to the conceptualisation of PSR. This qualitative aspect of the findings aids in investigating the development process of PSR and in formulating the conceptual framework presented in Chapter 6.

The structure of this chapter is organised as follows. Initially, it presents the findings related to consumers' perceptions of PSR, utilising content and thematic analysis. Subsequently, criteria for a good definition of PSR are proposed. Then, through thematic analysis, the four stages of the PSR development process are examined, along with the critical factors influencing each stage, including exposure initiation, experimentation, intensification, and integration. Finally, the chapter concludes with a discussion of the implications of the qualitative research findings.

5.2 Consumer's perception of PSR

This study garnered extensive data on consumer perceptions of PSR through interviews with 25 participants who have established PSR with social media influencers. The interviews were conducted with the interviewees' consent and recorded using the Voice Memos app. Subsequently, the audio files were transcribed into editable text by Otter.ai. Following a verification process to ensure the text's accuracy against the audio files, the transcribed text was employed for data analysis. The study utilises two data analysis methodologies: content analysis and thematic analysis (Bos and Tarnai, 1999; Braun and Clarke, 2020). The adoption of these two approaches is strategic, as it allows for the achievement of research objectives and the mitigation of bias (Braun and Clarke, 2020; Mayring, 2014).

5.2.1 Deductive content analysis

The content analysis method adopts deductive logic, anchored in the PSR concept (Mayring, 2014). Through this method, it facilitates a profound comprehension of PSR and aids in the conceptualisation of PSR (Razzaq et al., 2023). The selection of content analysis is attributed to its being an objective, systematic, and quantitative scientific technique for content examination (Kassarjian, 1977). Furthermore, content analysis is instrumental in identifying keywords and quantifying their occurrences (Bos and Tarnai, 1999).

Employing a deductive reasoning, the study discerns 35 keywords via content analysis. The researcher ensures that each keyword aptly reflects PSR to affirm face validity. It is imperative to categorise these keywords for coherent analysis. Consequently, the 35 keywords are classified into seven sub-categories and six categories, detailed in Table 5.1.

Four categories are validated from the analysis of PSR definitions in Chapter 2, comprising "connection", "psychological nature", "inequality", and "long-term". Additionally, two novel categories have emerged: "value" and "influence".

Category 1: Connection

Consistent with the analysis of PSR definitions provided earlier, the category "connection" is recognised as encapsulating the main domain of PSR as the linkage between one party and another. As indicated by the existing literature, PSR reflects the connection between viewers and media characters (Yuan et al., 2016; Feder, 2020). Within this category, three key words are identified: "connection", "relate", and "bond". "Connection" emerges as the term most frequently used by interviewees, followed by "relate" and "bond". These keywords all reflect the connection nature of PSR. Some interviewee sheds light on their connections with influencers:

> *'Well, I would say we get the connection with these influencers.' Interviewee 8*

> *'I do think it is quite a personal connection, like I am quite invested in them. Like, I get value from them each day, I feel like they bring me inspiration. And it is also quite like a personal thing.' Interviewee 18*

This "connection" category confirms the findings of the systematic literature review, underscoring that connection is the main domain characteristic of PSR, reflecting the relational nature of PSR. The frequent use of "connection" by interviewees highlights its significance in describing their relationships with media characters and influencers.

Table 5.1 Content analysis of the interview

Content analysis of interview - PSR			
No	**Category**	**Sub-category**	**Key words**
1	Connection	Connection	Connection
			Bonds
			Relate
2	Psychological nature	Psychological nature	Psychological
			Companion
			Private
			Deep
			Loyal
			Distance
			Dynamic
			Close
			Intimacy
			Emotional
		Belongingness	Fans
			Followers
			Big sister
			Friends
			Mentors
			Big brother
3	Value	Value	Purposeful
			Encouragement
			Important
4	Influence	Influence	Influence
5	Inequality	Inequality	One-way
6	Long-term	Long-term	Long-term

Category 2: Psychological nature

The category "*psychological nature*" mirrors the nature of PSR, aligning with the prior analysis of PSR definitions. As indicated by the current literature, PSR is individual's psychological process that can generate the intimate feelings (Bernhold, 2019; Dias et al., 2017). Participants develop diverse psychological connections with the other party (Lee and Park, 2022; Noor et al., 2022). This group contains twelve keywords, with the majority

corroborating the previous PSR definition analysis in Chapter 2.9. For instance, several interviewees describe the connections as "*intimate*", indicating:

'I think, from my perspective, it is a very intimate relationship.' Interviewee 2

New keywords have been introduced to further elucidate the dynamic psychological aspects of the connection, such as "distance" and "dynamic", which suggest the psychological connection is not static as argued by the existing literature (e.g., Yang and Ha, 2021), overlooking the complex and dynamic nature of PSR. These keywords emphasising the need for a more comprehensive understand of PSR's multifaceted dynamics. As discussed by the interviewees:

'I do not know anything about their life. So I would say that it is kind of a more distant relationship for me.' Interviewee 11

'So my relationship with this influencer is something dynamic.' Interviewee 5

The sub-category "*belongingness*" emerges from the interviews, signifying a crucial aspect of PSR. Generally, belongingness refers to the state or sensation of being part of a specific group. Individuals perceive themselves as integral members of an understanding community (Tsiotsou, 2016). This deep sense of belonging fosters their emotional connections and their strong feelings (Escalas and Bettman, 2017; Iannone et al., 2018). Respondents express a sense of belonging to the community of the influencer's fans and followers:

'I am a big fan of Jiaqi. Actually, some of my friends are also Jiaqi's fans. We love watching his videos, he cares about those ladies, and he respects those ladies, so that is why we love him' Interviewee 7

Beyond the general sense of belongingness among ordinary followers, more intimate forms of belonging are observed, exemplified by terms such as "big brother" and "big sister". This sense of belongingness has been observed in the current literature, which found that viewers regard their favourite influencers as "big sisters" (Reinikainen et al., 2020). As some of the interviewees mentioned that:

'Yeah, but this influencer is different because he is just like our big brother.' Interviewee 5

'Emma, she is just like, like a big sister.' Interviewee 3

The novel insight into the nature of PSR underscores the argument that the psychological connection it fosters is dynamic rather than static (Tukachinsky and Stever, 2018). This perspective highlights the variability in how different individuals perceive their connection with others. It reflects the multifaceted and evolving nature of PSR, illustrating that these relationships are subject to change and are influenced by personal interpretations and experiences.

Category 3: Value

The emergence of "*value*" as a new category from the qualitative data. In general, value refers to the importance, worth, or usefulness of something (Lou and Yuan, 2019). The qualitative analysis reveals that such relationships endow one party with a variety of values, encompassing significant values. Existing literature also indicates individuals also perceived various value from the other party, which benefit for generating long-term relationships with the other party (Zhong et al., 2021).

Several keywords encapsulate these significant values, including "*purposeful*", "*encouragement*", and "*important*". The establishment of PSR fulfils individual needs, and there is an acknowledgment that the other party, in turn, seeks benefits from their followers, highlighting a mutual exchange of value:

> *'They provide useful information. And they like followers because they want to be more popular. So we both have our purpose.' Interviewee 12*

Additional positive values associated with PSR are identified, such as "*encouragement*" and the opportunity to "*learn*". These new insights increase the understanding the various values that the other party can provides. An interviewee's reflection captures this aspect of value:

> *'I would say they are the other people I have much to learn from. So yeah, I will keep improving and learning from them in the good things.' Interviewee 25*

These insights reveal the multifaceted nature of value within PSR, illustrating not only the direct benefits derived from these relationships but also the reciprocal expectations and contributions between the involved parties (Whang and Im, 2021).

Category 4: Influence

The category "*influence*" has been newly identified through interviews, with the term "influence" mentioned 13 times. Generally, influential relationships are often seen within familial contexts, for instance, the support of family members and coaches can have a positive impact on the careers of elite athletes, as demonstrated through their ongoing support (Côté, 1999; Storm et al., 2014). This type of influential relationship is also evident in the responses from the interviews, with most respondents noting that the influence exerted by the other party is predominantly positive:

> *'We are greatly influenced by them…I am a loyal fan and I watch their videos, so my thinking is influenced by them. For example, if my favourite influencer recommends a perfume, I would try or buy it even if I do not like it.' Interviewee 9*

These observations suggest that the dynamics of influence within PSR mirror those found in close personal relationships, highlighting the significant impact influencers can have on their followers. Although the existing literature mainly focuses on the influential power on consumers' decision-making process, such as their purchase decisions (Masuda et al., 2022; Leite and Baptista, 2022), the qualitative data also suggest influence on other aspects, such as people's attitude towards life. As interviewee 3 discusses:

> *'They influence my attitudes towards life. Like, maybe some bad things happen, but you will think positively' Interviewee 3*

These insights reinforce the notion that the "influence" category is a critical component of PSR, reflecting how influencers can shape their followers' thoughts, behaviours, and decision-making process. This new "influence" category provides new insight into the components of PSR in online environments.

Category 5: Inequality

The qualitative data indicate that inequality characterises the nature of PSR, corroborating the analysis of the PSR definition presented in Chapter 2. The term "*one-way*" is mentioned seven times, signifying a situation where only one party is aware of the relationship's existence. Some scholars also point out PSR is not a reciprocity process; rather it is a one-way experience (Lim and Kim, 2018; Chen et al., 2021). The other party might acknowledge that fan groups form relationships with them, yet they do not engage in "one-to-one" relationships. Respondents acknowledge that influencers do not recognise their connections:

> *'Because we do not have a two-way interaction relationship, it is more like a one-way.' Interviewee 14*

> *'I totally see DYS as my friends, even though I get it is just a one-way thing. I am just one of their fans, I mean, they have got like over 2 million followers, so they obviously do not know me.' Interviewee 21*

These insights confirm that inequality is a key component of PSR, reflecting the unequal nature of PSR. This one-way relationship reflects the distinctive nature of PSR, where emotional investment and perceived closeness exist predominantly on the follower's side, while influencers remain largely unaware of individual followers.

Category 6: Long-term

Consistent with the earlier analysis of the PSR definition in Chapter 2, PSR is often perceived as a long-term connection (Balaban et al., 2022). The term "*long-term*" is highlighted 15 times, underlining the enduring nature of such relationships. In other words, if consumers develop PSR, people will keep the relationship in a long run rather than for a short period (Balaban et al., 2022; Leite and Baptista, 2022). This perception of a long-term connection is supported by the interview data:

> *'I have been following him for about six to seven years now. So I would say it is a long-term friendship.' Interviewee 14*

These insights confirm that PSR is often perceived as a long-term commitment rather than a short-term relationship. When consumers develop PSR with influencers, they tend to maintain this relationship for an extended period.

5.2.2 Inductive thematic analysis

The second technique employed to explore consumer perceptions of their relationships with influencers is thematic analysis. Adhering to the four-step process of thematic analysis outlined by Braun and Clarke (2006) and employing inductive reasoning, this study delineated 103 initial codes, 20 sub-themes, and six themes. These themes comprise "*time*", "*psychological closeness*", "*value*", "*inequality*", "*influence*", and "*connection*". The comprehensive table of thematic analysis is available in Appendix 12.

Theme 1: Time

Time is a pivotal factor in the development of relationships. Within the context of PSR, time is acknowledged as a crucial component closely associated with PSR (Whang and Im, 2021; Reinikainen et al., 2020). The likelihood of establishing PSR increases with the amount of time individuals spend on social media platforms (Pressrove and Pardun, 2016). Additionally, the consequences of PSR further underscore the significance of time. For instance, viewers who have formed a PSR with live streamers tend to dedicate more time to watching and re-watching the live streamer's content (Lim et al., 2020). Certain respondents highlighted that the formation of this psychological connection is time-dependent:

> *'I think my loyalty to her has accumulated over time… Every time I read her posts, and almost in those three years, I found myself actually having basically the same thoughts towards every social issue with her.' Interviewee 4*

This psychological connection, once established, often persists in the long term (Yuan et al., 2021). Both the analysis of PSR definitions and content from prior studies support this perspective. As expressed by one of the interviewees:

> *'It has already been a very long time. I have developed such strong psychological bonds with them over these years. It is a special feeling that grows stronger as time passes ' Interviewee 9*

Moreover, for some individuals, engaging with the influencer becomes habitual, and they come to view visiting the influencer's profile as an integral part of their daily routine. One interviewee noted:

> *'It is a kind of habit. I will check their updates every two to three days if they add new videos.' Interviewee 9*

Another noteworthy aspect emerging from the qualitative data is the frequency of interaction. Individuals who have established PSR with influencers often visit their social media profiles regularly. Some respondents reported checking the influencer's social media account daily:

> *'I use Weibo every day to see whether he has some updates.' Interviewee 2*

Conversely, other participants mentioned visiting the influencer's account two to three times a week or nearly every week:

> *'I will visit on a weekly basis to check what is new on her channel, and this is one of the influencers I followed.' Interviewee 11*

> *'...frequency, I think, is an average of two to three days.' Interviewee 9*

Time, as a central theme, emerges across all three analyses, underscoring the critical role it plays in PSR (Whang and Im, 2021). It is imperative to highlight that the emphasis on time reflects the sustained interaction and gradual accumulation of experiences in the development and maintenance of PSR, broadening the conventional understanding of "long-term" relationships.

Theme 2: Psychological closeness

Psychological closeness embodies the nature and main domain characteristic of PSR, highlighting the conscious and motivational origin of the connection (Richards and Calvert, 2015; Tsfati et al., 2022). On one hand, evidence from prior analyses of PSR definitions underlines that PSR is characterised by an evolving consciousness within the relationship rather than an unconscious state (Tsfati et al., 2022). For instance, earlier definitions underscore the importance of a conscious state of "*intimacy*" or "*familiarity*" within the

relationship, contingent upon the psychological state of one party (Richards and Calvert, 2015; Chung and Cho, 2017). Individuals possess the awareness to unilaterally develop a connection with another entity (Yuan et al., 2016; Lim and Kim, 2018). This intentional engagement in the relationship was articulated by an interviewee:

> *'So I view her as a friend, rather than just a KOL or a blogger who shares daily life as our entertainment.' Interviewee 4*

On the other hand, the deliberate establishment of this relationship mirrors individuals' motivations and objectives. Research indicates that motivational factors precede the development of PSR (Yuan et al., 2016). Individuals experiencing social anxiety who seek virtual interaction as a form of escapism or relaxation are inclined to form PSR with virtual entities (de Bérail et al., 2019; Lee and Cho, 2020). Likewise, Zafar et al. (2020) find that motivations such as leisure, enjoyment, and information seeking contribute to the formation of PSR. Although not previously highlighted in PSR definitions or content analyses, interviewees voiced their information-seeking motivation that trigger their connections with influencers:

> *'I would say that learning more, learning different influencers' opinions, and accepting this diversity is good. Because you can always learn something different from the different people… And you will find that you feel close to them' Interviewee 1*

Furthermore, entertainment serves as another motivation for individuals to develop PSR with influencers, as noted by Interviewee 11:

> *'I prefer to see some bloggers, like they will do talk shows, upload their travel experience, just for entertaining… so gradually it feels like I am experiencing these things with my friends' Interviewee 11*

The motivation to build relationships also underpins the formation of PSR, as remarked by an interviewee:

> *'YouTubers around the world … especially American YouTubers and Canadian YouTubers... So Richard can make me have a close connection with the world.' Interviewee 8*

Individuals seeking benefits, such as discounts, may also form PSR with influencers on social media platforms, as discussed by Interviewee 7:

> *'At that time, I was experiencing a difficult financial period, so I always bought discounted products…Jiaqi often gives a lot of products' discounts…you know, he is like my friend in my real life helping me to get through those tough times.' Interviewee 7*

The psychological connection encompasses a range of emotions, defined as "mental states of readiness stemming from cognitive evaluations of events or thoughts" (Bagozzi et al., 1999, p. 184). Emotions are transient, predominantly short-term (Houben et al., 2015), and can exhibit polarity, such as pleasure or displeasure (Houben et al., 2015; Ruiz-Mafe et al., 2018). Previous PSR definitions highlight the emotional aspect of PSR, such as Agnihotri and Bhattacharya (2020) describing PSR as a mutual relationship marked by intimacy and affection. Empirical evidence also suggests that emotional engagement significantly influences PSR (Lim et al., 2020), a sentiment echoed in interviews:

> *'I know him, and I like him.' Interviewee 2*

> *'He creates many short videos on motivation, teamwork, and entrepreneurship. I really enjoy his content, so I quite like him. He is usually the first one I see on my newsfeed.' Interviewee 6*

In PSR, individuals experience various emotional states and feelings towards the counterpart. Terms like "*emotional attachment*" (Sun and Wu, 2012) or "*emotional intimacy*" (Lee and Park, 2022) are employed in defining PSR. Interviewees have also expressed diverse emotional responses:

> *'And I really admired her courage and also her views towards this policy…I deeply relate to her' Interviewee 4*

Belongingness forms another dimension of psychological closeness as discussed in the above content analysis. It relates to an individual's psychological well-being and stems from the inherent need to belong (Moeller et al., 2020). A sense of belonging can engender positive emotions such as happiness (Braxton and Lau-Gesk, 2020), whereas its absence may adversely affect well-being, leading to feelings of depression (Moeller et al., 2020). The

desire for belongingness, particularly among individuals with low self-esteem, is an antecedent of PSR (Escalas and Bettman, 2017; Hwang and Zhang, 2018). Shared characteristics further enhance the sense of belonging and likelihood of establishing PSR, such as identity similarity (Hu et al., 2020). This was reflected in an interviewee's comment:

> *'Because I am a vegetarian. So, I follow some vegetarian influencers or some vegan influences. We have some similarities; we are both into fitness or vegan diets.'*
> *Interviewee 14*

This sense of belonging was also evident in how respondents perceive influencers as "*big brothers*" and "*big sisters*", fostering a sense of belonging within PSR:

> *'...he comes from, you know, Indian background and Indian culture is really close to me.' Interviewee 6*

> *'...she has a Greek background. I also have a Greek background. So it was nice to her and connect with her' Interviewee 15*

The dynamic psychological nature of PSR, illuminated through previous analyses and thematic investigation, demonstrates the multifaceted psychological states, strengths, emotions, and feelings individuals harbour towards their parasocial counterparts.

Theme 3: Value

Interview data elucidates "*value*" as a central theme in PSR, underscoring perceived value as a pivotal element in the development and sustenance of PSR. Despite earlier PSR definitions overlooking the role of value, subsequent research has highlighted that perceived value can significantly impact PSR (Quelhas-Brito et al., 2020). One form of value derived from PSR is hedonic value, which encompasses the enjoyment and playfulness individuals experience in relationships (Hughes et al., 2019). This form of value primarily arises when individuals engage with content generated by influencers. Within this context, interactive methods are employed to evoke emotional pleasure, promote continuous viewing, and enhance customer engagement (Wongkitrungrueng and Assarut, 2020; Guo et al., 2021). The provision of hedonic value through PSR is validated by interviewees:

'So when you know you have a bad day, and then someone gives you this sort of happiness push that you needed for the day, and I think this is what I have seen them.' Interviewee 6

'I think he can really relax my mood. Especially when I wash my clothes or do other things, I am really relaxed.' Interviewee 8

Beyond hedonic value, PSR also imparts utilitarian value, which pertains to the practical benefits a media user gains from a relationship (Overby and Lee, 2006; Meske et al., 2019). Respondents often mention deriving valuable information from influencers:

'When I want to buy something, like a new skincare product or some new makeup, I will watch their videos to see their recommendations or if they have any views about this makeup to see the advantages and disadvantages of this new thing.' Interviewee 9

'I follow these influencers because they can give me some knowledge I do not know.' Interviewee 11

Additionally, symbolic value has emerged as a novel sub-theme in PSR. Users may engage in various symbolic actions on social media to fulfil their needs (Kane, 2012). Viewers often find aspects of their self-identity and social identity reflected through engagement with influencers. Interviews reveal that participants find symbolic value in PSR, particularly in terms of the ideal self, self-reflection, and resonance:

'When I watch Pamela's videos, I always think that, oh, I can have the same shape as Pamela.' Interviewee 1

'Well, I think because sometimes when we follow these inferences, because they somehow represent us, so if, like, extend yourself, you know, because they all love Vendors. So that is kind of me... So, I would say that means a part of me because we share the same values.' Interviewee 14

'Because most of the time, it's quite hard to express our feelings. But his songs expressed exact meaning about my feelings. So, I know that he understands me, and I understand him.' Interviewee 2

Value, as an overarching theme, indicates that PSR is capable of providing individuals with hedonic, utilitarian, and symbolic values, each contributing to the multifaceted benefits derived from these relationships.

Theme 4: Inequality

Inequality is identified as a fundamental characteristic of PSR, underscored by the relationship's development and maintenance predominantly relying on one party, with the other party engaging minimally. This disparity manifests in two distinct aspects: the unilateral formation of PSR by one party and the one-sided efforts to maintain PSR by the same party. As highlighted by some studies, PSR inherently features an asymmetrical relationship where one party independently fosters a connection without the reciprocal awareness or involvement of the other party (Yuan et al., 2016; Utz et al., 2021). While influencers may recognise a general connection with their audience, they lack personal recognition of individual followers, leading to a predominantly one-sided or one-way relationship (Lim et al., 2020; Cheung et al., 2022; Gabriel et al., 2018).

The unequal nature of PSR also evident in qualitative data, where respondents acknowledge the predominantly one-way dynamic of their connections:

> *'Because we do not have a two-way interaction relationship, it is more like a one-way.' Interviewee 14*

The initial act of following an influencer, driven by a desire to learn more about them, illustrates the unilateral effort in establishing a connection:

> *'When I have my social media accounts, since I want to know about this person, I follow him on social media.' Interviewee 2*

Furthermore, maintaining the relationship often involves unilateral efforts from the followers, with minimal reciprocal engagement from influencers:

> *'If I leave a comment, they will not reply to me. Mostly, you know. And they have been living sending us a thing, uploading their videos, but they have so many fans that they will not notice us. So, it is not like a mutual relationship.' Interviewee 3*

However, the absence of mutual engagement does not imply that influencers are passive in PSR. Influencers actively seek to expand their follower base and enhance their social influence, which can lead to more brand collaborations and increased profits (Jin and Phua, 2014; Taillon et al., 2020). A key strategy for influencers is the sharing of self-disclosure content, which includes both professional and personal information (Chung and Cho, 2017; Kim and Song, 2016; Leite and Baptista, 2022). Such disclosures help reduce followers' uncertainties about the media character, fostering attributional confidence (Rubin and Perse, 1987; Perse and Rubin, 1989):

> *'She shares her lifestyle and some things happening around her.' Interviewee 10*

> *'He sometimes posts information related to his work, which I think is also a way for his team to do publicity. For example, he is recording a variety show somewhere.' Interviewee 2*

Influencers' frequent content updates aim to sustain engagement with their audience:

> *'She creates artwork very frequently, almost three or four pieces per day. She updates her account very frequently.' Interviewee 10*

Despite the recognition of the relationship's unidirectional nature, some followers perceive a level of concern from the influencers towards their audience:

> *'I think he cares about those ladies. He often emphasises that if you cannot afford it, do not buy it. So I think, yeah, he stands by our side and really listens to the voice of consumers.' Interviewee 7*

In summary, the intrinsic inequity within PSR, as corroborated by both literature and qualitative insights, underscores a relationship primarily characterised by the followers' unilateral initiation and maintenance efforts, with influencers contributing indirectly through content creation and engagement strategies.

Theme 5: influence

"Influence" emerges as a novel theme from the qualitative data analysis, highlighting how one party can be significantly impacted by another within PSR. Despite existing research validating that PSR can shape perceptions, such as enhancing source trustworthiness (Chung and Cho, 2017), the notion of influence has not been explicitly incorporated into the definition of PSR. This analysis delineates two primary dimensions of influence: influencer-related and brand-related.

The literature documents that PSR can influence one party's view of another, contingent upon the presence of a PSR. For instance, Finsterwalder et al. (2017) demonstrate that individuals are more inclined to forgive celebrities' misdemeanours when they have PSR with them. This increased tolerance was echoed in interviews:

> *'I found myself becoming those who have double standards. In most cases, I will unfollow some bloggers who hold different views against me. But I have a double standard towards the influencer and other bloggers after I become a loyal fan. When they have different opinions, I will think that it is quite normal because people are not always the same.' Interviewee 4*

PSR are also influential in fostering real-life interactions and cultivating social bonds (Tsiotsou, 2016). For instance, within consumption communities, PSR can lead to genuine engagement and social connections (Yuan et al., 2021). This effect was observed in interview narratives:

> *'For my best friend. I first noticed her…I just saw the article she wrote, and I felt it was really warm. I liked the way that the girl records her life… We are in the same city, and we are in the same university, so I wanted to be a friend with her… We become the real-life friends.' Interviewee 9*

Furthermore, brand-related outcomes linked to PSR have been extensively documented. Engaging in PSR with smart speakers, for example, can enhance advertising effectiveness, including brand and advertising attitudes (Lee and Cho, 2020). Establishing PSR with digital celebrities has been shown to boost consumers' purchase intentions and electronic word-of-mouth (e-WOM) (Hwang and Zhang, 2018). PSR has a positive impact on consumers' repeat purchase intentions (Yuan et al., 2021). Such influences were discussed by respondents:

'And then Jillian, she mainly makes clothing and home products now, so we had heard like lines come out. I always definitely check them out. I do not always buy from them. We have a very small home, so I do not. I always check the value. And I always like to consider some of her stuff for gifts because it is really nice gifts for people.' Interviewee 13

'I have purchased some products that Claire recommended.' Interviewee 15

Through qualitative data analysis, the influential capacity of PSR is underscored, with respondents acknowledging the positive effects PSR has on their perceptions and actions.

Theme 6: Connection

The theme of "*connection*" has been recognised in both the analysis of previous definitions of PSR and in content analysis, underscoring the relational essence of PSR (Feder, 2020; Yuan et al., 2016). This connection signifies the perceived bond or relation between individuals and influencers or media figures, highlighting the intrinsic nature of PSR (Farivar et al., 2022). Several respondents have articulated their sense of connection:

'It makes me feel there is a connection between me and this influencer.' Interviewee 10

'I find I relate to them. I always feel the intimate feelings with them.' Interviewee 13

The above discussions also confirm that connection is a fundamental component of PSR, reflecting consumers develop the relationship with social media influencers.

5.3 PSR development stories

PSR is a developed process, as evidenced by the qualitative findings. Previous studies have regarded PSR as a static concept; however, Tukachinsky and Stever (2018) have theoretically conceptualised PSR as a process from a media perspective, contributing significantly to the understanding of the stages in PSR development. The qualitative findings corroborate the four stages of the PSR development process proposed by Tukachinsky and Stever (2018), namely: exposure initiation, experimentation, intensification, and integration.

Furthermore, this study offers a deep understanding of how consumers develop PSR with social media influencers, identifying key concepts as contributing factors at each stage.

5.3.1 Stage 1: Exposure initiation stage

The exposure initiative stage, the initial phase where viewers virtually meet the other party, is detailed through the critical factors presented in Table 5.2, based on interviews with 25 participants. Most respondents recall the moment they first became aware of the other party, although some memories are vague, possibly due to the passage of more than ten years.

This stage is characterised by three distinct approaches to acquaintance with the other party, as revealed through the qualitative data: (1) consumption of traditional media, (2) engagement with social media, and (3) word-of-mouth recommendations.

Some respondents indicated their first acquaintance with the other party through traditional media. Traditional media, such as television, remains a prevalent medium through which consumers foster PSR with media figures (Bernhold, 2019; Bonus et al., 2021). While viewing TV programmes, audiences initially notice individuals such as hosts, forming their initial impressions during the process (Stephens et al., 1996). One interviewee remarked:

> '*Abbey, I found her through a TV segment she did. She was on the local news one morning when I was getting ready.*' Interviewee 13

Books, another form of traditional media, serve as a means for viewers to become acquainted with the other party. However, unlike prior empirical studies, respondents do not report forming PSR with fictional characters from books but with the authors themselves. For example, Interviewee 16 discusses their first encounter with an author:

> '*So, the first time I know him is because he is the author of, like, a novel book. It is not an academic book. It is more into a comedy book, and I know him from the introduction part of the book.*' Interviewee 16.

Table 5.2 The key factors in the exposure initiation stage of the 25 interviewees

Factors	Construct	Theme	Sub-theme	Interviewee	Frequency
Key factors in the PSR development stage 1- exposure initiation					
Post-related factor	Post appeal	Content attractiveness – background music		2	8
		Appealing cover page/headline/title		1; 3;7;12	
		Post appeal		4	
		Topic attractiveness		17	
		Content attractiveness		19	
Influencer-related factor	Influencer attractiveness	Social attractiveness	Influencer popularity	1; 8; 25	7
			Perceived similarity	8;19	
		Physical attractiveness		9;14	
		Vocal attractiveness		7	
	Other perceived characteristics of the influencer	Perceived differentiation		7	3
		Perceived popularity		25	
		Perceived influencer bravery		17	
Platform-related factor	Personalised recommendation systems	Social media recommendation		3; 21; 24; 25	7
		Website		23	
		Big data		10;11	
Consumer-related factors	Motivation	Searching with keywords		3;5;14;24	10
		Relationship building	Meeting new people	19	
		Information seeking	Searching for products	3; 25	
			Searching for specific brands	18	
			Searching for information	21	
		Entertainment		8	
	Involvement	Involvement/attention		1;11;15;21	4
Traditional media	Consuming traditional media	Watch TV show		6;13	4
		Watch Reality show		20	
		Read book		16	
WOM	WOM	WOM		6;12;21;22	4

Online environments are the most common means by which most respondents initially encounter the other party. The vast amount of information online means that viewers might not recognise all content creators. It was noted by the respondents that there are primarily two methods through which they notice the other party: (1) personalised recommendation systems and (2) keyword searching.

A personalised recommendation system is an intelligent platform or algorithm that, through extensive data mining, identifies users' preferences and activities online to recommend content tailored to their needs (Buder and Schwind, 2012; Behera et al., 2020). Social media platforms utilise these systems to suggest content (Behera et al., 2020). One respondent mentioned encountering the other party through such a system on social media, as evidenced by Interviewee 25:

> *'I just got a YouTube account. So, I got into the YouTube and the front page. And because my profile was proper, I guessed because my profile was in Chinese. So, they just read the YouTube and recommended me some of the Chinese content YouTube videos, and Toress was one of them because he has Chinese subtitles.' Interviewee 25*

Additionally, some websites recommend content through personalised systems, which is how another interviewee first met the other party. As Interviewee 23 described:

> *'During that time, we did not have a cell phone, but there's a very famous website, and everyone visits this website... I'm interested in makeup, and the website recommended me a popular content creator in makeup...and that is the first time I know her.' Interviewee 23*

Besides personalised recommendations, viewers also encounter the other party through keyword searches, a prevalent method for finding relevant information (Wang et al., 2016). Interviewee 24 shared their experience:

> *'Back to the time when I was having serious anxiety. I have just tapped some keywords, like anxiety and anxiety disorder. And I think Andaxiong just popped out in the first one, and I clicked and watched it.' Interviewee 24*

While personalised recommendation systems and keyword searches facilitate exposure to the other party, this does not guarantee viewers' attention due to their limited focus, multitasking habits, and selective engagement with information (Duff and Sar, 2014; Santoso et al., 2020). Viewers' psychological processes play a critical role in whether they notice and engage with the other party, influenced by post-related factors, influencer-related factors, and viewers' motivation.

Post appeal

Post appeal significantly contributes to viewers noticing the other party. Post appeal is defined as the extent to which viewers find an influencer's post visually or aesthetically appealing (Ki and Kim, 2019). Viewers are drawn to posts they find attractive, with appealing posts often characterised by enticing headlines and cover pages. A headline succinctly summarises the post or video, and compelling headlines are crucial for capturing the limited attention of users (Jeganathan and Szymkowiak, 2020). As expressed by one interviewee:

> *'The headline is really eye-catching, and that is why I want to see the content.'*
> *Interviewee 3*

The cover of a post typically includes images and text, with engaging covers effectively drawing viewer interest. For instance, one respondent remarked on their initial notice of an influencer:

> *'I first noticed him on Weibo because the video cover page is attractive. The cover page showed that a man who was trying cosmetics. It is very uncommon since, at that time, women promoted cosmetics, and it is like a stereotype that women need to do that. But Jiaqi, as a man, tried a lot of lipsticks on his face, so that's why I noticed him.' Interviewee 7*

Content appeal plays a crucial role in leading viewers to notice the other party. This is particularly true on social media platforms like TikTok, where users scroll through brief videos, gravitating towards those they find appealing (Yang and Ha, 2021). As stated by Interviewee 19:

'So, with those, as I am scrolling through, and I find things that are intriguing or thought-provoking, that is piqued my interest, and I will watch them.' Interviewee 19

Therefore, post appeal, such as an attractive cover page and headline, has been identified as one of the key factors that increase consumer focus. These appealing elements can capture consumers' attention and enhance their interest.

Influencer attractiveness

Influencer attractiveness is a significant factor in drawing viewers' attention. It refers to the audience's perception of the extent to which an influencer's features and qualities are appealing (Gunes, 2011; Kim and Part, 2023). Analysis of qualitative data reveals three dimensions of influencer attractiveness: social, physical, and voice attractiveness.

Social attractiveness pertains to the extent to which an influencer is perceived as likable (Liu et al., 2019). Influencer popularity and perceived similarity contribute to their social attractiveness, prompting viewers to engage with their content (Yuan and Lou, 2020). For instance:

'I was searching for the iPhone-related content. And I think because he is one of the most famous, he was like showing up as the first one. So, I just clicked on his video. And he was doing like a review of the newest iPhone, was iPhone X.' Interviewee 25

'This influencer creates content related to Business Class flights on YouTube. The first video I saw was about Sichuan Airlines, a Chinese airline company. And this influencer, he looks like, I think he is Asian. I am from China. So, these characteristics bring us closer.' Interviewee 8

Physical attractiveness is defined as the degree to which an influencer's physical attributes are considered aesthetically pleasing (Patzer, 1983; Wiedmann and von Mettenheim, 2020). Existing literature has found influencers' physical attractiveness positively influence PSR (Han and Yang, 2018). Respondents indicated that they are drawn to influencers whom they find visually appealing:

'She looks cute, and I want to see more about her daily life.' Interviewee 23

Voice attractiveness, as mentioned by interviewees, is another compelling reason for focusing on influencers. This novel insight suggests voice attractiveness could be seen as one of the aspects of influencer attractiveness, which is overlooked by the existing literature. The appeal of an influencer's voice can significantly capture viewers' interest:

> *'When I first listened to his songs, I was attracted by his euphonious voice.'* *Interviewee 2*

In sum, influencers' various forms of attractiveness play an important role in increasing consumers' attention and interest. Existing literature identifies social and physical attractiveness as two aspects of influencer appeal. These qualitative findings provide new insights, revealing that voice attractiveness is also an important aspect of influencer attractiveness.

Viewers' various motivations

Moreover, viewer motivation plays a crucial role in determining attention towards influencers. Motivation is the desire to fulfil personal needs through media or technology (Park and Lennon, 2004; Kim, 2020). Current literature identifies various people's motivations that can drive individuals to use social media, and they are all related to PSR (Lee and Cho, 2020; Zafar et al., 2020). When an influencer's content aligns with viewers' motivations, it significantly increases their attention:

> *'Hearthstone is a card game I started playing two years ago. When I first came into this game, I had no idea about the function of each card and how to use it, so I searched Hearthstone as the keyword on Bilibili. There's a video explaining the functions of each card, and this video is made by Valila. So, I watched this video and found it very helpful.' Interviewee 21*

As discussed above, current literature has found various motivations people have for using social media and relate to PSR (Yuan et al., 2016). Based on the qualitative data, viewers primarily have four types of motivation, including information seeking, entertainment, relationship building, and economic reward. Information seeking involves actively acquiring information to satisfy personal goals (Asghar, 2015; Zafar et al., 2020). Respondents mention using social media and watching videos to obtain diverse, current, and useful

knowledge, learn new things, and search for information. This motivation for information seeking is illustrated by an interviewee's statement:

'I use social media to find people from different countries and regions; they have various lifestyle and cultural backgrounds, and I am interested in knowing these kinds of things.' Interviewee 1

Entertainment motivation entails seeking temporary spiritual relaxation, pleasure, and fun (Leung and Wei, 1998; Park et al., 2009). Respondents often use social media for fun, relaxation, and discovering exciting content (Esteban-Santos et al., 2018). The abundance of entertainment content on social media makes it a popular choice for this purpose (Lee and Cho, 2020). An interviewee remarked:

'I think what I like most about these social media is it is just a break. And I like watching funny videos that are pretty short. Just a break from reality.' Interviewee 20

Interviewees also indicate using social media for making connections. Relationship building is defined as utilising social media to establish and maintain relationships (Yuan et al., 2016). When people seek to connect with others, they use social media to communicate with friends and develop PSR with influencers (Liu et al., 2019). An interviewee notes:

'I love people who share their views on social media. I love to read their thoughts and views towards some social issues, which makes me feel connected.' Interviewee 4

Regarding economic rewards, some influencers share discounts on social media, leading people to search for these deals. Economic rewards involve monetary promotions used by influencers, celebrities, and brands to attract viewers on social media (Coker et al., 2015), typically through discounts and coupons. This motivation is highlighted by an interviewee:

'Jiaqi Li shares a lot of useful information about cosmetics for young ladies. And he often gives a lot of discounts, so I often check his posts to find product discounts.' Interviewee 7

Several interviewees first learn about influencers or celebrities through word-of-mouth (WOM) from friends and colleagues. People often recommend influencers or celebrities they know or follow to others, which facilitates initial awareness. As one interviewee describes:

> *'And the first one is because of my work. I was going to work with a brand planner for an event, and they mentioned that Sophie is their ambassador in the UK. So, then I opened the Instagram and saw her posts.' Interviewee 22*

Involvement is identified as a critical factor at the exposure initiation stage. Involvement refers to the degree to which viewers are engrossed in the activity they are engaging in on social media (Vazquez et al., 2017). As discussed, there are primarily three ways viewers initially become aware of influencers or brands, with awareness indicating whether viewers are attentive or focused on the subject. Viewers' notice of influencers or brands signifies their focus and involvement. An interviewee mentions:

> *'Some influencers, their video headlines are attractive, and it captures my attention to see the content.' Interviewee 1*

Therefore, the above discussion provides new insights into how consumers develop PSR at the initial stage, identifying several key factors that enhance consumer involvement, including post appeal, influencer attractiveness, and viewers' various motivations. The next section will discuss the second stage of PSR development.

5.3.2 Stage 2: Experimentation stage

Experimentation constitutes the second phase of PSR development. This stage is characterised by the curiosity viewers have towards the other party, as evidenced by the responses from 25 interviewees detailed in Table 5.3.

Viewers are not merely content with superficial encounters; their interest deepens, compelling them to seek a more comprehensive understanding of the other party. This desire for a more profound connection is highlighted in the interview excerpts:

Table 5.3 Key factors in the experimentation stage of the 25 interviewees

Factors	Construct	Theme	Interviewee	Frequency
Key factors in the PSR development stage 2 - experimentation				
Perceived influencer characteristics	Perceived expertise	Perceived expertise	1;5;8;9;10;11;14;15;21; 25	10
	Perceived trustworthiness	Perceived trustworthiness	7	1
	Perceived ambition	Perceived ambition	4	1
	Perceived similarity	Perceived similarity	1;2;4;5;7;9;10;13;14;15;18;19;22;25	14
	Perceived authenticity	Perceived authenticity	13;18	2
	Perceived interestingness	Perceived interestingness	15;16;19	3
	Perceived humility of the influencer	Perceived humility of the influencer	14	1
	Perceived attractiveness	Perceived attractiveness	2;23	2
	Perceived influencer critical thinking	Perceived influencer critical thinking	17	1
	Knowledge of influencer's personality	Knowledge of influencer's personality	5;6	2
Viewer-influencer related factors	Perceived value	Perceived utilitarian value	1;2;7;11;12;13;14;15;17;18;21;22;23;25	14
		Perceived hedonic value	3;8;9;10;11;13;18;20;21;22	10
		Perceived symbolic value	2;14;17;20	4
	Following an influencer	Following social media account	2;4;5;8;10;11;12;16;17;19;20;21;22	13
	Consumer engagement	Consumer engagement	1;4;11;12;13;17;19;22	8
	Trust	Trust	5	1
	Liking the influencer	Liking the influencer	6	1
	Interest in the influencer	Interest in this influencer	2;6;12;13;16	5
		Want to know more about the influencer	3;20	2
		Want to see updates	3	1
	Connecting with the influencer	Connecting with the influencer	3	1
	Parasocial interaction	Parasocial interaction	3;4;6;7;9;11;14;16;17;18;23;25	12
Repeated exposure	Repeated exposure	Repeated exposure	11	1

'I want to know more about him, not only from the Bilibili, not only from those funny videos, but I also want to know what he was like in daily life, like in real life.' Interviewee 3

'And this is why I guess I started exploring more about him. I also figured out that he has got a lot of online classes available, you can join, etc.' Interviewee 6

The exploration for more information about the other party takes various forms, ranging from conducting searches to consuming more content created by them. The online environment facilitates this engagement, enabling viewers to interact with the content creators' videos directly. The act of engagement is a recurrent theme in the interviews, as illustrated by the following comments:

'When I find the video is very interesting and I like the way that the influencer makes the video, I will go to that influencer's page and watch other videos to make sure I truly like the content or the influencer, and then I follow some of them.' Interviewee 11

'If it was a topic I was reading about in the news, but I saw a different angle by these two accounts, I would have clicked on the post to read more. And I would have liked or found the content relevant and followed them.' Interviewee 17

Therefore, interaction and engagement are crucial for viewers to assess their affinity for the content or the creator and to navigate their subsequent relationships with them.

Perceived value

Perceived value plays a pivotal role in the experimentation phase, encapsulating the comprehensive assessment of relevant factors when interacting with another party (Zeithaml, 1988; Wongkitrungrueng and Assarut, 2020). It influences the decision-making process regarding whether viewers wish to initiate a relationship with another entity. This is substantiated by responses indicating that viewers are inclined to follow and develop a relationship with the other party if they discern value or benefits. As expressed by one interviewee:

'Claire, she has really nice ideas. And the content of her videos is quite nice, easy to watch, and very useful. So that is why I follow her.' Interviewee 15

The interviews reveal three facets of perceived value: utilitarian, hedonic, and symbolic value. Utilitarian value, the primary aspect, refers to the practical benefits viewers gain from the content, encapsulated as the degree of usefulness assessed by media consumers from engaging with content or services (Overby and Lee, 2006; Meske et al., 2019). Interviewees frequently mention gaining information, insights, and new knowledge from the content:

'I would say, because those influencers create useful videos, I can apply them to my daily life. For example, vegan fitness influencers will post some recipes for their diet. Also, they will make a short video of how they cook it, so I can just use it in my life.' Interviewee 14

'The business influencers often share new knowledge for me, which could be useful or inspiring.' Interviewee 12

Such utilitarian value fosters a willingness to establish a relationship with the content creator, evidenced by followership on social media platforms, as mentioned by one interviewee:

'I just have this passion for Europe, Paris, Italy, and all those things. So all these beautiful places. So, I think I was also following her because she would show me this different world that I had not been able to enjoy myself. So it is probably that, again, just the inspiration thing.' Interviewee 18

Hedonic value, the second aspect, pertains to the entertainment and enjoyment derived from the content, defined as the extent of fun and playfulness experienced by the viewer (Hughes et al., 2019). This value is reflected in respondents' experiences of happiness and relaxation:

'The first reason is because their videos are interesting and really funny. So I could release my stress when watching the videos.' Interviewee 9

Viewers perceiving hedonic value are more inclined to develop relationships with the content creator, as highlighted by another interviewee:

'I felt that he was very interesting and also the videos and live streaming, which I can get more fun compared with other video game influencers, so I follow him.' Interviewee 21

Lastly, symbolic value emerges as a critical aspect, representing the extent to which individuals identify with or see their social identity reflected in the content (De Toni et al., 2021). Some respondents recognise this value in influencers, seeing a reflection of themselves and their values:

'I think sometimes when we follow these inferences, because they somehow represent us, so if, like, extend yourself, you know, because they all love the same thing. So that is kind of me. ... so I will say that it means part of me because we share the same values.' Interviewee 14

This perceived symbolic value is echoed by a respondent from the LGBT community, highlighting the influential role of certain figures:

'I think they are drag queens. But they are also very influential in, like, the LGBT community. COURTNEY ACT is big; I guess she has done a lot of reality shows. But she also does a lot of work where she helps communities and does things that are positive in the community...it resonates with me; it still represents me as a person.' Interviewee 20

These insights demonstrate the multifaceted nature of perceived value and its significant impact on viewers' decision to follow content creators, driven by utilitarian, hedonic, and symbolic benefits.

PSI

In the experimentation stage, PSI also plays a significant role in the development of PSR. As discussed in previous chapters, PSI pertains to the viewer's perception of direct, reciprocal, and one-to-one communication with influencers during media exposure (Oliver et al., 2019). One participant mentioned feeling as though influencers were speaking directly to them, thereby enhancing their enjoyment of this highly interactive experience. Interviewee 25 described their experience as follows:

> *'When I watch Torres's video, he is holding a camera and recording as he climbs and walks around. Suddenly, he turns the camera to his face, speaks to the camera, and shares his feelings. I really enjoy this kind of interaction.' Interviewee 25*

Influencers employ various techniques to augment viewers' feelings of PSI, such as addressing the camera directly, employing first and second person pronouns ('I' and 'you'), and posing questions. These techniques are specifically used to create a sense of familiarity, making viewers feel as though the influencer is a friend speaking directly to them. This approach was evident in an interview with another participant:

> *'I remember that when I started to follow his videos to work out, I really liked it because he is like down to earth, like your friend. During the workout, he said something like, oh, you can do it at home with your own water bottle. So when you hear about that, it is just like a friend talking to you.' Interviewee 14*

Other influencer characteristics

In the second stage, viewers also perceive some of the influencers' characteristics that benefit relationship development, such as the perceived humility and attractiveness of the influencer. Influencer expertise is frequently discussed, often cited by respondents. Perceived influencer expertise is the extent to which viewers recognise an influencer's skills, knowledge, and competence in specific areas (Farrington-Darby and Wilson, 2006; Xiang et al., 2016). There are two aspects of influencer expertise that viewers discuss. One is the influencer's expertise in their field, as one interviewee notes:

> *'She competed in the fitness field. She was a player in the fitness field. So, because she is very professional and showed a sense of professionalism in their fields, and that is the reason why I follow her.' Interviewee 14*

The other aspect is the influencer's video production skills, as the same interviewee states:

> *'Really good content quality either in the video, filming or the background editing, even the background music.' Interviewee 14*

Perceived similarity is another critical element that plays a significant role in the second stage. It refers to the degree to which people perceive similarities in beliefs, education, social status, and the like with the influencer (Rogers and Bhowmik, 1970; Naderer et al., 2021). Respondents frequently discuss their perceived similarity with influencers:

> *'We have similar lifestyles, stages, so like, getting married with kids at, like, roughly the same time and that kind of stuff. That's another reason why I'm following her.'* *Interviewee 13*

> *'Sophie focuses on cleaning and organising the home, the stuff, and I like everything that is related to home decoration and home organisation because I like this.'* *Interviewee 22*

Therefore, in the second stage, consumers exhibit a high level of interest in influencers and seek to learn more about them. At this stage, it is crucial for consumers to perceive value from influencers' posts, making them feel they can benefit from following these influencers. In particular, influencers' various characteristics and PSI are important in enhancing this stage of development.

5.3.3 Stage 3: Intensification stage

Intensification is identified as the third stage of PSR. Table 5.4 presents the key factors associated with the intensification stage, as derived from interviews with 25 participants. During this phase, individuals persist in recognising the value offered by the other party, gradually adopting the practice of following them as a habitual activity. Essentially, individuals show a readiness to initiate and sustain a relationship with the other party (Tukachinsky and Stever, 2018). An interviewee illustrated this notion by stating:

> *'The reason why I keep following them is that I think they make great videos. The quality is really good. And from their videos, I can always find the newest information, and there is information about that area. And sometimes, if I need to decide whether to purchase a new phone or choose a place for travelling, their videos are like really good sources for me to take a look and make my decision.'* *Interviewee 25*

Table 5.4 The key factors in the intensification stage of the 25 interviewees

Factors	Construct	Theme	Interviewee	Frequency
Key factors in the PSR development stage 3 - intensification				
Viewer-influencer related factors	Perceived respect for the influencer	Perceived respect for the influencer	1	1
	Perceived self-discipline	Perceived self-discipline	1	1
	Perceived similarity	Perceived similarity	4	1
	Perceived authenticity	Perceived authenticity	4; 9; 13	3
	Perceived influencer credibility	Perceived influencer credibility	17	1
	Parasocial interaction	Parasocial interaction	3	1
	Liking the influencer	Liking the influencer	2; 19	2
	Trust	Trust	3; 5;7;9;10; 11; 12; 13; 14; 15; 16; 23	12
	Commitment	Commitment	2	2
		Keep following	3; 4; 6; 14; 16; 17; 18; 19; 20; 21; 23	11
		Want to keep relationship	5; 9	2
		Attachment to influencer	3	1
		Connect with influencer	5; 10; 11; 18; 19	5
		Feel close	6; 7; 8	3
	Consumer engagement	Keep watching	7; 21	2
		Keep engagement	9; 18; 21	3
Value	Perceived value	Perceived utilitarian value	23; 25	2
Time	Time	Time accumulation	1;3;4; 5;7; 8; 10; 12; 13; 14; 16; 22	12
		Frequency of visits	2; 5; 10; 19; 21	5
		Habituation	3; 7; 8; 16; 24	5

Time emerges as a pivotal element in the intensification stage. Similar to interpersonal or social relationships, individuals invest time to cultivate relationships with the media entity (Pressrove and Pardun, 2016; Whang and Im, 2021). A majority of respondents revealed that following and engaging with the media figure has become a part of their routine:

> *'They have become a very important part of my life. Although they cannot update their videos very often, like twice a week or even once a week, I will watch their past videos very often, many times. For example, when I have to kill time, I will watch their videos again and again. This has become my lifestyle.' Interviewee 8*

Several respondents highlighted the gradual development of a connection with the media figure over time:

> *'I think this kind of connection is accumulated through time. You know, every time I read her posts, and almost in those three years, I found myself actually having basically the same thoughts towards every social issue with her. And we all share the same views … I think it is sort of time concrete.' Interviewee 4*

The data indicates that the shortest duration for forming a connection is under three months, as one interviewee mentioned:

> *'I think it is just three months, and I become a loyal fan of him because I need guidance to deal with my size of the disorder. I mean, I actually have a psychological consult, but it is expensive. So, I need to find a new way to receive guidance to guide me to deal with my situation, and Andaxiong really helps.' Interviewee 24*

Conversely, it took several years for some respondents to establish a connection, reflecting a prolonged engagement over time:

> *'Just as I said, I started listening to his songs when I was in primary school … until I went to college, I started to use social media and follow him, and at that time, I found I must become his loyal fan.' Interviewee 2*

Viewing frequency, associated with time, is identified as a crucial aspect in the intensification stage. Regular virtual interactions with the media figure are efforts made by individuals to maintain their connection. Through frequent exposure, individuals stay

updated and continue to derive value. Most respondents report engaging with the media figure's content daily or weekly.

> *'So I would say I definitely see at least one picture of this each day with a story mainly on their stories, I suppose. And then less on the feed, but definitely look at the feed, but it probably is mainly the story, and I'll see that at least once a day.' Interviewee 18*

> *'Sometimes I might get the notification that they have a new video, or when I have some free time, I would say once per week.' Interviewee 15*

The above findings confirm that time plays an important role in the PSR development process, particularly in the intensification stage. Followers interact with social media influencers at varying frequencies. As the frequency of interactions increases, consumers are likely to develop stronger connections with these influencers.

Trust

During this stage, individuals' trust in the other party increases. Trust is defined as an individual's belief in the other party's ability to deliver consistent and competent quality (Jun and Yi, 2020; Chaudhuri and Holbrook, 2001). In virtual or media environments, fostering trust is challenging. As one interviewee noted, scepticism towards social media influencers is common:

> *'At the beginning, I think I do not trust these kinds of bloggers or influencers. Because I think they just want to sell their products.' Interviewee 7*

However, familiarity over time, particularly during the intensification stage, leads to a stronger trust in the other party, recognising them as trustworthy (Yuan and Lou, 2020). This sentiment was echoed by interviewees:

> *'I keep following them, and it's because of established trust. So over, it has been many years, and they both establish, like this trust in our community, and they have built brand communities that are authentically theirs.' Interviewee 15*

'I really trust him because I have that really good experience with the previous products I bought from his product.' Interviewee 11

Nonetheless, trusting an individual does not automatically extend to the same level of trust in their advertisements. This observation was highlighted by the interviewees:

'She will always currently in these two years have some videos for advertisements. So, I will not watch that video. Because I always trust those influencers. They are real experiences. They are really used to this product, and I will buy them. But I will not trust such advertisements. Or sometimes I feel there is an advertisement; I met half trust about this.' Interviewee 9

As discussed above, trust is a key factor in the PSR development process. At the intensification stage, consumers develop strong trust in influencers, and this trust level increases over time. Consumers regard influencers as trustworthy and believe in their recommendations.

Perceived influencer authenticity

Perceived influencer authenticity emerges as a pivotal factor discussed by respondents in the intensification stage. Perceived influencer authenticity refers to the extent to which an individual regards an influencer as genuine and driven by intrinsic motivations for content creation (Shoenberger and Kim, 2022; Jun and Yi, 2020). Evaluations of an influencer's motivations—whether a post stems from genuine personal interest and the desire to share or from brand-driven incentives—are crucial. Respondents shared their perceptions of what makes an influencer appear authentic:

'And I really just think it comes down to the personalities that are humble, authentic and not pretentious. And you can tell when an influencer is just trying to say your piece of clothing versus they love their life and want to share it with your approach.' Interviewee 18

Similar to trust, the perception of authenticity is something that develops over time. Interviewee 15 remarks:

'She's, like, slowly built her business by being authentic. And I think that is why myself and a lot of our other audience are kind of very dedicated. Because there is that like level of authenticity, you do not see often on Instagram.' Interviewee 15

Influencer authenticity is one of the key characteristics that consumers focus on. Perceived influencer authenticity is driven by the consistent behaviour of influencers, which helps evaluate their motivations, whether they are driven by personal interest or intrinsic motivations.

PSR

The outcome of the intensification stage is a willingness among individuals to sustain PSR with the other party. This implies that individuals have developed dynamic attachments to the other party. Reflecting on this relationship, one of the respondents shares their experience:

'I always have such a psychological relationship with them. I have already followed them for a long time .... I know they do not know me, but I have watched these videos for a long time and know them well. I always have such psychological bones with them. Yeah, such special feelings.' Interviewee 9

At this stage, the emotional attachment to the other party signifies an eagerness to keep the relationship alive. It is a stage where individuals feel a heightened sense of closeness to the other party. Several interviewees express their connection with influencers:

'I felt like I got quite closer to him because I was spending most of my days with, right in my sort of further work and life.' Interviewee 6

A dedication to influencers is also evident, with some respondents showing their commitment by continuing to follow them. As one interviewee notes:

'I want to continue following them. Because I want to continue having even my opinions challenged and for me to see all sides of an issue.' Interviewee 17

Moreover, respondents share their desires to maintain their relationship with the other party. For instance, Interviewee 5 states:

'I will keep this kind of encouragement and keep this relationship with this influencer. Because I still have curiosity about what he will talk about in the future.' Interviewee 5

Therefore, by the end of the intensification stage, consumers have developed a stable and long-term relationship with social media influencers. At the same time, consumers show a high willingness to maintain these long-term connections with influencers. The next section will discuss the outcomes of PSR.

5.3.4 Stage 4: Integration stage

Integration represents the culmination of the development of PSR, serving as both the final stage and the outcome phase of the relationship. Key elements identified in the integration stage from the discussions with 25 interviewees are detailed in Table 5.5. From the qualitative data, three primary themes have emerged: outcomes related to the influencer, outcomes related to the viewer, and outcomes associated with the brand. At this stage, individuals are at a crossroads where they may either continue their PSR, experience parasocial breakups, or transition their PSR into real-life connections.

Influencer stickiness

The initial facet of PSR outcomes pertains to those associated with influencers. At this stage, individuals develop a profound connection with the other party, characterised by attributes such as stickiness and loyalty towards the other party (Hu et al., 2020). Over time, this stickiness can transform into loyalty, where consumers exhibit a high level of commitment to following and supporting the influencer. This was elaborated upon by one of the interviewees, who noted:

'I think, for me, I stick with them. And I think, you know, it is nice to have that constant in my life still. I think that kind of returns into a nostalgia kind of thing.' Interviewee 20

Table 5.5 The key factors in the integration stage of the 25 interviewees

Key factors in the PSR development stage 4 - integration				
Factors	Construct	Theme	Interviewee	Frequency
Influencer-related outcomes	Influencer preference	Influencer preference	1;25	1
	Stickiness to influencer	Stickiness to influencer	20	1
	Support for the influencer	Support for the influencer	1; 2; 4; 16; 17; 18; 21; 23; 25	9
	Liking the influencer	Liking the influencer	2	1
	Trust	Trust	2	1
	Positive attitude to the influencer	Positive attitude to the influencer	2	1
	Intention to support	Intention to support	3; 5; 6; 7; 8; 9; 10; 11; 12; 13; 14; 15; 18; 19; 23; 24	16
	Loyalty to the Influencer	Loyalty to the Influencer	4	1
	Social relationship/interaction	Forming real-life friendships	9	1
		Attending offline event	10; 20	2
	Donation	Donating to influencer	17; 21	2
Viewer-related outcomes	Well-being	Feel happy	3	1
		Feeling encouraged	24	1
		Change in attitude towards Life	3	1
Brand-related outcomes	Advocacy for brand	Advocacy for brand	18; 25	2
	Brand preference	Brand preference	2; 8; 25	2
	Brand trust	Brand trust	12; 18	2
	Purchase product	Purchase product	1; 2; 3; 4; 6; 7; 8; 9; 10; 11; 12; 13; 14; 15; 16; 17; 18; 19; 20; 23	20
	Positive brand attitude	Positive brand attitude	2	1
	Purchase intention	Purchase intention	2; 3; 6; 8; 9; 12; 13; 14; 16; 21; 23; 24; 25	13

Therefore, consumers develop profound connections with influencers, marked by attributes like stickiness and loyalty. Such loyalty is indicative of the strong bonds formed during the integration stage of PSR development.

Intention to support

Most respondents talk about whether they intend to support the other party or have supported the other part. Intention to support refers to the extent to which the individual is willing to help the other party maintain and increase popularity in the long run (Kim and Drumwright, 2016). The intention to support has been observed from the respondents:

> *'So now, since I definitely want to help her because, like I mentioned, she's a photographer. And I know recently she decided to open a print shop, which is like printing her images. So I mean, if I was nearby in Europe, I could purchase something, I totally would because they're so beautiful.' Interviewee 18*

Many respondents not only express a desire to support influencers but have actively taken steps to do so, such as consistently commenting and sharing posts to increase the influencer's popularity. Interviewee 2 elaborates:

> *'I want him to become more popular. Because in China, there are a lot of top influencers, and I want him to be one of them. So, whenever he posts something, I will like and comment to support him. I also bought his album to support him.' Interviewee 2*

Donations and the provision of virtual money are also recognised as methods of supporting influencers, viewed as investments in the relationship (Cao et al., 2022; Hsieh et al., 2022). As one interviewee explains:

> *'The article was really good and relevant to me. For example, it was about arts, humanities education in India … and after I read that article, I donated a small amount to support him.' Interviewee 17*

Additionally, some respondents support influencers by purchasing products they have created or endorsed. For instance, one interviewee recounts their experience of buying a product to show their support:

'So I saw through his social media, and I saw one of the shirts he was wearing; it had a kind of dinosaur print. I had actually ordered one to support him.' Interviewee 19

The underlying reason why individuals choose to support or have supported an influencer is their belief in such actions as a form of relationship investment, likely to encourage influencers to produce high-quality content, as highlighted by Interviewee 25:

'Because I think helping them is a way to support them in continuing to create good quality videos for other people, and I will benefit individually. So, it is kind of like an investment instead of spending money.' Interviewee 25

The qualitative findings provide new insights into consumers' intentions to support, or actual support for, their favorite influencers. Consumers actively engage in various ways to show their support for their favorite influencers, which should be considered one of the key outcomes of PSR.

People's well-being

The second aspect of PSR involves outcomes related to the viewers. Interviewees report feeling more positive through their interactions and relationships with influencers on social media. Reflecting on their personal PSR with influencers, respondents describe feeling happier and receiving encouragement. As one interviewee puts it:

'I feel happier than before because I can always feel happy from their videos. Meanwhile, some influencers will share their daily life. For example, Emma uploaded something about her daughter. I have a nephew who is the same age as Emma's daughter. I can relate to them, which makes me feel happy.' Interviewee 3

Respondents derive emotional satisfaction and support from their engagements with influencers (Han and Yang, 2018). Real-life feelings of loneliness and stress can be mitigated

as influencers provide companionship and share positive outlooks with their viewers, thereby contributing to their well-being (Bernhold, 2019; Bernhold and Metzger, 2020). Another interviewee further illustrates this aspect:

> *'I think it is more like mental guidance, and you can always find some hotness, some encouragement from their video content. They really helped me through the most difficult time.' Interviewee 24*

In conclusion, the qualitative findings highlight the significant impact of PSR on people's well-being. Through interactions and relationships with influencers on social media, respondents report increased positivity, happiness, and emotional support. Influencers, by sharing their personal lives and positive outlooks, foster a sense of connection and encouragement among their viewers, thereby enhancing their overall well-being.

Brand advocacy

A significant outcome of PSR is brand advocacy. Brand advocacy entails consumers endorsing a brand through word-of-mouth (Wallace et al., 2014; Sahin and Baloglu, 2014). Upon viewing influencers' videos that introduce a brand or product, consumers become acquainted with the product and brand. Subsequently, they are likely to recommend the brand to their friends or generate content about it (Hwang and Zhang, 2018). Particularly, the likelihood of consumers advocating for a brand increase if they purchase the product and perceive the brand positively. This was corroborated in an interview:

> *Amanda Dupont started her own skincare range called the Lip. So, this lady, she is a South African influencer like supporting local brands. So, as I saw her, she's an actress in South Africa. She was using the skincare range, and then I found out she actually created the skincare range. And since then, I have been buying it and using it. So I have also advocated it to my friends, and I have a few friends using it.' Interviewee 18*

Therefore, brand advocacy emerges as a brand related outcome of PSR. This underscores the influential power of social media influencers in shaping consumer purchasing behaviour and perceptions.

Brand trust

Brand trust represents another significant consequence of PSR. Interviewees suggested that the endorsement of products or brands by influencers often leads consumers to develop trust in those brands. This trust stems from the consumers' confidence in the influencers; hence, they extend this trust to the brands endorsed by them. As articulated by Interviewee 12:

> *'I trust the brand because I trust her, and then I start to trust the brand.' Interviewee 12*

This process, whereby consumer trust is transferred from the influencer to the brand, is further elucidated by another interviewee:

> *'So definitely made me trust brands, I would say, a lot more than I would have in the past mainly, I suppose, because I am so overwhelmed by choice half the time. And you do not really know what the best thing is, and there are so many brands out there, like the sustainable and the ethical. So you actually have no idea. But there is someone like the influencers who I have learned the values and what they stand for over the years. And then they promote something I definitely, without a doubt, will be trusted more.' Interviewee 18*

In sum, brand trust is identified as one of the key outcomes of PSR. In the third stage of PSR, consumers develop trust in social media influencers. This trust is then transferred to the brand in the fourth stage, benefiting brands by facilitating the development of stronger relationships with consumers.

Brand preference

Brand preference constitutes an additional outcome deriving from the PSR benefits. It is defined as the tendency of consumers to favour one brand over its competitors (DelVecchio et al., 2006). Influencers play a crucial role in shaping consumer purchase decisions, with consumers often opting for brands used or endorsed by influencers (Zafar et al., 2020). This influence is demonstrated through the experiences shared by interviewees:

'Sam Chui he really likes the Empire Airlines. He was giving a very high comment on Empire Airlines. So when I travelled from my hometown to the UK, I chose to take Empire Airlines.' Interviewee 8

Similarly, another interviewee recounted their brand preference influenced by a celebrity endorsement:

'For Messi, because he was signed by Adidas, so whenever I choose my football boots, I will go for Adidas instead of Nike or Puma.' Interviewee 25

Therefore, brand preference is identified as another brand-related outcome in which consumers' preference for a brand is influenced by their favourite influencers.

Positive brand attitude

Positive brand attitude constitutes another favourable outcome resulting from PSR advantages. Brand attitude is understood as the consumer's evaluation of a specific brand (Mitchell and Olson, 1981). Respondents indicate that endorsements or shares by influencers lead them to develop a more favourable attitude towards these brands. This influence is exemplified by the reflections of interviewee 2:

'I like to notice what he wears. For example, last time, he carried a Prada bag and wore an Essential jacket, which looked really cool. So, I thought that Prada and Essential are very fashionable brands. So, If I want to buy bags and jackets, I will first choose Prada and Essential.' Interviewee 2

In sum, a positive brand attitude is a notable outcome of the advantages associated with PSR. As evidenced by interviewees, influencer recommendations can significantly enhance a consumer's perception of a brand, making them more likely to view it as fashionable and desirable.

Purchase intention

Many respondents revealed that influencer endorsements often lead to an increase in their purchase intentions. Purchase intention refers to the consumer's likelihood of buying a

product or service, influenced by influencers' endorsements, which is based on their evaluations (Hwang and Zhang, 2018; Lu and Chen, 2021). This effect is illustrated by the experience of Interviewee 3:

> *'When they recommend something in their videos, sometimes it makes me want to buy the products.' Interviewee 3*

Influencers not only endorse products but also present them comprehensively in their videos, aiming to enhance consumers' intention to purchase. This effect is particularly pronounced in highly interactive platforms such as live streaming (Xin et al., 2023). Interviewee 21 provided insight into why live streaming increases his purchase intention:

> *'He always wears the clothes that he sells in the live streaming. It looks good on him, and I really want to buy these clothes. Because he usually uses some words, such as high quality, most reasonable price, and you must buy it, these words always make me want to buy it.' Interviewee 21*

In sum, the qualitative findings indicate that influencer endorsements significantly boost their followers' purchase intentions. As illustrated by interviewees, influencers not only endorse products but also showcase them effectively in their content. This detailed presentation, combined with persuasive language and visual appeal, enhances consumers' desire to purchase the endorsed products.

Actual purchase behaviour

A significant number of respondents reported engaging in actual purchases prompted by influencer endorsements. This reflects the substantial influence that influencers wield in guiding consumer purchasing decisions. An illustrative example of this phenomenon is provided by the experience of Interviewee 14:

> *'I just bought the products they endorsed. For example, I bought the protein vegan food because my favourite influence just endorsed it, and it is healthy and does not harm animals.' Interviewee 14*

Therefore, the qualitative findings highlight that influencer endorsements can not only increase their follower's purchase intention but also drive their follower's actual purchase behaviour.

5.3.5 PSR vs real-life relationship

Respondents indicate diverse experiences with influencers, ranging from virtual connections to real-life interactions. Among 25 interviewees, only one has transitioned a PSR into a real-life friendship, suggesting that converting virtual relationships into real-life connections is relatively uncommon. Interviewee 9 shared their unique experience:

> *'Her videos make me feel warm, and I want to be friends with her … I followed her, and she followed me back, and we communicated on the app. We feel that we are very passionate, and we are keen to connect with each other to be friends ... So, now she is my best friend in real life.' Interviewee 9*

Contrastingly, other respondents expressed reluctance to form real-life friendships with their favourite influencers. A prevalent sentiment is that knowing influencers in person might be odd, with a preference for maintaining virtual interactions. Interviewee 4 articulated this perspective:

> *'I do not think we meet each other in person is a good experience. Actually, sometimes I think I have to keep the distance between me and my favourite influencers. Because, you know, people are not always perfect, I am afraid.' Interviewee 4*

Nonetheless, some interviewees are open to attending offline events or campaigns, valuing opportunities to see influencers in real-life settings without pursuing personal interactions. Interviewee 2 reflects this view:

> *'Some crazy fans will go to the airport to see their favourite celebrities or influencers, but I am not that person. But I will go to the concert if I have the opportunity.' Interviewee 2*

Although it is uncommon for consumers to develop real-life relationships with social media influencers, the qualitative findings provide new insights and opportunities, suggesting that consumers can indeed develop social relationships with these influencers.

5.3.6 Parasocial breakup

The phenomenon of parasocial breakups is observed among the respondents as well. A key reason individuals may choose to unfollow someone and undergo a parasocial breakup is due to the other party's engagement in actions or behaviours that are discordant with the individual's own values.

Interviewee 19 elucidates this by sharing their experience with JK Rowling, an author who has garnered significant influence on social media. Despite being primarily known for her literary works, JK Rowling is regarded as an influencer by many, including Interviewee 19, who has followed her on social media since getting a social media account. However, Interviewee 19 experienced a parasocial breakup with JK Rowling due to conflicting values:

> *'I stopped following JK Rowing because, as I said, I'm from the LGBT community, and she has a different stance on certain perspectives. So now, I do not relate with her as much as I thought I had.' Interviewee 19*

In conclusion, although consumers primarily discuss their PSR with social media influencers, the phenomenon of parasocial breakups highlights that these relationships can end. While influencers can build strong, one-sided connections with their followers, these relationships are vulnerable to shifts in perception and values. When influencers act in ways that conflict with the personal values of their followers, it can lead to a parasocial breakup.

5.4 Conceptualisation of PSR

The qualitative findings offer significant insights into conceptualising PSR. To propose a good definition of PSR, this study adheres to the criteria for a well-constructed definition as recommended by Murrow and Hyman (1994) and employs the methodology for formulating a definition in marketing as suggested by Gilliam and Voss (2013).

5.4.1 The good definition criteria of PSR

Building on the preceding analysis of PSR from the consumers' perspective, the examination of the existing PSR definition in Chapter 2, and the criteria for a well-crafted definition proposed by Murrow and Hyman (1994), this part introduces twelve criteria for defining PSR. These encompass eight domain-specific criteria and four general criteria. The twelve definition criteria are detailed in Table 5.6.

Firstly, a good PSR definition should encompass two entities: one party and the other parties. The one party denotes individuals who unilaterally initiate the relationship, while the other parties represent the counterpart in the relationship. For instance, in this study, the other parties are identified as social media influencers.

Secondly, it is crucial for a PSR definition to acknowledge the conscious and motivational basis of the psychological connection. The relationship exists objectively, beyond mere individual perception. PSR signifies individuals' conscious engagement in the relationship rather than an unconscious state. Reflecting on qualitative data, the deliberate establishment of this relationship by people is evident in their motivations and objectives. Although prior definitions have emphasised emotions, it's important to recognise that emotions, being potentially transient, constitute only a segment of the psychological bond (Houben et al., 2015).

Furthermore, a well-crafted definition of PSR must acknowledge its inherently unequal nature. PSR represents a unilateral connection, where knowledge is possessed by one party but not by the others (Lim and Kim, 2018; Jacobson et al., 2022). This asymmetry is also echoed by some interviewees' reflections on the nature of PSR. Additionally, the definition should capture the dynamic nature of PSR, recognising the varied perceptions and intensities with which individuals experience these relationships. Contrary to previous definitions that confined PSR to intimate or close connections (e.g., Dias et al., 2017), this qualitative data reveal that individuals describe their relationship with influencers in terms of varying degrees of closeness, such as "distant", "close", and "private", and indicate that the strength of PSR can range from weak to strong, influenced by numerous factors.

Table 5.6 Good PSR definition criteria

Definition Criteria	
Domain-specific criteria	Includes one party
	Includes other parties
	Defines main domain rather than perception
	Implies inequality
	Implies dynamic nature of PSR
	Implies influence and value
	Implies time
	Includes how the connection developed
General Criteria	Parsimonious
	Unambiguous
	Useful to practitioners
	Useful to academics

Moreover, akin to social relationship, PSR is valued for their influential capacity, providing both utilitarian and hedonic benefits. Individuals may become more tolerant of differing viewpoints or alter their attitudes towards products or brands endorsed by the counterpart. The temporal dimension is also crucial in defining PSR. As supported by existing literature and qualitative evidence, PSR is a prolonged engagement (Bernhold, 2019), necessitating time for initiation and sustained interaction for maintenance. The development of PSR involves multiple interactions with the counterpart (Lim et al., 2020; Feder, 2020; Reinikainen et al., 2020), and its persistence requires frequent engagement. Furthermore, the role of media, such as social media platforms, in fostering PSR underscores the need to incorporate this element into the definition. Beyond these domain-specific criteria, a good PSR definition should strive for parsimony, clarity, and applicability, serving both academic and practical purposes (Murrow and Hyman, 1994).

5.4.2 PSR working definition

Drawing upon the twelve criteria for an effective definition of PSR, this study formulates a working definition guided by the methodology outlined by Gilliam and Voss (2013). As a preliminary step, Gilliam and Voss recommend crafting an initial definition. This research adheres to the criteria for a good definition set forth by Murrow and Hyman (1994), to discern what elements should be included or excluded. Based on an analysis of existing PSR definitions, alongside a thorough examination of qualitative data through content and thematic analysis, this study posits the following working definition: ***an individual's***

dynamic perception of a valuable psychological connection, unilaterally developed with the other party based on repeated exposure through media or technology.

This proposed working definition necessitates an assessment of its added value, as recommended by Gilliam and Voss (2013). It is formulated on the foundation of existing PSR literature and qualitative insights (MacKenzie, 2003; Churchill, 1979), enhancing the previous definitions by reducing vagueness and precisely delineating the roles of 'one party' and 'other parties' within PSR, thereby narrowing the scope of other parties.

Furthermore, the revised definition encapsulates the main domain characteristics of PSR, such as its inherent inequality, dynamism, and influence, while elucidating the mechanisms of PSR development and incorporating the temporal aspect. It also minimises ambiguity by specifying that PSR constitutes a psychological connection, rather than merely reflecting individuals' feelings, and by implicitly addressing both the antecedents and consequences that previous definitions have overlooked. For instance, the mention of a 'valuable other party' hints at the antecedents of PSR.

Subsequently, the researcher evaluates the definition for ambiguity and vagueness, concluding that it is both parsimonious and unambiguous. Moreover, the researcher examines the boundaries of the new definition, compares them with similar concepts, and deems the definition suitable. This provisional definition will be subject to further refinement based on feedback from experts. Comments from experts and the definitive PSR definition are to be presented in Chapter 9.

5.5 Implications of the qualitative study

This qualitative research offers several implications. Firstly, the qualitative data facilitate a comprehensive understanding of PSR, elucidating how individuals perceive the relationship and the nature of PSR. The study affirms that connection, inequality, and psychological closeness are central attributes of PSR, unveils new insights into its dynamic nature, and accentuates the significance of value in comprehending PSR. Consequently, eight domain-specific criteria for a good PSR definition have been identified to conceptualise PSR. A working definition of PSR is proposed, which will undergo revision in Chapter 8 following an expert survey.

Secondly, the research verifies that PSR is a process, not a static condition. By characterising PSR as a process, it captures its evolving nature and underscores the importance of time in the development of PSR. The four stages of PSR development delineate the progression from the initial virtual encounter with the other party (exposure initiation stage), through growing interest (experimentation stage), to a demonstrated desire to sustain the relationship (intensification stage) and culminating in the outcomes of the relationship (integration stage).

Thirdly, the study identifies key factors influencing the PSR development process, thus enriching our understanding of consumers' psychological decisions in cultivating a relationship with another party at each stage. Drawing on qualitative data, distinct factors influencing PSR development at each stage are highlighted. Given the scant research on the PSR development process, this study lays the groundwork for comprehending this intricate process. Furthermore, the qualitative data contributes to the conceptual framework's development, resulting in a more precise model of the PSR development process by integrating qualitative insights into the conceptual framework outlined in Chapter 6.

Fourthly, three categories of potential PSR outcomes are discerned: influencer-related, individual-related, and brand-related outcomes. The qualitative insights shed light on the reasons behind individuals' preferences for purchasing products endorsed by influencers on social media (e.g., the intention to support the influencers). Moreover, the qualitative data disclose various outcomes of PSR, such as its evolution into real-life relationship or parasocial breakup.

5.6 Chapter summary

This chapter outlines the insights gathered from 25 semi-structured interviews with consumers who have been following social media influencers for an extended period. Employing content and thematic analysis methods, the chapter explores the keywords and themes associated with the PSR phenomenon, facilitating a thorough comprehension of PSR. Based on the findings, the chapter puts forward several criteria for an effective definition of PSR, aiding in the conceptualisation of PSR. Additionally, through thematic analysis, the chapter narrates the journey of the PSR development process and identifies pivotal factors at each of the four stages. These revelations about the PSR development process are instrumental in advancing the conceptual framework, details of which will be presented in the subsequent chapter.

Chapter 6: Conceptualising PSR formation process

6.1 Chapter introduction

The previous chapter discussed the qualitative data findings and elucidated the conceptualisation of PSR and the process of PSR development. This chapter pivots towards theorising the PSR development process, drawing upon the insights gleaned from qualitative data and extant literature. As corroborated by the qualitative findings (refer to Chapter 5.3), PSR development including four stages: exposure initiation, experimentation, intensification, and integration.

Exposure initiation, the initial stage, marks the point where individuals first encounter or become acquainted with their favoured influencers through various media channels or WOM recommendations. This pivotal stage in PSR relationship building is chiefly propelled by individuals' diverse motivations and their attraction to the influencers' characteristics and content. Proceeding to the experimentation stage, individuals develop an interest in the influencers and seek further knowledge about them. At this stage, individuals assess the influencers' characteristics and values, aiming to forge a connection. Following this, during the intensification stage, individuals form a stronger bond with the influencers, aspiring to sustain this relationship in the long term. The culmination of PSR development is the integration stage, representing the outcome stage where individuals have intention to support to the influencers. Influencers significantly impact their followers' decision-making and behaviour in this stage.

The structure of this chapter is outlined as follows. Initially, two models are examined as the theoretical underpinning for the development of the PSR model—Tukachinsky and Stever's (2018) PSR model and the Attention, Interest, Desire and Action (AIDA) model. Subsequently, the four stages of the PSR development process are discussed in detail: exposure initiation, experimentation, intensification, and integration. The key concepts within each stage are identified and explored. Research hypotheses are posited, culminating in the presentation of the PSR development process model in Figure 6.1.

6.2 Theoretical framework

6.2.1 Tukachinsky and Stever (2018) PSR model

Tukachinsky and Stever (2018) focus on the development process of PSR and propose a model comprising four stages: exposure initiation, experimentation, intensification, and integration. This model, conceptualised from a media science perspective, addresses the scant investigation of PSR as a dynamic process. It outlines the key concepts inherent in each stage, laying a foundation for understanding how individuals develop PSR with media figures.

Grounded in Knapp's relationship development model, Tukachinsky and Stever (2018) argue that the progression of PSR mirrors the establishment of real-life interpersonal and social relationships. According to their model, advancing through each PSR development stage from initiation to integration is pivotal for someone to become a fan. However, it is crucial to acknowledge that not every individual will traverse all four stages, as they possess full control over this process and can choose to stop at any stage or proceed in fostering the relationship.

This thesis integrates Tukachinsky and Stever's (2018) PSR model as a theoretical framework for several reasons. Firstly, it represents the only model theorising PSR development that captures its dynamic nature and aligns with this thesis's conceptualisation of PSR. Whereas most literature views PSR as a static concept, Tukachinsky and Stever (2018) argue for its consideration as a dynamic process. Secondly, their four-stage model, underpinned by the social relationship development paradigm, posits PSR as an alternate form of interpersonal and social relationships, albeit differing in the lack of reciprocity (Hartmann and Goldhoorn, 2001; Kim and Kim, 2017). Lastly, qualitative findings (see Chapter 5.3) affirm the existence of these four stages in PSR development with influencers, thus validating the model's application within this thesis.

Despite the importance of Tukachinsky and Stever's (2018) PSR model, there is a compelling case for an amended version. This PSR model primarily draws from studies of offline PSR, focusing largely on traditional media contexts such as television, soap operas, and films. These contexts differ markedly from online environments. As outlined in Chapter 2.8, the transition from traditional to online media represents significant shifts, particularly in terms

of geography and accessibility. Online media eliminates geographic barriers, enabling global content access and information acquisition. The interactive and personalised nature of social media content results in changes to consumer behaviour, notably a shift from passive consumption to active engagement (Kaplan and Haenlein, 2010). This interactive dynamic allows for two-way interactions, as opposed to the one-way interaction characteristic of traditional media environments (Swani and Labrecque, 2020). For instance, social media users can like, comment on, and share posts, fostering a highly interactive experience (Kabadayi and Price, 2014; Santos et al., 2022). Conversely, traditional media consumption is limited to content provisioned by the media outlets.

Due to the differences between offline and online environments, the conditions of PSI and PSR are different in the offline and online environments. Chapter 2.8 highlights 12 aspects in which PSR diverge in online contexts as opposed to offline ones. For instance, the online environment provides enhanced opportunities for the development of PSR and facilitates a more rapid formation of these relationships. The convenience and heightened accessibility of online media contribute to increased PSI frequencies, thus expediting the PSR development process and altering its pattern (Leite and Baptista, 2022; Burnasheva and Suh, 2022). This implies that PSR in the online contexts have a wider scope and may exhibit distinct critical conditions and contributions at each stage of PSR development. Consequently, it is imperative to revise Tukachinsky and Stever's (2018) PSR model to reflect the unique dynamics of the online environment.

Given that this thesis is centred on influencer marketing, a prominent digital strategy and widespread phenomenon, it is essential to adapt Tukachinsky and Stever's (2018) PSR model specifically for the online influencer marketing context. This adaptation should incorporate the distinctive attributes of influencer marketing, insights from qualitative findings, and current PSR research. The focus on influencer marketing necessitates considering only influencers as the other parties in PSR. A key attribute of influencer marketing is the deep connection audiences form with influencers and their reliance on these influencers' recommendations for making purchase decisions (Yuan and Lou, 2020; Whang and Im, 2021). This profound relational connection effectively reduces the perception of commercial persuasion exerted by influencers (Breves et al., 2021) and positively impacts the perception of products and brands endorsed by influencers, leading to favourable brand attitudes (Reinikainen et al., 2021; Balaban et al., 2022) and heightened purchase intentions (Masuda et al., 2022; Leite and Baptista, 2022).

The qualitative findings further inform the amendment of Tukachinsky and Stever's (2018) PSR model. Insights from twenty-five interviewees shed light on the nuanced process of developing PSR with favoured influencers, offering deeper understanding into this phenomenon. Contrary to Tukachinsky and Stever's (2018) suggestion that the initiation stage of PSR begins with an individual's first interaction with the media figure, the qualitative data reveals a broader range of initial encounters. As detailed in Chapter 5.3.1, individuals often first become aware of influencers through media consumption, such as television and social media. However, it also emerges that initial awareness and impressions can be formed through WOM encounters, as illustrated by an interviewee's experience with discovering an influencer recommended during professional collaboration: "*And the first one is because of my work. I was going to work with a brand planner for an event, and they mentioned that Sophie is their ambassador in the UK. So, then I opened Instagram and saw her posts.*" (Interviewee 22). This finding suggests that the initiation of PSR may occur through a variety of channels, including indirect recommendations or mentions, broadening the conventional understanding of how these relationships begin.

At this stage, individuals form a preliminary impression of the other party, accompanied by a significant degree of uncertainty regarding them (Tukachinsky and Stever, 2018; Yuan and Lou, 2020). The attraction to the other party, such as a media figure's attractiveness, prompts individuals to seek further exposure to them (Tukachinsky and Stever, 2018; Reinikainen et al., 2021). This pursuit of additional encounters is driven by the initial allure, whether it stems from the media figure's physical appearance, charisma, perceived similarities, or the content they produce. As individuals engage more deeply with the media figure, their initial uncertainties begin to diminish, laying the groundwork for a stronger parasocial relationship.

Furthermore, the current PSR studies also suggest the PSR model proposed by Tukachinsky and Stever (2018) can be improved. More than 40 high-quality journal articles have provided more insights into the antecedents and consequences of PSR. For example, in the experimentation stage, Tukachinsky and Stever (2018) highlight the role of perceived similarity. Still, current literature also suggests that perceived influencer expertise is essential in developing PSR (Yuan and Lou, 2020). In the final stage, the theorising of PSR outcomes proposed by Tukachinsky and Stever (2018) focuses on self-concept and mood. However, the current literature suggests PSR can generate more positive outcomes, such as influencer stickiness (Hu et al., 2020) and brand engagement (Zhong et al., 2021).

Tukachinsky and Stever (2018) identify the key predictors in the PSR development process but do not propose assumptions regarding the relationships among these predictors, nor do they empirically test the model. While they provide a theoretical foundation for the PSR development model, serving as a valuable starting point that offers insights, the absence of empirical testing leaves the model's validity and reliability in question. Moreover, the practical application of the model remains ambiguous. Hence, it is crucial to consult current literature and qualitative findings to refine Tukachinsky and Stever's (2018) PSR model, aiming to gain a deeper understanding of how people form PSR with influencers within the influencer marketing context.

6.2.2 AIDA model

The AIDA model, introduced by E. St. Elmo Lewis in 1898, was initially proposed as a strategy for personal selling within the life insurance industry. It has since gained widespread application in the field of marketing, particularly concerning research on online communications and social media (Hassan et al., 2015). The model is employed extensively to comprehend the psychological processes of consumers and their behaviour in media environments (Song et al., 2021). AIDA posits that consumers need to go through a sequence of stages in their journey as customers, starting with gaining attention, developing interest, cultivating desire, and ultimately taking action (Kang, 2022).

In the initial attention stage, securing consumers' attention at the cognitive level represents the foremost step in the communication process (Song et al., 2021). Various factors can enhance consumer attention, including marketing strategies like advertising and search engine optimisation, as well as the internal motivation of consumers (Hassan et al., 2015). For instance, research indicates that within the context of social media, the creativity and authenticity of short videos play pivotal roles in elevating consumer attention and transitioning them into the interest stage (Wu and Lai, 2023).

Interest, delineated as the second stage, embodies consumers' emotional responses towards objects, prompting them to seek additional information at the affective level (Lee and Hoffman, 2015). When consumers find content intriguing, they are inclined to pursue further details and expand their knowledge (Kang, 2022). For instance, online consumers demonstrate their interest in products by actively seeking information from social media

influencers (Wong et al., 2023). Throughout this engagement, individuals are more likely to experience positive emotions, such as enjoyment (Wu and Lai, 2023).

Once individuals have garnered attention and cultivated interest, they may subsequently develop a desire for something (Kang, 2022). Desire encapsulates the motivational emotions and aspirations consumers harbour towards possessing the offering (Weng et al., 2021; Wong et al., 2023). The perceived value of the offering significantly influences consumer desires (Weng et al., 2021). Consequently, companies prioritise articulating a compelling value proposition and fostering consumer trust as strategies to evoke consumer desires (Prathapan et al., 2018). When consumers recognise the value of the objects, their desire to acquire these items emerges, guided by their needs and preferences (Pashootanizadeh and Khalilian, 2018).

The final stage involves taking action, which corresponds to the behavioural level (Wu and Lai, 2023). In this stage, companies endeavour to motivate consumers towards actionable outcomes. This stage is characterised by consumers exhibiting positive behaviours, such as manifesting the intention to purchase and proceeding to actual buying (Song et al., 2021). Nevertheless, it is not guaranteed that consumers will always progress to taking action; rather, they might instead develop a more positive attitude towards the product or service without immediate action (Wu and Lai, 2023).

The AIDA model is deemed suitable for this thesis in identifying the key concepts at each stage of PSR development for two primary reasons. Firstly, the AIDA model has received extensive application in research pertaining to online and social media contexts. For instance, previous studies have employed the AIDA framework to explore strategies for promoting brands online effectively, thereby enhancing communication effectiveness and yielding positive outcomes with brands (Gupta et al., 2016; Song et al., 2021). Secondly, AIDA encapsulates the individual psychological process encountered when engaging with the online environment. This aspect is particularly pertinent to the current research's objective of pinpointing essential psychological conditions at the individual level (Wei et al., 2022). Consequently, the AIDA model is regarded as an instrumental framework that facilitates the identification of crucial psychological cues within the process of relationship development. By adopting the AIDA model, this study delineates involvement, perceived value, PSR, and purchase intention as the pivotal concepts at each stage of PSR development.

According to the AIDA model, the initial stage involves capturing and enhancing consumer attention (Kang, 2022). This study suggests that involvement plays a pivotal role at this stage, as it influences the extent of consumers' focus on their behaviour. Involvement is characterised as the degree to which viewers concentrate on the act they are experiencing when using social media (Vazquez et al., 2017). Given the vast array of information present within the social media environment, coupled with consumer distraction, individuals may not attend to every influencer they encounter (Chang and Thorson, 2023). Hence, as the first stage in the development of PSR, it is essential for consumers to concentrate on the content they are viewing, particularly that which is produced by specific influencers.

In the second stage, marked by the influence of interest, this thesis posits that perceived value is a crucial determinant in consumers' overall assessment when sourcing information from influencers in whom they have developed an interest (Song et al., 2021). Perceived value is delineated as the extent to which a media user derives usefulness and enjoyment from engaging with influencers' posts (Overby and Lee, 2006; Lou and Yuan, 2019). As outlined by the AIDA model, during the interest phase, consumers actively process the information related to the target to form their perception, such as assessing the ease of use and the usefulness (Song et al., 2021). Consequently, consumers are able to perceive the value offered by influencers during the interest stage through consumption with the content they produce.

In accordance with the AIDA model, during the desire stage, consumers' objectives are predominantly driven by emotional factors (Wen et al., 2021). This thesis advocates that, under the influence of desire, consumers aspire to develop and sustain a stable, long-term connection with influencers, which is PSR. As elaborated in Chapter 5.4.2, PSR refers the psychological connection that develops between consumers and influencers. This connection encapsulates consumers' distinct aspiration to cultivate a relationship with the influencer, which evolves into an actual psychological connection that has been established.

The final stage of the AIDA model is action, characteristically manifested through actual behaviour, behavioural intentions, or attitudes (Song et al., 2021; Wu and Lai, 2023). In light of this, the thesis argues that purchase intention plays a pivotal role in the ultimate stage of PSR development. Purchase intention is defined as consumers' intention to purchase a product or service under the influence of influencers based on their evaluation (Hwang and Zhang, 2018; Lu and Chen, 2021). It is considered one of the most significant antecedents in forecasting consumers' actual buying actions and a vital factor for assessing the efficiency

of influencer marketing (Silva et al., 2019). Furthermore, many studies in influencer marketing have highlighted that consumers' purchase intentions are significantly influenced by their preferred influencers (Breves et al., 2021; Balaban et al., 2022).

6.3 Proposed model of PSR development process

6.3.1 Stage 1: Exposure initiation

In the first stage of PSR, individuals encounter the other party for the first time through various media channels. This exposure initiation stage is typically short, as individuals critically evaluate the other party and gather basic information (Tukachinsky and Stever, 2018). For instance, when individuals engage with social media, they encounter numerous posts or videos produced by unknown creators. This marks the beginning of the exposure initiation phase (Sokolova and Perez, 2021). At this point, individuals decide whether they wish to continue engaging with and receiving information from this creator. Some viewers opt not to proceed, remaining in the initial stage of exposure (Tukachinsky and Stever, 2018).

Consuming media does not necessarily lead to initial impressions about others due to generally low levels of attention and ineffective communication. This lack of communication effectiveness stems from individuals filtering out information (Duff and Sar, 2014; Wolfe, 2021). On one hand, the tendency to multitask results in a failure to engage with consumed information fully (Santoso et al., 2020). On the other hand, viewers engage in processing information from multiple sources simultaneously, leading to intuitive feelings and limited understanding of the other party (Hartmann and Goldhoorn, 2011). Hence, capturing attention and focusing on the other party represents critical initial steps at the beginning of PSR. The AIDA framework supports this, highlighting the importance of attracting attention to raise awareness, thereby providing an opportunity to progress to the next stage (Lagrosen, 2005; Daugherty and Hoffman, 2013). Subsequent sections will explore key factors further. The complete conceptual framework is depicted in Figure 6.1.

Involvement

As is discussed in Chapter 6.2.2, involvement is identified as a pivotal concept in the exposure initiation stage, dictating whether individuals will pursue further knowledge about another party and deepen their PSR. The definition of involvement varies across disciplines,

Figure 6.1 Conceptual framework
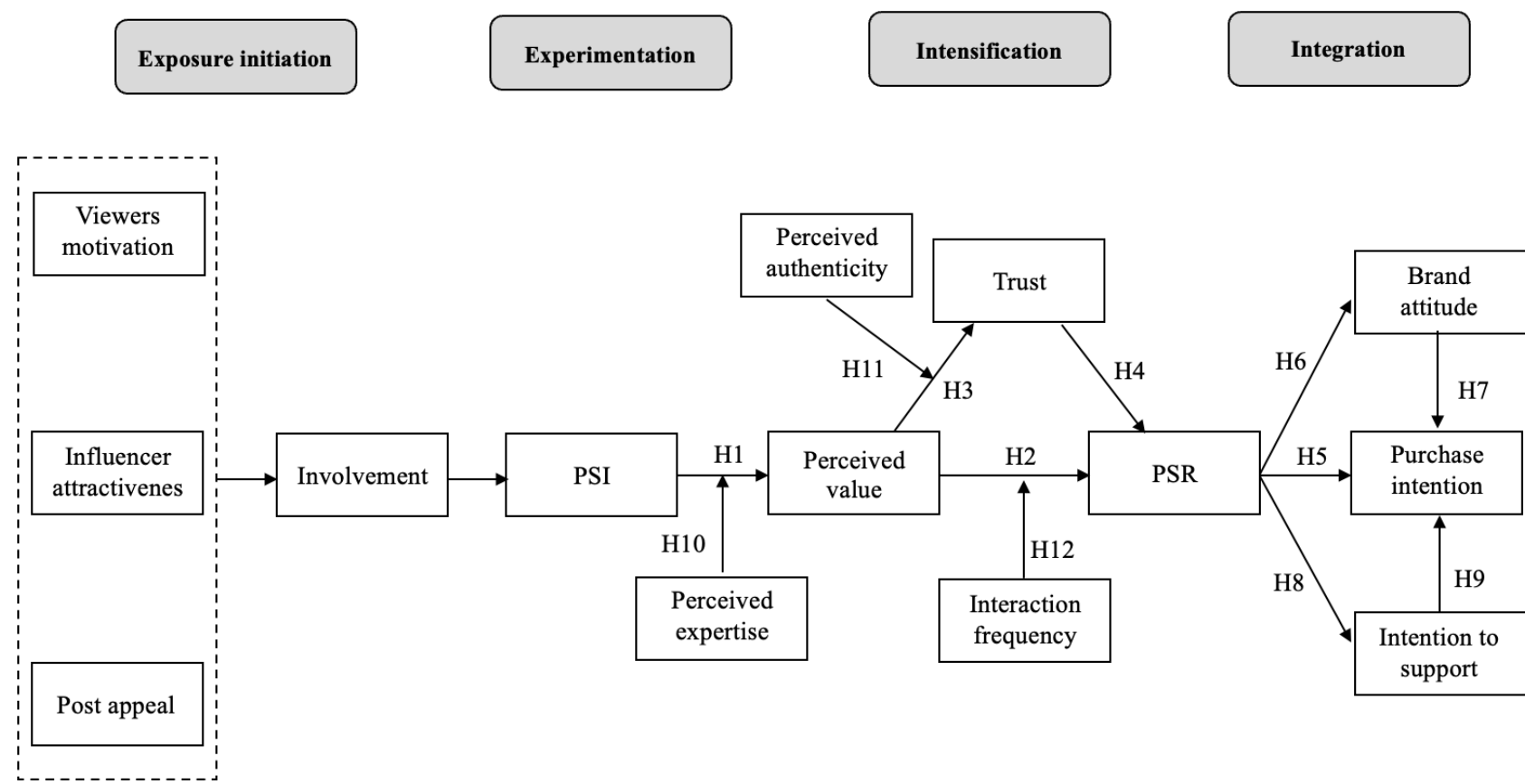
such as marketing and media, depending on the research context and objectives. From a marketing perspective, involvement pertains to the consumer's engagement with a product and decision-making processes regarding purchases (Zaichkowsky, 1986). In contrast, the media perspective on involvement emphasises the relationship between media consumers and the information presented, along with the locus of the consumers' psychological activities (Sun et al., 2008). Social media involvement, specifically, relates to users' perceptions of their concentration level while engaging with social media practices (Vazquez et al., 2017). Given the focus of this thesis on users' involvement with social media influencers' content, it adopts the latter definition, describing **involvement** as the extent to which viewers concentrate on the act they are experiencing when using social media (Vazquez et al., 2017).

Drawing on existing literature, visual attention theory, and qualitative findings, this thesis delineates three pivotal conditions that bolster consumer involvement on social media platforms. Primarily, the motivations of viewers play an instrumental role in augmenting consumer involvement (Leung and Bai, 2013). When individuals perceive that their needs are being met, their likelihood of involvement more deeply increases (Leung and Bai, 2013). The literature indicates that the extent of online users' involvement is, in part, influenced by their diverse motivations (Sun et al., 2008). Furthermore, interviewees have highlighted various motivations, including the pursuit of information and the desire to forge relationships, as catalysts for their involvement with social media content (refer to Chapter 5.3.1). Consequently, this thesis asserts the pivotal role of viewers' motivations in fostering increased consumer involvement in social media.

Secondly, the theory of visual attention suggests that bottom-up factors can account for the extent of a viewer's focus within a complex environment (Wilson et al., 2015). Bottom-up characteristics pertain to the intrinsic properties of objects that may involuntarily heighten attention (Katsuki and Constantinidis, 2013). Fundamental aspects of an object or content, such as colour and size, are shown to significantly enhance consumers' focus (Wilson et al., 2015). The qualitative findings further indicate that essential features of social media posts can boost consumer engagement. As explored in Chapter 5.3.1, the appeal of social media posts, including background music and the design of the post's cover page, plays a role in drawing consumers' attention and engagement with influencers. Consequently, this thesis posits that the appeal of a post constitutes a vital factor in augmenting consumer involvement in the social media context.

Thirdly, researchers in social relationships propose that individuals' facial features and qualities contribute significantly to their focus and attention, particularly the eyes (Richards et al., 2015). In influencer marketing, influencers' attributes, such as their physical traits, have been identified as critical factors in the initial stage of PSR development (Yuan and Lou, 2020; Yuan et al., 2021). The qualitative findings further indicate that the key characteristics of influencers are closely linked to consumer involvement, predominantly influencers' attractiveness. Interviewees have noted that influencers' social, physical, and vocal appeal are principal factors drawing them into the media consumption experience (refer to Chapter 5.3.1). Consequently, this thesis advocates that influencer attractiveness is a vital condition for augmenting consumers' involvement within the social media context. Next, this chapter will provide a critical review of the three key factors.

Viewers' motivation

Although the definition of motivation has yet to be universally agreed upon, it generally refers to the internal mechanisms that arouse individuals, ultimately driving them to take specific actions (Kleinginna and Kleinginna, 1981; Oh and Syn, 2015). This thesis defines **motivation** as the drive to satisfy individual needs through social media (Park and Lennon, 2004; Kim, 2020). Adopting self-determination theory (SDT), it argues that individuals are capable of making their own choices and decisions (Ryan and Deci, 2000). Drawing on SDT and qualitative findings, it identifies two primary motivations for consuming social media content: intrinsic and extrinsic (Kim and Drumwright, 2016).

Intrinsic motivation refers to the natural tendency of individuals towards activities that are inherently satisfying, such as enjoyment (Ryan and Deci, 2000). The intrinsic motivations for using social media predominantly include entertainment, seeking information, and building relationships (Kim, 2020; Zafar, Qiu, and Shahzad, 2020; Chiu and Huang, 2015). However, the motivations for using different social media platforms vary (Kim and Lee, 2016). Oh and Syn (2015) conduct a comparative study on users' motivations across Facebook, Twitter, Delicious, YouTube, and Flickr, finding that motivations are not uniform across these platforms due to the differing functions and information each provides.

Entertainment refers to individuals seeking temporary spiritual relaxation, enjoyment, and fun through social media (Park et al., 2009; Yang and Ha, 2021). Researchers argue that the motivation for entertainment is the primary driver for the use of social media (Chiu and

Huang, 2015; Liu et al., 2019; Kim, 2020). Individuals increasingly turn to the internet for daily entertainment, particularly via social media platforms like Instagram and YouTube, which offer a wealth of entertainment options for consumption (Heinonen, 2011; Noguti and Waller, 2020). People are more inclined to seek relaxation and distraction by engaging with content on social media in a low-cognitive manner (Noguti and Waller, 2020). When individuals engage with entertaining content, and viewers are presented with this interactive amusement, they experience relaxation and joy, perceiving the characters within the media as sharing something compelling (Liu et al., 2019; Croes and Bartels, 2021).

Information seeking is defined as the proactive endeavour to gather information to fulfil personal objectives via social media (Asghar, 2015; Zafar et al., 2020). The acquisition of information is deemed crucial for media users (Esteban-Santos et al., 2018). In traditional media, individuals access news through specific television programmes (Rubin et al., 1985). Within the online sphere, social media is considered a vital channel for acquiring information about friends (Frampton and Fox, 2021), celebrities and influencers (Kim and Kim, 2020; Jin and Ryu, 2020), products (Leonhardt et al., 2020), brands (Colliander and Erlandsson, 2013; Qin, 2020), and for keeping abreast of news and solving problems (Chiu and Huang, 2015). Influencers, in particular, are known to furnish detailed information about products, brand insights, and product usage experiences, thereby catering to consumers' information-seeking motivations (Wongkitrungrueng et al., 2020).

This thesis defines **relationship building** as the use of social media by individuals to establish and sustain connections (Yuan et al., 2016). The fundamental social need among people is the desire to connect with others (Oleson, 2003). Due to its convenience and effectiveness, individuals frequently turn to social media to forge and enhance relationships. On one hand, social media facilitates ongoing interaction and the maintenance of relationships with family and friends (Williams and Merten, 2011). On the other hand, it enables individuals to interact and cultivate connections with celebrities, influencers, and community members (Sokolova and Perez, 2021). Consequently, individuals seeking to build and uphold relationships are more inclined to engage with social media platforms.

Extrinsic motivation, as opposed to the intrinsic motivations previously discussed, pertains to engaging in activities for the sake of achieving a separable outcome, such as evading punishment or securing monetary rewards (Ryan and Deci, 2000). Although extrinsic motivation plays a crucial role in determining viewers' behaviour on social media, the lack of viewers' self-reports means that extrinsic motivations, particularly economic incentives,

are often overlooked by scholars (Vilnai-Yavetz and Levina, 2018). Typically, these economic incentives include discounts and coupons. The qualitative findings further highlight consumers' extrinsic motivation when engaging with influencers' content on social media. For example, one interviewee mentioned, "*Jiaqi Li shares a lot of useful information about cosmetics for young women. And he often offers many discounts, so I frequently check his posts to find product discounts*" (Interviewee 7).

Economic rewards refer to monetary incentives used by influencers, celebrities, and brands to draw viewers, potentially offering utilitarian value to consumers within the social media context (Coker et al., 2015). Enticing promotional content on social media can impact consumers' purchasing decisions and motivate followers to stay updated with the latest promotional offers (Yasa et al., 2020; López et al., 2021). Research indicates that economic rewards are effective in augmenting consumers' website browsing and online shopping activities (Joines et al., 2003), fostering brand participation on social media (Kim and Drumwright, 2016), enhancing consumer engagement on social media platforms, improving the company's reputation through word-of-mouth, and boosting the sharing of e-commerce content (Ryu and Feick, 2007; Vilnai-Yavetz and Levina, 2018).

The existing literature and qualitative findings indicate that the motivations of social media users are crucial factors influencing their involvement. In the digital context, the involvement of users is partially determined by the variety of their motivations (Sun et al., 2008). Sun et al. (2008) demonstrate that online users' motivations for entertainment, information seeking, social interaction, and control have a positive impact on their involvement, subsequently affecting their reliance on media. Further studies corroborate that the motivations behind using social media, such as information acquisition, relationship building, socialising, and entertainment, are positively associated with the level of user involvement with brands' social media pages (Leung and Bai, 2013). The qualitative evidence also supports these findings. For example, one interviewee shared, "*I remember trying to improve at playing League of Legends, but I wasn't very skilled. So, I decided to look up some video tutorials from top game bloggers. I just entered some keywords and found a video that seemed to fit my needs. I clicked on it and began to engage with the content*" (Interviewee 21).

Influencer attractiveness

Attractiveness is regarded as a quality or an attribute that plays a vital role in daily life and the online environment (Walther et al., 2008; Yuan and Lou, 2020). In social relationships, the attractiveness of an individual can influence the impression of other people and the relationship between themselves (Krebs and Adinolfi, 1975). For instance, people will regard attractive persons with more positive qualities, such as honesty (Cloutier et al., 2008; Paunonen, 2006). In a romantic relationship, the perceived attractiveness of a partner is positively related to love and higher satisfaction (Sangrador and Yela, 2000).

In the social media environment, attractiveness is one of the critical influencer characteristics (Gupta et al., 2022; Wiedmann and von Mettenheim, 2020). Influencer attractiveness can lead to several positive outcomes and determine the marketing campaign's success (Kim and Park, 2023; Vrontis et al., 2021). Viewers are more willing to establish relationships with attractive influencers. For example, according to the existing research, viewers think that LeBron James is attractive, which is positively related to fans establishing PSR with LeBron James (Yuan et al., 2016). Other studies also confirm that people are more willing to develop long-term relationships and become fans if the influencer is attractive (Sakib et al., 2020; Yuan and Lou, 2020). In addition, if people regard the influencer as attractive, it will increase PSI (Lee and Watkins, 2016), increase consumer engagement on social media (Fang et al., 2020) and increase people's purchase intention (Chen et al., 2021).

This thesis proposes influencer attractiveness, which is presented in three aspects: physical, social, and voice attractiveness, based on current studies and qualitative findings (Knoll et al., 2015; Kim and Kim, 2021). Physical, social, and vocal attractiveness contribute to the overall attractiveness of influencers, but people perceive them differently based on their different sensory perceptions (Groyecka et al., 2017). **Physical attractiveness** refers to viewers' perception of the degree to which the influencer's physical features are pleasing to observe, such as the influencer's facial or body appearance (Wiedmann and von Mettenheim, 2020; Kim and Park, 2023). Influencers' physical attractiveness is based on viewers' visual perception (e.g., '*She looks cute, and I want to see more about her daily life*' (Interviewee 23)). People are likelier to watch the content and videos generated by more attractive influencers because it leads to visual aesthetics (Ki et al., 2020).

Social attractiveness can be defined as viewers' perception of a person's familiarity and likeability, indicating social media users' intention to communicate and build relationships

with the other party (Liu et al., 2019; Han and Yang, 2018). In most cases, people tend to regard influencers who are similar to themselves as socially attractive (Lee and Watkins, 2016). In the social media environment, viewers easily perceive the internal similarities (e.g., age and background) and external similarities (e.g., value and attitude) with the influencers (Fu et al., 2017). Further, suppose the influencer has a large number of followers. In that case, social media users are more likely to perceive the influencer's popularity (De Veirman et al., 2017) and regard the influencer as having high social attractiveness (e.g., '*And I think because he is one of the most famous, he was like showing up as the first one*' (Interviewee 25)).

Voice attractiveness can be regarded as the third aspect of influencer attractiveness, assessed auditorily (Groyecka et al., 2017). In advertising research, scholars have found that voice quality and prosodic can influence consumers' perceptions and attitudes (Gelinas-Chebat and Chebat, 1992; Casado-Aranda et al., 2018). Interviewees also mention that they are attracted by influencers' voices (e.g., '*When I first listened to his songs, I was attracted by his euphonious voice*' (Interviewee 2)). Therefore, this thesis proposes **voice attractiveness** is the third dimension of influencer attractiveness and can be defined as the viewer's perception of the degree to which the influencer's voice characteristics are pleasing to hear.

Existing literature and qualitative findings suggest that social media users' attractiveness influences their involvement. Psychology scholars find that individual facial beauty can appeal to people's spatial attention (Sui and Liu, 2009). As discussed above, users' involvement focuses on to what extent people are concentrated and pay attention to the act when they consume social media (Vazquez et al., 2017). People are attracted to attractive influencers in the online environment (Lee and Watkins, 2016). People pay more attention to Facebook users who are highly physically attractive than unattractive users (Seidman and Miller, 2013). Influencers pay great attention to their appearances, such as delicate makeup and nice clothes, to increase their attractiveness. High attractive people can increase other people's attention, especially in unconscious conditions (Hung et al., 2016). Meanwhile, influencers also employ performance techniques (e.g., smiling) to increase social attractiveness. If people perceive attractive faces with rotated faces and smiles, it can significantly attract viewers' visual focus (Kim et al., 2018). The qualitative findings also support this (e.g., 'When I watch beauty videos, I noticed that she is a very interesting person who looks very down to earth. I also noticed that she also has a Greek background, as I mentioned. So, I watched her videos and listened to her suggestions.' (Interviewee 15)).

Visual appeal

In this thesis, **visual appeal** is defined as the extent to which viewers perceive an influencer's post as visually or aesthetically pleasing (Ki and Kim, 2019). Within advertising and social media contexts, maintaining a high aesthetic standard in images and videos can elicit strong emotional reactions and convey specific messages to the audience (Teng et al., 2014). In the social media environments, users show a preference for high-quality posts and images that are visually attractive (Al-Emadi and Ben Yahia, 2020). For instance, posts characterised by high informational quality, design excellence, creativity, and technological sophistication are deemed visually appealing (Cheung et al., 2022). Employing photos with aesthetic appeal on social media, such as those with high image contrast, can enhance processing fluency and aesthetic response, subsequently leading to more positive behaviours (Kostyk and Huhmann, 2021). Moreover, influencers often utilise professional video equipment and image post-processing techniques to boost visual appeal and attract a larger following (Al-Emadi and Ben Yahia, 2020).

Images and videos of high visual appeal in online contexts exert significant persuasive effects and influence user behaviour. Firstly, visual appeal can enhance customers' perceptions of product qualities, positively affect their attitude towards the product, and lead to positive behavioural outcomes, such as purchase intention (Huettl and Gierl, 2012) and word-of-mouth recommendations (Ki and Kim, 2019). Additionally, visual appeal contributes to the enhancement of customers' hedonic value (Amanah and Harahap, 2020), enriches the customer experience (Zhang et al., 2015), and fosters customer satisfaction (Chi, 2018). Furthermore, the high visual appeal of social media content has a positive impact on online customer engagement (Rietveld et al., 2020).

Both existing literature and qualitative findings underscore the significant influence of visual appeal on viewer involvement. Visual attractiveness serves as a powerful stimulus, capable of making an instant impact on viewers, encouraging them to pay greater attention and devote more time to the content (Lindgaard et al., 2006; Gilani et al., 2013). Content creators on social media often employ design techniques to craft attractive posts, notably through the use of aesthetically pleasing photographs (Kostyk and Huhmann, 2021; Al-Emadi and Ben Yahia, 2020). Research indicates that content with visual appeal on platforms like YouTube can heighten viewers' focus and interest, thereby increasing the number of views and likes (Gupta et al., 2016). Qualitative evidence supports these findings, as exemplified by an

interviewee's remark: " *Some influencers, their video headlines are attractive, and it captures my attention to see the content* " (Interviewee 1).

In conclusion, exposure initiation represents the first stage, in which consumers are introduced to influencers via social media. As delineated by the AIDA model, alongside qualitative findings and existing literature, three pivotal elements are instrumental in determining consumer involvement: consumer motivations, influencer attractiveness, and visual appeal. The level of consumer involvement serves as a predictor for whether individuals will pursue further information about the influencer and establish PSR. High consumer involvement facilitates progression to the experimentation phase, during which consumers begin to form a PSR with the influencer, setting the stage for their ongoing journey of PSR development. The subsequent section will elaborate on the theorisation of the experimentation stage.

6.3.2 Stage 2: Experimentation

During the experimentation stage, media users form their impressions of the other party and express interest in gaining further knowledge about them (Tukachinsky and Stever, 2018). As posited by the AIDA model, cultivating interest is crucial for acquiring additional information and motivating individuals to progress to the subsequent stage (Lee and Hoffman, 2015). At this stage, media users continue to engage with the media content, forming perceptions of the other party and reducing uncertainty regarding them (Tukachinsky and Stever, 2018). Individuals interpret the other party through both auditory and visual cues, facilitating the experience of PSI by consuming the other party's posts or live streaming on social media platforms (Boerman, 2020; Kim et al., 2020).

Within the social media environment, media users readily access auditory information and interactive signals, fostering a belief in conversational communication with the other party (Cummins and Cui, 2014). Additionally, non-verbal cues, including physical gestures, are communicated to the audience, enriching their experience (Cummins and Cui, 2014). Such non-verbal cues, like eye contact, have been identified as crucial components that lead viewers to feel a sense of physical interaction with the other party (Horton and Wohl, 1956; Oliver et al., 2019). The conveyance of non-verbal information varies with the medium; while images and videos effectively transmit these cues visually, audio or textual formats

may struggle to do so. Through this interaction, viewers assess various attributes of the other party, perceiving their characteristics and values.

PSI

Drawing from Tukachinsky and Stever's (2018) PSR model, and supported by qualitative findings, PSI is identified as a critical concept in the experimentation stage. PSI is broadly understood as the conversational communication experience by viewers with another party through media (Tukachinsky et al., 2020). It accentuates the digital interaction between individuals and the sensation of mutual awareness, attention, and adaptation with another party during media consumption (Lo et al., 2022; Hartmann and Goldhoorn, 2011). While some researchers perceive PSI as the virtual connection between viewers and media attributes, this thesis delineates PSI and PSR as distinct constructs, with seven criteria differentiating them as outlined in Chapter 2. Specifically, this research concentrates on **PSI** within the context of influencer marketing, and defines it as individuals' perception of direct, reciprocal and one-to-one communication with influencers through social media (Hartmann and Goldhoorn, 2011).

Verbal and non-verbal cues from communicators can significantly enhance viewers' experiences of PSI. Direct cues, in comparison to indirect ones, are more effective in fostering stronger PSI (Oliver et al., 2019). The manner in which information is presented verbally plays a crucial role in both its delivery and the recipient's perception (Parhankangas and Renko, 2017). For instance, employing interactive verbal strategies, such as posing questions, can positively influence viewers' perceptions of engaging in a direct dialogue, even if the questions are not personally addressed to them (Cummins and Cui, 2014). Similarly, body language, a prevalent form of non-verbal communication, impacts PSI significantly. Horton and Wohl (1956) note that TV presenters' expressive body language, like making eye contact with the camera, can intensify viewers' sense of PSI.

PSI can lead to a range of outcomes. For instance, Kim and Kim (2017) find that individuals' PSI with websites could boost well-being and promote WOM recommendations. Moreover, when consumers experience PSI with an endorser, this can enhance their perception of the source's credibility, improve their attitude towards both the advertisement and the product, and heighten their purchase intentions (Gong and Li, 2017). Similarly, users' PSI with a smart speaker is linked to increased perceptions of the device's usefulness and ease of use,

which, in turn, influences their attitude, intentions to continue using the product, and online purchase intentions (Hsieh and Lee, 2021). Additionally, users' PSI with live streamers can amplify consumers' affective responses, leading to an increase in impulsive buying urges and behaviour (Lo et al., 2022).

Perceived value

As explored in section 6.2.2, perceived value emerges as a key concept within the experimentation stage, crucial for determining whether individuals will advance to the subsequent stages of PSR development. Echoing the AIDA model, consumers actively assimilate information about the target during the interest stage to form their perceptions, such as perceived ease of use and perceived usefulness (Song et al., 2021). Contrary to certain existing studies that view perceived value as a unidimensional construct, this thesis adopts a multidimensional perspective. It distinguishes between hedonic value and utilitarian value, aligning with contemporary consumer behaviour research (Chang and Tseng, 2013; Lou and Yuan, 2019). Consequently, this thesis conceptualises **perceived value** as the overall evaluation of relevant factors when engaging with influencers on social media (Zeithaml, 1988; Lou and Yuan, 2019).

In the online environment, utilitarian value is closely linked to consumer purchasing behaviour, as consumers can effortlessly discover products they desire and proceed to payment (Bridges and Florsheim, 2008). Additionally, the efficiency and utility of e-services further enhance the online purchasing experience for consumers (Etemad-Sajadi and Ghachem, 2015). In the context of online shopping, utilitarian value manifests in consumers' pre-purchase considerations and decisions. This encompasses evaluating product characteristics and quality, the ease of searching for products, transaction convenience, and the availability of discounts (Wu et al., 2014; Fang et al., 2016; Sharma and Klein, 2020).

The **utilitarian value** of an influencer's social media post can be defined as the degree of usefulness a media user assesses from reading or watching influencer posts (Overby and Lee, 2006; Meske et al., 2019). Viewers may perceive utilitarian value through recommendations from influencers that aid in assessing products or services (Guo et al., 2021). It is common for consumers to discover valuable information within social media accounts (Zafar et al., 2020). When consumers recognise the utilitarian value in social media posts, it leads to an

enhancement of their PSR with the influencer, which in turn enhance consumer brand engagement and fosters brand loyalty (Zhong et al., 2021).

Beyond utilitarian value, consumers can perceive hedonic value from influencers' posts. Hedonic value encapsulates the emotional and entertainment aspects of online experiences, including recreational, emotional, and experiential benefits (Overby and Lee, 2006; Wongkitrungrueng and Assarut, 2020). In this study, the **hedonic value** of an influencer's social media content refers to the fun and playfulness that a media user experiences from reading or watching influencers' posts (Hughes et al., 2019). Such experiences can significantly influence consumer behaviour on social media platforms (Mathwick et al., 2001; Tasci and Ko, 2015; Zhong et al., 2021). The enjoyment derived from using social media often leads to continued consumption and increases in impulse buying tendencies (Hou et al., 2019). Furthermore, playfulness in consumers can elevate their likelihood of making advanced purchases as well as enhance their attitudes and intentions to buy (Bun et al., 2017; Yang et al., 2018).

This thesis argues that PSI will enhance the perceived value of influencer posts. On one hand, viewers are likely to experience positive emotions when engaged in what feels like a reciprocal conversation (Oliver et al., 2019). Previous research has shown that users' PSI can heighten their gratification and overall satisfaction (Chiu and Huang, 2015; Choi et al., 2019). For instance, if television viewers have PSI with TV shopping hosts, this experience is found to boost their satisfaction levels (Lim and Kim, 2011). Similarly, when users form PSI with mobile shopping applications, it not only increases their perceived value of the service but also their satisfaction (Tseng et al., 2022). On the other hand, the experience of engaging in two-way communication can assist individuals in assessing the utilitarian value (Hsieh and Lee, 2021).

Existing research has demonstrated a positive relationship between PSI and utilitarian value (Goldberg and Allen, 2008). For instance, users' PSI with a website can positively affect their perceived ease of use and the site's usefulness (Goldberg and Allen, 2008). Similarly, when users form PSI with smart speakers, it enhances their perception of the devices' usefulness and ease of use (Hsieh and Lee, 2021). This positive correlation between PSI and perceived value is also evident in qualitative findings. For example, one interviewee expressed, "*When I watch videos, sometimes I feel like they are directly talking to me. They suggest whether or not to buy certain products and share their experiences with those products, which helps me decide whether to buy them or not. You know, it's like having a*

personal recommendation from those influencers who have already tried the product, which is very helpful." (Interviewee 9). Despite the lack of empirical research examining this relationship within the context of influencer marketing, this thesis anticipates the continuation of the positive relationship in this context. Formally,

H1: PSI positively influences perceived value on social media.

In summary, during the experimentation stage, consumers seek out additional information about the influencers they find intriguing. The AIDA model, supported by qualitative findings and contemporary literature, identifies PSI as a critical element in enriching the consumer experience and thereby augmenting the perceived value of influencer posts (Hsieh and Lee, 2021). As consumers attribute high value to these posts, they go into the intensification stage, wherein their connections with the influencers strengthen. The subsequent section will delve into theorising about the intensification stage.

6.3.3 Stage 3: Intensification

The intensification stage represents the third stage in the development of PSR. During this stage, individuals aspire to develop a relationship, strive to sustain it, and ultimately form a strong attachment to the other party. The AIDA model posits that this aspiration stems from individuals' inherent needs and desires (Pashootanizadeh and Khalilian, 2018). For instance, individuals may come to view the other party as friends to fulfil their need for social connection (Tukachinsky and Stever, 2018; Esteban-Santos et al., 2018). Throughout this stage, the level of trust towards the other party intensifies, accompanied by an increase in the frequency of interactions.

PSR

This thesis proposes that people establish a strong PSR with influencers at the end of the intensification stage. In this thesis, **PSR** refers to an individual's dynamic psychological attachment to influencers, developed unilaterally through media and perceived as personally meaningful. Existing research has found various antecedents and outcomes of PSR (Appendics 6&7). For antecedents of PSR, influencers' intimate self-disclosure (Leite and Baptista, 2022), influencer attractiveness (Farivar et al., 2022), and influencer expertise (Aw and Chuah, 2021) are all positively related to PSR. For outcomes of PSR, existing research

has found that if people have PSR with an influencer, it can increase consumer purchase intention (Wahab et al., 2022; Masuda et al., 2022), brand trust (Reinikainen et al., 2020) and brand attitude (Agnihotri and Bhattacharya, 2020).

This thesis proposes that perceived value positively influences PSR. By forming PSR with influencers, individuals can continue deriving both hedonic and utilitarian benefits from their content, thereby satisfying a range of needs, such as entertainment (Lee and Cho, 2020; Zafar et al., 2020). From a hedonic perspective, such value fulfils individuals' desires for relaxation and entertainment, facilitating the development of connections. For instance, one interviewee remarked, "*I felt that he was very interesting and also the videos and live streaming, which I can get more fun compared with other video game influencers, so I follow him*" (Interviewee 21). Additionally, enjoyment from using virtual assistants has been linked to stronger PSR with these systems (Noor et al., 2022). Moreover, in the social media environment, the hedonic enjoyment derived from posts has been positively associated with consumers' PSR with brands (Zhong et al., 2021).

From a utilitarian perspective, value is positively associated with PSR. For instance, the perceived usability of a blog has been shown to enhance PSR (Quelhas-Brito et al., 2020). Similarly, Zhong et al. (2021) observe that the utilitarian benefits characteristic of social media posts from hospitality brands significantly influence PSR. Qualitative evidence further supports a positive correlation between utilitarian value and PSR. An example from the findings illustrates this: "*I keep following them…I would say, because those influencers create useful videos, I can apply them to my daily life. For example, vegan fitness influencers will post some recipes for their diet. Also, they will make a short video of how they cook it, so I can just use it in my life*" (Interviewee 14). Despite the empirical research gap in testing this relationship within the influencer marketing context, this thesis anticipates that the positive association between utilitarian value and PSR will persist in this domain. Formally,

H2: Perceived value of influencer's social media content positively influences PSR on social media

Trust

Trust is a critical concept within relationship marketing, as articulated by Morgan and Hunt (1994), who define trust as "confidence in an exchange partner's reliability and integrity". It

serves as a metric for gauging the quality of relationships between two entities (Kim and Kim, 2021). Trust is known to precipitate a range of positive outcomes; notably, a direct correlation exists between brand trust and brand loyalty (Delgado-Ballester and Luis Munuera-Alemán, 2005; Sung and Kim, 2010). In the context of this study, **trust** is conceptualised as an individual's belief that an influencer will provide consistent and competent quality (Jun and Yi, 2020; Chaudhuri and Holbrook, 2001).

In online environments, particularly within influencer marketing, establishing trust between consumers and influencers presents a notable challenge. Often, influencers collaborate with brands to endorse and recommend products, directing their content more towards product and brand promotion. This focus aims to provide beneficial information about the products and brands rather than reflecting the influencers' genuine personal opinions (Hudders et al., 2021). Digital celebrities seamlessly integrate advertisements and promotions into their daily life updates, obscuring the distinction between genuine endorsements and commercial intent for consumers (Lueck, 2012). However, when viewers discern brand influence over the influencer and the commercial nature of posts, this perception adversely affects their trust in the influencers (Martínez-López et al., 2020). Consequently, to bolster consumer trust, influencers must enhance their trustworthiness (Lou and Yuan, 2019). Research indicates that consumers are discerning in their engagement with influencers, tending to trust and follow the recommendations of those they perceive as trustworthy and favour (Sokolova and Perez, 2021; Agnihotri and Bhattacharya, 2020).

This thesis proposes that perceived value positively influences trust, although empirical research presents mixed findings on this relationship. The discrepancy arises in different contexts; for instance, while the hedonic value of shoe products is shown to enhance brand trust in a traditional retail environment, their utilitarian value does not have a significant impact on brand trust (Achmad et al., 2020). Conversely, in the digital environment, Albayrak et al. (2019) observe that the hedonic value of a website does not influence brand trust. Yet, Dastan and Gecti (2014) find that both the utilitarian and hedonic values of a smartphone positively affect brand trust.

In influencer marketing, Lou and Yuan (2019) demonstrate that the informative value of influencer posts significantly enhances users' trust in the advertised content, whereas the entertainment value does not affect trust in the same manner. Conversely, Sharma and Klein (2020) find evidence suggesting that when consumers perceive value in an online buying group, their trust in the group increases. Qualitative findings support this, indicating a

positive relationship between perceived value and trust. For instance, one respondent stated, "*I really trust him because I have that really good experience with the previous products I bought from his product. He's suggestion is really helpful and trustful.*" (Interviewee 11). Echoing Sharma and Klein (2020), this thesis posits that a similar effect exists between social media users and their preferred influencers, thereby suggesting that perceived value plays a crucial role in fostering trust. Therefore,

H3: Perceived value of influencer's social media content positively influences trust in influencer on social media

This thesis posits that viewers' trust in influencers will have a positive impact on PSR. Research in the domain of influencer marketing has consistently demonstrated that individuals are more inclined to develop PSR with influencers whom they perceive as trustworthy and credible (Yuan et al., 2016; Yuan and Lou, 2020). Furthermore, Sokolova and Perez (2021) corroborate that influencers' credibility significantly enhances PSR between viewers and influencers. Despite the existing gap in empirical studies specifically exploring the relationship between trust and PSR within influencer marketing, trust is acknowledged as a critical determinant in the evolution of consumer relationships with brands. For instance, Zhang et al. (2020) finds that trust serves as an antecedent to long-term consumer-brand relationships, such as brand love. Similarly, Li et al. (2020) identify a positive correlation between consumer trust and brand loyalty. Qualitative evidence also underscores a positive linkage between trust and PSR, with one participant noting, "*I keep following them, and it's because of established trust.*" (Interviewee 15). Consequently, this thesis anticipates a positive relationship between trust and PSR in the influencer marketing context. Formally,

H4: Trust in influencer positively influences PSR on social media

In conclusion, during the intensification stage, consumers develop stronger connections with influencers. Guided by the AIDA model, alongside qualitative findings and current literature, it is evident that consumers desire to cultivate long-term relationships with influencers, culminating in the development of psychological attachment by the end of this stage. Trust emerges as a critical factor in this process, significantly contributing to the development of PSR. Upon establishing a PSR with influencers, consumers are motivated to take action, transitioning into the outcome stage, integration. The subsequent section will delve into theorising about the integration stage.

6.3.4 Stage 4: Integration

Based on the discussion in Section 6.2.2, the final stage of the PSR development process involves the individual developing loyalty and responding to the other party. The AIDA model suggests that individuals may exhibit behaviours such as engaging in actual behaviour, forming behavioural intentions, or adopting attitudes (Song et al., 2021; Wu and Lai, 2023). At this stage, consumers are more susceptible to influence from influencers. For instance, followers who establish PSR with digital celebrities, under their influence, may experience urges to make purchases impulsively (Zafar et al., 2020). Drawing upon the AIDA model, qualitative findings, and existing literature, this thesis posits that individuals are likely to show support for influencers and have positive brand attitudes and purchase intentions.

Consumers are aware that influencers collaborate with brands to endorse products and earn commissions (Coates et al., 2020; Lee et al., 2021). Nonetheless, they trust their favourite influencers to provide authentic product reviews rather than misleading advertisements (Audrezet et al., 2020). Influencer recommendations prompt consumers to make purchases, especially if the influencer is favoured by the consumer (Yang and Ha, 2021). Some consumers are drawn to influencers who sell products through live streaming, attracted by the promise of low prices and high-quality service (Ye et al., 2024). Interviews with 25 consumers revealed a tendency to react positively to their favoured influencers' recommendations or endorsements, showing intentions to purchase or actual buying behaviour. For example, one interviewee stated, "*I just bought the products they endorsed. For example, I bought the protein vegan food because my favourite influence just endorsed it, and it is healthy and does not harm animals.*" (Interviewee 14). Further, existing studies highlight that establishing PSR with influencers can lead consumers to enhance purchase intentions towards the recommended products (Wahab et al., 2022; Masuda et al., 2022).

Purchase intention

In this thesis, **purchase intention** is defined as a consumer's intention to purchase a product or service under influencers' influence based on their evaluation (Hwang and Zhang, 2018; Lu and Chen, 2021). While a gap exists between purchase intention and actual buying behaviour, purchase intention serves as a reliable predictor of future purchasing actions (Silva et al., 2019). Researchers have explored various antecedents of purchase intention, such as WOM (Yusuf et al., 2018; Park et al., 2021) and brand awareness (Dabbous and

Barakat, 2020). Influencers have been shown to boost consumers' purchase intentions significantly. For instance, Leite and Baptista (2022) discover that influencers' intimate self-disclosures positively affect the PSR and, in turn, enhance consumers' intention to purchase. Furthermore, another study confirms that influencers' homophily, physical attractiveness, and social attractiveness positively correlate with PSR, subsequently enhancing purchase intentions (Masuda et al., 2022).

This thesis argues that PSR will positively affect purchase intention. Social media users often seek information about products or brands from their preferred influencers, viewing them as key opinion leaders (Casaló et al., 2020). Influencers' detailed product descriptions can enhance followers' perceptions of the product's value and foster a more favourable attitude toward it (Lee and Watkins, 2016; Lee, 2018). Moreover, influencers' persuasive language plays a role in stimulating consumers' desire to purchase (Hwang and Zhang, 2018). Empirical research has consistently shown a positive link between PSR and purchase intention (Yuan et al., 2021; Hwang and Zhang, 2018; Farivar et al., 2021; Agnihotri and Bhattacharya, 2020). For instance, followers' PSR with influencers significantly influences their intention to purchase (Farivar et al., 2021). Recent studies, such as that by Balaban et al. (2022), suggest that PSR enhances perceptions of an influencer's credibility, which in turn affects purchase intention. Qualitative data also support this positive association, as highlighted by a respondent's comment, "*When they recommend something in their videos, sometimes it makes me want to buy the products.*" (Interviewee 3). Therefore, the hypothesis is formally presented as:

H5: PSR positively influences purchase intention on social media

This thesis outlines the mechanism through which PSR is formed between consumers and influencers, leading to purchase intention at this stage. It further discusses two important concepts in this process: brand attitude and the intention to support.

Brand attitude

Brand attitude reflects the comprehensive evaluation of a brand as perceived by individuals (Mitchell and Olson, 1981). This thesis adopts this view and proposes that **brand attitude** can be defined as the summary evaluation of people's perception of a brand that an influencer endorsed or recommended on social media. As a key concept in marketing, brand attitude is

instrumental in explaining and predicting consumer behaviour (Kudeshia and Kumar, 2017; Chu and Chen, 2019). For instance, a positive brand attitude among consumers correlates with an increase in purchase intention (Tseng and Wang, 2023). The literature identifies several antecedents of brand attitude, including brand storytelling (Hong et al., 2021) and personalisation (de Groot, 2022). Within influencer marketing, influencers play a significant role in enhancing consumers' attitudes towards endorsed brands (Agnihotri and Bhattacharya, 2020). For example, audiences who watch brands recommended by YouTube vloggers tend to develop a more favourable attitude towards those brands (Lee and Watkins, 2016). Additionally, Reinikainen et al. (2021) find that the perceived 'coolness' of an influencer can positively affect consumers' brand attitudes.

This thesis proposes that a viewer's PSR with influencers positively impacts their brand attitude. Influencers frequently recommend products and endorse brands on social media, which can influence their followers and alter their behaviours (Shen et al., 2022). Research exploring the link between PSR and brand attitude has consistently found a positive relationship (Agnihotri and Bhattacharya, 2020). For instance, Lee and Cho (2020) discover that individuals PSR with smart speakers exhibit a more positive attitude towards the brands mentioned by the smart speakers.

A strong PSR with influencers enhances individuals' attitudes towards the endorsed brand (Reinikainen et al., 2021). Balaban et al. (2022) also find that PSR with influencers increases the perception of the influencer's credibility, which, in turn, improves consumers' attitudes towards the endorsed brand. Qualitative data further corroborate this relationship, as one interviewee remarked, "*I like to notice what he wears. For example, last time, he carried a Prada bag and wore an Essential jacket, which looked really cool. So, I thought that Prada and Essential are very fashionable brands. So, If I want to buy bags and jackets, I will first choose Prada and Essential.*" (Interviewee 2). Based on the analysis, this thesis proposes the following hypothesis:

H6: PSR positively influences brand attitude on social media

Additionally, this thesis posits that brand attitude will positively affect purchase intention. Brand attitude's role in marketing is important for understanding and predicting consumer behaviour (Kudeshia and Kumar, 2017; Chu and Chen, 2019). The existing body of research demonstrates a positive correlation between brand attitude and purchase intention (Medina-Molina et al., 2021). For example, enhanced attitudes towards green energy brands have

been shown to increase purchase intention (Hartmann and Apaolaza-Ibanez, 2012). Social media activities related to corporate social responsibility can elevate consumers' brand attitudes and, subsequently, their purchase intentions (Chu and Chen, 2019). If consumers hold a positive attitude towards a brand, their purchase intention is likely to increase (Tseng and Wang, 2023). This effect has been observed in the context of influencer marketing as well, where Gong and Li (2017) demonstrate that a more positive attitude towards products recommended by influencers leads to higher purchase intention. Reinikainen et al. (2021) further establish that a positive brand attitude can enhance brand trust, which in turn boosts purchase intention. Consequently, this thesis proposes that:

H7: Brand attitude positively influences purchase intention on social media

Intention to support

In this thesis, **intention to support** is conceptualised as the extent to which the individual is willing to help the influencers maintain and increase popularity in the long run. From the perspective of relationship investment, the intention to support is viewed as a crucial element where followers invest in their relationship with influencers. Relationship investment theory suggests that within the consumer-brand relationship, one party may engage in both tangible and intangible contributions to sustain and enhance the relationship (Luo et al., 2009). For instance, fans may support their favourite celebrities by dedicating time, money, and gifts and participating in various marketing and promotional campaigns to ensure their favourite celebrities' success (Donabedian, 2021). Similarly, fans are likely to purchase products and generate positive WOM about their favourite celebrities in online environments (Kim and Kim, 2020). In influencer marketing, followers actively engage with their preferred influencers' endorsements and related marketing initiatives (e.g., "*I want him to become more popular. Because in China, there are a lot of top influencers, and I want him to be one of them. So, whenever he posts something, I will like and comment to support him. I also bought his album to support him*" (Interviewee 2)). Thus, this thesis contends that individuals will support their favourite influencers.

This thesis asserts that a PSR positively influences individuals' intention to support influencers. Communal relationship theory posits that individuals are inclined to attend to others' needs and benefits in close relationships, such as friendships (Clark and Waddell, 1985). Followers who establish PSR with influencers often feel a sense of intimacy,

regarding them as friends in some cases (Chung and Cho, 2017; Agnihotri and Bhattacharya, 2020). Such followers perceive the influencers as attentive to their needs, deriving satisfaction and well-being from the relationship, which in turn fosters a willingness to support and help the influencer gain fame, for example, through sharing information on social media (Labrecque, 2014; Kim and Kim, 2020; Chen et al., 2021). Hwang and Zhang (2018) discover that consumers who establish PSR with influencers tend to generate positive E-WOM on social media, a form of support for the influencers. Although empirical studies directly testing the relationship between PSR and intention to support are lacking, qualitative evidence suggests a positive correlation (e.g., *"Because I think helping them is a way to support them in continuing to create good quality videos for other people, and I will benefit individually. So, it is kind of like an investment instead of spending money"* (Interviewee 25)). Therefore, this study hypothesises a positive relationship between PSR and the intention to support:

H8: PSR positively influences intention to support on social media

Moreover, this thesis proposes that the intention to support influencers positively impacts consumers' purchase intention. If followers are committed to supporting influencers to enhance their popularity, they may engage in various activities such as increasing views, likes, and comments and giving virtual gifts (Donabedian, 2021; Chatzopoulou et al., 2010; Lu et al., 2018). Importantly, purchasing promoted products is a keyway to support influencers, especially since many influencer campaigns aim to promote products and brands and boost sales. Influencers often enter into sales-based contracts with brands, requiring follower purchases to support them (Shen et al., 2022). Thus, followers intending to support their favourite influencers will likely show increased purchase intention. This relationship is evidenced in the qualitative findings (e.g., *"So now, since I definitely want to help her because, like I mentioned, she's a photographer. And I know recently she decided to open a print shop, which is like printing her images. So I mean, if I was nearby in Europe, I could purchase something."* (Interviewee 18)). Consequently, this study proposes:

H9: Intention to support positively influences purchase intention on social media

In summary, at the PSR outcome stage, consumers are predisposed to purchase products endorsed by influencers. Drawing from the AIDA model, qualitative insights, and existing literature, this study introduces purchase intention, brand attitude, and intention to support as key positive outcomes of PSR. The forthcoming section will explore the moderators and

moderation relationships within the PSR development process. A summary of the research hypotheses is presented in Table 6.1.

6.4 Moderators and moderated relationships

6.4.1 Perceived expertise

Perceived expertise can be defined as the degree to which viewers perceive the number of skills, knowledge, and competence an influencer has in specific regions (Farrington-Darby and Wilson, 2006; Xiang et al., 2016). It is considered a dynamic state, which can be continuously enhanced through learning and experience (Herling, 2000). Characteristics such as broad knowledge, effective communication skills, and problem-solving capabilities contribute to the perception of an influencer's expertise. Influencers are deemed experts when they possess significant expertise, granting them expert power (Kim et al., 2020). This perception leads audiences to listen, trust, seek advice from influencers, and possibly influence their attitudes (Lou and Yuan, 2019; Yuan and Lou, 2020). Additionally, if consumers think the influencer is an expert, it can increase consumers' PSR with the influencer, thereby increasing consumers' brand attitude and purchase intention (Xie and Feng, 2023).

This thesis posits that perceived influencer expertise strengthens the relationship between PSI and perceived value. Initially, it is hypothesised that consumers' perceived value of influencer's post escalates when they have PSI (Goldberg and Allen, 2008). For instance, Hsieh and Lee (2021) demonstrate that consumers' PSI with smart speakers enhances both perceived usefulness and ease of use of these devices. Similarly, consumers PSI with mobile shopping applications is shown to elevate their perceived value. Consequently, this thesis argues that this positive correlation between PSI and perceived value persists within the context of influencer marketing.

This thesis contends that the impact of PSI on perceived value is enhanced by higher levels of perceived influencer expertise as opposed to lower levels. Specifically, when consumers regard an influencer's expertise as superior, the influence of PSI on perceived value is notably strengthened. This argument is anchored in the premise that an influencer's expertise significantly shapes consumer reception of information. As discussed above, influencers

deemed experts are likely to offer more credible, effective, and beneficial advice, thereby elevating consumers' valuation of the information presented (Vieira et al., 2022).

Table 6.1 Research hypotheses summary

Research hypotheses summary
H1: PSI will positively influence perceived value of influencer's social media content on social media
H2: Perceived value of influencer's social media content will positively influence PSR on social media
H3: Perceived value of influencer's social media content will positively influence trust in the influencer
H4: Trust in the influencer will positively influence PSR on social media
H6: PSR will positively influence brand attitude on social media
H7: Brand attitude will positively influence purchase intention on social media
H8: PSR will positively influence intention to support on social media
H9: Intention to support will positively influence purchase intention on social media
H10: Perceived expertise will moderate (strengthen) the relationship between PSI and perceived value
H11: Perceived authenticity will moderate (strengthen) the relationship between perceived value and trust
H12: Interaction frequency will moderate (strengthen) the relationship between perceived value and PSR

From a utilitarian viewpoint, influencers with greater expertise are capable of delivering high-quality, substantial, and valuable content, enhancing consumer perceptions of value (Vieira et al., 2022; Dootson et al., 2016). From a hedonic perspective, influencers of high expertise excel in creating more engaging and entertaining content, thereby increasing consumer enjoyment and satisfaction (Lin et al., 2018; Lee and Theokary, 2021). When influencers are perceived as having lower expertise, their ability to produce meaningful content that aids decision-making or entertains is diminished. This can lead consumers to perceive little or no value in the influencer's posts. Thus, perceived expertise serves as a moderating factor that positively strengthens the relationship between PSI and perceived value.

H10: Perceived expertise moderates (strengthens) the relationship between PSI and perceived value on social media

6.4.2 Perceived authenticity

Influencer authenticity is critical, serving as the foundation upon which consumers measure the genuineness and relatability of an influencer (Campbell and Farrell, 2020). In this thesis, **perceived authenticity** can be defined as the degree to which an individual perceives an influencer as real and down-to-earth person (Shoenberger and Kim, 2022; Jun and Yi, 2020). The influencer's authenticity plays an essential role in consumers' perception of the influencer and the effectiveness of influencer marketing (Audrezet et al., 2020). Consumers discern the intent behind influencer posts, valuing content that seems driven by the influencer's genuine interests and desires rather than by brand agendas (Kim and Kim, 2021). This perception of authenticity fosters a more positive attitude towards the brands and products featured, subsequently enhancing consumers' willingness to pay (Kapitan et al., 2021; Moulard et al., 2015; Audrezet et al., 2020). The authenticity of an influencer is crucial for fostering long-term relationships with consumers, as it promises content that feels more authentic and trustworthy (Zhang, 2022; Shoenberger and Kim, 2022). Influencers who embody authenticity are viewed as more reliable, as they are perceived to act on intrinsic motivations and personal satisfaction, leading consumers to trust them for sharing genuine experiences over those motivated by external incentives (Shoenberger and Kim, 2022).

This thesis posits that the perceived authenticity of influencers strengthens the connection between perceived value and trust. First, perceived value positively influences trust (Portal et al., 2018). The authenticity of influencers, manifested through intrinsic motivations and self-gratification, convinces social media users of the influencers' genuine brand experiences over mere interest-driven endorsements, thereby enhancing trust levels in the influencers (Jun and Yi, 2020). Furthermore, Kim and Kim (2021) observe that authenticity attributes, such as reliability and honesty, in influencers heighten viewer' trust.

The thesis further contends that this effect is enhanced with higher versus lower levels of perceived influencer authenticity. In essence, when consumers perceive greater authenticity in an influencer, the influence of perceived value on trust is significantly enhanced. The rationale is that perceived value's impact on trust intensifies when influencers are regarded as authentic, where the shared content is motivated by genuine experiences and self-satisfaction rather than solely by commercial interests (Jun and Yi, 2020). Such influencers, exemplifying dependability and honesty, foster a heightened level of consumer trust (Kim and Kim, 2021). Conversely, this effect will be weaker when influencers are not viewed as authentic as such trust in those influencers are difficult to develop. Thus, this paper argues

that perceived authenticity acts as a moderating element, strengthening the relationship between perceived value and trust.

H11: Perceived authenticity moderates (strengthens) the relationship between perceived value and trust on social media

6.4.3 Interaction frequency

In the media environment, the frequency of interaction is positively linked to media engagement. In this thesis, **interaction frequency** refers to the frequency individuals consume influencer posts on social media. Research demonstrates that increased media exposure enhances the likelihood of forming relationships with its creators (Gabriel et al., 2018; Pressrove and Pardun, 2016). In traditional media contexts, frequent consuming social media content leads to a range of positive outcomes, including heightened engagement, PSR, emotional empathy, character identification, perceived realism, and content enjoyment (Kühne and Opree, 2020). Similarly, in the social media environment, a higher frequency of use correlates with greater dependency and even addiction among users (Allahverdi, 2022).

This thesis argues that the frequency of interactions strengthens the relationship between perceived value and PSR on social media platforms. First, it is posited that perceived value has a positive impact on PSR (Zhong et al., 2021). For example, Dhiman et al. (2023) discover that consumers' perception of the value in AI tools increases their PSR with these tools. Similarly, both informative and entertainment values have been found to positively influence consumers' PSR with brand employees on social media (Venciute et al., 2023). Although empirical research validating this relationship within influencer marketing is lacking, the above analysis leads to the prediction that such a relationship persists in the influencer marketing context.

The thesis further argues that this effect is further enhanced with higher interaction frequencies compared to lower ones. When consumers interact more frequently with influencers, the impact of perceived value on PSR is significantly enhanced. This assertion is underpinned by the Uses and Gratifications Theory (U&G), which suggests that one of the motivations for media consumption is to fulfil relationship-building needs, fostering long-term connections between consumers and influencers (Flecha-Ortiz et al., 2023; Wang, 2023). High-frequency interactions imply that consumers are exposed to more content from

influencers, indicating a time investment in the relationship, which acts as an indicator of relationship maintenance (Donath, 2007; Ellison et al., 2014). Previous studies have shown that increased interaction with a hotel brand's social media account leads to the development of closer, stronger relationships (Su et al., 2015). Further research supports the idea that frequent interactions with favoured celebrities on social media enhance self-congruency and relationship strength (Kim and Kim, 2020). Conversely, lower interaction frequencies suggest a lack of interest in and commitment to the relationship, hindering its development. Consequently, this paper suggests that interaction frequency acts as a moderating factor, strengthening the relationship between perceived value and PSR.

H12: Interaction frequency moderates (strengthens) the relationship between perceived value and PSR on social media

6.5 Chapter summary

This chapter presented the research model focused on the PSR development process and outcomes, informed by the AIDA model and Tukachinsky and Stever's (2018) PSR framework, and supported by existing literature and qualitative insights. The framework is structured around four stages: exposure initiation, experimentation, intensification, and integration. Based on this, twelve research hypotheses were formulated and presented in Figure 6.1. These hypotheses were empirically tested using a quantitative approach. The methodology and results of this quantitative investigation are detailed in Chapters 7 and 9, respectively. The forthcoming chapter will focus on the quantitative research design.

Chapter 7: Quantitative methodologies for PSR model validation

7.1 Chapter introduction

The previous chapter discusses the conceptual framework and research hypotheses, and this chapter is devoted to designing the study to test the conceptual framework and the twelve research hypotheses posited in Chapter 6. Detailed in Chapter 3 and illustrated in Table 3.1, this chapter unveils research phase 4: quantitative study 1 (PSR measure development), phase 5: quantitative study 2 (PSR measure development), and a comprehensive discussion on phase 6: an online survey for quantitative study 3 (testing the conceptual framework).

This chapter is structured as follows: initially, it will explore the conceptual framework's components set for empirical testing in this study, addressing the model's complexity and the peculiarities of PSR development stages. It will then briefly present the operationalisation of key constructs, followed by an introduction to the questionnaire design and study execution. Subsequently, the sampling strategy, data analysis methods, and pilot testing will be presented. The chapter will conclude by summarising potential biases and the measures implemented to mitigate them.

7.2 The tested model

Chapter 6 presented a comprehensive four-stage conceptual framework elucidating the development of PSR with influencers by consumers, including exposure initiation, experimentation, intensification, and integration. Testing this model empirically necessitates a pragmatic approach. The initial stage—exposure initiation—concentrates on the factors that enhance consumer social media involvement, capturing the preliminary interaction with influencers without presupposing a consumer's interest in deepening this involvement. The subsequent stages transition from experimentation to integration, evaluating the dynamics of consumer-influencer relationships, with each phase signifying an intensification of the connection.

Assessing the full model within a single study presents challenges, particularly due to the distinct nature of the initial stage compared to the latter three. The first stage can be examined through an experimental research design to explore how varying conditions affect consumer

social media involvement (Mitchell and James, 2001), whereas a survey design is appropriate for understanding the PSR development process from the second to the fourth stage. This study aims to address **Research Objective 3: to explore the PSR development process and test its outcomes**, thus focusing on the latter three stages.

Incorporating the first stage with the other stages for simultaneous testing is feasible, albeit with limitations. One significant concern is the participants' potential reluctance to recall their initial interactions with favoured influencers accurately. As Schwarz (1999) highlights researchers can employ techniques to help participants search their memory, but participants do not follow this process, which could provide inaccurate data and decrease research validity. Considering these factors, this study tests the conceptual framework from the second to the fourth stage. The tested model is presented in Figure 7.1, and as expounded in Chapter 6.3 and demonstrated in Table 6.1, twelve research hypotheses are posited for testing in this study.

7.3 Conceptualisation and operationalisation

As already demonstrated above, ten constructs are involved in the tested framework, and how to measure them needs to be determined at this stage. These constructs comprise PSI, Perceived Value, Trust, Brand Attitude, Intention to Support, Purchase Intention, Perceived Expertise, Perceived Authenticity, PSR, and Interaction Frequency, as illustrated in Figure 7.1. The process to identify suitable measurements adheres to the scale selection protocol suggested by Haws et al. (2022).

This protocol includes three essential steps. The initial step involves defining each construct and delineating its main domain characteristics, with comprehensive discussions on construct definitions presented in Chapter 6.3 and presented in Table 7.1. Following this, the operationalisation process identifies the most fitting scales through a literature review, ensuring alignment with the study's conceptualisations and emphasising scale validity and reliability (Peter, 1981; Haws et al., 2022). The final step entails evaluating the scale items to ascertain if adjustments or modifications are necessary.

Figure 7.1 The empirically tested model
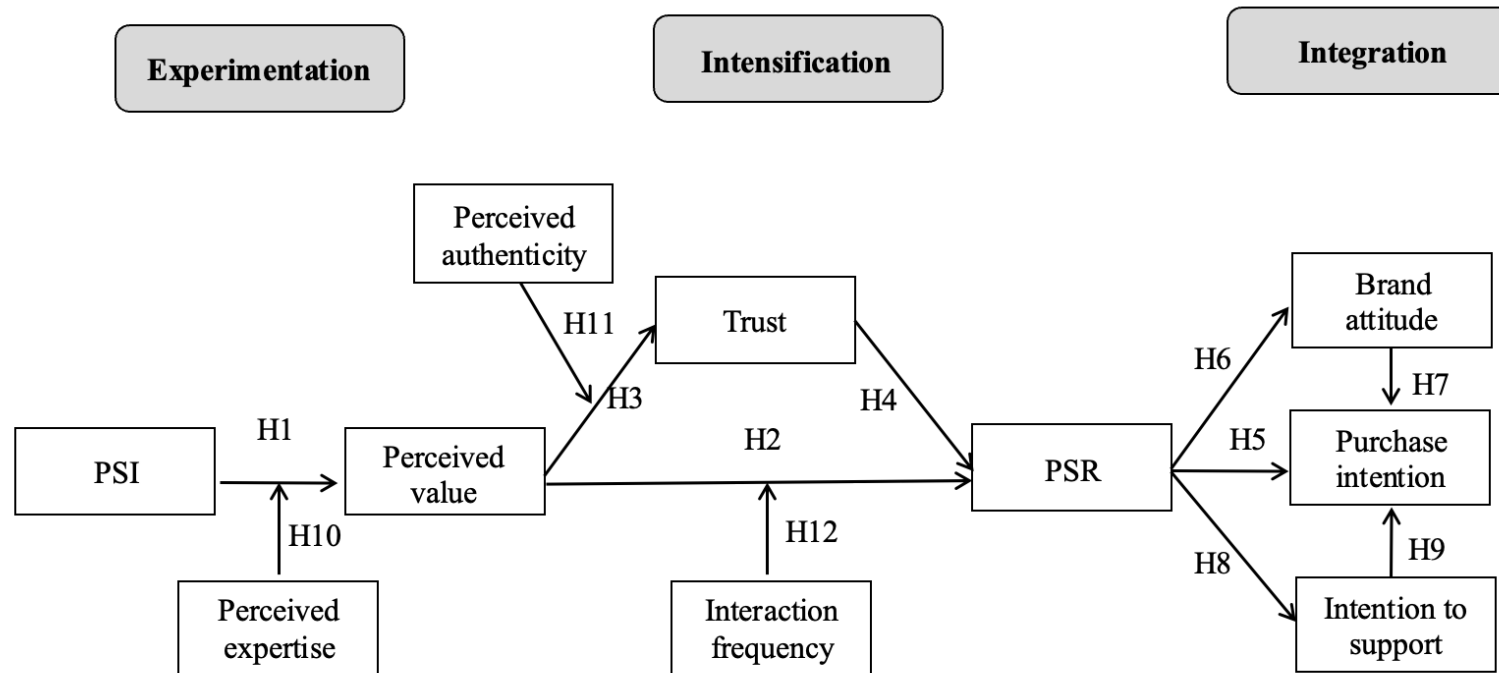
This thesis argues that there is a need to develop a new PSR measurement instrument since there is no appropriate scale to measure this construct. In this study, PSR is conceptualised as "*individual dynamic psychological connection*", but the current PSR scale captures "*people involvement*", which was developed by Rubin et al. (1985). "*People involvement*" encompasses various psychological processes, including transportation, PSI, identification, and worship, making it a broad concept beyond the scope of PSR and not in line with the main domain characteristics of PSR in this study (Brown, 2015).

Table 7.1 Constructs and their definitions

Construct	Definition
Parasocial interaction	Individuals' perception of direct, reciprocal and one-to-many communication with influencers through social media (Hartmann and Goldhoorn, 2011).
Perceived value of post	As the overall evaluation of relevant factors when engaging with influencers on social media (Zeithaml, 1998; Lou and Yuan, 2019).
Perceived influencer expertise	Consumers' perception of the influencer's knowledge in a particular field (Kim et al., 2020).
Trust	An individual's belief that an influencer will provide consistent and competent quality (Jun and Yi, 2020).
Perceived influencer authenticity	The degree to which an individual perceives an influencer as as a real and down-to-earth person (Shoenberger and Kim, 2022; Jun and Yi, 2020).
Brand attitude	The summary evaluation of people's perception of a brand (Mitchell and Olson, 1981).
Purchase intention	Consumers' intention to purchase a product or service under influencers' influence based on their evaluation (Hwang and Zhang, 2018).
Intention to support	The extent to which the individual is willing to help the influencers maintain and increase popularity.
Interaction frequency	The frequency with which individuals consume influencer posts on social media.

Furthermore, the extant PSR scale includes items ill-suited for the online context, owing to their origins in traditional media (Wahab et al., 2022). An example being the item "*I like hearing the voice of my favourite newscaster in my home*" from Rubin et al. (1985), which does not transition well to the online setting, particularly within the influencer marketing context. The online environment introduces novel features absent in traditional settings, like enhanced convenience and media accessibility, necessitating a new PSR scale that accurately captures PSR in digital contexts (Tsiotsou, 2015; Kim, 2022).

The PSR measurement development is guided by Churchill (1979) and Gerbing and Anderson (1988) since the guidelines are widely used in developing a new measurement scale and get published in the marketing field, such as emotional attachment scale development (Jiménez and Voss, 2014), online engagement scale development (Paruthi and Kaur, 2017) and online brand community engagement (Baldus et al., 2015). The PSR scale development includes two quantitative studies: **research phase 4, quantitative study 1** to check scale reliability and validity, and **research phase 5: quantitative study 2** to refine the scale. Detailed information about the PSR measurement development process and the operationalisation of other constructs are presented in Chapter 8.

7.4 Questionnaire design

The design of the questionnaire is grounded in a set of principles aimed at crafting an effective and reliable instrument for gathering data (Peterson, 2000). Initially, it is crucial to determine the optimal number of questions, which involves using the fewest questions possible to frame effective inquiries. This strategy helps to shorten the time required for participants to complete the questionnaire, thereby enhancing their focus and, consequently, improving the quality and reliability of the data collected (Peterson, 2000). Furthermore, the phrasing of the questions must be clear and precise. That is, the questions devised by the researcher should align with the participants' understanding. Given that this study includes participants from diverse cultures and regions, it steers clear of using reversed or negated items to eliminate potential confusion (Herche and Engelland, 1996).

Moreover, to bolster research objectivity, this study opts for a self-administered questionnaire (an online survey) over questionnaires administered by others (e.g., via telephone) to reduce researcher involvement (Peterson, 2000). Additionally, it is the researcher's responsibility to increase and verify that participants remain attentive when responding to the questions (Kostyk et al., 2019; Paas and Morren, 2018). Given the variability in participants' ages, genders, backgrounds, and knowledge levels, which could influence the responses, employing straightforward and understandable language is essential to facilitate smooth participation and completion of the questionnaire by all participants (Lietz, 2010).

7.4.1 Questionnaire structure

Building on the aforementioned principles, the questionnaire is segmented into four parts and detailed in Appendix 13. The initial section introduces the participant information sheet, which serves to acquaint participants with the study's purpose and ethical considerations. To circumvent ethical issues, the participant information sheet details participants' rights and the ethical guidelines set forth by the College Research Ethics Committee. It emphasises the voluntary basis of participation and explains how the data will be gathered and utilised to safeguard participant privacy. Participants may commence with the questionnaire only after consenting to participate in the study.

The questionnaire's second part includes filtering questions alongside questions about consumers' social media behaviours. To ascertain participant eligibility for this study, filter questions are employed to identify qualified participants (Bryman and Bell, 2011). Additionally, questions regarding participants' social media behaviours aim to glean insights into their usage patterns and preferences. To guarantee that all participants possess an equivalent understanding necessary for answering the questions, the study includes several specifically designed questions (Peterson, 2000). This research targets participants who have been following influencers on social media, requiring them to name a favourite influencer and indicate the typical content posted by these influencers. Furthermore, the study is interested in the outcomes of PSR, such as brand attitudes, necessitating participants to write a brand name that their chosen influencer endorses.

The third portion of the questionnaire includes scale items to measure the ten constructs in this study. Nine constructs are measured on a 7-point Likert scale to measure participants' attitudes (1 as strongly disagree, 2 as disagree, 3 as somewhat disagree, 4 as neither agree nor disagree, 5 as somewhat agree, 6 as agree, 7 as strongly agree), while one construct (perceived value) employs a 7-point semantic differential scale for the same purpose. The rationale behind the scale items is presented in Chapter 7.3 and Chapter 8.2. The Likert and semantic differential scales, widely applied for assessing consumer attitudes, are featured here. The Likert scale presents statements, enabling participants to express their level of agreement or disagreement through predetermined response options (Mueller, 1986). Recognised for its simplicity and effectiveness, the Likert scale aptly captures participants' attitudes (Mueller, 1986).

There are various scoring scale formats, such as 5-point, 7-point and 10-point (Dawes, 2008). Some researchers also assert that 5-9 points are acceptable (Peterson, 2000). This research does not consider a finer scale (e.g., 9- or 10-point Likert scale) since the finer scale could cause participants to spend more time thinking and may cause participants to struggle with the options (Dawes, 2008). When the questionnaire includes too many questions, finer scales may induce impatience among participants, thereby adversely affecting data quality. Between the 5-point and 7-point Likert scales, the 5-point scale tends to yield higher mean scores and less precise data in comparison with the 7-point scale, especially in web-based surveys (Dawes, 2008; Finstad, 2010). Consequently, the 7-point Likert scale is identified as more suitable for this study.

The semantic differential scale is designed to capture the extent to which participants associate an objective with pairs of contrasting adjectives (Mueller, 1986). Given its high correlation with the Likert scale and brevity, the semantic differential scale is both efficient to administer and reliable (Mueller, 1986). A potential concern is that certain pairs of adjectives may not be applicable to some attitudinal objects. To address this, the study ensures the semantic differential scale's application in measuring perceived value is relevant and meaningful. In line with the Likert scale, the semantic differential scale also utilises a 7-point format.

The questionnaire's concluding section collects demographic information from participants. This research gathers data on age, gender, and other pertinent background variables to facilitate a thorough analysis. For example, to test how different demographic groups (e.g., gender) may vary in their attitudes (e.g., PSR). As this study recruits participants via Prolific—a professional online panel—there is no need to collect demographic information through the questionnaire since Prolific provides comprehensive participant details. Instead, participants are asked to manually enter their Prolific ID at the end of questionnaire, ensuring efficient data analysis.

Both open-ended and close-ended questions are utilised in the questionnaire. Open-ended questions, employed in the second part, aim to garner extensive information. Despite their relatively high cost, they afford participants a liberating environment for responding, thereby furnishing researchers with rich data (Mueller, 1986; Brennan, 1997). An example is, "*Please write below ONE name of your favourite social media influencer who promotes brands on social media platforms*". The majority of questions in this study are close-ended,

noted for their simplicity in creation and for requiring less time from participants to answer (Mueller, 1986).

Moreover, assessing respondents' attentiveness and response accuracy is vital; thus, the study incorporates one Instructional Manipulation Check (IMC) question (Kostyk et al., 2021; Paas and Morren, 2018). An IMC, a type of seriousness check question, is proficient in identifying inattentive responses, including speeding and straight-lining (Meade and Craig, 2012; Paas and Morren, 2018). Given the survey's brevity, a single IMC is deemed sufficient. The IMC's format aligns with Buchanan and Scofield (2018), which states "*This is a quality check. Please choose 'strongly disagree' if you are reading this*". This question is positioned in the survey's midst. Furthermore, at the survey's onset, participants are courteously informed, "*Please note that there are checks in this survey to assess whether you are reading the survey questions properly*" (Paas and Morren, 2018).

7.4.2 Pilot test

After the survey's creation and development, a pilot test was conducted, which is critical for identifying potential issues and enhancing the main research's feasibility and workability (Teijlingen and Hundley, 2001). The pilot test also aids in determining the time required to complete the survey. Three marketing PhD students and six marketing master's students were selected for the pilot test. They were invited to participate and asked to review the survey critically, assessing the clarity of questions, the survey layout, the presence of typos, and offering suggestions for improvement (Peterson, 2000). Feedback indicated that while the questions were clear, the layout, particularly on mobile devices, required refinement, which the researcher addressed. The data from these participants were excluded from the main study's data analysis.

7.5 Sampling approach

The study's sampling frame targets individuals who have established long-term relationships with influencers on social media. Given the research's focus on empirically testing how individuals develop PSR with social media influencers, identifying participants who have followed influencers for an extended period is crucial, excluding those who do not meet the criteria. Following Kostyk et al. (2021), filtering out undesirable respondents is vital for enhancing data quality. Participants must meet specific criteria: 1) be 18 years or older, 2)

be active social media users, and 3) have followed social media influencers for a significant duration (three months or more). The three-month threshold is based on qualitative data suggesting that this period is necessary to form a stable relationship with influencers. To precisely target the desired respondents, the study initially conducted a pre-screen study to identify individuals with established relationships with influencers on social media, subsequently targeting these qualified respondents for the main study.

This approach offers three main benefits. Firstly, it effectively identifies qualified participants. Since only a subset of the population has established relationships with influencers on social media, a pre-screen study can precisely filter participants who have such relationships, thereby enhancing the sample's alignment with the sampling frame. Secondly, the method can screen out professional respondents, thereby bolstering the study's validity. Participants on online panels might not genuinely meet the questionnaire requirements but may bypass screening questions for economic gain (Dennis, 2001; Brüggen et al., 2011). Pre-screening can substantially lower the likelihood of including professional respondents. Thirdly, employing split questionnaires can decrease the total number of questions, thereby enhancing the questionnaire's quality. A reduced number of questions leads to a more focused questionnaire and improved completion rates (Vriens et al., 2001).

The study utilises an online platform to recruit qualified respondents. Platforms like Prolific facilitate swift access to target participants for rapid data collection (Dennis, 2001). Nonetheless, the use of online panels for data collection may raise concerns, particularly regarding professional respondents who might reduce data quality through repeated survey participation or incentive-driven motivations. However, it is argued that a larger number of participants are intrinsically motivated by an interest in the research topic and a desire to contribute (Dennis, 2011; Brüggen et al., 2011), which, along with increased sample sizes, may mitigate this issue (Brüggen et al., 2011).

Prolific is employed in this study as a professional crowdworking platform for respondent recruitment for three reasons. Compared to other intermediary service online panels like Qualtrics, Prolific offers researchers complete control over sampling and study administration, positioning it as a self-service platform (Peer et al., 2021). It is known for providing high-quality data; research indicates that Prolific yields superior data quality in terms of attentiveness and honesty compared to other well-known online panels, such as Amazon Mechanical Turk, Qualtrics, and CloudResearch (Peer et al., 2021; Douglas et al., 2023).

Furthermore, Prolific offers a pre-screening feature that enhances the transparency of the participant population, significantly reducing the chances of including unqualified respondents who may dishonestly complete the questionnaire for financial gain or those who attempt to participate repeatedly (Palan and Schitter, 2018). Researchers have the option to initiate a pre-screening project, creating a brief survey with no more than five questions to identify individuals qualified for the study. Upon completion of this short survey, researchers can pinpoint eligible participants and invite them to the main study through a "Custom Allowlist" function. Additionally, Prolific presents a fair and transparent mechanism for questionnaire completion and payment, ensuring that researchers compensate participants who have completed the questionnaire and safeguarding participants' rights, including legal payment.

In this study, the sample size is determined from a precision standpoint, employing the A Priori Procedure to calculate a credible sample size (see Figure 7.2). The precision perspective focuses on precision, which is the degree of accuracy between sample statistics and the true population (Trafimow, 2018). It concerns the confidence in the probability that researchers will reach the precision criteria (Trafimow, 2018). Following this logic, the procedure involves setting precision criteria and confidence levels, with an equation for sample size calculation provided. For this study, the precision level is designated as 0.1 (f=0.1), with a 95% confidence level (Z=1.96), necessitating a minimum of 385 respondents to achieve the desired precision and confidence.

Figure 7.2 The A Priori Procedure Equation

$$n = \left(\frac{Z_C}{f} \right)^2,$$

where

- f is the fraction of a standard deviation the researcher defines as sufficiently "close,"
- Z_C is the z-score that corresponds to the desired probability of being close, and
- n is the minimum sample size necessary to meet specifications for closeness and confidence.

Source: Trafimow (2019)

This methodological approach boasts significant benefits, notably ensuring a high degree of sampling precision. Sampling imprecision is a factor in low research reproducibility, a concern in marketing and other disciplines striving for scientific rigour through reproducible

research (Trafimow et al., 2020; Evanschitzky and Armstrong, 2013). Unfortunately, existing research in consumer behaviour demonstrates poor precision, underlining the importance of prioritising high precision in initial research designs to support replication efforts (Trafimow et al., 2020).

Additionally, this approach facilitates obtaining a large sample size, addressing the risk of Type II errors—failing to reject a false null hypothesis (McQuitty, 2004). A larger sample size is preferable, as it increases the likelihood of achieving a normal distribution of data, thereby ensuring a more reliable sample size. For instance, with a constant confidence level, a larger sample size correlates with higher precision (Trafimow et al., 2021), underscoring the methodological advantages of this study's approach.

7.6 Execution of the quantitative study 3

To enhance the response rate and response rate, this study implements incentives for participants (Cobanoglu and Cobanoglu, 2003). Various forms of incentives exist, including lotteries, physical products, and donations; however, this research employs monetary rewards (Cobanoglu and Cobanoglu, 2003; Jobber et al., 2004; Gendall and Healey, 2010). Monetary incentives are chosen for their proven effectiveness in boosting response rates (Jobber et al., 2004) and the acknowledgement that participants invest time in completing the questionnaire, warranting compensation to ensure their rights. The incentives recommended by Prolific are determined based on the minimum wage rates in the UK. For the pre-screening study, participants were compensated £0.1 each for answering five questions in 2 minutes. For the main study, the payment was £1.2 per person for 7-minute questionnaire completion, with immediate payment following questionnaire completion.

The study opts for an online survey among various survey modes, such as telephone, mail, face-to-face, and online survey (Couper, 2011). Online survey, being self-administered, reduce researcher involvement and enhance objectivity (Peterson, 2000). They offer a cost-effective, straightforward method of data collection without geographical constraints, suiting this study's requirements (Couper, 2011). While some may argue online surveys are prone to inattentive responses, potentially compromising data quality, this study employs various techniques to monitor participant attention, such as IMC and data quality checks (Paas and Morren, 2018).

For the main study, the online survey platform chosen is Qualtrics. Qualtrics is a professional platform renowned for its comprehensive survey design capabilities (Qualtrics, 2024), extensively used in existing studies (e.g., Sahaym et al., 2021). This questionnaire leverages Qualtrics functions, like "*piped text*," which dynamically replaces "*your favourite influencer*" with the name of an influencer provided by respondents in subsequent questions. This customisation minimises confusion and enhances the effectiveness of communication. Additionally, the questionnaire utilises the rich content editor function, allowing the researchers to highlight key parts of questions (e.g., through bolding) to draw respondents' attention, further ensuring data quality and engagement.

As discussed in the above section, to identify qualified participants, this study initially conducted a pre-screen study to identify individuals meeting the set criteria. Concurrently, a pilot test of the main study was carried out to ensure the survey's readiness for release. Subsequently, the main study was conducted to gather data through Prolific. The following section provides a detailed introduction to these processes.

7.6.1 Pre-screen study

As already demonstrated above, the pre-screen study's objective is to identify participants who have established long-term relationships with influencers on social media. The pre-screen survey was developed and conducted on Prolific, utilising the platform for participant recruitment. The pre-screen questionnaire comprises two segments. The initial segment contains a detailed participant information sheet, which informs participants about the study's purpose and data confidentiality measures. Only those who consent to participate can proceed to complete the questionnaire. The questionnaire's second segment features four screening questions designed to verify respondents' eligibility and enhance precision. These questions are structured according to the principle that each question should address a single topic, employing closed-ended multiple-choice formats (Teijlingen and Hundley, 2001). The questions are binary, requiring participants to select either "Yes" or "No." The specifics of the pre-screen questionnaire are detailed in Appendix 14.

The pre-study successfully recruited 400 participants through Prolific, receiving 400 responses. Each participant was compensated £0.1 for answering five questions, a process designed to take no more than two minutes. Qualified respondents were those who 1) are active social media users, 2) follow influencers on social media, 3) have followed some

influencers for more than three months, and 4) continue to engage with these influencers' content. Following these criteria, 343 respondents were deemed qualified and subsequently added to Prolific's "Customer Allowlist". The qualification rate among respondents was 83.5%.

7.6.2 Main study

The main study utilised Prolific for the recruitment of participants, specifically targeting those previously identified as qualified candidates. Given the necessity for a minimum valid sample size of 387, from a standpoint of accuracy and precision, the study enlisted 454 respondents from the qualified pool. Each participant received £1.2 for completing the questionnaire in seven minutes, yielding a total of 454 responses. The response rate is 100%.

7.7 Data analysis techniques

The approach to data analysis was established prior to the collection of data, aiming to reduce the researchers' degree of freedom (Yoo et al., 2015; Wicherts et al., 2016). This is critical, as excessive freedom for researchers can be unethical and contravene principles of scientific research design (Wicherts et al., 2016). Consequently, this study formulated a detailed a priori data analysis plan and adhered strictly to the data analysis procedure. The strategy for data analysis was crafted with the research objectives in mind to ensure consistency (Yoo et al., 2015).

7.7.1 Data cleaning

Data cleaning is an essential preliminary step to data analysis, tasked with identifying outliers, detecting invalid responses made carelessly, and enhancing the quality of the data (Saunders et al., 2023). For the identification of careless responses, two methods are recognised: prior checks and post hoc checks (Curran, 2016). Given that prior checks occur before data collection, this stage employs post hoc checks. The research utilised multiple inattention checks, acknowledging that relying on a single method would be insufficient for identifying all inattentive respondents. The use of several checks can significantly improve data quality compared to a single technique (Meade and Craig, 2012; Curran, 2016). Accordingly, the main study implemented six data-cleaning techniques to pinpoint inattentive respondents and enhance data quality. These techniques, widely adopted in

marketing research, have received endorsement for their effectiveness from the academic community (Meade and Craig, 2012; Curran, 2016).

The first technique involves verifying the uniqueness of the participant ID (Aust et al., 2013). This technique effectively identifies participants who completed the survey multiple times (Aust et al., 2012). By manually inspecting respondents' IP addresses, researchers can ensure that each participant only completed the survey once. Subsequently, the dataset is examined for missing values (Vriens et al., 2002). The IDs of all 454 participants were found to be unique, indicating that no one completed the questionnaire multiple times.

The second technique examines response times. Checks on completion time can serve as a supplementary tool for assessing data quality. This means that while researchers can use these checks to identify data of low validity manually, they should not rely solely on them. The benefit of checking completion times is their ability to reveal whether respondents' times are unusually fast or slow (Meade and Craig, 2012). Nevertheless, it is important to note that not all quick responses are of low quality; some studies have shown that faster response times can indicate greater stability and accessibility for some respondents (Zhang and Conrad, 2014). In this main study, the guideline is that response times should fall within the range of Mean-3*S.D. to Mean+3*S.D. (Leys et al., 2013; Berger and Kiefer, 2021). Applying this criterion, the study identified 11 responses that took an unusually long time and found no instances of respondents completing the survey too quickly.

The third technique involves a specific quality check question: "*This is a quality check. Please choose strongly disagree if you are reading this*". This approach has been utilised in previous studies, such as by Chen and Yao (2021). According to this rule, 14 respondents failed to select "strongly disagree," indicating a lack of attention to the survey questions. The failure rate for this quality check question was 3.08%, which is lower than the failure rates reported in similar research (e.g., Buchanan and Scofield, 2018 reported a 5% failure rate). This improvement may be attributed to this study's strategy of informing participants at the outset that a quality check would be conducted, as recommended by Paas and Morren (2018).

Fourthly, screening questions are deployed to sift out participants who do not meet the study's criteria. Given that the target population consists of individuals who have sustained long-term relationships with influencers, it is crucial to exclude those who have followed influencers for no more than three months.

Furthermore, to pinpoint outlier responses, an extreme response check is implemented (Hyman and Sierra, 2012). Extreme responding, which eschews content in favour of selecting only the most extreme options, whether positive or negative, is known as a response style rather than content-based responding (Baumgartner and Steenkamp, 2001). Participants who exhibit an extreme response style disregard the questions' content, affecting the overall data quality, introducing response bias, and undermining the validity of the data. The analysis of extreme responses proves effective in identifying such outliers (Baumgartner and Steenkamp, 2001; Weijters et al., 2010). Consequently, it is imperative for researchers to detect these outliers to mitigate response bias and enhance the quality of the data. The criterion employed by this study involves removing the lowest and highest 0.5% of mean responses (Hyman and Sierra, 2012), leading to the identification of four extreme responses.

Following the implementation of six rules, 49 responses were eliminated, resulting in 405 valid responses for subsequent data analysis. This number of valid responses surpasses the minimum sample size of 387, calculated from the standpoint of accuracy/precision in determining sample size.

7.7.2 Descriptive analysis

After data cleaning, this study should conduct descriptive analysis. Descriptive analysis can provide rich information about the sample, such as demographic information (Pallant, 2020).

7.7.3 Scale reliability and validity testing

Ensuring the reliability and validity of scales is crucial, so this study employs various techniques to verify the scales' reliability and validity. The prerequisite for testing the research model involves confirming the reliability and validity of the measurement model, as this is a logical necessity (Fornell and Larcker, 1981). To evaluate the measures' reliability and validity, the study initially examines the internal consistency of the scale items by using reliability analysis through SPSS (28.0) (Knapp, 2002). A Cronbach's alpha or Correlation Coefficient value exceeding 0.7 indicates high internal consistency among the scale items for each construct (Haws et al., 2022).

Subsequently, Confirmatory Factor Analysis (CFA) is conducted using SPSS AMOS (28.0) as the initial phase of a two-step Structural Equation Modelling (SEM) process to assess

model fit and the reliability and validity of the measures (Anderson and Gerbing, 1988). The model's goodness of fit is evaluated based on criteria from Byrne (2016) and Collier (2020), including Chi-square, degrees of freedom (df), p-value, Chi-square/df ratio, Root Mean Square Error of Approximation (RMSEA), Comparative Fit Index (CFI), Tucker-Lewis Index (TLI), and Incremental Fit Index (NFI). Specifically, a Chi-square/df ratio between 1 and 2 suggests a good fit, and a ratio between 2 and 5 indicates an acceptable fit. An RMSEA value close to 0 signifies the best fit, below 0.5 denotes a good fit, and between 0.5 and 0.8 suggests an acceptable fit. A CFI value approaching 1 implies a good fit, with 0.9 serving as the acceptable threshold. A TLI greater than 0.9 is considered an acceptable fit, and an a NFI value exceeding 0.9 also denotes an acceptable fit. The summary of the model fit indices is presented in Table 7.2.

Table 7.2 The summary of the model fit indices

Assessed model fit indices			
Measure	Poor	Acceptable	Excellent
Chi-square/df	Above 5	Between 2 and 5	Between 1 and 2
RMSEA	Higher than 0.08	Between 0.05 and 0.08	Lower than 0.05
CFI	Lower than 0.9	Higher than 0.9	
TLI	Lower than 0.9	Higher than 0.9	
NFI	Lower than 0.9	Higher than 0.9	

Composite Reliability (CR), also known as Omega, serves as an effective indicator of the reliability of scale items (Dunn et al., 2013). A CR value exceeding 0.7 indicates that the scales demonstrate high consistency (Hair et al., 2014). Furthermore, assessing construct validity is crucial. As stated by Peter (1981), construct validity is foundational for the testing and development of theories. To evaluate convergent validity, CFA was performed using SPSS AMOS (28.0). Good convergent validity is suggested if 1) all standardised loadings exceed 0.5, 2) all values in the standardised residual covariance matrix are below 4, and 3) all Average Variance Extracted (AVE) values are above 0.5 (Hair et al., 2014; Anderson and Gerbing, 1988). To assess discriminant validity, the Heterotrait-Monotrait ratio (HTMT) was applied using SPSS AMOS (28.0), adopting the HTMT.85 criterion due to its high sensitivity rate (Campbell and Fiske, 1959; Henseler et al., 2014). The criteria for reliability and validity tests are summarised in Table 7.3.

Table 7.3 The Summary of the reliability and validity test criteria

The summary of the reliability and validity test criteria			
Reliability and validity	Criteria/test	Recommend values	Source
Internal consistency	Cronbach's alpha/Correlation Coefficient	Higher than 0.7	Haws et al. (2022)
	Composite Reliability (CR) / Omega	Higher than 0.7	Hair et al. (2014)
Convergent validity	Standardised loadings	Higher than 0.5	Hair et al. (2014) and Anderson and Gerbing (1988)
	The values of standardised residual covariance matrix	Lower than 4	
	Average Variance Extracted (AVE)	Higher than 0.5	
Discriminant validity	Heterotrait-monotrait ratio (HTMT)	Lower than 0.85	Campbell and Fiske (1959) and Henseler et al. (2014)

7.7.4 Research hypotheses testing

An essential preliminary step involves conducting a correlation analysis to examine the relationships among constructs using SPSS (28.0). This step is crucial before proceeding with path analysis, as it helps determine the direction and strength of the relationships (Pallant, 2020). The Pearson Correlation Coefficient (r) is used to indicate the direction and strength of these relationships. A positive r value suggests a positive correlation, whereas a negative r value indicates a negative correlation (Pallant, 2020). The absolute value of r denotes the strength of the relationship, with r=0 indicating no correlation, $0.10 \leq |r| \leq 0.29$ representing a weak correlation, $0.30 \leq |r| \leq 0.49$ signifying a moderate correlation, and $0.50 \leq |r| \leq 1$ indicating a strong correlation (Cohen, 1988).

Following this, path analysis is conducted through SEM, representing the subsequent phase in SEM to examine the model (Anderson and Gerbing, 1988). Additionally, full model mediation analysis is performed using SPSS AMOS (28.0), guided by Bollen (1989) and Zhao et al. (2010). Then, full model moderation analysis is carried out through SPSS AMOS (28.0), following the guidance of Spiller et al. (2013) and Collier (2020).

7.8 Possible bias and the efforts to minimise bias

Reflecting on and minimising bias is critical for maintaining objectivity, so this section will highlight potential biases within the study and efforts undertaken to mitigate them. Previous sections have detailed these efforts and summarising them provides valuable insight into ensuring research integrity. In quantitative studies, measurement bias can undermine construct validity, for instance, through the use of inappropriate scales for measuring constructs (Haws et al., 2022; Rossiter, 2002). To counter this, the researcher clearly defined each construct and selected scales that are both reliable and valid according to existing literature. Among the ten constructs in the conceptual framework, nine utilise scales from established research. Due to the lack of an appropriate scale for measuring PSR, a new PSR scale was developed and detailed in Chapter 8.

Sampling and participant recruitment decisions can also introduce bias. It is crucial to enlist participants who possess sufficient knowledge to respond accurately (Lietz, 2010). Recruiting unqualified participants may compromise data validity. To address this, the study established specific criteria for participant recruitment, including a pre-screening process to identify individuals who met these qualifications. Additionally, a small sample size can result in a Type II error, which occurs when a false null hypothesis is not rejected (McQuitty, 2004). Adopting a scientific approach to sample size determination based on precision, this study set the precision level at 0.1 and the confidence level at 95%, thereby minimising this risk (Trafimow, 2018).

Questionnaire design is another factor that can generate bias. To enhance research objectivity, a self-administered online questionnaire was utilised, reducing researcher involvement compared to other methods, such as face-to-face surveys (Peterson, 2000). Ambiguities in question phrasing and structure can adversely affect participants' ability to process information; thus, the survey was crafted following specific guidelines proposed by Peterson (2000) to ensure reliability. The study employed Qualtrics, a professional online survey platform, to create a clear and structured survey. Moreover, a pilot test involving nine marketing PhD and master's students was conducted to verify the survey's functionality and identify any issues, further efforts to ensure the study's rigour and reduce potential biases.

As highlighted by many scholars, response bias can significantly impact the validity of data (Kostyk et al., 2019). Factors such as participant inattention and the presence of professional respondents can undermine the quality of responses (Meade and Craig, 2012; Dennis, 2001).

To mitigate these issues, this study employs IMC check and other methods to detect inattentive responses (Meade and Craig, 2012; Paas and Morren, 2018). A pre-screening study is also used to effectively lower the likelihood of encountering professional respondents, and an increase in sample size is anticipated to further diminish biases (Brüggen et al., 2011). Prolific is selected as the online panel for its superior data quality compared to other panels (Peer et al., 2021; Douglas et al., 2023). This study also provides incentives to enhance the response rate and speed, ensuring respect for participants' rights (Cobanoglu and Cobanoglu, 2003; Kostky et al., 2021). Additionally, informed consent is sought at the survey's outset to confirm voluntary participation.

Moreover, the potential for bias arising from the degree of freedom in data processing, such as P-hacking, is recognised (Kerr, 1998; Wicherts et al., 2016). To counter this, the study establishes a prior data analysis protocol, outlining the data analysis approach and rules before the commencement of data collection and analysis, thereby reducing flexibility. The study also maintains transparency throughout the research process, including preserving original data outputs and conducting periodic meetings with supervisors.

7.9 Chapter conclusion

This chapter outlines the methodology of Quantitative Study 3, designed to test the conceptual framework. By adhering to a pre-planned approach, the study aims to effectively achieve **Research objective 3: to explore the formation process of PSR development and test its outcome**. Detailed discussions cover the portions of the conceptual framework subjected to empirical testing, the design and execution of the survey, the scientific approach to sampling, and data analysis techniques. Furthermore, the chapter recapitulates potential biases within the study and outlines efforts made to minimise these biases and uphold objectivity. The results of this study will be detailed in Chapter 9. The next Chapter presents the measurements for PSR formation model and PSR measurement instrument development.

Chapter 8: Measurements for PSR formation model

8.1 Chapter introduction

The previous chapter discussed the methodology of the quantitative study, while this chapter concentrates on the operationalisation and the measurements of the ten constructs. The extant literature offers suitable measures for the nine key constructs in the model (PSI, perceived value, trust, brand attitude, intention to support, purchase intention, perceived expertise, perceived authenticity, and interaction frequency), leading to adaptations of these measures from the literature for the nine key constructs.

However, the literature lacks an accurate PSR measurement instrument to capture the main domain characteristics of PSR in this thesis. As MacKenzie (2003) points out, employing inappropriate construct measures can undermine construct validity and the internal validity of research. Consequently, this chapter is devoted to developing a PSR measurement instrument that is both highly reliable and valid, capable of precisely measuring PSR online through a triangulation approach. The scale development process, guided by Churchill (1979) and Gerbing and Anderson (1988), aims to establish a reliable and valid measure for PSR. This step is critical before data collection and contributes to fulfilling **Research Objective 3: to explore the formation process of PSR development and test its outcome**. The newly developed PSR measurement will also aid future PSR studies in the online context in selecting an appropriate scale. Moreover, the working definition of PSR, outlined in Chapter 5.4.2, will be amended based on expert feedback. Through recommendations and suggestions from experts, the working definition of PSR will be updated in this chapter to meet **Research Objective 2: to propose new definitions of PSI and PSR based on their unique prerequisites**.

The structure of this chapter is organised as follows. Firstly, the operationalisation of the nine constructs will be discussed. Subsequently, the chapter will address the rationale behind developing a new PSR measurement. Following this, the chapter will detail the PSR measurement development process, based on Churchill (1979) and Gerbing and Anderson (1988), comprising four stages: 1) specifying the main domain characteristics of PSR, 2) generating an initial pool of scale items, 3) conducting initial item purification (Research Phase 3: expert survey & Research Phase 4: quantitative study 1), and 4) refining and assessing the scale (Research Phase 5: quantitative study 2).

8.2 Constructs' operationalisation

As detailed in Chapter 7, the conceptual framework tested encompasses ten constructs, with the appropriate measurements for nine of these constructs being identified according to guidelines proposed by Haws et al. (2022). These scales, recognised within the existing literature, have been adapted from pre-established scales. The comprehensive list of construct measurements, including the names of the constructs, the scale items, and their sources, is presented in Table 8.1. The rationale and the sources for these measurements are discussed below. However, the existing literature does not provide suitable scales for measurement for the focal construct, PSR, which this thesis aims to address. The justification for creating a new PSR measurement and the process for its development are explored in the subsequent section.

8.2.1 PSI

As previously explored in Chapters 2.4.1 and 2.6.1, scholars have proposed two primary perspectives on the conceptualisation of PSI, leading to differing approaches to the operationalisation of PSI. The first perspective on PSI definition emphasises the "relationship" aspect between one party and another, with scale items such as "*I feel the streamer is like an old friend*" (e.g., Xu et al., 2020) being employed to measure PSI. However, this conceptualisation of PSI is considered not rigorous as it conflates PSI's main domain characteristics with those of PSR. This study adopts the alternative conceptualisation of PSI, as discussed in Chapters 2 and 6.3.2.1, viewing it as an individual's perception of direct, reciprocal, and one-to-many communication with influencers through social media (Hartmann and Goldhoorn, 2011).

The scales created by Hartmann and Goldhoorn (2011), consisting of six items and assessed on a seven-point Likert scale (ranging from 1 strongly disagree to 7 strongly agree), are deemed most suitable since they can capture the "interaction" view of PSI. Three reasons justify the selection of this scale: firstly, the main domain characteristics of PSI as proposed by Hartmann and Goldhoorn (2011) match the definition of PSI in this thesis; secondly, the scale demonstrates high reliability (Cronbach's alpha = 0.87); and thirdly, this scale has been effectively applied in influencer marketing research (e.g., Chen et al., 2022). Thus, the PSI scale utilised in this thesis comprises six items, which have been adjusted to better fit the context of the current research.

Table 8.1 Operationalisation of study constructs

Operationalisation of study constructs				
Construct	Dimension	Item	Scale	Source
Parasocial interaction		PSI1	When I am watching this influencer's social media content, I have the feeling that this influencer is aware of me.	Hartmann and Goldhoorn (2011)
		PSI2	When I am watching this influencer's social media content, I have the feeling that this influencer knows I am there.	
		PSI3	When I am watching this influencer's social media content, I have the feeling that this influencer knows I am aware of them.	
		PSI4	When I am watching this influencer's social media content, I have the feeling that this influencer knows I pay attention to them.	
		PSI5	When I am watching this influencer's social media content, I have the feeling that this influencer knows that I react to them.	
		PSI6	When I am watching this influencer's social media content, I have the feeling that this influencer reacts to what I say or do.	
Perceived value of posts	Perceived utilitarian value	UV1	Ineffective/Effective	Luo and Yuan (2019)
		UV2	Unhelpful/helpful	
		UV3	Not functional/ functional	
		UV4	Unnecessary/necessary	
		UV5	Impractical/practical	
	Perceived hedonic value	HV1	Not fun/fun	Luo and Yuan (2019)
		HV2	Dull/exciting	
		HV3	Not delightful/delightful	
		HV4	Not thrilling/thrilling	
		HV5	Enjoyable/unenjoyable	
Perceived influencer expertise		CE1	This influencer is an expert in topics related to their content.	Ladhari et al. (2020)
		CE2	This influencer is experienced in topics related to their content.	
		CE3	This influencer is knowledgeable in topics related to their content.	
		CE4	This influencer is qualified in topics related to their content.	

Table 8.1 (cont'd) Operationalisation of study constructs

Operationalisation of study constructs				
Construct	Dimension	Item	Scale	Source
Trust		T1	This influencer can be relied upon on their content.	Alboqami (2023)
		T2	I believe what this influencer says and that they would not try to take advantage of the followers.	
		T3	This influencer is straightforward and honest even though their self-interests are involved.	
		T4	This influencer would not tell a lie even if they could gain by it.	
Perceived influencer authenticity		PIA1	This influencer is real.	Shoenberger and Kim (2022)
		PIA2	This influencer is authentic.	
		PIA3	This influencer is truthful.	
Brand attitude		BA1	This brand is good.	Torres et al. (2019)
		BA2	This brand is pleasant.	
		BA3	This brand is favourable.	
Purchase intention		PI1	How likely would you be to purchase this brand endorsed by this influencer?	Gong and Li (2017)
Intention to support		ITS1	I will support this influencer to see them succeed.	Kim and Drumwright (2016)
		ITS2	I will support this influencer because I want to.	
		ITS3	This influencer's success will make me happy.	
		ITS4	I will support the influencer if they need help from fans like me.	
		ITS5	I feel good when I support this influencer.	
		ITS6	I pay attention to this influencer's needs.	
		ITS7	I care about this influencer's success.	
Interaction frequency		IF	How often do you view the messages (e.g., text, picture, or video) posted by your favourite influencer on social media?	Su et al. (2015)

8.2.2 Perceived value of posts

In this thesis, the concept of the perceived value of posts can be reflected in two dimensions: the perceived utilitarian value and the perceived hedonic value of the posts, as detailed in Chapter 6.3.2.2. The perceived utilitarian value of the posts refers to the perceived usefulness of the posts when reading or watching a post (Meske et al., 2019). Upon reviewing relevant literature, the measurement scale developed by Lou and Yuan (2019) emerges as particularly suitable for this construct. This scale comprises five items rated on a 7-point semantic differential scale and has demonstrated high reliability and adaptability in the context of influencer marketing (Cronbach's alpha = 0.884; CR = 0.915; AVE = 0.684). Overall, the perceived utilitarian value scale used in this thesis consists of five scale items.

The perceived hedonic value of posts focuses on viewers' perception of the fun and playfulness that a media user experiences from reading or watching a post (Hughes et al., 2019). In line with this definition, the measurement scale adopted in this research from Lou and Yuan (2019) has five items anchored by a 7-point semantic differential scale. This scale exhibits high reliability and validity (Cronbach's alpha = 0.89; CR = 0.918; AVE = 0.693) and is well-suited for the influencer marketing context. The scale for the perceived hedonic value used in this thesis also comprises five items.

8.2.3 Perceived influencer expertise

Within the scope of this thesis, perceived influencer expertise is defined as consumers' perception of the influencer's knowledge in a particular field (Kim et al., 2020). The scale developed by Ladhari et al. (2020) is identified as the most appropriate for measuring this construct, consisting of four items and employing a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). Three key reasons underpin the selection of this scale: firstly, it aligns well with the thesis's definition of perceived content expertise; secondly, it demonstrates high reliability and validity (Cronbach's alpha = 0.961; AVE = 0.860); and thirdly, its applicability and effectiveness have been proven in influencer marketing research. Consequently, the scale used in this thesis for perceived content expertise includes four items, modified to fit the specific context of this research.

8.2.4 Trust

In this thesis, trust is conceptualised as an individual's belief that an influencer will provide consistent and competent quality (Jun and Yi, 2020). Consistent with this definition, the scale developed by Alboqami (2023) is identified as the most suitable due to its alignment with the trust definition and successful application within the influencer marketing context. This scale comprises four items and employs a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree), demonstrating high reliability and validity (Cronbach's alpha = 0.931; CR = 0.950; AVE = 0.592). The trust scale utilised in this thesis thus includes four scale items.

8.2.5 Perceived influencer authenticity

Perceived influencer authenticity refers to the degree to which an individual perceives an influencer as as a real and down-to-earth person (Shoenberger and Kim, 2022; Jun and Yi, 2020). Upon evaluating the relevant literature on influencer authenticity, the scales used by Shoenberger and Kim (2022) are deemed most fitting. This scale, consisting of three items rated on a seven-point Likert scale from 1 (strongly disagree) to 7 (strongly agree), aligns with the thesis's definition of perceived influencer authenticity and has shown high reliability (Cronbach's alpha = 0.84) and applicability in the influencer marketing context. The scale for perceived influencer authenticity in this thesis, therefore, includes three items.

8.2.6 Brand attitude

Brand attitude is the summary evaluation of people's perception of a brand (Mitchell and Olson, 1981). The scale employed by Torres et al. (2019) captures brand attitude and has been effectively adapted to the influencer marketing setting. This scale includes three items and is measured on a 7-point Likert-type scale ranging from 1 (strongly disagree) to 7 (strongly agree), showing high reliability and validity (Cronbach's alpha= 0.982; AVE=0.951; CR=0.983). Accordingly, the brand attitude scale utilised in this thesis is comprised of three items, adjusted to align with the current research context.

8.2.7 Purchase intention

Purchase intention refers to consumers' intention to purchase a product or service under influencers' influence based on their evaluation (Hwang and Zhang, 2018). The scale developed by Gong and Li (2017), consisting of a single item measured on a 7-point scale, is identified as the most suitable for this construct. This scale is primarily employed in the context of celebrity endorsements on social media. The single-item measure is sufficient to measure purchase intention since purchase intention is 'singularly concrete' in nature and is narrowly defined (Rossiter, 2002; Malhotra et al., 2012). Multiple items may not provide more information for purchase intention but could lead to verbose information. Therefore, this scale is used in this thesis and modified to suit the current research context.

8.2.8 Intention to support

Intention to support can be defined as the extent to which the individual is willing to help the influencers maintain and increase popularity in the long run. Upon examining the relevant literature, the scale used by Kim and Drumwright (2016) was selected for its alignment with the definition of intention to support and its successful application within the social media context. This scale comprises seven items and is rated on a 7-point Likert-type scale from 1 (strongly disagree) to 7 (strongly agree), demonstrating high reliability (Cronbach's alpha = 0.93). Consequently, the intention to support scale in this thesis includes seven items, modified to the current study context.

8.2.9 Interaction frequency

Interaction frequency is operationalised as the frequency at which media users visit their favourite influencers' social media accounts. For this thesis, a single-item scale, modified from Su et al. (2015), is employed to measure this construct.

The operationalisation of the nine constructs has been outlined above and detailed in Table 7.1. Despite the comprehensive approach to these constructs, the literature lacks a precise PSR scale that captures the dynamic and complex nature of PSR in the online environment. Consequently, the development of a new PSR scale that accurately measures PSR in the online environment is essential. The justification for this new scale and the process of its development are to be elaborated upon in the subsequent sections.

8.3 Rationale for developing a new PSR measurement

Identifying the rationale for developing a new scale for an existing construct is crucial, as it enables researchers to decide whether an adequate existing scale is available to measure the construct (Churchill, 1979). This study reviews previous literature and existing PSR measurement scales, proposing two reasons why a new PSR scale is necessary.

First, upon reviewing current PSR research and developed scales, it becomes apparent that the existing PSR scales do not capture the main domain characteristic of PSR as proposed in this thesis, discussed in Chapter 5.4.2. The most commonly used PSR scale, developed by Rubin et al. (1985), appears 11 times according to the systematic literature review. Rubin et al. (1985) introduced a widely used scale for measuring the "*psychological involvement*" of media users in the traditional media environment, termed "PSI." This term's application, in lieu of PSR, represents a misuse. This "PSI" scale comprises 20 items assessing individuals' interpersonal involvement with their media consumption. This psychological involvement includes a range of psychological processes such as transportation, PSI, identification, and worship, thereby extending well beyond the PSR's intended scope (Brown, 2015).

Another widely used scale for measuring PSR, devised by Rubin and Perse (1987), is mentioned 10 times in the systematic literature review. It originates from the scale by Rubin et al. (1985), comprising ten items. However, Rubin and Perse (1987) fail to justify theoretically the decision to exclude certain items while retaining others, nor do they detail the scale reduction process. Such oversight may undermine the construct validity and potentially affect the scale's reliability. Furthermore, Rubin and Perse (1987) also incorrectly use "PSI" in their study, defining it as "interpersonal involvement," conceptualised as a sense of friendship. In contrast, this thesis conceptualises PSR as "dynamic attachment," which does not coincide with the main domain characteristics of "interpersonal involvement" as defined by Rubin and Perse (1987). Consequently, from the perspective of conceptualisation, an appropriate PSR scale has yet to be identified.

Another justification for the necessity of a new PSR scale lies in the fact that existing scales were developed within the context of traditional media environments, such as television. Certain items from these scales are not suitable for the online environment, necessitating their removal (Wahab et al., 2022). For instance, an item from Rubin et al. (1985), "*I like hearing the voice of my favourite newscaster in my home*", which is hard to adapt to the online environment. Similarly, some items do not align with the contemporary patterns of

online media consumption (e.g., "*I look forward to watching my favourite newscaster on tonight's news*") (Kim, 2022). The practice of omitting these unsuitable items from the original PSR scales, such as Yang and Ha (2021) adapting Rubin and Perse (1987) to include nine instead of ten items, lacks rigour, potentially undermining construct validity and internal consistency (Kim, 2022). New features have emerged in the online environment compared with the traditional environment, such as convenience and media accessibility. Thus, developing a new PSR measurement instrument that can accurately measure PSR is essential, especially in the online environment (Tsiotsou, 2015; Kim, 2022).

Therefore, developing a new PSR measurement can contribute to PSR studies. The current absence of a precise measure for online PSR necessitated the development of a PSR scale that is both reliable and valid, aiming specifically to assess PSR in the online context through a triangulation approach. This initiative is crucial for meeting research objective 3, which aims to investigate the formation process of PSR development and its outcomes. The development process, informed by Churchill (1979) and Gerbing and Anderson (1988), strives for high validity and reliability, addressing existing literature calls for an online-specific PSR scale (e.g., Kim, 2022). This development process incorporated multiple validation sources, including expert surveys and two quantitative studies, to ensure that the new online PSR scale is reliable and valid, thus significantly contributing to future PSR studies in the online environment.

8.4 PSR measurement development process

This thesis adheres to the measurement scale development guidelines proposed by Churchill (1979) and Gerbing and Anderson (1988). The adoption of these guidelines is justified by their widespread use in the marketing field for developing new measurement scales, as evidenced by the creation of scales such as the emotional attachment scale (Jiménez and Voss, 2014), the online engagement scale (Paruthi and Kaur, 2017), and the online brand community engagement scale (Baldus et al., 2015).

The development of the PSR scale involves four steps. The initial step involves defining the main domain characteristic of PSR and establishing the boundaries of what is to be included in and excluded from the PSR definition (Churchill, 1979). This definition is derived from a systematic review of the literature presented in Chapter 2 and qualitative insights discussed in Chapter 5. Subsequently, the working definition is refined based on expert feedback, as

detailed in Section 8.5. The second phase generates a preliminary set of scale items through literature review and analysis of qualitative data. In the third phase, the item pool is refined through expert and consumer surveys (during research phases 3 and 4, respectively), aiming to streamline the item set and evaluate the scale's reliability and validity. The final phase involves a consumer survey (research phase 5) to refine and confirm the reliability and validity of the developed PSR scale. An in-depth discussion of the PSR scale development process is provided below and summarised in Table 8.2.

8.4.1 Step 1: Specify the main domain characteristics of PSR

As recommended by Churchill (1979), the initial step in developing the PSR measurement scale involves delineating the main domain characteristics of PSR. This process draws on a comprehensive analysis of past discussions (Chapter 2), prerequisites (Chapter 2), and criteria for a good definition criterion (Chapter 5). Consequently, the working definition is proposed as "**an individual's dynamic perception of a valuable psychological connection, unilaterally developed with the other party based on repeated exposure through media or technology**".

8.4.2 Step 2: Generate initial scale item pool

This stage culminates in the identification of 40 potential scale items, detailed in Appendix 15. To generate these initial items, two approaches were employed: a review of the literature and qualitative data discussion in Chapter 5.2. The literature review aimed to pinpoint possible themes and scale items reflecting PSR from existing studies, which yielded 16 items (Churchill, 1979). The analysis of qualitative data provided an additional 24 items (Churchill, 1979).

The literature suggests that PSR scales should be multi-item rather than single-item scales (e.g., Ledbetter and Meisner, 2021; Sokolova and Perez, 2021), due to their greater reliability in measuring constructs (Churchill, 1979). While some researchers argue that a single item can be as valid as multi-item scales (Bergkvist and Rossiter, 2007), multi-item scales are preferred for their ability to encapsulate more information and characteristics of the construct (Baumgartner and Homburg, 1996). Given the complexity of PSR, which is impossible to capture psychometric properties of PSR through single-item measures, this thesis adopts a multi-item approach for assessing PSR.

Table 8.2 PSR scale development procedure

PSR Scale Development Process			
Steps	Methods	Analysis approach	Results
Step 1: Specify main domain characteristic	Systematic literature review (Chapter 2) Qualitative data analysis (Chapter 5)	Content analysis; Thematic analysis	The PSR working definition needs to be evaluated; Good PSR definition criteria are proposed.
Step 2: Generate initial scale item pool	Literature review (n=16)		Generate 40 scale items (n=40)
	Research phase 2: Semi-structured interview (n= 24)	Content analysis	
Step 3: Initial item purification	Research phase 3: Experts survey (delete 20 and retain 20)		Delete 32 scale items and retain 8 scale items (n=8)
	Research phase 4: Quantitative study 1: Consumer survey (delete 12 and retain 8)	Exploratory Factor Analysis (EFA); Confirmatory Factor Analysis (CFA); Reliability test	
Step 4: Assessment of the scale	Research phase 5: Quantitative study 2: Consumer survey	Exploratory Factor Analysis (EFA); Confirmatory Factor Analysis (CFA); Reliability test; Structural Equation Modeling (SEM)	Retain 8 scale items with three dimensions (n=8)

Scholars hold different views regarding the dimensions of PSR. Broadly, these perspectives fall into two categories. The majority of scholars conceive of PSR as a unidimensional construct, as argued by Yuan and Lou (2020) and Kim (2022). Conversely, a number of studies propose that PSR is multi-dimensional (e.g., Tsiotsou, 2016; Presgrove and Pardun, 2016). For instance, Tsiotsou (2016) delineates two dimensions of PSR among online community members: parasocial identification and parasocial problem-solving. Similarly, Presgrove and Pardun (2016) identify two dimensions of PSR between consumers and organisations, namely feelings of companionship and affective connection to the organisation. The varying conceptualisations of PSR, its main domain characteristics, and the diverse research contexts within the online environment likely contribute to this plurality of views on its dimensions.

The second approach to generating the initial item pool for the PSR scale involves analysing qualitative data. While some scholars contend that undertaking qualitative research is not an essential step in scale development, qualitative investigations can significantly contribute to the generalisation of initial items (Hinkin, 1995; Carpenter, 2017). It is noteworthy that the majority of scale development studies utilise qualitative data to generate initial scale items (e.g., Shimul et al., 2019). Following Churchill's (1979) recommendation, this study employs qualitative data to generate more relevant PSR scale items. Through content and thematic analyses detailed in Chapter 5, the researcher generates items that encapsulate the keywords and themes identified. These items undergo a rigorous evaluation process to ensure their clarity and representativeness, which is a back-and-forth process. A total of 24 relevant scale items are generated through this method. In conclusion, 40 PSR scale items are identified by combining a literature review and qualitative data analysis.

8.4.3 Step 3: Initial scale items purification

Scale item purification is a critical step in scale development, serving to effectively reduce the number of items (Gerbing and Anderson, 1988). Excessively long or cumbersome scale items can lead to protracted surveys, potentially diminishing respondents' patience and leading to low validity (Lietz, 2010). Given that participants exhibit diverse response styles, shortening the scale items can more effectively capture their attention. The current PSR scale typically comprises no more than ten items (e.g., Yuan et al., 2021; Sokolova and Perez, 2021), underscoring the necessity of reducing the 40 PSR scale items identified at this phase. Consequently, this study employs three distinct studies to refine the item pool: an expert

survey to evaluate scale items and revise the PSR definition, an online survey to refine the initial item pool, a subsequent survey to further refine and valid the new PSR scale.

Research phase 3: expert survey

This study employs an expert survey to refine scale items and revise the definition of PSR. Utilising expert survey is a widely accepted and critical method for developing scales in marketing, enhancing face validity (Hardesty and Bearden, 2004; Rossiter, 2002). Although face validity and content validity are often used interchangeably, face validity can be defined as "*the extent to which the "objects" (people) that were measured with the instrument agreed that the instrument was valid*" (Knapp, 2002, p.102). Its importance lies in its fundamental role in ensuring construct validity (Churchill, 1979; Hardesty and Bearden, 2004).

In scale development, typically two types of experts are consulted: academic and industry professionals. Academic experts were selected for this study due to their role in enhancing face validity. These experts were chosen based on their previous experience with PSR research and publication history. A total of 35 experts in the relevant field were identified. Seventeen experts initially responded to the questionnaire, though five incomplete submissions were excluded. Further review revealed that one expert submitted responses twice. The second response amended the first response and provided more comments was retained, resulting in eleven valid responses for data analysis, some of which included additional feedback.

The expert survey questionnaire comprises three sections. The initial section presents a plain language statement detailing the survey's purpose. The second section focuses on the PSR working definition, offering the newly working definition of PSR for evaluation. Experts are asked to rate how clear, comprehensive, and capturing the essence of the construct the definition of PSR is, which is measured by a 7-point Likert Scale. This scale format is a widely recognised analytical tool in marketing (Dawes, 2008). An open-ended question invites experts to suggest improvements to the PSR definition. The final section addresses the scale items, presenting 40 initial PSR scale items related to PSR for experts to evaluate in terms of clarity and relevance to the PSR definition, again employing a 7-point Likert Scale. This section also includes two open-ended questions for additional comments on the PSR scale items.

The initial stage of executing an expert survey involves sending an email invitation to the selected experts. Given potential geographical constraints, an online survey is deemed the most suitable method. The invitation, detailed in Appendix 16, includes a link to the survey created on Qualtrics, a widely used digital survey platform among academic researchers (Qualtrics, 2024). Experts are encouraged to participate by clicking on the provided link, with the questionnaire designed to take around fifteen minutes to complete.

The prior item retention decision rule of this study is that only items rated as "reflects slightly", "reflects moderately", and "reflects extremely well" by at the latest 80% of experts will be retained (Lichtenstein et al., 1990). This 80% threshold aligns with Zaichkowsky (1985) and surpasses the 75% consensus minimum for item retention (Hardesty and Bearden, 2004). This approach ensures all expert opinions are considered in evaluating the face validity of the items (Hardesty and Bearden, 2004).

Following this prior item retention decision rule, 20 scale items were removed for not adequately reflecting PSR, and 20 scale items were retained. These retained items underwent further examination to assess their clarity. Items rated by more than 20% of experts as "extremely unclear," "moderately unclear," or "slightly unclear" were subject to potential clarification. However, upon review of expert feedback regarding the 20 retained items, it was concluded that no clarifications were necessary. Consequently, these 20 scale items proceeded to the next stage of testing for reliability and validity.

Amending the PSR definition

The preliminary definition of PSR, discussed in Chapter 5.4.2, was formulated drawing on existing literature (MacKenzie, 2003; Churchill, 1979; Gilliam and Voss, 2013), qualitative findings, and criteria for good definitions (Murrow and Hyman, 1994). It conceptualises ***an individual's dynamic perception of a valuable psychological connection, unilaterally developed with the other party based on repeated exposure through media or technology***.

As highlighted in Chapter 5.4.2, this working definition offers several advantages over existing definitions. This study solicited feedback from experts in the PSR field to refine the working definition, ensuring its clarity, comprehensiveness, and credibility. Experts were invited to assess the face validity of the newly proposed PSR scale items and to provide feedback on the working definition (Hardesty and Bearden, 2004; Rossiter, 2002). The

detailed study design of the expert survey is detailed in Chapter 8.4.3.1. Experts were asked to evaluate the definition's clarity, comprehensiveness, and its encapsulation of the PSR construct's essence. An open-ended question was included to gather detailed comments.

Feedback from five experts on the PSR definition was both valuable and enlightening, contributing significantly to the refinement of the working definition. Their insights and suggestions are compiled in Appendix 17. Taking these into account, the working definition of PSR has been revised to **an individual's dynamic psychological attachment to another party, developed unilaterally through media and perceived as personally meaningful**.

Research phase 4: online consumer survey – quantitative study 1

The current retention of 20 items within the PSR scale exceeds the item count of other existing scales, necessitating a refinement to streamline the newly developed scale. Consequently, the **primary aim of this study is to reduce PSR scale items**. Secondly, the paucity of literature concerning the dimensions of PSR underscores the necessity to delineate the appropriate dimensions of this construct (Gerbing and Anderson, 1988; Haws et al., 2022). Examination of the current 20 PSR scale items reveals thematic congruencies among some items, suggesting inherent dimensions within the PSR scale. Thus, **the second aim is to elucidate the dimensions of PSR**. Thirdly, prevailing research advocates for the high internal consistency, reliability, and validity of scale items (Knapp, 2002). It is imperative, therefore, to ensure the PSR scale items exhibit a strong internal correlation (Haws et al., 2022). **The third objective, therefore, is to evaluate and enhance the reliability and validity of the PSR scale**.

Questionnaire design

This questionnaire is structured into three distinct sections. The initial section presents the participant information sheet, designed to brief participants on the study's objectives, ethical considerations, and the measures in place to safeguard their privacy. In line with the guidelines stipulated by the College Research Ethics Committee, this sheet emphasises the voluntary nature of participation and details the procedures for data collection and usage, aiming to mitigate any ethical concerns and protect participant privacy.

The subsequent section comprises filter questions alongside queries regarding consumers' social media behaviours. The implementation of filter questions is critical to promptly ascertain the eligibility of participants for this study (Bryman and Bell, 2011). To ensure a uniform understanding necessary for providing informed responses, the questionnaire introduces several carefully crafted questions (Peterson, 2000). Specifically, the study targets participants with a history of following influencers over extended periods. Accordingly, respondents are requested to name a favoured influencer, indicate the typical content posted by these influencers, and how long they have been following them. The final section of the questionnaire is dedicated to the 20 PSR scale items, employing a 7-point Likert scale for responses. with 1 indicating "strongly disagree", 2 indicating "disagree", 3 indicating "somewhat disagree", 4 indicating "neither agree nor disagree", 5 indicating "somewhat agree", 6 indicating "agree", and 7 indicating "strongly agree".

Notably, this questionnaire omits demographic questions, as Prolific provides detailed demographic information of participants. This approach reduces the questionnaire's length, enhancing participant attention. Participants are, however, required to enter their Prolific IDs manually for identification purposes.

The study utilises an online survey method, which is advantageous for its cost-effectiveness, ease of administration, and ability to overcome geographical constraints (Couper, 2011). Qualtrics serves as the chosen platform, recognised for its advanced functionalities and widespread adoption in research (e.g., Sahaym et al., 2021; Qualtrics, 2024). Features such as piped text are employed to personalise the survey experience. This feature automatically updates subsequent questions to include the name of an influencer identified by the respondent, thus reducing confusion and enhancing the survey's communicative efficiency.

Pilot test

Prior to the main study, a pilot test was conducted to identify and rectify potential issues, thereby ensuring the survey's overall feasibility (Teijlingen and Hundley, 2001). This test involved three marketing PhD students and two marketing postgraduate students, who were asked to evaluate the survey for clarity, layout, typographical errors, and provide general feedback for improvement (Peterson, 2000). Their assessments confirmed the survey's clarity and ease of comprehension, indicating no need for further modifications. Data from these pilot participants were excluded from the analysis of the main study.

Sampling approach

The sampling frame for this study encompasses individuals who have fostered long-term relationships with social media influencers. Given the study's emphasis on empirically examining how people develop PSR with influencers on social media, it is critical to enlist participants who have consistently followed influencers over time whilst excluding those who do not meet the criteria. As highlighted by Kostyk et al. (2021), filtering out unsuitable respondents is vital for enhancing the quality of data.

Specifically, participants must meet the following criteria: 1) be aged 18 years or older, 2) be active social media users, and 3) have followed social media influencers for an extended period (at least three months). The decision to set a three-month threshold is informed by qualitative data, which suggests that it typically takes this duration for individuals to establish a stable relationship with influencers. To accurately target the desired respondents, this research initially conducted a pre-screening study to identify individuals who have developed relationships with influencers on social media. The main study subsequently focused on these pre-qualified respondents. The justification for undertaking the pre-screening study is discussed in detail in Chapter 7.6.

This pre-study garnered 400 responses, aiming to select a minimum of 200 participants meeting the criteria. Each respondent was compensated £0.10 for completing a brief survey of five questions, which required no more than 2 minutes to complete. Only those participants who 1) use social media, 2) follow social media influencers, 3) have been following at least one influencer for more than three months, and 4) continue to engage with these influencers' updates were deemed eligible.

The pre-study achieved a response rate of 100%, receiving 400 responses. According to the predefined criteria, 91 respondents were deemed ineligible, resulting in a total of 309 qualified participants. These participants were subsequently added to the "Customer Allowlist," earmarking them for the invitation to the next phase of the research, specifically quantitative study 1 (research phase 4).

The determination of the main study's sample size is guided by the number of scale items, a subject of ongoing debate, particularly when conducting Exploratory Factor Analysis (EFA) to assess scale validity. Scholars like Beavers et al. (2013) argue that it is challenging to establish an adequate sample size since the outcomes are significantly influenced by it,

rendering the stability of EFA results difficult due to this influence. Nonetheless, identifying an appropriate sample size is crucial for reducing the degrees of freedom (Yoo et al., 2015; Wicherts et al., 2016).

Other researchers, such as Hutcheson & Sofroniou (2006), suggest that a sample size ranging between 150 to 300 responses is reasonable. However, this broad range does not offer precise guidance. This study employs the item ratio rule, referencing various studies that tailor their approach based on the actual number of scale items (Osborne and Costello, 2005). The item-to-sample size ratio applied herein is 1:10, meaning that for each scale item, the sample size should be multiplied by 10. With 20 PSR scale items present, the calculation dictates a sample size of 20*10=200, surpassing the minimum of 150 participants suggested for initial structure exploration (Beavers et al., 2013). Consequently, this study aims to recruit 220 participants and successfully receive 220 responses. Participants were compensated £1.05 each for their time, with the survey taking no longer than 6 minutes to complete.

Data analysis

The data analysis for this study unfolds in three distinct phases: data cleaning, EFA and CFA. Employing various data-cleaning techniques is pivotal for identifying outliers, detecting carelessly invalid responses, and enhancing data quality (Leys et al., 2013; Berger and Kiefer, 2021).

Data cleaning

The data cleaning techniques are thoroughly examined in Chapter 7.7.1. This study utilises four techniques for this purpose: participant ID verification (Aust et al., 2013), completion time checks (Meade and Craig, 2012), screening question checks, and evaluation for extreme response patterns (Hyman and Sierra, 2012). Following the specified data cleaning protocols, 14 responses were removed, resulting in 205 valid responses available for further analysis.

EFA

The study initially performs Harman's one-factor test to evaluate the presence of common method bias, adhering to the guidance of Fuller et al. (2016). No common method bias is confirmed through two indicators: 1) the Eigenvalues of three factors surpassing 1, and 2) the highest variance explained is 35.39%, which falls below the threshold of 40%. EFA is

conducted prior to CFA to both refine the scale items and investigate the dimensionality of the PSR scale. This approach is advocated by Gerbing and Anderson (1988), who suggest EFA's necessity in the absence of concrete evidence regarding the interrelations among constructs and scale items. Prior to executing EFA, several critical decisions regarding the methodology must be made, including the choice of extraction method, factor extraction approach, determination of the number of factors to retain, and the rotation method to be applied.

The initial decision involves selecting an appropriate extraction method. Components analysis and factor analysis are the two techniques commonly employed in EFA. Despite their functional similarities and potential to yield analogous outcomes, they are underpinned by distinct mathematical and theoretical foundations (Beavers et al., 2013). While components analysis is frequently utilised for item reduction, it does not facilitate a deeper exploration of variance differentiation (Osborne and Costello, 2005). In contrast, factor analysis is adept at revealing data patterns and aiding in item reduction (Osborne and Costello, 2005). Therefore, this study opts for factor analysis as the extraction method, aiming to elucidate the underlying structure of the PSR scale more effectively.

The choice of factor extraction method constitutes the second decision point in this study, following the guidelines proposed by Osborne and Costello (2005). Specifically, maximum likelihood is employed if the data are normally distributed; alternatively, principal axis factoring is utilised if the data distribution deviates from normality. Subsequent to this, the method of rotation—pertinent to the data's structure—was addressed, with this study opting for oblique rotation (Field, 2018). This choice is justified on the grounds that the PSR scale items are interrelated, rendering oblique rotation suitable (Beavers et al., 2013). Moreover, oblique rotation is acknowledged for yielding results that are both more precise and replicable (Osborne and Costello, 2005). Consequently, the criteria for factor retention are summarised in Table 8.3.

As a result, a principal axis factor analysis (FA) incorporating oblique rotation (direct oblimin) was initially applied to the 20 items. The Kaiser-Meyer-Olkin (KMO) measure confirmed the sampling adequacy for the subsequent analysis, KMO = 0.890, $\chi^2(df)$ = 1842.531(190), $p < 0.001$. The analysis revealed five factors, distinguished by eigenvalues exceeding 1, together accounting for 53.71% of the variance. However, due to the fact that the factor loading values of seven items were below 0.5, these items were excluded. Subsequent EFA with the remaining thirteen scale items were conducted. The Kaiser-Meyer-

Olkin measure once again verified sampling adequacy, KMO = 0.839, χ2(df) = 1100.802(78), p < 0.001, yet three items with factor loadings below 0.5 were removed. A further EFA on the remaining ten PSR scale items indicated a good fit, KMO = 0.860, χ2(df) = 1164.412(91), p < 0.001, with a total variance explained of 50.636%.

Table 8.3 Criteria for factor retention in EFA

Criteria for factor retention in EFA			
Rule	Criteria	Rules	Source
A	Kaiser-Meyer-Olkin (KMO)	Higher than 0.5	Beavers et al. (2013); Kaiser (1974)
B	Scree test	The number of datapoints above the "break"	Osborne and Costello (2005); Cattell (1966)
C	Kaiser criterion	Eigenvalues should equal or higher than 1	Beavers et al. (2013); Kaiser (1960)
D	Variance extracted	75 – 90% of the variance should be accounted for; however, 50% of the variance explained is acceptable	Beavers et al. (2013)

The determinations based on the established decision rules indicated that PSR comprises three factors: intimacy, relationship maintenance, and real-life relationship intention. First, all factors loading values above 0.5 (Beavers et al., 2013). Second, the scree plot identified a "break" point at four. Third, the eigenvalues of the three factors exceeded 1. Fourth, collectively, these factors explained 54.76% of the variance, surpassing the acceptable threshold of 50% (Beavers et al., 2013). Initially, a reliability analysis using SPSS confirmed the reliability and validity of these dimensions. Table 8.4 illustrates that Cronbach's alpha values for the three dimensions of PSR exceed 0.7, indicating high reliability (Haws et al., 2022).

Table 8.4 Quantitative study 1 – CFA results

		Quantitative Study 1: CFA Results								
Construct	Dimension	Scale item	Mean	Median	Mode	S.D.	CFA Factor loading	Cronbach's alpha	Average variance extracted (AVE)	Composite reliability (CR)
Parasocial relationship	Intimacy	The other party makes me feel comfortable, as if I am with family.	3.72	4.00	4.00	1.52	0.80	0.76	0.53	0.77
		I think I understand the other party quite well.	4.22	4.00	5.00	1.37	0.60			
		I treat the other party as a friend.	3.01	3.00	2.00	1.56	0.76			
	Relationship maintenance	I want to support the other party.	5.21	5.00	6.00	1.19	0.84	0.77	0.55	0.78
		I would like to continue engaging with the other party.	5.74	6.00	6.00	0.85	0.68			
		If the other party appeared on a different media platform, I would watch it.	5.50	6.00	6.00	1.24	0.70			
	Real-life relationship intention	I would like to be friends with the other party in real life.	4.93	5.00	5.00	1.39	0.96	0.77	0.67	0.80
		I would like to meet the other party in person.	5.08	5.00	5.00	1.34	0.65			

The subsequent phase involves conducting CFA, the outcomes of which are delineated in Table 8.4. This procedure aligns with the methods outlined in Chapter 7. Following the exclusion of two scale items, the PSR model demonstrates a good model fit, as indicated by $\chi2$ (df = 16) = 24.516, p = 0.031, Chi-Square/df = 1.442, RMSEA = 0.047, CFI = 0.986, NFI = 0.957, TLI = 0.977 (Byrne, 2016). All AVE values are above 0.5, and all CR values are above 0.7. For the first-order reflective scale reliability, Cronbach's alpha/coefficient alpha values are between 0.76 and 0.77, higher than 0.7 (Haws et al., 2022). CR values are higher than 0.7 (Hair et al., 2014). For convergent validity, the standardised residual covariance matrix values are all lower than 4, all standardised loadings are higher than 0.5, and all AVE values are higher than 0.5, indicating good convergent validity (Anderson and Gerbing, 1988).

Discriminant validity is assessed through the HTMT ratio via SPSS AMOS. The HTMT.85 criterion, known for its high sensitivity rate, serves as the benchmark (Campbell and Fiske, 1959; Henseler et al., 2014). The HTMT outcomes, presented in Table 8.5, reveal inter-construct correlation values ranging from 0.375 to 0.489, all of which are below the 0.85 threshold. This indicates the absence of a discriminant validity issue within the model (Henseler et al., 2014), thus establishing discriminant validity.

Table 8.5 Quantitative study 1 – HTMT Matrix

Quantitative Study 1 – HTMT Matrix			
	Intimacy	Maintenance	Real-life
Intimacy			
Maintenance	0.402		
Real-life	0.489	0.375	

Consequently, eight PSR scale items are maintained at this stage, encapsulating three dimensions. The forthcoming step is to refine and valid the PSR scale.

8.4.4 Scale validation and reliability (Research phase 5: quantitative study 2)

At this stage, it is crucial to refine the PSR scale, further test the reliability and validity of the PSR scale and confirm the stability of its three dimensions. Specifically, this study focuses on internal consistency, test-retest reliability, convergent validity, discriminant validity, and the nomological network of the newly developed scale (Haws et al., 2022). The

assessment of internal consistency, convergent, and discriminant validity is in line with quantitative study 1.

Test-retest reliability refers to the consistency and reproducibility of the same measurement of the same individuals in the same condition (Knapp, 2002; Aldridge et al., 2017). In essence, test-retest aims to verify the stability of the respondents' item responses over time (Haws et al., 2022). Evaluating test-retest reliability is essential in new scale development, as researchers must ensure that the scale remains stable over time (Haws et al., 2022). Various methods exist to test test-retest reliability, and this study utilises 95% confidence intervals along with their Intraclass Correlation Coefficients (ICC) to demonstrate test-retest reliability, as this approach yields more precise results (Aldridge et al., 2017).

Furthermore, to confirm that the scale has high construct validity, a nomological network with constructs with linkages needs to be developed and tested (Peter, 1981). The nomological network is developed and illustrated in Figure 8.1, drawing on existing literature.

Figure 8.1 Nomological network in quantitative study 2
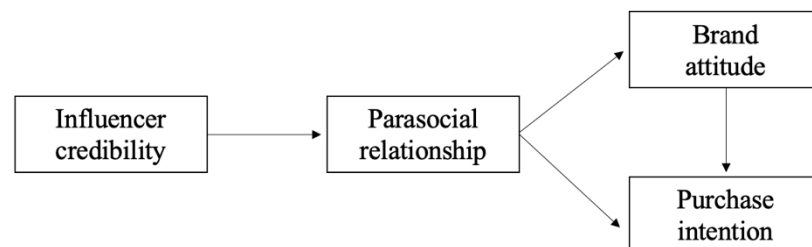
Quantitative study 2 also adopts the online survey approach. The questionnaire's design is consistent with the structure discussed in Chapter 7. Influencer credibility is assessed using seven scale items by Sokolova and Perez (2021). The scales for measuring brand attitude and purchase intention are explored in Section 8.2 above and depicted in Table 8.2. The sampling frame and criteria remain unchanged from the previous study. This study also implements a two-step process for participant recruitment. Following Hinkin (1995), the study adheres to the recommended ratio of items to responses of 1:10. Given the total of 19 scale items, a minimum of 190 participants is required.

As previously discussed in Chapter 7, the pre-screen study was conducted via Prolific to identify eligible participants. This pre-screen study comprised five questions, which took no

longer than two minutes to complete. A total of 400 participants were recruited, each receiving a £0.1 incentive, from which 309 qualified participants were identified. Given the requirement to conduct a test-retest analysis, the study recruited participants from both the previous quantitative study 1 and those newly identified. Quantitative study 2 managed to recruit 220 participants and obtained 220 responses, with the questionnaire completion time not exceeding six minutes. The researcher compensated each participant £1.05.

The data analysis procedure encompassed data cleaning, CFA for the PSR scale, CFA for the nomological model, path analysis for testing the nomological network, and test-retest testing. Following data cleaning rules, 14 responses were removed, resulting in 206 valid responses. Among these, 154 participants had participated in quantitative study 1, and 52 were new respondents.

The subsequent step involved performing CFA to assess the newly developed PSR scale using AMOS (28.0). The CFA results, presented in Table 8.6, indicate a good fit for the model: χ^2 (df = 16) = 31.810, p = 0.011, Chi-Square/df = 1.988, RMSEA = 0.069, CFI = 0.979, NFI = 0.959, TLI = 0.963, (Byrne, 2016). All AVE values exceeded 0.5, all CR values surpassed 0.7, and all Cronbach's alpha values were above 0.7, which indicate high reliability and validity.

Regarding first-order reflective scale reliability, for intimacy, Cronbach's alpha was 0.75; for relationship maintenance, Cronbach's alpha was 0.77; for real-life relationship intention, the coefficient alpha was 0.89. All values exceeded the 0.7 threshold, demonstrating high reliability (Haws et al., 2022). Similarly, all CR values exceeded 0.7, indicating good reliability (Hair et al., 2014). For convergent validity, all standardised residual covariance matrix values were below 4, and all standardised loadings exceeded 0.5, showcasing strong convergent validity (Anderson and Gerbing, 1988). For discriminant validity, the HTMT ratio results, displayed in Table 8.7, revealed inter-construct correlation values ranging from 0.536 to 0.58, all below the 0.85 threshold, thus confirming the absence of a discriminant validity issue (Henseler et al., 2014). Consequently, discriminant validity was established.

Table 8.6 Quantitative study 2: PSR CFA results

Construct	Dimension	Scale item	Mean	Median	Mode	S.D.	CFA Factor loading	Cronbach's alpha	Average variance extracted (AVE)	Compositereliability (CR)
Quantitative study 2: Results of reliability, confirmatory factor analysis - PSR three dimensions											
Parasocial relationship	Intimacy	I treat the other party as my friend.	3.53	4.00	5	1.59	0.814	0.75	0.51	0.76
		I think I understand the other party quite well.	4.87	5.00	5	1.15	0.647			
		The other party makes me feel comfortable, as if I am with family.	4.72	5.00	5	1.40	0.671			
	Relationship maintenance	I want to support the other party.	5.22	5.00	5	1.10	0.637	0.77	0.55	0.78
		I would like to continue engaging with the other party.	5.59	6.00	6	0.96	0.835			
		If the other party appeared on a different media platform, I would watch it.	5.39	6.00	6	1.20	0.732			
	Real-life relationship	I would like to be friends with the other party in real life.	4.86	5.00	6	1.43	0.86	0.89	0.80	0.89
		I would like to meet the other party in person.	4.92	5.00	6	1.51	0.932			

Subsequently, the study CFA for the nomological model using AMOS. The final CFA results are displayed in Table 8.8, indicating an acceptable fit: fit $\chi 2$ (df = 125) = 261.204, p = 0.000, Chi-Square/df = 2.09, RMSEA = 0.073, CFI = 0.948, NFI = 0.907, TLI = 0.937 (Byrne, 2016). All AVE values exceeded 0.5, all CR values surpassed 0.7, and all Cronbach's alpha values were above 0.7. Regarding reliability, all Cronbach's alpha/coefficient alpha values were higher than 0.7 (Haws et al., 2022), and all CR values exceeded 0.7, indicating good reliability (Hair et al., 2014).

Table 8.7 Quantitative study 2 – PSR HTMT Matrix

Quantitative study 2 - PSR HTMT Matrix			
	Real-life	Maintenance	Intimacy
Real-life	■		
Maintenance	0.561	■	
Intimacy	0.580	0.536	■

For convergent validity, all standardised residual covariance matrix values were below 4, all standardised loadings were above 0.5, and all AVE values exceeded 0.5, illustrating strong convergent validity (Anderson and Gerbing, 1988). Regarding discriminant validity, the HTMT ratio results, presented in Table 8.9, showed inter-construct correlation values ranging from 0.222 to 0.58, all below the 0.85 threshold, thus affirming the absence of a discriminant validity issue (Henseler et al., 2014), and establishing discriminant validity.

The study further executed SEM path analysis through AMOS to examine nomological validity. The results, illustrated in Table 8.10, revealed an acceptable model fit: with $\chi 2$ (df = 142) = 294.299, p = 0.000, Chi-Square/df = 2.073, RMSEA = 0.072, CFI = 0.945, NFI = 0.901, TLI = 0.934, (Byrne, 2016). The path analysis indicated that influencer credibility significantly and positively influences PSR (β=0.64, p<0.001), PSR significantly and positively affects brand attitude (β=0.35, p<0.001), PSR exerts a significant positive influence on purchase intention (β=0.13, p=0.029), and brand attitude significantly and positively impacts purchase intention (β=0.68, p<0.001), thereby supporting the nomological validity.

Table 8.8 Quantitative study 2: Nomological model CFA results

Construct	Dimension	Scale item	Mean	Median	Mode	S.D.	CFA Factor loading	Cronbach's alpha/ Correlation coefficient	Average variance extracted (AVE)	Composite reliability (CR)
Quantitative study 2: Results of reliability, confirmatory factor analysis - Nomological model										
Parasocial relationship	Intimacy	I treat the other party as my friend.	3.53	4.00	5	1.60	0.657	0.751	0.51	0.75
		I think I understand the other party quite well.	4.87	5.00	5	1.15	0.655			
		The other party makes me feel comfortable, as if I am with family.	4.72	5.00	5	1.40	0.812			
	Relationship maintenance	I want to support the other party.	5.22	5.00	5	1.10	0.723	0.768	0.55	0.78
		I would like to continue engaging with the other party.	5.59	6.00	6	0.96	0.852			
		If the other party appeared on a different media platform, I would watch it.	5.39	6.00	6	1.20	0.632			
	Real-life relationship	I would like to be friends with the other party in real life.	4.86	5.00	6	1.43	0.932	0.890	0.80	0.89
		I would like to meet the other party in person.	4.92	5.00	6	1.51	0.861			

Table 8.8 Quantitative study 2 (cont'd): Nomological model CFA resu

Construct	Dimension	Scale item	Mean	Median	Mode	S.D.	CFA Factor loading	Cronbach's alpha/ Correlation coefficient	Average variance extracted (AVE)	Composite reliability (CR)
		Quantitative study 2: Results of reliability, confirmatory factor analysis - Nomological model								
Credibility		This influencer is expert in topics related to their content.	5.57	6.00	6	1.17	0.841	0.924	0.65	0.93
		This influencer is skilled in topics related to their content.	5.78	6.00	6	1.07	0.879			
		This influencer is knowledgeable in topics related to their content.	5.84	6.00	6	0.97	0.875			
		This influencer is qualified in topics related to their content.	5.47	6.00	6	1.21	0.763			
		I trust in information provided by this influencer.	5.61	6.00	6	1.04	0.738			
		This influencer's social media content is reliable.	5.82	6.00	6	0.91	0.773			
		Overall, I recommend this influencer's social media content.	6.02	6.00	6	0.84	0.731			
Brand attitude		This brand is good.	5.49	6.00	6	1.10	0.909	0.947	0.86	0.95
		This brand is pleasant.	5.45	6.00	6	1.04	0.916			
		This brand is favourable.	5.45	6.00	6	1.08	0.954			

Table 8.9 Quantitative study 2: Nomological model HTMT Matrix

Quantitative Study 2 - Nomological model HTMT Matrix					
	Credibility	Maintenance	Intimacy	Real-life	Attitude
Credibility					
Maintenance	0.391				
Intimacy	0.434	0.536			
Real-life	0.548	0.561	0.58		
Attitude	0.399	0.224	0.306	0.222	

The final step involved testing the test-retest reliability using SPSS, employing 95% confidence intervals alongside ICC to report test-retest reliability, a method known for generating more accurate results (Aldridge et al., 2017). The confidence interval type applied was Bias-corrected and accelerated (BCa). Although the study originally included 154 participants from Quantitative Study 1, only 79 of these provided consistent responses regarding their favourite influencer across both studies. Consequently, the test-retest analysis was conducted using these 79 responses. The retest results are detailed in Table 8.11.

Significant differences in mean scores were observed for only two out of the eight scale items: "I think I understand the other party quite well" and "The other party makes me feel comfortable as if I am with family". For the item "I think I understand the other party quite well", the mean score was higher in Quantitative Study 2 (M=4.99, SE=0.12) compared to Quantitative Study 1 (M=4.30, SE=0.15). This difference, 0.69, BCa 95% CI [0.41, 0.95], was significant, t(78)=4.58, p<0.001, and represented an effect of d=0.52. For "The other party makes me feel comfortable, as if I am with family", participants show higher with their favourite influencers in Quant Study 2 (M=4.75, SE=0.15) than in Quant Study 1 (M=3.89, SE=0.15). This difference, 0.86, BCa 95% CI [0.58, 1.14], was significant, t(78)=5.39, p<0.001, and represented an effect of d=0.61. In addition, all eight scale items' test-retest correlations were significant, between r=0.371 and r=0.778, p<0.001.

Table 8.10 Quantitative study 2: Nomological network – Path analysis

No.	Hypothesis			Estimate	S.E.	C.R.	P-value	Test Results
	Quantitative study 2: Nomological network - Path analysis							
1	Influencer credibility	→	PSR	0.64	0.15	7.04	***	Supported
2	PSR	→	Brand attitude	0.35	0.08	4.47	***	Supported
3	PSR	→	Purchase intention	0.13	0.09	2.19	0.029	Supported
4	Brand attitude	→	Purchase intention	0.68	0.09	11.76	***	Supported

***Significant at 0.01 level

Table 8.11 Quantitative study 2: Test-retest 79 responses

Dimension/ Construct	Quant study 1		Quant study 2		Difference	T-value	P-value	Cohen's d	BCa 95%CI	Correlation
	Mean	SE	Mean	SE						
	Quantitative study 2: Test-retest 79 responses									
Intimacy	3.81	0.13	4.43	0.11	0.62	5.31	<0.01	0.6	[0.39, 0.87]	0.556***
Maintenance	5.5	0.1	5.47	0.09	-0.04	-0.05	0.655	-0.05	[-1.08, 0.11]	0.610***
Real-life	5.06	0.13	4.97	0.15	-0.09	-0.79	0.643	-0.09	[-0.28, 0.11]	0.695***
PSR	4.78	0.00	4.96	0.09	0.18	2.44	<0.01	0.65	[0.04. 0.32]	0.699***

***Significant at 0.01 level

For the PSR intimacy dimension, on average, participants show higher intimacy with their favourite influencers in Quant Study 2 (M=4.43, SE=0.11) than in Quant Study 1 (M=3.81, SE=0.13). This difference, 0.62, BCa 95% CI [0.39, 0.87], was significant, t(78)=5.31, p<0.001, and represented an effect of d=0.60. However, the test-retest correlation was significant, r=0.556, p<0.001. Therefore, the findings show that their mean scores differed for the intimacy dimension, but the two tests were correlated.

For the PSR relationship maintenance dimension, on average, participants show lower relationship maintenance with their favourite influencers in Quant Study 2 (M=5.47, SE=0.09) than in Quant Study 1 (M=5.50, SE=0.10). This difference, -0.04, BCa 95% CI [-0.18, 0.11], was not significant, t(78)=-0.55, p=0.655, and represented an effect of d=-0.05. Meanwhile, the test-retest correlation was significant, r=0.61, p<0.001. Therefore, the findings show that their mean scores had no difference for the relationship maintenance dimension, and the two tests were correlated.

For the PSR real-life relationship dimension, on average, participants show lower real-life relationship with their favourite influencers in Quant Study 2 (M=4.97, SE=0.15) than in Quant Study 1 (M=5.06, SE=0.13). This difference, -0.09, BCa 95% CI [-0.28, 0.11], was not significant, t(78)= -0.79, p=0.643, and represented an effect of d=-0.09. Meanwhile, the test-retest correlation was significant, r=0.695, p<0.001. Therefore, the findings show that their mean scores had no difference for the relationship maintenance dimension, and the two tests were correlated.

For PSR, on average, participants show higher PSR with their favourite influencers in Quant Study 2 (M=4.96, SE=0.09) than in Quant Study 1 (M=4.78, SE=0.00). This difference, 0.18, BCa 95% CI [0.04, 0.32], was significant, t(78)=2.44, p<0.001, and represented an effect of d=0.65. However, the test-retest correlation was significant, r=0.699, p<0.001. Therefore, the findings show that the mean scores had no difference for PSR, and the two tests were highly correlated.

The final stage of this study has successfully verified the high reliability and validity of the newly developed PSR scale, consisting of eight scale items, and has also confirmed the three dimensions of PSR. Consequently, a summary table detailing the PSR scale items is provided in Appendix 18.

8.5 Chapter summary

This chapter presents the process involved in the development of the PSR scale and the evaluation of the PSR definition. The development of the PSR scale comprised four critical steps: identifying the main domain characteristics of PSR, generating the initial pool of PSR scale items, refining the initial scale items, and validating and verifying the scale's reliability and validity.

A comprehensive literature review and semi-structured interviews facilitated the identification of 40 initial PSR scale items. Following the analysis of feedback from eleven experts, 20 items were discarded, leaving 20 for further examination. Subsequent to quantitative study 1, which garnered 205 valid consumer responses, 12 items were eliminated, leaving eight retained scale items and identifying the three dimensions of PSR. Quantitative study 2, with 206 valid responses, not only confirmed the three dimensions of PSR but also established the validity and reliability of the new PSR scale. Additionally, the PSR definition was evaluated and revised accordingly. The next chapter will present the findings from testing the conceptual framework, constituting the sixth phase of study, quantitative study 3.

Chapter 9: Empirical findings of the PSR formation model

9.1 Chapter introduction

The previous chapter outlined the operationalisation of constructs and introduced a new PSR measurement in the online environment for use in this study. This chapter details the findings from testing the conceptual framework. Chapter 6 introduced a PSR development process model comprising four stages (refer to Figure 6.1). However, as extensively discussed in Section 7.2, due to the thesis's scope, the model's complexity, and practical considerations, this study empirically examined three stages of the PSR development process: experimentation, intensification, and integration (referred to as Model 1). This conceptual model is developed based on existing literature and qualitative insights.

The study utilised an online survey, garnering 405 valid responses for the assessment of the proposed model (Model 1). Data analysis adhered to the methods outlined in Section 7.7, encompassing data cleaning, descriptive analysis, scale validity and reliability assessment, testing of research hypotheses, mediation analysis, and moderation analysis. Following recommendations from modification indices, Model 1 was revised to Model 2, incorporating an additional relationship to improve model fit. The twelve research hypotheses were examined, and extra relationships are presented.

The structure of this chapter is as follows. Firstly, the rationale of this study will be clarified. Subsequently, the respondents' profiles will be depicted. The third section will examine the testing of Model 1 and the alterations leading to Model 2. The fourth section will elucidate the mediation and moderation analyses conducted. The fifth section will explore the post-hoc analysis. Lastly, a summary of this chapter's key points will be provided.

9.2 Study rationale

Chapter 6 theorises consumers' PSR development process and empirically tests the conceptual model to validate and generalise the model is needed. The tested model (Model 1) is shown in Figure 9.1. Using a quantitative approach to validate the model allows a more rigorous and objective approach to testing the PSR development process.

Figure 9.1 Model 1
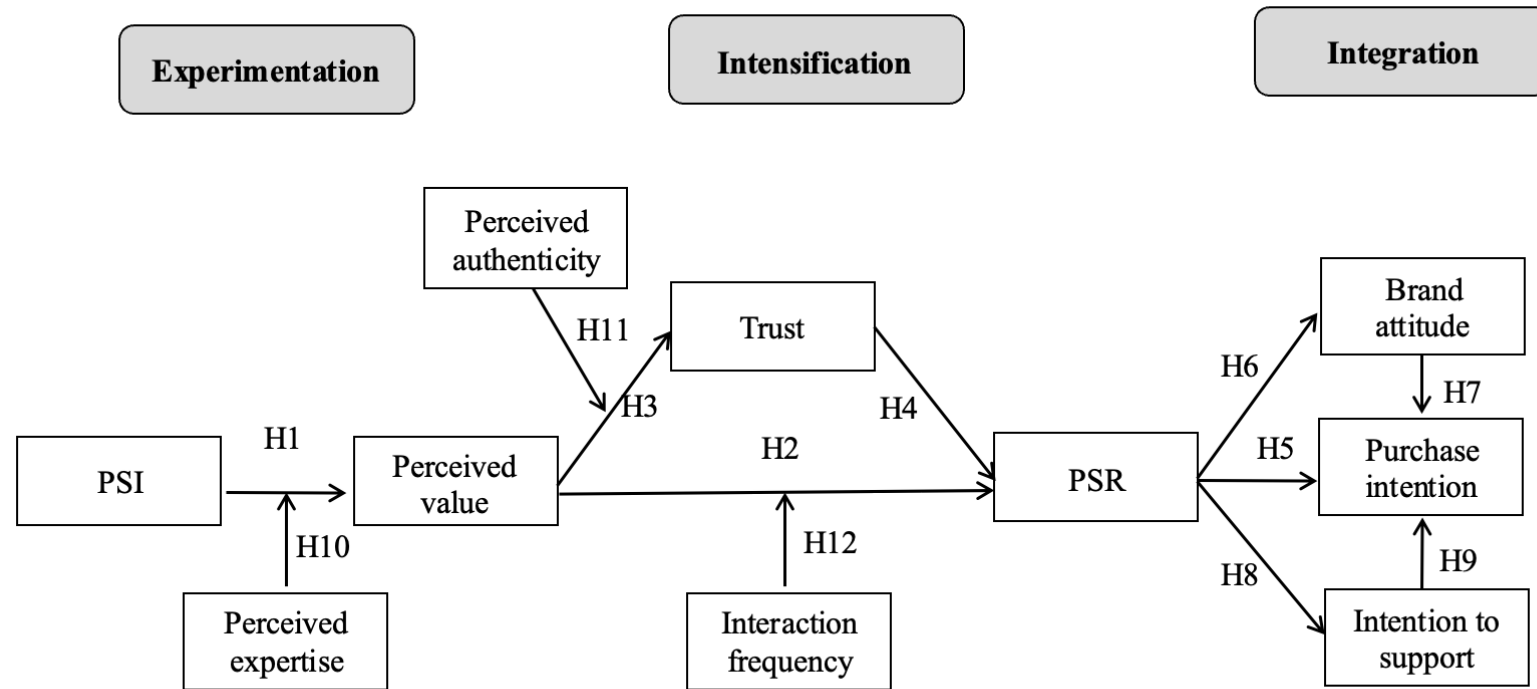
This study significantly augments the existing body of literature on PSR by offering a comprehensive and empirical framework for understanding the dynamics of consumer connections with social media influencers. Such an approach enables the generalisation of quantitative findings and the application of relevant theories. In particular, this study tackles **research objective 3: to explore the formation process of PSR development and test its outcome.** The study design is discussed in Chapter 7.

9.3 Respondents' information

The Quantitative Study 3 showcases a broad age range among participants, spanning from 18 to 73 years old, with an average age of 34. This age distribution is in line with the global demographic of social media users in 2023 (Newberry, 2023). The gender distribution reveals a predominance of female participants (61.2%) over male participants (38.8%), diverging from the global trend of more male than female social media users reported by Kemp (2023). Nonetheless, this finding is consistent with previous studies by Lim et al. (2020) and Yuan and Lou (2020), which observed that females are more inclined to form long-term connections with influencers. The participants predominantly reside in Europe, representing a wide array of nationalities.

Regarding social media platform usage, Instagram emerges as the most frequently used platform (44%), followed by YouTube (20.2%), TikTok (11.9%), Facebook (10.9%), Twitter (6.9%), Reddit (5.9%), and Twitch (0.2%). The preferred categories of influencers among respondents are fashion and lifestyle (each at 16.05%), beauty (12.1%), gaming (10.12%), and entertainment (7.16%). The data indicates that respondents have maintained long-term engagements with their favourite influencers, with 35.6% following theirs for two to five years, 22.7% for one to two years, 19.3% for more than five years, 15.6% for six months to one year, and 6.9% for three to six months. In terms of visit frequency to their favourite influencers' social media accounts, around 40% of respondents do so several times per week, whereas a mere 2.2% visit less than once a month.

9.4 Conceptual model testing

Prior to assessing the conceptual framework, this study undertook an evaluation of the measurement model's reliability and validity. The rationale behind the chosen data analysis

techniques was detailed in Chapter 7. Establishing the reliability and validity of the measurement model is a critical prerequisite for testing the research model due to its logical necessity (Fornell and Larcker, 1981). Peter (1981) further underscores that construct validity is essential for theory testing and development. Thus, this study commenced with an assessment of the scale items' internal consistency using SPSS reliability analysis (Knapp, 2002). Following this, CFA was performed using SPSS AMOS, marking the initial phase in a two-step SEM process to evaluate model fit and verify the reliability and validity of the measures (Anderson and Gerbing, 1988).

9.4.1 Scale reliability and validity

The CFA is conducted to test the reliability and validity of the measurement model. The model shows acceptable fit with χ^2 (df=907) =1940.173, p=0.00, Chi-Square/df = 2.139, RMSEA = 0.053, CFI = 0.929, TLI = 0.922 (Byrne, 2016).

Reliability

The results from the CFA are detailed in Table 9.1. First, reliability analysis was conducted using SPSS. Table 9.1 reveals that the Cronbach's alpha/Correlation Coefficient values for the constructs and their dimensions range from 0.76 to 0.95, all surpassing the 0.7 threshold, thus indicating high internal consistency for each construct's scale items (Haws et al., 2022). Upon calculating the CR value, it was established that all constructs and their dimensions are reliable. Table 9.1 indicates that the CR values for each construct and its dimensions vary from 0.77 to 0.95, exceeding the minimum standard of 0.7. This suggests that the constructs and their dimensions exhibit high consistency (Hair et al., 2014).

Convergent validity

Convergent validity of the constructs is demonstrated through several indicators as detailed in Table 9.1. All constructs' standardised loadings exceed 0.5, and the values in the standardised residual covariance matrix are below 4. Furthermore, all AVE values range from 0.52 to 0.87, surpassing the benchmark of 0.5. This indicates high convergent validity (Hair et al., 2014; Anderson and Gerbing, 1988).

Table 9.1 Quantitative study 3 CFA

Construct	Dimension	Scale item	Mean	Median	Mode	S.D.	CFA Factor loading	Cronbach's alpha/ Correlation Coefficient	Average variance extracted (AVE)	Composite reliability (CR)
Quantitative study 3: CFA results										
PSI		I have the feeling that this influencer is aware of me.	2.88	2.00	1	1.70	0.849	0.95	0.74	0.95
		I have the feeling that this influencer knows I am there.	2.98	2.00	1	1.75	0.878			
		I have the feeling that this influencer knows I am aware of them.	3.52	4.00	5	1.91	0.845			
		I have the feeling that this influencer knows I pay attention to them.	3.53	4.00	5	1.92	0.872			
		I have the feeling that this influencer knows that I react to them.	3.39	3.00	1	1.88	0.898			
		I have the feeling that this influencer reacts to what I say or do.	2.79	2.00	1	1.73	0.822			
Perceived expertise		This influencer is an expert in topics related to their content.	5.57	6.00	6	1.19	0.834	0.91	0.74	0.92
		This influencer is experienced in topics related to their content.	5.92	6.00	6	0.99	0.903			
		This influencer is knowledgeable in topics related to their content.	5.89	6.00	6	1.03	0.902			
		This influencer is qualified in topics related to their content.	5.44	6.00	6	1.37	0.8			

Table 9.1 (cont'd) Quantitative study 3 CFA

Quantitative study 3: CFA results										
Construct	Dimension	Scale item	Mean	Median	Mode	S.D.	CFA Factor loading	Cronbach's alpha/ Correlation Coefficient	Average variance extracted (AVE)	Composite reliability (CR)
Perceived value	utilitarian	Effective	5.92	6.00	6	0.88	0.647	0.82	0.50	0.83
		Helpful	5.78	6.00	6	1.08	0.759			
		Functional	5.54	6.00	6	1.21	0.733			
		Necessary	4.70	5.00	5	1.41	0.685			
		Practical	5.43	5.00	5	1.15	0.695			
	hedonic	Fun	6.21	6.00	7	0.92	0.604	0.84	0.52	0.84
		Exciting	5.67	6.00	6	1.15	0.755			
		Delightful	5.70	6.00	6	1.15	0.807			
		Thrilling	4.94	5.00	5	1.31	0.674			
		Enjoyable	6.36	7.00	7	0.84	0.754			

Table 9.1 (cont'd) Quantitative study 3 CFA

Construct	Dimension	Scale item	Mean	Median	Mode	S.D.	CFA Factor loading	Cronbach's alpha/ Correlation Coefficient	Average variance extracted (AVE)	Composite reliability (CR)
Quantitative study 3: CFA results										
Perceived Authenticity		This influencer is real.	6.37	7.00	7	0.80	0.693	0.85	0.66	0.85
		This influencer is authentic.	6.08	6.00	6	1.00	0.873			
		This influencer is truthful.	5.93	6.00	6	1.07	0.865			
Trust		This influencer can be relied upon on their content.	5.78	6.00	6	0.96	0.773	0.88	0.68	0.89
		I believe what this influencer says and that they would not try to take advantage of the followers.	5.45	6.00	6	1.38	0.888			
		This influencer is straightforward and honest even though their self-interests are involved.	5.69	6.00	6	1.18	0.877			
		This influencer would not tell a lie even if they could gain by it.	4.86	5.00	6	1.46	0.742			
PSR	Intimacy	I treat the other party as my friend.	4.67	5.00	5	1.48	0.823	0.80	0.58	0.81
		I think I understand the other party quite well.	5.09	5.00	5	1.26	0.749			
		The other party makes me feel comfortable, as if I am with family.	3.40	3.00	3	1.62	0.717			

Table 9.1 (cont'd) Quantitative study 3 CFA

		Quantitative study 3: CFA results								
Construct	Dimension	Scale item	Mean	Median	Mode	S.D.	CFA Factor loading	Cronbach's alpha/ Correlation Coefficient	Average variance extracted (AVE)	Composite reliability (CR)
PSR	Relationship maintenance	I want to support the other party.	4.94	5.00	5	1.35	0.809	0.76	0.53	0.77
		I would like to continue engaging with the other party.	5.55	6.00	6	1.06	0.747			
		If the other party appeared on a different media platform, I would watch it.	5.35	6.00	6	1.32	0.616			
	Real-life relationship intention	I would like to be friends with the other party in real life.	4.81	5.00	5	1.52	0.87	0.88	0.78	0.88
		I would like to meet the other party in person.	4.93	5.00	5	1.55	0.899			
Brand Attitude		This brand is good.	5.54	6.00	6	1.19	0.908	0.95	0.87	0.95
		This brand is pleasant.	5.52	6.00	6	1.12	0.938			
		This brand is favourable.	5.48	6.00	6	1.13	0.952			

Table 9.1 (cont'd) Quantitative study 3 CFA

		Quantitative study 3: CFA results								
Construct	Dimension	Scale item	Mean	Median	Mode	S.D.	CFA Factor loading	Cronbach's alpha/ Correlation Coefficient	Average variance extracted (AVE)	Composite reliability (CR)
Support		I will support this influencer to see they succeed.	5.05	5.00	5	1.26	0.846	0.94	0.69	0.94
		I will support this influencer because I want to.	5.42	6.00	6	1.26	0.768			
		This influencer's success will make me happy.	5.00	5.00	5	1.32	0.814			
		I will support this influencer if they need help from fans like me.	4.75	5.00	5	1.44	0.896			
		I feel good when I support this influencer.	4.76	5.00	4	1.32	0.895			
		I pay attention to this influencer's needs.	4.12	4.00	4	1.46	0.753			
		I care about this influencer's success.	4.71	5.00	5	1.37	0.825			

Discriminant validity

Discriminant validity is assessed using the HTMT through SPSS AMOS. The study adopts the HTMT.85 criterion, recognised for its high sensitivity rate (Campbell and Fiske, 1959; Henseler et al., 2014). The HTMT results, as illustrated in Table 9.2, show inter-construct correlation values ranging between 0.214 and 0.756. These values are all below the threshold of 0.85, suggesting the absence of discriminant validity issues within the model (Henseler et al., 2014). Hence, discriminant validity is established.

Table 9.2 Quantitative study 3 - HTMT Matrix

	PSI	Perceived expertise	Trust	Perceived authenticity	Intention to support	Brand attitude	PSR	Perceived value
PSI	■							
Perceived expertise	0.274	■						
Trust	0.279	0.51	■					
Perceived authenticity	0.214	0.415	0.752	■				
Intention to support	0.441	0.322	0.614	0.556	■			
Brand attitude	0.233	0.382	0.435	0.384	0.462	■		
PSR	0.519	0.383	0.602	0.556	0.756	0.416	■	
Perceived value	0.25	0.575	0.624	0.563	0.514	0.413	0.483	■

9.4.2 Correlation analysis

Prior to conducting path analysis, a correlation analysis was performed to examine the relationships among constructs using SPSS. Table 9.3 presents the outcomes of this analysis, indicating that there are significant correlations between constructs for each hypothesis, with all p-values falling below 0.001. Specifically, H1 demonstrates a weak correlation between PSI and perceived values. Hypotheses 2, 5, 6, and 9 reveal moderate correlations between the constructs. In addition, Hypotheses 3, 4, 7, and 8 exhibit strong correlations among the constructs involved.

Table 9.3 Quantitative study 3 – Correlation Analysis

No.	Hypothesis			r	P-value	Strength
1	PSI	⟶	Perceived value	.249**	<.001	Week
2	Perceived value	⟶	PSR	.464**	<.001	Moderate
3	Perceived value	⟶	Trust	.614**	<.001	Strong
4	Trust	⟶	PSR	.574**	<.001	Strong
5	PSR	⟶	Purchase intention	.372**	<.001	Moderate
6	PSR	⟶	Brand attitude	.399**	<.001	Moderate
7	Brand attitude	⟶	Purchase intention	.650**	<.001	Strong
8	PSR	⟶	Support	.737**	<.001	Strong
9	Support	⟶	Purchase intention	.468**	<.001	Moderate

**Significant at 0.05 level

9.4.3 Path analysis

Model 1

Path analysis is conducted using SEM through SPSS AMOS to test the research hypotheses. It is also the second step that Anderson and Gerbing (1988) suggest when testing the research model. The model was developed in AMOS and is shown in Figure 9.2. The model shows acceptable model fit with χ^2 (df=683) = 1495.398, p = 0.000, Chi-Square/df = 2.189, RMSEA = 0.054, CFI = 0.933, NFI = 0.884, TLI = 0.927 (Byrne, 2016).

Table 9.4 shows the path analysis results for model 1. For H1, PSI significantly positively influences perceived value (β=0.465, p<0.001), so H1 was supported. For H2, perceived value significantly positively influences PSR (β=1.09, p=0.002), so H2 was supported. For H3, Perceived value positively influences Trust (β=0.869, p<0.001), so H3 was supported. For H4, Trust does not positively influence Trust (β=-0.222, p=0.467), so H4 was rejected. For H5, PSR does not positively influence Purchase intention (β=-0.062, p=0.609), so H5 was rejected. For H6, PSR significantly positively influences Brand attitude (β=0.529, p<0.001), so H6 was supported. For H7, brand attitude significantly positively influences purchase intention (β=0.571, p<0.001), so H7 was supported. For H8, PSR significantly positively influences Intention to support (β=0.894, p<0.001), so H8 was supported. For H9, Intention to support significantly positively influences Purchase intention (β=0.267, p=0.019), so H9 was supported.

Figure 9.2 Model 1 in AMOS
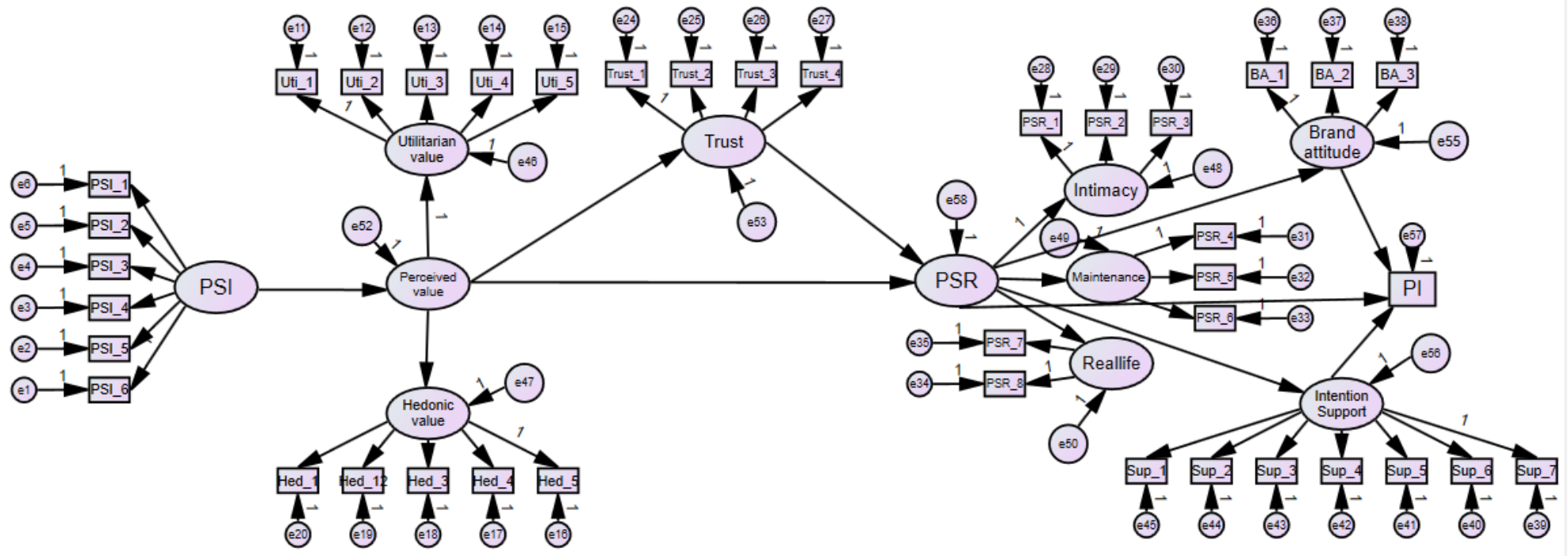
Table 9.4 Quantitative study 3 – Model 1 – Path analysis results

				Estimate	S.E.	C.R.	P-value	Test Results
Quantitative Study 3 - Model 1 - Path analysis
No.	Hypothesis			Estimate	S.E.	C.R.	P-value	Test Results
1	PSI	→	Perceived value	0.465	0.019	6.400	***	Supported
2	Perceived value	→	PSR	1.09	0.952	3.049	0.002	Supported
3	Perceived value	→	Trust	0.869	0.22	7.685	***	Supported
4	Trust	→	PSR	-0.222	0.418	-0.728	0.467	Rejected
5	PSR	→	Purchase intention	-0.062	0.187	-0.511	0.609	Rejected
6	PSR	→	Brand attitude	0.529	0.061	9.461	***	Supported
7	Brand attitude	→	Purchase intention	0.571	0.067	12.079	***	Supported
8	PSR	→	Support	0.894	0.074	13.702	***	Supported
9	Support	→	Purchase intention	0.267	0.155	2.341	0.019	Supported

***Significant at 0.01 level

Alternative model – Model 2

Based on the modification indices from Model 1, it was suggested that incorporating another relationship between PSI and PSR could enhance the model, indicating a potential direct link between PSI and PSR. This direct relationship is supported by prior literature. For instance, Hu (2016) find that in traditional media contexts, such as movies and talk shows, a heightened level of viewers' PSI significantly bolsters their PSR. Consequently, the pathway linking PSR to purchase intention was removed, and a new pathway from PSI to PSR was introduced. The revised model, developed in AMOS, is depicted in Figure 9.3. This alternative model exhibits an improved fit compared to Model 1, as evidenced by the following metrics: $\chi 2$ (df = 683) = 1439.955, p = 0.000, Chi-Square/df = 2.108, RMSEA = 0.052, CFI = 0.938, NFI = 0.888, TLI = 0.932 (Byrne, 2016).

Table 9.5 shows the path analysis results of the alternative model. For H1, PSI significantly positively influences perceived value (β=0.337, p<0.001), so H1 was supported. For H2, perceived value significantly positively influences PSR (β=0.406, p=0.012), so H2 was supported. For H3, Perceived value positively influences Trust (β=0.846, p<0.001), so H3 was supported. For H4, Trust does not positively influence Trust (β=-0.284, p=0.039), so H4 was rejected.

Figure 9.3 Model 2 in AMOS
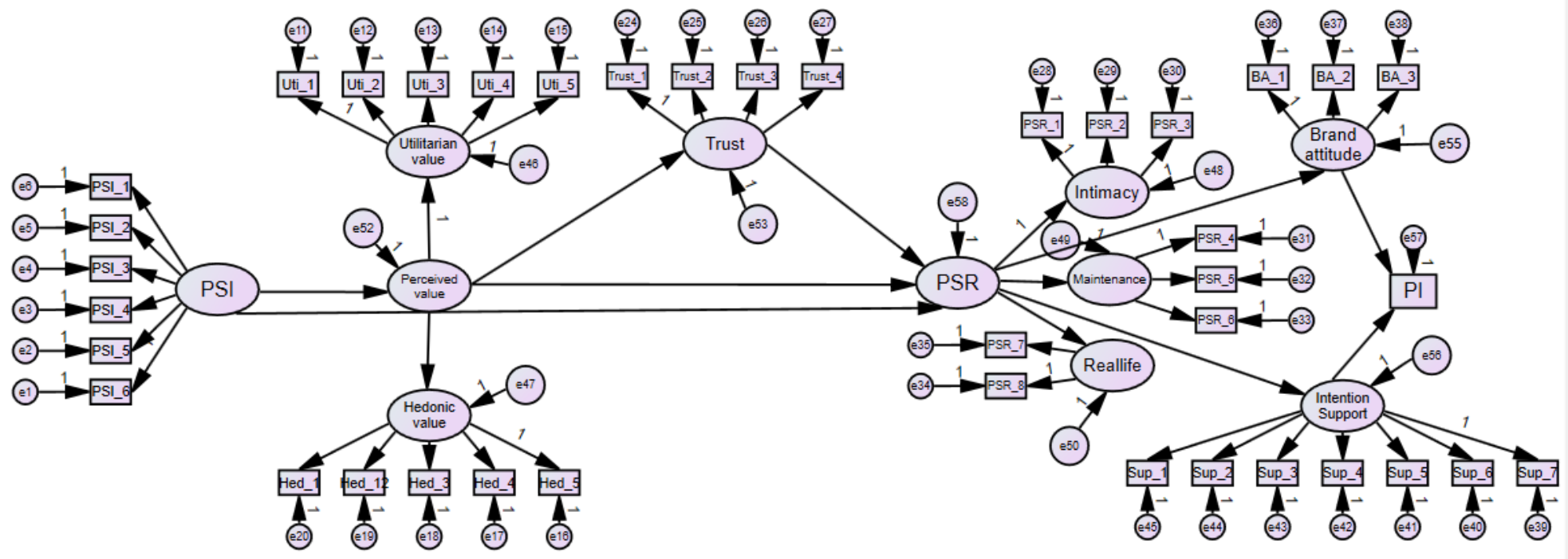
For H6, PSR significantly positively influences Brand attitude (β=0.524, p<0.001), so H6 was supported. For H7, brand attitude significantly positively influences purchase intention (β=0.565, p<0.001), so H7 was supported. For H8, PSR significantly positively influences Intention to support (β=0.89, p<0.001), so H8 was supported. For H9, Intention to support significantly positively influences Purchase intention (β=0.212, p<0.001), so H9 was supported. For the new path between PSI and PSR, PSI significantly positively influences PSR (β=0.336, p<0.001).

Table 9.5 Quantitative study 3 – Model 2 – Path analysis results

Quantitative Study 3 - Model 1 - Path analysis							
No.	Hypothesis			Estimate	S.E.	C.R.	P-value	Test Results
1	PSI	⟶	Perceived value	0.337	0.019	5.154	***	Supported
2	Perceived value	⟶	PSR	0.406	0.397	2.517	0.012	Supported
3	Perceived value	⟶	Trust	0.846	0.188	8.034	***	Supported
4	Trust	⟶	PSR	0.284	0.19	2.059	0.039	Supported
5	PSR	⟶	Purchase intention	0.524	0.06	9.44	***	Supported
6	PSR	⟶	Brand attitude	0.565	0.063	12.677	***	Supported
7	Brand attitude	⟶	Purchase intention	0.89	0.071	13.887	***	Supported
8	PSR	⟶	Support	0.212	0.059	4.856	***	Supported
9	Support	⟶	Purchase intention	0.337	0.019	5.154	***	Supported
#	PSI	⟶	PSR	0.336	0.032	7.33	***	Supported

***Significant at 0.01 level

9.4.4 Mediation analysis

The full model mediation analysis is conducted through SPSS AMOS. The mediation analysis is guided by Bollen (1989) and Zhao et al. (2010).

PSI – Perceived value – PSR

First, the full mediation effect model without the direct path from PSI to PSR was developed in AMOS. The model shows acceptable model fit with χ^2 (df = 684) = 1495.661, p = 0.000,

Chi-Square/df = 2.187, RMSEA = 0.054, CFI = 0.933, NFI = 0.884, TLI = 0.927 (Byrne, 2016). Then, the full alternative model with the direct effect (the direct path from PSI to PSR) was created in AMOS. The model shows acceptable model fit with χ^2 (df = 683) = 1439.955, p = 0.000, Chi-Square/df = 2.108, RMSEA = 0.052, CFI = 0.938, NFI = 0.888, TLI = 0.932 (Byrne, 2016). The model fit with direct effect is improved than the model without direct effect. Then, the two models were compared with the Chi-square test. The Chi-square test results suggested a significant difference between the two models ($\Delta\chi^2$= 55.706, Δdf=1, p=0.00), indicating both direct and indirect effects (Bollen, 1989). Meanwhile, PSI positively influences perceived value (β=0.337, p<0.001), perceived value positively influences PSR (β=0.406, p=0.012), PSI positively influences PSR (β=0.336, p<0.001), which suggesting perceived value complementary mediate the effect of PSI on PSR and the indirect effect is accounted for 28.9% of the total effect (Zhao et al., 2010).

Perceived value – Trust – PSR

First, the full mediation effect model without the direct path from perceived value to PSR was developed in AMOS. The model shows acceptable model fit with χ^2 (df = 684) = 1449.446, p = 0.000, Chi-Square/df = 2.119, RMSEA = 0.053, CFI = 0.937, NFI = 0.887, TLI = 0.932, GFI = 0.835 and AGFI = 0.812 (Byrne, 2016). Then, the full alternative model with the direct effect (the direct path from perceived value to PSR) was created in AMOS. The model shows acceptable model fit with χ^2 (df = 683) = 1439.955, p = 0.000, Chi-Square/df = 2.108, RMSEA = 0.052, CFI = 0.938, NFI = 0.888, TLI = 0.932 (Byrne, 2016). The model fit with direct effect is improved than the model without direct effect. Then, the two models were compared with the Chi-square test. The Chi-square test results suggested a significant difference between the two models ($\Delta\chi^2$=9.491, Δdf=1, p=0.002), indicating both direct and indirect effects (Bollen, 1989). Meanwhile, perceived value positively influences trust (β=0.846, p<0.001), trust positively influences PSR (β=0.284, p=0.039), perceived value positively influences PSR (β=0.406, p=0.012), which suggesting trust complementary mediate the effect of perceived value on PSR and the indirect effect is accounted for 37.2% of the total effect (Zhao et al., 2010).

PSR – Brand Attitude – Purchase Intention

First, the full mediation effect model without the direct path from PSR to purchase intention was developed in AMOS. The model shows acceptable model fit with χ^2 (df = 683) = 1439.955, p = 0.000, Chi-Square/df = 2.108, RMSEA = 0.052, CFI = 0.938, NFI = 0.888,

TLI = 0.932 (Byrne, 2016). Then, the full alternative model with the direct effect (the direct path from PSR to purchase intention) was created in AMOS. The model shows acceptable model fit with χ2 (df = 682) = 1439.568, p = 0.000, Chi-Square/df = 2.111, RMSEA = 0.052, CFI = 0.937, NFI = 0.888, TLI = 0.932 (Byrne, 2016). The model fit with direct effect decreases than the model without direct effect. Then, the two models were compared with the Chi-square test. The Chi-square test results suggested no difference between the two models (Δχ2=0.387, Δdf=1, p=0.534), indicating an indirect effect and no direct effect (Bollen, 1989). Meanwhile, PSR positively brand attitude (β=0.524, p<0.001), brand attitude positively influences purchase intention (β=0.573, p<0.001), PSR does not influence purchase intention (β=-0.73, p=0.537), which suggesting brand attitude indirect-only mediate the effect of PSR on purchase intention (Zhao et al., 2010).

PSR – Intention to Support – Purchase Intention

First, the full mediation effect model without the direct path from PSR to purchase intention was developed in AMOS. The model shows acceptable model fit with χ2 (df = 683) = 1439.955, p = 0.000, Chi-Square/df = 2.108, RMSEA = 0.052, CFI = 0.938, NFI = 0.888, TLI = 0.932 (Byrne, 2016). Then, the full alternative model with the direct effect (the direct path from PSR to purchase intention) was created in AMOS. The model shows acceptable model fit with χ2 (df = 682) = 1439.568, p = 0.000, Chi-Square/df = 2.111, RMSEA = 0.052, CFI = 0.937, NFI = 0.888, TLI = 0.932 (Byrne, 2016). The model fit with direct effect decreases than the model without direct effect. Then, the two models were compared with the Chi-square test. The Chi-square test results suggested no significant difference between the two models (Δχ2=0.387, Δdf=1, p=0.534), indicating no indirect and direct effects (Bollen, 1989). Meanwhile, PSR positively influences intention to support (β=0.89, p<0.001), intention to support positively influences purchase intention (β=0.275, p=0.013), PSR does not influence purchase intention (β=-0.73, p=0.537), which suggesting intention to support indirect-only mediate the effect of PSR on purchase intention (Zhao et al., 2010).

9.4.5 Moderation analysis

To test the moderation effect of perceived expertise on PSI and perceived value and the moderation effect of perceived authenticity on perceived value and trust, the mixed model method is used in the full structural model (Collier, 2020). For testing H10, the composited moderator, perceived expertise and the composited interaction term "CenterPSI_X_Expertise" are included in the full structure model in AMOS. The results of

the moderation analysis are shown in Table 9.6. As is shown in Table 9.6, perceived expertise positively influences perceived value (β=0.328, p<0.001), but the moderation effect is not established (β=0.016, t-value=1.208, p=0.227). The next step is to run floodlight analysis and visualise the effects through SPSS PROCESS, and the plot is shown in Figure 9.4 (Spiller et al., 2013). The moderation relationship was assessed using PROCESS bootstrapping procedure that computed 5,000 samples at -1SD., Mean, +1SD and 95 confidence interval (model 1), and the results suggest the moderation effect is not significant (R^2 change = 0.0015, p=0.34, β = 0.02, SE = 0.02, 95%CI [-0.02, 0.05]). Therefore, H10 is rejected.

Table 9.6 Structural and Moderation Test Results (Mixed Model Method) – H10&H11

No.	Hypothesis	Unstandardized Estimates	T-Value	P-Value	Test Restuls
	Perceived Expertise -> Perceived Value	0.328	10.154	<0.001	
H10	PSI X Perceived Expertise -> Perceived Value	0.016	1.208	0.227	Rejected
	Perceived Authenticity ->Trust	0.277	2.959	0.003	
H11	Perceived Value X Perceived Authenticity ->Trust	-0.059	-1.536	0.125	Rejected

Figure 9.4 The plot of the moderating effect of perceived expertise on the relationship between PSI and perceived value
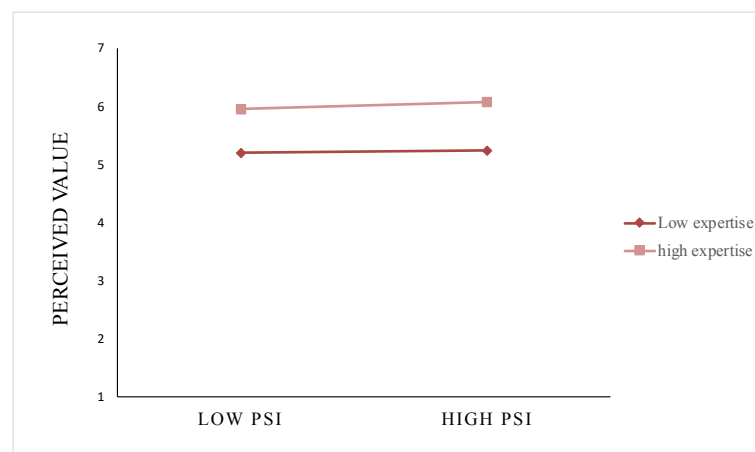
For testing H11, the composited moderator, perceived authenticity, and the composited interaction term "CenterValue_X_Authenticity" are included in the full structure model in AMOS, and the testing model is presented in Table 9.6. As presented in Table 9.6, perceived authenticity positively influences trust (β=0.277, p=0.003), but the moderation effect is not established (β=-0.059, t-value=-1.536, p=0.125). The next step is to run floodlight analysis

and visualise the effects through SPSS PROCESS and the plot is shown in Figure 9.5 (Spiller et al., 2013). The moderation relationship was assessed using PROCESS bootstrapping procedure that computed 5,000 samples at -1SD., Mean, +1SD and 95 confidence interval (model 1), and the results suggest the moderation effect is not significant (R2 change = 0.0004, p=0.49, β = -0.03, SE = 0.05, 95%CI [-0.13, 0.06]). Therefore, H11 is rejected.

Figure 9.5 The plot of the moderating effect of perceived authenticity on the relationship between perceived value and trust
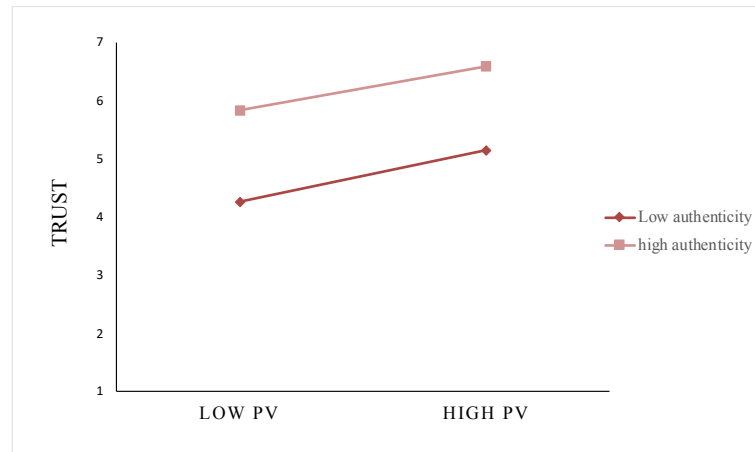
For testing H12, the full model moderation test through AMOS results is shown in Table 9.7. The results suggest no statistical relationship between frequency and PSR (β=0.027, p=0.349), but there is a statistical relationship between interaction variable and PSR (β=0.087, p=0.016). Therefore, it can be concluded that the moderation effect of interaction frequency on the relationship between perceived value and PSR is not statistically significant.

Table 9.7 Structural and Moderation Test Results (Mixed Model Method) – H12

No.	Hypothesis	Unstandardized Estimates	T-Value	P-Value	Test Restuls
	Frequency -> PSR	0.027	0.936	0.349	
H12	Perceived value X Frequency -> PSR	0.087	2.403	0.016	Rejected

The next step is to run floodlight analysis and visualise the effects through SPSS PROCESS, and the plot is shown in Figure 9.6 (Spiller et al., 2013). The moderation relationship is assessed using PROCESS bootstrapping procedure that computed 5,000 samples at -1SD., Mean, +1SD and 95 confidence interval (model 1), and the results suggest the moderation effect is not significant (R2 change = 0.0005, p=0.61, β = 0.22, SE = 0.42, 95%CI [-0.61, 0.10]). Although there is no statistically significant effect, the moderating plot shows

interaction frequency strengthens the relationship between perceived value and PSR. Therefore, H12 is rejected.

Figure 9.6 The plot of the moderating effect of interaction frequency on the relationship between perceived value and PSR
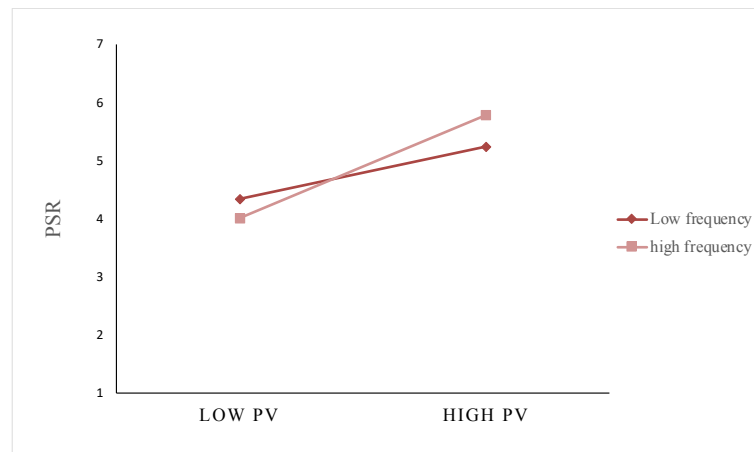
9.5 Post-hoc analysis

Post-hoc analysis is advocated by some scholars as a more ethical and effective method to explore findings that were not anticipated prior to data analysis, offering a foundation for future research directions (Hollenbeck and Wright, 2016). This approach is distinct from practices such as P-hacking or HARKing (Hypothesizing After the Results are Known) in that it employs a transparent process to disclose unforeseen findings, thus maintaining the integrity of the research (Hollenbeck and Wright, 2016). In this thesis, the post-hoc analysis concentrates on examining how individual demographic and behavioural characteristics influence the strength of PSR. Specifically, the study seeks to ascertain whether variations in age and gender among individuals correspond to differing intensities of PSR, thereby contributing to a nuanced understanding of PSR development.

To test the relationship between age and PSR, this study adds another link between age and PSR in Model 2 and then runs the analysis through AMOS. The model shows acceptable model fit with $\chi2$ (df = 721) = 1516.319, p = 0.000, Chi-Square/df = 2.103, RMSEA = 0.052, CFI = 0.934, NFI = 0.883, TLI = 0.925 (Byrne, 2016). The result shows no statistical relationship between age and PSR ($\beta = 0.004$, p=0.904). Therefore, it can be concluded that PSR does not vary from age.

To test the relationship between gender and PSR, this thesis adds another link between gender and PSR in Model 2 and then runs the analysis through AMOS. The model shows acceptable model fit with χ^2 (df = 721) = 1508.133, p = 0.000, Chi-Square/df = 2.092, RMSEA = 0.052, CFI = 0.935, NFI = 0.883, TLI = 0.930 (Byrne, 2016). The result shows that PSR varies by gender (β = 0.07, p=0.044). The female' PSR (M=4.86, S.E.=0.07) is higher than the Male's PSR (M=4.82, S.E.=0.08), and the difference is 0.03. Therefore, it can be concluded that females are more likely to have PSR than males.

9.6 Chapter summary

This chapter has detailed the process and findings from testing the conceptual framework. Initially, it introduced Model 1, which is subject to examination in this study and comprises 12 research hypotheses. Following the data analysis protocols established in Chapter 7, 405 valid responses were analysed. Upon confirming the reliability and validity of the scales, Model 1 was tested. The modification indices revealed opportunities for enhancing Model 1, leading to the development and refinement of Model 2 based on these insights.

Subsequently, a mediation analysis was carried out, affirming the mediation mechanism within the model. A moderation analysis was then performed; however, the results indicated that the three proposed moderation effects did not achieve statistical significance. The chapter concluded with a post-hoc analysis exploring the relationship between respondents' geographic and behavioural information and their PSR, identifying some positive associations.

The next chapter will have a detailed discussion, bridge the quantitative findings with the existing body of literature, offering a comprehensive discussion on how the current study's results align with, diverge from, or extend previous research insights.

Chapter 10: Discussion

10.1 Chapter introduction

This chapter discusses the hypothesis testing explored in the preceding chapter (Chapter 9) and brings to conclusion the three research objectives introduced in Chapter 1. These objectives encompass 1) **to identify differences between PSI and PSR in the offline and online environments**, 2) **to propose a new definition of PSR (and PSI) based on their unique prerequisites,** and 3) **to explore the formation process of PSR development and test its outcome**. In particular, this chapter delves into how the empirical findings from the research align with or diverge from existing literature on PSR development.

The structure of this chapter is organised as follows. Firstly, it tackles the first research objective by summarising the arguments in current literature alongside seven prerequisites to distinguish between PSI and PSR. Subsequently, the second research objective is addressed through an evaluation of the newly proposed definitions for PSR and PSI. Following this, the chapter explores the development of PSR measurement. Then, it presents the findings from hypothesis testing and discusses their relation to the existing literature. Finally, it will cover additional observations that have emerged.

10.2 Research objective 1: The difference between PSI and PSR in the offline and online environments

The first research objective focuses on the conceptual issues surrounding PSI and PSR. Within the domains of media, psychology, and marketing, PSI and PSR emerge as critical constructs for interpreting individual behaviours (Boehmer, 2016; Iannone et al., 2018; Sokolova and Perez, 2021). Notably, in marketing, especially in influencer marketing, these concepts play a significant role in explaining consumer behaviour both offline and online (Bond, 2021; Noor et al., 2022). Research in this area suggests a correlation between consumers' engagement, intimacy with influencers, and their purchasing behaviours regarding influencer-endorsed products, with consumers' PSI and PSR with influencers (Farivar et al., 2022; Manchanda et al., 2022). However, conceptual ambiguities persist.

The systematic literature review, presented in Chapter 2, highlights the ongoing debate over the main domain characteristics of PSI and PSR in both offline and online contexts. In offline

settings, five perspectives on PSI's main domain characteristics and four on PSR's have been identified. A significant portion of scholars argue that "*relationship*" is a main characteristic of PSI, deeming it indistinguishable from PSR. Some researchers even propose that PSI and PSR represent the same concept (e.g., So and Shen, 2016; Penttinen et al., 2022), leading to their interchangeable use in some studies (e.g., Chang and Kim, 2022). Despite calls for clearer distinctions and precise definitions from some academics (e.g., Hartmann and Goldhoorn, 2011; Dibble et al., 2016), these conceptual issues remain unresolved, a situation mirrored in the online environment.

In the online context, the review of PSI and PSR studies reveals four distinct interpretations for the main domain characteristics of each concept. Over half of these studies regard PSI as a "users' relationship", emphasising the "connection" or "relationship" users form with others (e.g., Liao et al., 2022). Approximately one-third of the literature continues to use PSI and PSR interchangeably, underlining the need for clarity and distinction as highlighted by researchers (e.g., Utz et al., 2021). Despite these calls to action, the literature still lacks consensus on definitive criteria to distinguish PSI from PSR effectively.

This thesis argues that the above-mentioned practices lack rigour and can lead to low construct validity and internal validity (MacKenzie, 2003). As emphasises by current literature, a clear and precise definition of a construct lays the groundwork for theory development, making it crucial to differentiate similar concepts, define them accurately, and select the appropriate concept for subsequent theoretical exploration (MacKenzie, 2003; Gilliam and Voss, 2013). Drawing on existing literature and theories related to social interaction and relationships, this thesis proposes seven prerequisites to systematically distinguish between PSI and PSR, thereby enhancing understanding and differentiation of the two concepts. These prerequisites, applicable in both offline and online environments, are summarised in Table 10.1.

The first prerequisite is ***one of the parties participating in PSI/PSR.*** In both online and offline environments, only people who are exposed to the media environment will generate PSI (Oliver et al., 2019), while there is no similar prerequisite for PSR participants. The second prerequisite is ***the other parties participating in PSI/PSR.*** The other party of PSI and PSR is similar. In the online environment, the other party can be a real person, a media character, or an anthropomorphic object (Lee, 2018; Kim et al., 2020; Han and Yang, 2018). The range of possible parties with whom a user can develop PSI/PSR is wider online than in traditional media.

Table 10.1 The summary table of prerequisites to distinct PSI and PSR in the offline and online environments

Prerequisites for Distinguishing PSI and PSR in Offline and Online Environments							
	1. One of the parties participating in PSI/PSR	2. The other parties participating in PSI/PSR	3. The nature of PSI/PSR	4. The main domain characteristics of PSI/PSR	5. The process of PSI/PSR (from viewer perspective)	6. The time when PSI/PSR can occur	7. The platforms where PSI/PSR can occur
Offline PSI	media users (Oliver et al., 2019)	media characters, includes real and fictional characters (Cummins and Cui, 2014)	one-way unequal interaction	media viewers' perception of direct and reciprocal communication (Cummins and Cui, 2014; Oliver et al., 2019)	triggered from mutual awareness, attention, and adjustment (Hartmann and Goldhoorn, 2011)	occurs in the media exposure period (Cummins and Cui, 2014; Oliver et al., 2019)	traditional media, including television, movie, radio music, video games and book (Lim and Kim, 2011; So and Nabi 2013; Bentley, 2014)
Offline PSR	individual (Bernhold and Metzger, 2020)	media characters, includes real and fictional characters (Stephens et al. 1996; Gabriel et al., 2018)	individual's connection (Dias et al., 2017; Bernhold and Metzger, 2020)	the connection (Dias et al., 2017; Bernhold and Metzger, 2020)	triggered from experience at least one-time parasocial interaction or a cross-situational, stable, and schematic cognitive pattern of images and interaction scripts that includes affective aspects (Bernhold and Metzger, 2020)	occurs from the relationship establish to the relationship breakup	

Table 10.1 (cont'd) The summary table of prerequisites to distinct PSI and PSR in the offline and online environments

	Prerequisites for Distinguishing PSI and PSR in Offline and Online Environments						
	1. One of the parties participating in PSI/PSR	2. The other parties participating in PSI/PSR	3. The nature of PSI/PSR	4. The main domain characteristics of PSI/PSR	5. The process of PSI/PSR (from viewer perspective)	6. The time when PSI/PSR can occur	7. The platforms where PSI/PSR can occur
Online PSI	people who are exposure in the online environment, e.g., new media or technology products users (Kelton and Pennington, 2020)	real person, media characters, and anthropomorphic objects (Lee, 2018; Kim et al., 2020)	one-way unequal interaction	perception of direct and reciprocal communication (Choi et al., 2019; Kelton and Pennington, 2020)	triggered from mutual awareness, attention, and adjustment (Hartmann and Goldhoorn, 2011)	occurs in the exposure period (Yuksel and Labrecque, 2016; Kelton and Pennington, 2020)	through mass and new media, including website, applications, social media, extended media and technology products (Chiu and Huang, 2015; Zhou and Jia, 2018; Tseng et al., 2022)
Online PSR	individual (Burnasheva and Suh, 2022)	real person, media characters, and anthropomorphic objects (Han and Yang, 2018; Hwang et al., 2020)	individual's connection (Feder, 2020)	the connection (Feder, 2020)	triggered from experience at least one-time parasocial interaction or a cross-situational, stable, and schematic cognitive pattern of images and interaction scripts that includes affective aspects (Bernhold and Metzger, 2020)	occurs from the relationship establish to the relationship breakup	

Prerequisite three is ***the nature of PSI/PSR.*** This thesis argues that the nature of PSI and PSR is different. While PSI is a one-way unequal interaction, PSR is an individual's connection (Hartmann and Goldhoorn, 2011; Feder, 2020). Prerequisite four is ***the main domain characteristics of PSI/PSR.*** PSI is a user's perception of direct behaviour, whereas PSR is the connection (Cummins and Cui, 2014; Feder, 2020). Prerequisite five is ***the process of PSI/PSR.*** PSI and PSR are both individuals' automated psychological processes, but there are differences in how they occur. PSI is triggered by mutual awareness, attention, and adjustment (Hartmann and Goldhoorn, 2011; Cummins and Cui, 2014). Establishing PSR requires at least one PSI experience and, in exceptional cases, cognitive experience (Bernhold and Metzger, 2020). Prerequisite six is ***the time when PSI/PSR can occur,*** which illustrates the difference between the necessary conditions for PSI and PSR. The occurrence of PSI requires media users to be exposed to the media environment (Kelton and Pennington, 2020), but the occurrence of PSR requires people to voluntarily establish a relationship with the other party until the relationship breaks up. Finally, prerequisite seven is ***the platforms where PSI/PSR can occur.*** While media platforms are needed to facilitate PSI (e.g., social media), they are not necessary for PSR (Tseng et al., 2022).

In summary, the first research objective has been addressed. This thesis argues that PSI and PSR should be viewed as distinct concepts due to their differing main domain characteristics and nature. PSI is described as the viewer's perception of direct and reciprocal communication with another entity (Hartmann and Goldhoorn, 2011), whereas PSR emphasises the connection between individuals and another entity (Feder, 2020). The identification of seven prerequisites addresses calls from some scholars (e.g., Hartmann and Goldhoorn, 2011) for measures to resolve longstanding debates over the main domain characteristics of PSI and PSR. This can systematically aid scholars in differentiating between these two closely related concepts. Furthermore, the exploration of these prerequisites in both offline and online contexts contribute to a deeper understanding of PSI and PSR, as well as to the conceptualisation of the two terms.

10.3 Research objective 2: The new definitions of PSI and PSR based on their unique prerequisites

Developing a well-defined construct is crucial for the robust development and testing of theories (Summers, 2001). While clear prerequisites aid in distinguishing between PSI and PSR, the conceptualisation of these terms requires further refinement. A comprehensive

definition encompasses numerous criteria (Murrow and Hyman, 1994). Merely differentiating between constructs is one attribute of a sound definition. Other important aspects include outlining the construct's main domain characteristics, employing unambiguous terminology, and aligning with existing research (MacKenzie, 2003). As highlighted in Chapter 2, current definitions of PSI and PSR are limited, prompting the second objective of this thesis to develop precise and high-quality definitions for these concepts.

To refine the conceptualisation of PSR, this thesis adopts a "bottom-up" logic and employs several techniques (Murrow and Hyman, 1994; Gilliam and Voss, 2013. Chapter 2 begins with a review of existing definitions of PSR, identifying ten critical components and eight prevalent issues within the current literature. Chapter 5 delves into qualitative data analysis to understand consumer's perceptions of PSR, leading to the proposal of twelve criteria for defining PSR, which are detailed in Table 5.6. The working definition of PSR is proposed as "**an individual's dynamic perception of a valuable psychological connection, unilaterally developed with the other party based on repeated exposure through media or technology**". Next, based on experts' comments, the PSR working definition is amended as **an individual's dynamic psychological attachment to another party, which is developed unilaterally through media and perceived as personally meaningful**.

This final definition of PSR, as thoroughly assessed in Chapters 5 and 8, offers significant improvements over existing definitions. It clarifies the roles of the involved parties, limiting the 'other' entities to those perceived as personally meaningful. It encapsulates PSR's main domain characteristics, such as inequality, dynamism, and influence, derived from literature and qualitative insights. Furthermore, this definition explicates the development process of PSR, highlighting the temporal aspect of its formation. Defining PSR as an "individual's dynamic psychological attachment" rather than a general emotional state reduces ambiguity. The details of the evaluation of this definition are discussed below.

PSR is a widespread phenomenon where individuals can develop connections with various entities through media engagement. The reason to define PSR as "individuals" and "another party" is fundamental, representing the two key components of PSR and serving as a criterion for a robust PSR definition. The scope of "the other party" in PSR is broad in the online environment, encompassing real persons like social media influencers (e.g., Cheung et al., 2022), media characters such as fictional entities (Stephens et al., 1996), even anthropomorphic objects like animals (Jacobson et al., 2022) and AR applications (Yuan et

al., 2021). This thesis recommends that the specification of these parties should be contingent upon the research context.

Defining PSR as a "dynamic psychological attachment" introduces new value, diverging from previous definitions that often depicted PSR as an intimate or close, yet static, connection (e.g., Dias et al., 2017; Liao et al., 2022). This new definition reflects the variety of psychological states, strengths, emotions, and feelings individuals might hold towards the other entity. Qualitative data reveals that individuals perceive their relationships with media figures as dynamic, for example, "distance", "close", and "private", characterised by varying degrees of closeness and privacy, thus underscoring PSR as an evolving process that unfolds over time (Bernhold, 2019).

Moreover, this thesis argues the depiction of PSR as merely a "connection" (e.g., Young et al., 2013) or "relationship" (e.g., Sundermann and Munnukka, 2022) as commonly presented in existing literature. Instead, it argues for understanding PSR as an "individual's psychological attachment," emphasising the conscious and motivational aspects underpinning these relationships. This attachment is not incidental but reflects individuals' deliberate efforts to satisfy diverse needs and intrinsic motivations, such as entertainment, information-seeking, and relationship-building (Kim, 2020; Zafar, Qiu, and Shahzad, 2020; Chiu and Huang, 2015). The term "attachment" suggests that PSR often represents a long-term bond rather than a fleeting emotional response, highlighting its significance in the online media environments.

The term "developed unilaterally" highlights the inherently unequal nature of PSR (Yuan et al., 2016). Despite involving two parties, the individual and the entity, the formation of the attachment is predominantly driven by the individual's wishfulness, without the other entity's conscious consent to establish such a relationship. This aspect is relatively underexplored in the literature, underscoring the one-sidedness of PSR, where individuals may engage in repeated interactions to foster a connection with an entity that remains unaware of their existence (Reinikainen et al., 2020; Balaban et al., 2022). This relationship dynamic is characterised by a unique form of inequality: the individual is acutely aware of the other entity, but this awareness is not reciprocated (Lim et al., 2020; Feder, 2020).

The inclusion of "through media" in the definition of PSR is crucial, signifying the medium through which these relationships are cultivated. Research findings and qualitative data support the notion that the development of PSR necessitates the involvement of media

channels such as television, radio, books, movies, websites, social media, e-commerce platforms, and technological devices (Goldberg and Allen, 2008; Xiang et al., 2016; Nanda and Banerjee, 2020; Lee and Cho, 2020). This element of the definition underscores the pivotal role of media in facilitating the growth of PSR.

Furthermore, being "perceived as personally meaningful" encapsulates the significance and impact of PSR on individuals. In PSR, the entity is valued by the individual, providing both utilitarian and hedonic benefits (Guo et al., 2021; Lou and Yuan, 2019). This perceived value influences the individual's tolerance towards different viewpoints and can lead to changes in attitudes or behaviours based on the recommendations or endorsements of the entity. This influence, frequently cited by interviewees, highlights the profound effect that PSR can have on an individual's perspectives and decisions.

In sum, this new PSR definition adds value to the existing PSR definitions. It is evaluated as a clear, high-quality, parsimonious, unambiguous definition that does not include antecedents and consequences, which meet the good definition criteria (Gilliam and Voss, 2013; Murrow and Hyman, 1994; MacKenzie, 2003).

Regarding the conceptualisation of PSI, despite debates over its main domain characteristics, the seven prerequisites for identifying these characteristics should correspond with Hartmann and Goldhoorn's (2011) interpretation. Hartmann and Goldhoorn (2011) define PSI as "*this idea of parasocial interaction as the experience of TV viewers to be engaged in an immediate, personal, and reciprocal encounter with a TV performer*". This definition enhances the understanding of PSI by focusing on the 'interaction' aspect, which accurately captures the nature of viewers' experiences within a media context. Hartmann and Goldhoorn's (2011) work has been instrumental in delineating PSI and in exploring the psychological processes viewers undergo during such interactions. Nevertheless, qualitative data suggests that the definition of PSI can be further refined to "***an individual's perception of a direct, reciprocal and one-to-many communication with another party through mass and new media as one-to-one***". This refinement aims to provide a more precise understanding of PSI by emphasising the perception of personal communication within mass and new media environments.

10.4 PSR measurement

This thesis introduces a new PSR measurement instrument designed for online environment, contributing significantly to the search for an appropriate scale in future studies on PSR in the online environment. As discussed in Chapters 7 and 8, the PSR scale most frequently cited in existing literature is grounded in "psychological involvement" as its main domain characteristic, a definition developed by Rubin et al. (1985) through a scale comprising 20 items. Another commonly used scale, devised by Rubin and Perse (1987), modifies the former with ten scale items.

However, these prevalent scales fail to fully capture the main domain characteristics of PSR proposed in this thesis as "psychological attachment." This term implies a narrower focus than "psychological involvement," which encompasses a range of psychological processes such as transportation, PSI, identification, and worship (Brown, 2015). Additionally, these scales are developed in the traditional media environment, which cannot precisely be modified in the online environment. These gaps in the literature underline the need for a new PSR scale that is both highly reliable and valid, capable of precisely measuring PSR in online contexts through a triangulation approach.

Diverging from the commonly used unidimensional approach to PSR measurement, the PSR scale proposed in this thesis adopts a multidimensional perspective. It comprises three dimensions: intimacy, relationship maintenance, and real-life relationship intention. These dimensions collectively offer a more nuanced understanding and accurate representation of the complex dynamics between consumers and influencers in PSR.

The intimacy dimension of PSR aims to encapsulate the emotional connection consumers form with influencers, where, in some instances, consumers view their preferred influencers as friends (Whang and Im, 2021). The relationship maintenance dimension reflects the continuous engagement and efforts consumers invest to sustain their relationship with influencers, driven by the personal meaning of the PSR and a desire not to lose the established bond (Zhong et al., 2021). The dimension of real-life relationship intention focuses on the consumers' aspirations to transition their parasocial relationships into actual social relationships, as highlighted by interviewees expressing a desire to meet their favourite influencers in person and develop real-life social connections.

The development of the PSR scale for online contexts addresses the current scholars' call for an updated measurement tool, recognising that existing scales are predominantly based on traditional media settings, such as television (Kim, 2022). This new PSR measurement instrument is specifically suitable for the influencer marketing context and utilises a triangulation method for validation, incorporating expert surveys and two quantitative studies. This comprehensive approach ensures the reliability and validity of the newly developed PSR scale in the online environment, making a significant contribution to future research in PSR. By employing this new scale, forthcoming studies can more accurately capture the dynamic nature of PSR and potentially extend its application to other online contexts, such as PSR between consumers and AI assistants.

10.5 Research objective 3: PSR development process and its outcome

The third research objective of this thesis is to explore the PSR development process and its outcomes. Chapter 2 discusses how previous studies have examined the antecedents and consequences of PSR, commonly assuming uniformity in the quality, strength, and stages of PSR. However, this approach overlooks the inherently dynamic and complex nature of PSR, a point that has been underscored by some scholars, such as Tukachinsky and Stever (2018), who argue that PSR should be understood as a developmental process rather than a static concept.

For instance, Pressrove and Pardun (2016) find a positive correlation between the amount of time spent on social media and the strength of PSR. Similarly, Farivar et al. (2022) observe that the duration of following an influencer on Instagram has a positive impact on PSR. Despite these acknowledgements of PSR as a process, the literature review reveals that Tukachinsky and Stever (2018) are among the few who have attempted to outline the PSR development stages theoretically in the traditional media environment. While their proposed model offers valuable insights and serves as an important theoretical foundation, its lack of empirical testing leaves questions about its reliability and validity unanswered. Therefore, this thesis aims to fill this gap by examining the PSR development process in the online environment, thereby providing a deeper understanding of its complex dynamics.

The investigation employed 25 semi-structured interviews with social media users regarding their development of PSR with their favourite influencers. The qualitative data garnered from these interviews confirmed the four stages of the PSR development process as initially

proposed by Tukachinsky and Stever (2018): initial exposure, experimentation, intensification, and integration. Furthermore, the analysis of the qualitative data led to the identification of key themes representing critical factors within each stage of development. Drawing on both the qualitative study's findings and existing theoretical frameworks, a conceptual framework for understanding the PSR development process was developed.

The conceptual framework and research hypotheses are empirically tested and confirmed through quantitative study, although it did not establish the anticipated moderating relationships. This thesis marks a pioneering effort in empirically examining the development of consumers' PSR with influencers on social media platforms and their impact on marketing-related outcomes, such as brand attitude and purchase intention. The outcomes of the quantitative hypotheses testing are detailed in Table 10.2.

Given these findings, future research is encouraged to build upon this thesis by exploring additional marketing-related outcomes that may be influenced by PSR. Moreover, there is an opportunity to test the applicability of the developed model in varied contexts, such as the relationship between consumers and voice assistants or brands.

Table 10.2 The summary table of research hypothesis testing results

Research hypothesis	Result
H1: PSI will positively influence perceived value of influencer's social media content on social media	Supported
H2: Perceived value of influencer's social media content will positively influence PSR on social media	Supported
H3: Perceived value of influencer's social media content will positively influence trust in the influencer	Supported
H4: Trust in the influencer will positively influence PSR on social media	Supported
H5: PSR will positively influence purchase intention on social media	Supported
H6: PSR will positively influence brand attitude on social media	Supported
H7: Brand attitude will positively influence purchase intention on social media	Supported
H8: PSR will positively influence intention to support on social media	Supported
H9: Intention to support will positively influence purchase intention on social media	Supported
H10: Perceived expertise will moderate (strengthen) the relationship between PSI and perceived value	Rejected
H11: Perceived authenticity will moderate (strengthen) the relationship between perceived value and trust	Rejected
H12: Interaction frequency will moderate (strengthen) the relationship between perceived value and PSR	Rejected

10.5.1 PSI and perceived value (H1)

PSI represents a typical perception among individuals when consuming media, characterised by consumers' direct, reciprocal, and one-to-many communication with another party through media (Hartmann and Goldhoorn, 2011). Essentially, during media consumption, individuals engage in a conversational exchange with another entity (Tukachinsky et al., 2020). PSI's intensity is significantly influenced by the communicative strategies of the media figures, including both their verbal and non-verbal cues (Cummins and Cui, 2014). For instance, direct address approaches can foster stronger PSI compared to non-direct addresses (Oliver et al., 2019).

In social media environments, influencers frequently employ strategies that evoke psychological closeness, such as portraying themselves as "friends" to their viewers, thereby enhancing the sense of interactivity (Hartmann and Goldhoorn, 2011). Qualitative evidence supports the notion that influencers' varied techniques consistently spark consumers' PSR. This research corroborates the significance of PSI in the progression towards PSR.

The quantitative findings confirm a positive relationship between PSI and perceived value within an influencer marketing context, thereby extending their interrelation. From a hedonic value standpoint, existing literature has established that PSI fosters consumers' positive emotions, such as satisfaction (Chiu and Huang, 2015; Choi et al., 2019). This study broadens our understanding by demonstrating that PSI with influencers also engenders hedonic feelings in individuals. Current research predominantly investigates the positive association between people's PSI with non-human entities (e.g., mobile shopping applications) and hedonic value. This study progresses our comprehension by illustrating that people's PSI with human entities, specifically influencers, positively affects their perceived hedonic value.

From a utilitarian value perspective, previous studies have highlighted the positive impact of consumers' PSI with non-human entities (e.g., websites and smart speakers) on their perception of utilitarian value (e.g., ease of use and usefulness) (Goldberg and Allen, 2008; Hsieh and Lee, 2021). This study corroborates these findings and expands their applicability to the human-centric influencer marketing context.

The qualitative findings illustrate that consumers experience PSI when engaging with influencers' posts, influencing their perception of both hedonic (e.g., enjoyment) and

utilitarian values (e.g., usefulness). The quantitative data bolster the qualitative study's outcomes. The results of hypothesis testing in the quantitative phase confirm the positive relationship between PSI and perceived value in the influencer marketing context.

This investigation primarily concentrates on two dimensions of perceived value, hedonic and utilitarian values, acknowledging the existence of additional facets of value delineated by various models, such as symbolic value. Consequently, this study's insights pave the way for future research to examine the nexus between PSI and other perceived value dimensions (e.g., symbolic value) across different contexts (e.g., virtual influencers).

10.5.2 Perceived value and PSR (H2)

This study underscores the pivotal role of perceived value in the PSR development process, identifying it as a fundamental driver. It demonstrates that the value and benefits individuals derive from an influencer's content positively influence their PSR development with influencers (Zhong et al., 2021). The qualitative evidence suggests that if individuals believe an influencer will consistently deliver value, they are more inclined to engage and sustain the relationship to fulfil their diverse needs. Notably, consumers' perceived value from influencers' posts directly enhances their PSR with these influencers.

This study finds a positive correlation between consumers' perceived value from influencers' posts and their PSR with these influencers, thereby enriching our comprehension of the dynamic between these constructs within the influencer marketing context. From a hedonic perspective, previous studies have established a positive linkage between perceived value and consumers' PSR with non-human entities, such as virtual assistants (Noor et al., 2022) and brands (Zhong et al., 2021). This study contributes to the discourse by providing evidence of a similar positive relationship between perceived hedonic value and consumers' PSR with human influencers, signifying that these favourable effects are also present in influencer marketing. From a utilitarian standpoint, the findings indicate that perceived utilitarian value from an influencer's content strengthens PSR, corroborating the qualitative insights of Quelhas-Brito et al. (2020). Thus, this study broadens the scope of the positive relationship between perceived value and PSR in the context of influencer marketing.

Other dimensions of perceived value should also be considered and tested for future studies. Although this study focuses on hedonic and utilitarian values, additional dimensions, such

as symbolic value identified in qualitative research, merit examination for their impact on PSR. Future research could also assess the relationship between perceived value and consumers' PSR with other entities (e.g., mobile applications and animal influencers), thereby expanding the breadth of understanding of PSR.

10.5.3 Perceived value and trust (H3)

Although existing literature presents conflicting findings regarding the relationship between perceived value and trust, this study demonstrates that the perceived value of influencers' posts positively influences consumers' trust in them. Some studies have identified a positive relationship between these constructs (Dastan and Gecti, 2014; Sharma and Klein, 2020), while others have not found such a relationship to exist (e.g., Albayrak et al., 2019).

One potential reason for these differing outcomes may lie in the varied research contexts. Scholars have explored the relationship between these constructs across diverse settings, including traditional retail brands (Achmad et al., 2020), websites (Albayrak et al., 2019), and social media platforms (Sharma and Klein, 2020). This study, concentrating on social media and influencer marketing, corroborates previous research focused on social media online groups, suggesting that consumers' perceived value can enhance trust in the online buying group (Sharma and Klein, 2020). The qualitative findings indicate that consumers are likely to trust influencers if they recognise both hedonic and utilitarian values in the content. Thus, this study empirically substantiates a positive relationship between perceived value and trust within the context of influencer marketing.

It should be noted that, in this study, perceived value is treated as a single construct, measured through two dimensions: hedonic and utilitarian value, rather than considering these dimensions as separate constructs. Previous research investigating the relationship between hedonic value and trust, and utilitarian value and trust separately, has yielded conflicting results. For instance, Lou and Yuan (2019) discover that the informative value of influencer posts positively affects users' trust in the advertised content, whereas the entertainment value does not have a significant impact on users' trust.

This study provides evidence that the overall perceived value of influencers' posts positively influences consumers' trust in influencers. It opens avenues for future research to explore various aspects of perceived value on trust further. Specifically, in influencer marketing,

different types of influencers deliver distinct values. For instance, qualitative findings suggest that entertainment influencers primarily offer hedonic value, whereas technology influencers provide utilitarian value. This study did not concentrate on a particular influencer type, thereby enabling future research to examine the relationships across diverse influencer domains.

10.5.4 Trust and PSR (H4)

Trust emerges as a critical construct in influencer marketing, serving as a metric to assess and forecast the quality of the relationship between individuals and influencers (Kim and Kim, 2021). This study centres on trust as the belief in an influencer's consistent and competent quality delivery (Jun and Yi, 2020; Chaudhuri and Holbrook, 2001). The findings reveal that trust in influencers positively affects their PSR with influencers. Qualitative evidence supports that during the PSR development process, increased trust in a favoured influencer subsequently strengthens the PSR.

Aligning with existing research on consumer and brand relationships, this study extends the positive relationship between trust and PSR to the influencer marketing context. Current consumer and brand relationship studies have found that consumer trust in brands contributes to consumer-brand relationship development, such as brand loyalty (Li et al., 2020). This study corroborates that trust similarly strengthens PSR in influencer marketing.

Moreover, this finding highlights the critical role of trust in the PSR development process. While previous research primarily examined influencers' characteristics, such as trustworthiness (Yuan et al., 2016; Yuan et al., 2020) and credibility (Sokolova and Perez, 2021), in influencing PSR, this study provides additional evidence that trust in influencers also exerts a positive impact on PSR.

The findings further elucidate the significant mediating role of trust in influencers within the relationship between the perceived value of influencers' posts and consumers' PSR with those influencers. Notably, the indirect effect constitutes 37.2% of the total effect. This indicates that during the PSR development process, as consumers perceive value in the influencers' posts, their trust in the influencers increases, subsequently enhancing the consumer-influencer relationship. Moreover, this suggests that PSR is cultivated over time through the consistent generation of content by influencers, with consumers gravitating

towards influencers who consistently deliver reliable content. Drawing on this insight, future research could delve into other potential mediators to further elucidate the positive relationship between perceived value and PSR.

10.5.5 PSR and purchase intention (H5)

A significant finding from this study is that consumers' PSR with influencers do not directly lead to an increase in purchase intention. This challenges the previously established direct link between PSR and purchase intention, as shown in existing literature, which has largely demonstrated a positive correlation between these constructs (Hwang and Zhang, 2018; Agnihotri and Bhattacharya, 2020). For instance, Hwang and Zhang (2018) discover that viewers' PSR with digital celebrities positively influences their purchase intentions. Similarly, Farivar et al. (2021) report that followers' PSR with influencers significantly boosts their intention to purchase. Contrary to these findings, this study finds no direct positive relationship between PSR and purchase intention, suggesting that PSR with influencers does not necessarily trigger a positive purchase intention for the products or brands endorsed or recommended by the influencer.

However, this study finds that brand attitude and intention to support indirectly only mediate the relationship between PSR and purchase intention. Qualitative evidence suggests that consumers exhibit purchase intentions towards products or brands endorsed by influencers with whom they develop PSR, driven by a desire to support their favoured influencers or due to positive brand attitudes. In essence, a higher purchase intention emerges only when consumers hold a positive attitude towards the brand endorsed by their preferred influencer or when they intend to support these influencers. The detailed discussion will be presented below.

Since this study tests the relationship between PSR and purchase intention in an influencer marketing context, future research can replicate the study and further test their relationship in other research contexts (e.g., AI marketing and live-streaming commerce). In influencer marketing, influencers mainly share their experience with their followers, but for live-streaming to commence, live-streamers sell products. The positive relationship between consumers' PSR with live-streamers and purchase intention may be established in live-streaming commerce. In addition, future research can explore other mediators to explain the relationship between PSR and purchase intention.

10.5.6 PSR and brand attitude (H6)

Brand attitude plays a significant role in the outcome of PSR (Reinikainen et al., 2021). In influencer marketing, influencers advocate for products and brands to their followers. This content appeals to consumers because it aids in their purchasing decisions (Yang and Ha, 2021). Brand attitude overall evaluation of the brand influencers endorsed. According to qualitative research, consumers who regularly view their favourite influencers' content tend to develop a favourable view of the endorsed brands. Quantitative studies further validate the significant impact influencers have on their followers, which can enhance their attitude toward the brand that influencers endorse.

Quantitative results indicate a positive correlation between PSR and brand attitude, aligning with prior research that highlights the substantial influence of consumers' PSR with influencers on their perception of brands (Balaban et al., 2022). This discovery carries vital implications for brands and marketers, underscoring influencer marketing as an effective digital marketing strategy. Therefore, marketers are encouraged to collaborate with influencers who have a dedicated fanbase, allowing them to engage with potential customers to boost positive perceptions of the brand. Furthermore, researchers can investigate additional PSR-related outcomes, such as brand trust and brand loyalty.

10.5.7 Brand attitude and purchase intention (H7)

As discussed above, this study finds that brand attitude serves as a mediator between PSR and consumers' intention to purchase, suggesting that the efficacy of influencer marketing in enhancing purchase intentions is not merely due to the long-standing connections between consumers and influencers (Balaban et al., 2022). Instead, a positive perception of the endorsed brand leads to a higher intention to purchase. This insight implies that the psychological attachment between consumers and influencers does not directly result in greater purchase intentions. Instead, influencers' detailed and authentic sharing of their experience helps consumers evaluate the brand, increasing consumers' purchase intention (Balaban et al., 2022).

The qualitative data support the positive relationship between brand attitude and purchase intention. The qualitative finding reveals that consumers evaluate the brands influencers

endorse or share in their posts. Consumers will increase their purchase intention if they generate a positive attitude toward the brand.

This research aligns with existing studies demonstrating the positive connection between brand attitude and purchase intention (Tseng and Wang, 2023). Echoing Gong and Li (2017) and Reinikainen et al. (2021), it also discovers that in the context of influencer marketing, a positive brand attitude significantly enhances consumer's purchase intention. This carries important implications for marketers: when collaborating with influencers, the focus should be on shaping consumers' perceptions, attitudes, and evaluations rather than on direct sales. A positive consumer attitude towards a brand can subsequently enhance their intention to make a purchase. Future research could examine the relationship between brand attitude and purchase intention within different contexts and explore additional factors that mediate the link between PSR and the intention to purchase.

10.5.8 PSR and intention to support (H8)

Intention to support is a pivotal outcome of influencer marketing, encapsulating the extent to which the individual is willing to help the influencers maintain and increase popularity in the long run. The theory of relationship investment posits that individuals are inclined to make both tangible and intangible contributions towards another party in pursuit of a continuous relationship (Luo et al., 2009; Donabedian, 2021). This concept is corroborated by qualitative data, revealing interviewees' intentions to support their favourite influencers, thereby fostering their encouragement and elevating their fame. For instance, consumers exhibit significant behavioural engagement with influencers, aimed at augmenting the views, likes, and comments on their posts.

This study's findings reveal that consumers' PSR with influencers have a positive impact on their willingness to offer support. Qualitative evidence underscores consumers' enthusiasm for supporting their favoured influencers, suggesting that the drive to back influencers mirrors the inclination to support real-life friends.

To the best of the researcher's knowledge, this study provides the first empirical evidence of the link between PSR and intention to support. Prior research has shown that followers' PSR can foster a readiness to disseminate information on social media (Labrecque, 2014; Kim and Kim, 2020; Chen et al., 2021) and generate positive E-WOM on these platforms (Hwang

and Zhang, 2018). This study extends the understanding of PSR's influence by highlighting intention to support as a significant outcome. Building upon this discovery, future research could examine this relationship in varying contexts, such as consumers' PSR with brands. Furthermore, recognising support intention as a crucial effect of influencer marketing opens avenues for exploring additional outcomes linked to PSR.

10.5.9 Intention to support and purchase intention (H9)

As discussed above, intention to support is one of the key influencer-related outcomes, which reflects consumer relationship investment to maintain long-term relationships (Donabedian, 2021). Qualitative data highlight consumers' awareness that influencers' financial well-being often depends on collaborations with brands. Consequently, many express a willingness to support their favourite influencers' success by purchasing products and brands endorsed by them. Quantitative analysis confirms this, establishing that consumers' intention to support positively influences their purchase intention.

To the best of the researcher's knowledge, this study provides the first empirical evidence of a link between intention to support and purchase intention. While previous investigations have identified consumers' support intentions, such as offering virtual gifts or buying related products (Donabedian, 2021; Lu et al., 2018), and noted the influence of favourite influencers on heightened purchase intention (Farivar et al., 2021; Hwang and Zhang, 2018), the direct positive association between intention to support and purchase intention has remained unexplored. Furthermore, although Donabedian (2021) posits a theoretical link between fans' PSR and their relationship investment towards favoured idols, this hypothesis had not been empirically validated prior to this study.

As discussed above, this study does not establish a positive correlation between PSR and purchase intention. However, it identifies the intention to support as a mediator in the relationship between PSR and purchase intention exclusively. This quantitative discovery offers fresh insights into consumer behaviour within digital environment, indicating that although consumers may form a strong psychological attachment with influencers, this attachment alone does not directly lead to an intention to purchase. Instead, the intention to support emerges as a critical factor in influencing their purchasing decisions.

This revelation holds significance for influencers, brands, and marketers, suggesting that efforts should not be solely focused on fostering strong connections with their follower base but also on encouraging their support. Such strategies could enhance consumers' intentions to make purchases, thereby increasing the effectiveness of influencer marketing. Future studies can further explore additional mediators that could explain the relationship between PSR and purchase intention. Moreover, forthcoming research could validate these findings in varied contexts, such as live-streaming commerce.

10.5.10 The moderating role of perceived expertise (H10)

This study thoroughly examines the role of perceived expertise in the psychological mechanisms at play during the second stage of PSR development. The findings reveal that consumers' perceptions of direct and reciprocal one-on-one communication directly and positively enhance perceived value (Tseng et al., 2022). This observation unveils a key theoretical insight: consumers' perception of content value is affected by PSI, and this influence is unaffected by perceived influencer expertise.

The absence of a significant moderating effect of perceived influencer expertise on the relationship between PSI and perceived value suggests that consumers can discern both utilitarian and hedonic values in the influencer's content through PSI, regardless of whether they view the influencer as an expert. Thus, it can be inferred that in the latter half of the second stage of PSR development, consumers have already formed certain expectations and recognition of the influencer's expertise based on previous interactions. This acknowledgement of influencer expertise leads consumers to believe that the influencer can provide high-quality content or address consumer needs effectively (Vieira et al., 2022; Lin et al., 2018).

Future research could further explore the role of perceived influencer expertise during the second stage of PSR development. As discussed in Chapter 5, the qualitative study has shown that both the first and second stages are crucial for consumers' perception of influencer characteristics, with a particular emphasis on influencer expertise during the second stage. This indicates a shift in consumer focus from general characteristics in the first stage to a deeper engagement with the influencer's perceived expertise in the second stage. Further investigations could examine the potential moderating effects of perceived

influencer expertise and other influencer characteristics, such as authenticity and similarity, in the early part of the second stage.

10.5.11 The moderating role of perceived authenticity (H11)

This study provides an in-depth examination of the psychological mechanisms that facilitate consumers' transition from the second to the third stage of PSR development. It was found that consumers develop trust towards influencers in the intensification stage upon perceiving the value offered by influencer posts during the experimentation stage. This thesis hypothesised that the perceived influencer authenticity would strengthen this relationship. However, empirical studies did not observe this significant moderating effect. Nevertheless, the insignificance of this moderating effect leaves room for further interpretation.

The lack of a significant moderating effect of perceived influencer authenticity on the relationship between perceived value and trust suggests that when consumers appreciate and derive substantive value on both utilitarian and hedonic levels, they enter into the intensification stage, starting to establish significant relationships with influencers. Therefore, perceived value is proven to be the most critical link between the experimentation and intensification stages. Although the perceived influencer authenticity is particularly important for consumers to establish trust with influencers (Jun and Yi, 2020), it can be further inferred that during the transition from the second to the third phase, consumers have already addressed and resolved their concerns about the authenticity of influencers during the experimentation stage. In other words, through the self-disclosure of influencers, consumers have already resolved their concerns about authenticity in the experimentation stage, establishing confidence in the influencers (Lee and Johnson, 2021; Nah, 2022).

Based on the analysis above, perceived influencer authenticity may play a significant role in the first and second stages of PSR development. Undoubtedly, perceived influencer authenticity has been proven to be one of the critical factors for consumers' establishing long-term connections with influencers (Agnihotri et al., 2023). As discussed in Chapter 5 the early stages of PSR, such as the first and second stages, are crucial for consumers' evaluation of influencers. Future research could further investigate the potential moderating effects of influencer authenticity and other characteristics in the first and second stages of relationship building with influencers, thereby enhancing our understanding of how influencer characteristics influence the PSR development process.

10.5.12 The moderating role of interaction frequency (H11)

This study explores the impact of interaction frequency on the transition from the second to the third stage in the development of PSR with influencers. It was discovered that when consumers perceive both utilitarian and hedonic values in influencer content during the experimentation stage, they enter into the intensification stage, establishing long-term and relatively stable PSR with the influencer. As previously analysed, perceived value is a critical factor for consumers to progress from the experimentation to the intensification stage in their relationship with influencers. This research hypothesised that a high frequency of interaction with the influencer during this process would further strengthen this relationship. However, empirical findings suggest that while frequent interactions do enhance this relationship, the moderating effect is not significantly impactful. This leads to further discussion on the matter.

The lack of a significant moderating effect of interaction frequency on the relationship between perceived value and PSR suggests that when consumers appreciate the value provided by influencer content, they develop psychological attachments to the influencer (Dhiman et al., 2023; Venciute et al., 2023). Despite the significance of considering time and interaction frequency in establishing and maintaining long-term relationships, it is inferred that as consumers move from the experimentation to the intensification stage, significant time investment to strengthen relationships with influencers becomes less critical. Instead, consumers have already invested time in familiarising themselves with the influencers and are prepared to maintain these relationships. A study indicated that although relationships improve with the frequency of interaction in an online environment, this effect plateaus after three months (Pennington and Hall, 2020). Given qualitative research where consumers reported developing relatively long-term and stable PSR with influencers around the three-month mark, it is conjectured that the influence of interaction frequency on the PSR establishment process is more pronounced earlier, possibly during the first or second stage.

The discussions above suggest new avenues for future research. The positive impact of interaction frequency on the PSR establishment process is most likely to manifest in the early stages of PSR development, such as the first and second stages. Future studies could delve deeper into the influence of interaction frequency during the initial stages of the PSR development process, such as during exposure initiation and experimentation stages, to

enrich our understanding of the role of interaction frequency in the PSR establishment process.

10.6 Additional observation

Following the re-specification of the original conceptual model (Model 1), a significant link between PSI and PSR was established, culminating in the development of the revised Model 2 (as depicted in Figure 9.3 and outlined in Table 9.5). Current literature posits various assumptions regarding the relationship between PSI and PSR. (Bernhold and Metzger, 2020), with a prevalent view among scholars suggesting that viewers are likely to form PSR after repeated PSI experiences (e.g., Bernhold and Metzger, 2020). Prior research demonstrates the direct correlation between PSI and PSR within traditional media settings, including movies and talk shows, where Hu (2016) observes that increased PSI levels notably enhance viewers' PSR.

The findings of this empirical investigation reveal a direct influence of PSI on PSR, thereby identifying PSI as an antecedent of PSR. This insight is of significant importance as it proves that PSI and PSR are two different concepts that have been previously interchangeably used or considered identical by some researchers (e.g., So and Shen, 2016). This clarification is anticipated to assist future scholars in comprehensively understanding the relationship between PSI and PSR.

Furthermore, these results offer valuable guidance for influencers and brands aiming to develop long-term connections with their audience. It underscores the importance of crafting content that creates a sense of direct communication with consumers, thereby increasing their PSR. Based on this finding, scholars could further explore this relationship within other research contexts.

This finding is also valuable for influencers and brands to develop long-term relationships with consumers. It is necessary to create content that makes people feel the influencers or brands directly communicate with them, thereby increasing consumers' PSR.

10.7 Chapter summary

This chapter discusses the findings to address the three research objectives presented in Chapter 1. For research objective 1: **to identify differences between PSI and PSR in the offline and online environments**, this thesis adopts a systematic literature review approach, employing a historical method. By reviewing 172 PSI and PSR studies, this thesis proposes seven prerequisites to distinguish PSI and PSR in both environments. This contributes to the literature by precisely identifying PSI and PSR, facilitating their correct application in future studies.

For research objective 2, **to propose a new definition of PSR (and PSI) based on their unique prerequisites,** this thesis utilises a systematic literature review and expert surveys. It proposes a new definition of PSR as **an individual's dynamic psychological attachment to another party, developed unilaterally through media and perceived as personally meaningful.** This new PSR definition offers added value over existing definitions by reflecting the complex and dynamic nature of PSR. Moreover, a newly developed three-dimensional PSR measurement comprising eight scale items effectively captures consumer PSR in the online environment, contributing to future studies in finding an appropriate measurement for online PSR.

For research objective 3, **to explore the formation process of PSR development and test its outcome**, this thesis employs semi-structured interviews and online consumer surveys. It proposes four stages in the PSR development process: exposure initiation, experimentation, intensification, and integration. The key concepts of each stage and their interrelationships are also established. This advances the existing literature on how consumers develop PSR with influencers and the outcomes of such relationships.

Finally, this chapter discusses additional observations and illustrates the direct positive relationship between PSI and PSR, based on modifications to the original conceptual model. This finding assists researchers in understanding that PSI and PSR are distinct concepts, with PSI serving as the antecedent of PSR. The following chapter will conclude the thesis.

Chapter 11: Contributions and future research

11.1 Chapter introduction

This thesis enhances our comprehension of two important consumer phenomena in media consumption: PSI and PSR. It delineates seven prerequisites for differentiating PSI and PSR within both online and offline contexts. The thesis proposes a refined definition of PSR, which adeptly captures its complex and dynamic nature. This clarity significantly aids in understanding the concept of PSR. Furthermore, the study introduces a new, reliable and valid measurement instrument for measuring PSR in the online environment, thus advancing the current PSR scales. The outcomes of this research enrich the body of literature concerning the nuanced development process of PSR by evaluating its formation and several critical outcomes. Additionally, the findings underscore the importance of developing long-term customer relationships, offering practical insights for brands, influencers, and marketers.

The layout of this chapter is organised as follows. Firstly, this chapter explores the theoretical contributions of this thesis. Subsequently, it delineates the practical implications and recommendations derived from the study. Concluding, the chapter outlines the research limitations and proposes directions for future research.

11.2 Theoretical contributions

From a theoretical perspective, **this thesis first contributes to advancing the conceptualisation of PSR's complex and dynamic nature**. Current literature conceptualises PSR in a static manner, which overlooks the complex nature of PSR (e.g., Lee and Park, 2022; Cheung et al., 2022). Some scholars use "connection" (e.g., Young et al., 2013) or "relationship" (e.g., Sundermann and Munnukka, 2022) to describe PSR, which does not reflect the conscious and motivational origin of the relationship. Also, most of the current PSR definitions do not qualify as good definition standards. For example, some definitions are ambiguous since the definitions include similar concepts (e.g., interpersonal relationships). The ambiguous definition of PSR is insufficient to capture the complex and dynamic nature of PSR.

Through several techniques guided by a "bottom-up" logic, this thesis theoretically elaborates PSR (Murrow and Hyman, 1994; Gilliam and Voss, 2013). This new PSR definition advances the conceptualisation of PSR and defines it as an individual's dynamic psychological attachment to another party, which is developed unilaterally through media and perceived as personally meaningful. This new PSR definition implies the inequality, dynamic, and influence characteristics of PSR, which added new value to the existing PSR definition, which represents people who can have various psychological statuses, strengths, emotions, and feelings toward the other part. This new PSR definition provides new insights into understanding PSR's complex and dynamic nature.

Second, this thesis contributes by distinguishing between two similar concepts: PSI and PSR. PSI and PSR are essential yet distinct concepts in marketing, psychology, and media, aiding in the understanding of consumer behaviour. However, current research disputes the main domain characteristics of PSI and PSR, along with the misuse of the two terms in both online and offline environments (Oliver et al., 2019; Breves et al., 2019). For instance, some scholars argue that the main domain characteristics of PSI should centre on "relationship", thereby entangling it with the concept of PSR (e.g., Lee and Lee, 2022). Additionally, some scholars assert that PSI and PSR represent the same concept (e.g., So and Shen, 2016; Penttinen et al., 2022), but this view lacks sufficient evidence. Due to the unclear definitions of PSI and PSR, many authors employ these terms interchangeably, leading to conceptual ambiguity and difficulties in differentiating between the two concepts conceptually (MacKenzie, 2003; Wacker, 2004). Although attempts have been made to distinguish between PSI and PSR, the debate has not yet received significant attention (e.g., Hartmann and Goldhoorn, 2011; Oliver et al., 2019).

Based on the systematic literature review of 172 studies addressing PSI and PSR in both offline and online contexts, this thesis identifies seven prerequisites to differentiate PSI from PSR across these environments, summarised in Table 10.1. This thesis responds to calls from existing literature for a thorough differentiation between these closely related concepts (Hartmann and Goldhoorn, 2011; Oliver et al., 2019). The prerequisites substantially advance the field, addressing the issue of current studies that use PSI and PSR interchangeably without clear distinction. Given the differing conditions for PSI and PSR in offline versus online contexts, these seven prerequisites offer clear criteria to assist future researchers in effectively understanding the differences between the terms in various media environments.

The third theoretical contribution of this thesis is to provide a comprehensive overview of the shifts in PSI and PSR within online environments compared to traditional media, thereby broadening their conceptual scope. Current literature mainly explores the antecedents and consequences of PSI and PSR (Deng et al., 2022; Farivar et al., 2022) but lacks a deep understanding of how these constructs transition from traditional to online media environments. Employing a typological approach, this study enhances our knowledge regarding the impact of media environment changes on PSI and PSR conditions and scopes, offering a systematic comprehension of the unique attributes of PSI and PSR across different media settings.

The fourth theoretical contribution focuses on the operationalisation of online PSR. This thesis provides a reliable and valid online PSR measurement, advancing the existing literature in precisely measuring PSR online. In the current PSR literature, there is no conceptual adequate to capture the dynamic nature of PSR in the online environment. Rubin et al. (1985) and Rubin and Perse (1987) are the two most often used PSR scales that do not capture the main domain characteristics of PSR proposed in this thesis as "*psychological attachment*". Meanwhile, the two most used scales are developed based on the traditional media environment, and some of the scale items are not suitable and cannot adapt to the online environment. Therefore, developing a new online PSR is necessary.

This thesis responds to the calls of existing literature to develop a **new online PSR measurement** (e.g., Kim, 2022). To the best of the researcher's knowledge, this thesis is the first study to advance reliable and valid online PSR. Based on the scientific scale development process proposed by Churchill (1979) and Gerbing and Anderson (1988), this thesis develops a new PSR measurement scale with 12 scale items and three dimensions (intimacy, relationship maintenance, and real-life relationship intention). This new PSR scale significantly advances the PSR scale by capturing the multi-dimensional complex nature of PSR compared to the unidimensional PSR scales in the existing literature.

The fifth theoretical contribution of this thesis concerns its theoretical proposal for the dynamic PSR development process in influencer marketing. Existing studies have tested the antecedents and consequences of PSR, and the default of these studies is that the quality, strength and stages of PSR are the same (Noor et al., 2022; Leite and Baptista, 2022). However, these papers fail to capture PSR's dynamic and complex nature. Tukachinsky and Stever (2018) theoretically propose four stages of the PSR development process, which can be seen as a starting point since this model is mainly based on the traditional media

environment and without empirical testing. Hence, it is necessary to explore how consumers develop PSR with influencers.

Through qualitative study and reviewing existing literature, this study advances the existing literature regarding the theoretically proposed PSR development model in the online environment. This thesis confirms the four stages of the PSR development process proposed by Tukachinsky and Stever (2018), including initial exposure, experimentation, intensification, and integration. Critical concepts in each stage are also proposed to contribute to comprehensively and systematically understanding consumers' psychological process from the first interaction with an influencer to the outcomes.

The sixth theoretical contribution of this thesis is validation and generalising the PSR development process. To the best of the researcher's knowledge, this is the first study that offers empirical evidence of the PSR development process in influencer marketing. For example, Tukachinsky and Stever (2018) theoretically propose the model without empirically testing it. This study experientially tests the PSR conceptual model in influencer marketing, contributing to understanding consumers' relationship development process with influencers.

This thesis advances the role of PSI in the PSR development process. The current literature has assumptions about the relationship between PSI and PSR (Bernhold and Metzger, 2020). This study empirically finds that consumers who experience PSI are the antecedent of PSR, which plays a crucial role in the second experimentation stage. This finding also advances the connection and difference between PSI and PSR.

The results of the quantitative study also confirm that perceived value is the core concept in determining consumers from experimentation to the intensification stage. This study contributes to the existing literature by providing new insights into the importance of perceiving hedonic and utilitarian value from influencers as a PSR driver. This illustrates that more value perception from influencers contributes to developing long-term relationships.

In line with the existing literature on consumer-brand relationship development (Li et al., 2020), this study finds that trust is one of the critical antecedents of PSR in consumer relationships with influencers. This study advances the existing literature in understanding

not only influencers' characteristics (e.g., influencer trustworthiness) but also how trust in influencers positively influences the strength of PSR.

The outcome of PSR extends the existing literature on understanding the mechanism of influencer marketing effectiveness. Current literature provides evidence of a positive relationship between PSR and purchase intention (Hwang and Zhang, 2018; Agnihotri and Bhattacharya, 2020). Current studies suggest that PSR directly influence consumers' purchase intention (Farivar et al., 2021). This study advances the influencer marketing mechanism that consumers have purchase intention because they have a high attitude towards the brand or they have an intention to support the influencers and not only because they have established PSR with influencers. To the best of the researcher's knowledge, this study first proposes intention to support as one of the influencer-related outcomes of PSR and empirically test the relationship. This finding advances consumers' psychological and behavioural outcomes of PSR related to influencers.

11.3 Practical implications

This thesis offers valuable practical implications for influencers, brands and markets, particularly in influencer marketing strategies. The findings of this study provide an in-depth understanding of modern consumer behaviour in the digital age and how to develop long-term relationships with them.

First, the PSR model can guide influencers and companies to develop long-term consumer relationships. This study confirms that consumers who develop PSR need to go through different stages, so the findings emphasise the importance of following the PSR development model to establish the relationships. In the first exposure initiation stage, it is essential to increase consumer involvement. On this ground, several factors can effectively increase consumer involvement. For example, the designed social media content needs to satisfy consumers' various needs. Influencers and brands can design more entertaining, rich information and promotional content with a daily life tone to increase consumer involvement and satisfy their needs. Also, influencers can increase their attractiveness, including physical, social, and voice attractiveness, to gain more involvement. The design of the posts can adopt a visual appeals strategy, such as using aesthetically appealing photos, attractive titles and professional video equipment (Kostyk and Huhmann, 2021; Al-Emadi and Ben Yahia, 2020).

Meanwhile, the content of posts needs to use various linguistic styles (e.g., psychological closeness) and non-verbal cues to trigger viewers' PSI. For example, influencers can adopt the ask-questions strategy to make viewers believe they have two-way reciprocity communications. Furthermore, this study finds that perceived value is critical in the experimentation stage, determining whether consumers will enter the intensification stage. Therefore, this study suggests that social media posts need to continuously provide consumers with both hedonic value and utilitarian value to make them feel enjoyable and useful. By doing so, consumers' trust will increase and contribute to PSR development.

Second, this study contributes to brands choosing appropriate influencers to cooperate. This study finds that more PSR strength can lead to high effectiveness of influencer marketing. Therefore, brands can employ the newly developed PSR scales to measure the strength of the relationship between consumers and potential influencers as a complement to the existing techniques. Brands can conduct a quantitative study to test the potential influencers' followers' PSR strength and choose the highest influencers to cooperate with.

Third, the findings of this thesis can guide influencers and brands to generate a more effective influencer marketing strategy. This study confirms that one of the main reasons that consumers have the intention to purchase the brands and products that influencers endorse is because they have the intention to support the influencers. Specifically, the findings show that when consumers have the intention to support the influencers, their purchase intention increases. Therefore, when designing the posts, influencers and brands can employ some strategies to increase consumers' intention to support influencers. In addition, the marketing campaign can focus on increasing consumers' attitudes to brands, which is also effective in increasing consumers' purchase intention.

Fourth, this thesis contributes to industry-led research. This thesis provides a clear and in-depth explanation of the difference between PSI and PSR, which benefits marketers in understanding the two different consumer phenomena. As better conceptualisation leads to better operationalisation, this thesis provides accurate, valid and reliable PSR scales, which can be used in industry-led research to explore consumer behaviour further and achieve effective online marketing campaigns.

Fifth, this thesis makes contributions to society. This thesis refines the PSR development process model in influencer marketing, enhancing our comprehension of these dynamics and underscoring the potent role influencers assume as value drivers for consumers. By

elucidating the mechanisms underlying PSR in influencer marketing, this research helps consumers to critically assess and evaluate the influences exerted upon them. Consequently, this thesis supports society, consumers, and influencers in cultivating more authentic interactions and disseminating content that is both socially valuable and positive. Ultimately, this contributes to improving individual well-being and satisfaction in the long run.

Sixth, this thesis contributes to policymakers by demonstrating how the PSR development model can develop long-term relationships between policymakers and the public. By leveraging these relationships, policymakers can more effectively promote policies that align closely with public well-being and acceptance. Additionally, this thesis suggests that policymakers collaborate with influencers to address urgent societal issues, such as public health during the COVID-19 pandemic. For example, influencers can play a crucial role in spreading health-related knowledge and practices among their followers to protect public health. This approach can enhance policy communication and ensure that beneficial measures and advice reach a broader audience.

11.4 Limitations and future research directions

Given that this thesis mainly focuses on investigating PSI and PSR in influencer marketing, there are several limitations that have been identified, which can be addressed in future research.

Firstly, the PSR model proposed in this thesis includes four stages: exposure initiation, experimentation, intensification, and integration. Since this study aims to explore consumers' PSR development process with influencers, it empirically tests the second to the fourth stages. However, the first stage, exposure initiation, is only theoretically proposed and not empirically tested. Future research can further empirically test the relationship between the three identified critical conditions, consumers' motivations, influencer attractiveness, and post-appeal and consumer involvement, to empirically validate the first stage of the model.

Secondly, the PSR development model proposed in this thesis is developed and tested in the influencer marketing context. However, the generalisation of this model in other research contexts needs further examination. For instance, the PSR between consumers and brands and the PSR between consumers and AI assistants could be explored to assess the model's generalisation beyond influencer marketing. Additionally, it should be acknowledged that

this thesis did not control for different categories of influencers, such as virtual influencers. Future research could focus on incorporating various influencer types to enhance the generalisation of this model and address this limitation.

Thirdly, the newly developed PSR measurement scale has established its reliability and validity in the influencer marketing context. This new PSR measurement scale contains three dimensions: intimacy, relationship maintenance, and real-life relationship intention. However, in online environments, the other parties might be non-human objectives, such as brands (Chang and Kim, 2022) and AI assistance (Whang and Im, 2021), and it remains uncertain whether consumers would have a real-life relationship intention with these other parties. Therefore, future research can investigate how to adapt or modify this newly developed PSR measurement scale to those different contexts.

Fourthly, the PSR development model incorporates key concepts that focus on the process by which consumers develop PSR with influencers. However, this model could be further tested and enhanced. On the one hand, future research might explore the potential roles of other key concepts in the PSR development process (e.g., customer engagement) and PSR outcomes (e.g., continued intention to follow), to advance the understanding of PSR development. On the other hand, a significant additional observation in this thesis is the identification of a direct link between PSI and PSR. The study finds that PSI positively and directly influences PSR during the second stage of the PSR development process. This finding provides a starting point for future research to further investigate the relationship between PSI and PSR.

Fifthly, the model measurement took place at a single point in time. Given the dynamic nature of the phenomenon under study, which encompasses the evolving psychological attachments and fluctuating intensities inherent to PSR, this cross-sectional approach limits the understanding of changes in PSR over time. To capture the dynamic and complex nature of PSR, future studies could incorporate time into research design, using experimental methods or longitudinal research approaches. Such research approaches would allow for the examination of the temporal evolution of PSR, offering insights into the developmental stages of PSR and testing the causal relationships between these critical constructs (Mitchell and James, 2001).

Sixthly, the quantitative research in this thesis primarily involves samples from Western countries. Considering the significant impact of culture on consumer decision-making,

future research could test the model in other cultural contexts to generate cross-cultural comparisons.

Lastly, the latest literature reveals that consumers can form PSR with other novel entities, such as virtual influencers, AI assistants (Noor et al., 2022), and AR devices (Yuan et al., 2021). These novel parties have distinct natures and characteristics compared to human influencers. Therefore, future research can test existing PSR-related theories in these new research contexts to understand how PSR manifest differently. Furthermore, researchers can broaden the scope of PSR to identify more types of other parties in the future. Additionally, future studies could also test the PSR development model with these novel parties to expand the generalisation of the model. Considering the differing effects and influences of various ranges of influencer categories based on the number of followers, future studies could further clarify whether the PSR development process with different categories of influencers may have any differences or similarities to enrich the understanding of consumers' PSR development with various influencer categories.

Appendices

Appendix 1: PRISMA 2020 guided systematic literature review

Table 1 | PRISMA 2020 item checklist

Section and topic	Item #	Checklist item	Location where item is reported
Title			
Title	1	Identify the report as a systematic review.	
Abstract			
Abstract	2	See the PRISMA 2020 for Abstracts checklist (table 2).	
Introduction			
Rationale	3	Describe the rationale for the review in the context of existing knowledge.	
Objectives	4	Provide an explicit statement of the objective(s) or question(s) the review addresses.	
Methods			
Eligibility criteria	5	Specify the inclusion and exclusion criteria for the review and how studies were grouped for the syntheses.	
Information sources	6	Specify all databases, registers, websites, organisations, reference lists and other sources searched or consulted to identify studies. Specify the date when each source was last searched or consulted.	
Search strategy	7	Present the full search strategies for all databases, registers and websites, including any filters and limits used.	
Selection process	8	Specify the methods used to decide whether a study met the inclusion criteria of the review, including how many reviewers screened each record and each report retrieved, whether they worked independently, and if applicable, details of automation tools used in the process.	
Data collection process	9	Specify the methods used to collect data from reports, including how many reviewers collected data from each report, whether they worked independently, any processes for obtaining or confirming data from study investigators, and if applicable, details of automation tools used in the process.	
Data items	10a	List and define all outcomes for which data were sought. Specify whether all results that were compatible with each outcome domain in each study were sought (e.g. for all measures, time points, analyses), and if not, the methods used to decide which results to collect.	
	10b	List and define all other variables for which data were sought (e.g. participant and intervention characteristics, funding sources). Describe any assumptions made about any missing or unclear information.	
Study risk of bias assessment	11	Specify the methods used to assess risk of bias in the included studies, including details of the tool(s) used, how many reviewers assessed each study and whether they worked independently, and if applicable, details of automation tools used in the process.	
Effect measures	12	Specify for each outcome the effect measure(s) (e.g. risk ratio, mean difference) used in the synthesis or presentation of results.	
Synthesis methods	13a	Describe the processes used to decide which studies were eligible for each synthesis (e.g. tabulating the study intervention characteristics and comparing against the planned groups for each synthesis (item #5)).	
	13b	Describe any methods required to prepare the data for presentation or synthesis, such as handling of missing summary statistics, or data conversions.	
	13c	Describe any methods used to tabulate or visually display results of individual studies and syntheses.	
	13d	Describe any methods used to synthesise results and provide a rationale for the choice(s). If meta-analysis was performed, describe the model(s), method(s) to identify the presence and extent of statistical heterogeneity, and software package(s) used.	
	13e	Describe any methods used to explore possible causes of heterogeneity among study results (e.g. subgroup analysis, meta-regression).	
	13f	Describe any sensitivity analyses conducted to assess robustness of the synthesised results.	
Reporting bias assessment	14	Describe any methods used to assess risk of bias due to missing results in a synthesis (arising from reporting biases).	
Certainty assessment	15	Describe any methods used to assess certainty (or confidence) in the body of evidence for an outcome.	
Results			
Study selection	16a	Describe the results of the search and selection process, from the number of records identified in the search to the number of studies included in the review, ideally using a flow diagram (see fig 1).	
	16b	Cite studies that might appear to meet the inclusion criteria, but which were excluded, and explain why they were excluded.	
Study characteristics	17	Cite each included study and present its characteristics.	
Risk of bias in studies	18	Present assessments of risk of bias for each included study.	
Results of individual studies	19	For all outcomes, present, for each study: (a) summary statistics for each group (where appropriate) and (b) an effect estimate and its precision (e.g. confidence/credible interval), ideally using structured tables or plots.	
Results of syntheses	20a	For each synthesis, briefly summarise the characteristics and risk of bias among contributing studies.	
	20b	Present results of all statistical syntheses conducted. If meta-analysis was done, present for each the summary estimate and its precision (e.g. confidence/credible interval) and measures of statistical heterogeneity. If comparing groups, describe the direction of the effect.	
	20c	Present results of all investigations of possible causes of heterogeneity among study results.	
	20d	Present results of all sensitivity analyses conducted to assess the robustness of the synthesised results.	
Reporting biases	21	Present assessments of risk of bias due to missing results (arising from reporting biases) for each synthesis assessed.	
Certainty of evidence	22	Present assessments of certainty (or confidence) in the body of evidence for each outcome assessed.	
Discussion			
Discussion	23a	Provide a general interpretation of the results in the context of other evidence.	
	23b	Discuss any limitations of the evidence included in the review.	
	23c	Discuss any limitations of the review processes used.	
	23d	Discuss implications of the results for practice, policy, and future research.	
Other information			
Registration and protocol	24a	Provide registration information for the review, including register name and registration number, or state that the review was not registered.	
	24b	Indicate where the review protocol can be accessed, or state that a protocol was not prepared.	
	24c	Describe and explain any amendments to information provided at registration or in the protocol.	
Support	25	Describe sources of financial or non-financial support for the review, and the role of the funders or sponsors in the review.	
Competing interests	26	Declare any competing interests of review authors.	
Availability of data, code, and other materials	27	Report which of the following are publicly available and where they can be found: template data collection forms; data extracted from included studies; data used for all analyses; analytic code; any other materials used in the review.	

Source: *Page et al. (2021)*

Appendix 2: The reviewed PSI definitions in the offline environment

			The Reviewed PSI Definitions in the Offline Environment					
Authors	Definitions	One of the parties participating in PSI	The other parties participating in PSI	The nature of PSI	The main domain characteristics of PSI	The process of PSI (from viewer's perspective)	The time when PSI can occur	The platform where PSI can occur
Rubin et al. (1985)	Parasocial interaction was conceptualized as interpersonal involvement of the media user with what he or she consumes.	media user	he or she consumes		interpersonal involvement			media
Rubin and Perse (1987)	Parasocial interaction was conceptualized as a sense of affective interpersonal involvement with media personalities.		media personalities		affective interpersonal involvement			media
Perse and Rubin (1989)	Parasocial interaction is a perceived interpersonal relationship on the part of a television viewer with a mass media persona.	television viewer	mass media persona		perceived interpersonal relationship			TV
Grant et al. (1991)	PSI is a relationship between viewers and television personalities.	viewers	television personalities		relationship			TV
Conway and Rubin (1991)	PSI: a one-way relationship or bond of intimacy that develops over time between audience members and media personae, has contained interpersonal attraction.	audience members	media personae		one-way relationship or bond of intimacy			
Kim and Rubin (1997)	PSI is an imaginary face-to-face relationship of audience members with media personalities	audience members	media personalities		imaginary face-to-face relationship			media
Skumanich and Kintsfather (1998)	PSI is the one-sided interpersonal involvement of a media user with a program character.	a media user	program character		one-sided interpersonal involvement			media

Appendix 2 (cont'd): The reviewed PSI definitions in the offline environment

The Reviewed PSI Definitions in the Offline Environment								
Authors	Definitions	One of the parties participating in PSI	The other parties participating in PSI	The nature of PSI	The main domain characteristics of PSI	The process of PSI (from viewer's perspective)	The time when PSI can occur	The platform where PSI can occur
Papa et al. (2000)	An audience member forms a relationship with a performer that is perceived as analogous to the interpersonal relationships of people in a primary, face-to-face group.	audience member	performer		relationship			
Greenwood (2008)	Parasocial interaction (or PSI) refers to the development of an imagined friendship with a media persona such that the viewer comes to feel that they ''know'' a media character or personality and forms an interpersonal attachment that is somewhat analogous to one they would form with an actual friend.	viewer	media persona		an imagined friendship			media
Greenwood and Long (2009)	"para-social interaction"— or the imagined intimacy that develops over time as audience members get to know a particular media persona.	audience members	media persona		imagined intimacy	over time		media
Moyer-Guse and Nabi (2010)	PSI is defined as a ''seeming face-to-face relationship between spectator and performer''	spectator	performer		seeming face-to-face relationship			
Sun (2010)	Parasocial relationships are one-sided interpersonal relationships that "television viewers establish with media characters", allowing viewers to perceive a special connection with media characters.	television viewers	media characters		one-sided interpersonal relationships			TV

Appendix 2 (cont'd): The reviewed PSI definitions in the offline environment

		The Reviewed PSI Definitions in the Offline Environment						
Authors	Definitions	One of the parties participating in PSI	The other parties participating in PSI	The nature of PSI	The main domain characteristics of PSI	The process of PSI (from viewer's perspective)	The time when PSI can occur	The platform where PSI can occur
Hartmann and Goldhoorn (2011)	This idea of parasocial interaction as the experience of TV viewers to be engaged in an immediate, personal, and reciprocal encounter with a TV performer.	TV viewers	a TV performer		an immediate, personal, and reciprocal encounter			TV
Lim and Kim (2011)	parasocial interaction is a pseudo-intimate relationship between the audience and media personalities such as talk radio hosts and TV shopping program hosts.	audience	media personalities		a pseudo-intimate relationship			radio or TV
So and Nabi (2013)	This imaginary friendship that develops between an audience and media personality is referred to as parasocial relationship, and the general communicative phenomenon that takes place in this relationship is called parasocial interaction.	audience	media personality		communication			media
Bentley (2014)	"Interpersonal involvement of the media user with what he or she consumes".	media user	he or she consumes		interpersonal involvement			media
Cummins and Cui (2014)	users' feeling of being involved in an interaction with the performer during media exposure	users	performer		being involved in an interaction		during media exposure	media
Tian and Yoo (2015)	the relationship in which "the viewer is engaged in a role relationship with a television persona"	viewer	television persona		relationship			TV

Appendix 2 (cont'd): The reviewed PSI definitions in the offline environment

		The Reviewed PSI Definitions in the Offline Environment						
Authors	Definitions	One of the parties participating in PSI	The other parties participating in PSI	The nature of PSI	The main domain characteristics of PSI	The process of PSI (from viewer's perspective)	The time when PSI can occur	The platform where PSI can occur
Knoll et al. (2015)	viewer responses to media personae as being composed of different cognitive, emotional, and/or behavioural processes. These processes follow on initial impression formation (or persona recognition), can emerge into different interaction patterns, can change dynamically within the course of media exposure, and are strongly influenced both by persona and viewer variables.	viewer	media personae		different cognitive, emotional, and/or behavioural processes			
So and Shen (2016)	parasocial interaction, an imaginary friendship between an audience and a character.	an audience	a character		imaginary friendship			
Oliver et al. (2019)	parasocial interactions are conceptualized as viewer perceptions while viewing– more akin to feelings of social engagement or "conversational give-and-take" with the character during the viewing experience itself.	viewer	character		perceptions		while viewing/ during the viewing experience itself	
Bi et al. (2021)	PSI is a pseudo-intimate relationship (Rubin & Step, 2000), and is based on the media effect of audiences developing illusionary unreciprocated connections to media personas (Levy & Windahl, 1984).	audiences	media personas		pseudo-intimate relationship, illusionary unreciprocated connections		media effect	

Appendix 3: The reviewed PSR definitions in the offline environment

		One of the parties participating in PSR	The other parties participating in PSR	The nature of PSR	The main domain characteristics of PSR	The process of PSR (from viewer's perspective)	The time when PSR can occur	The platform where PSR can occur
The reviewed PSR definitions in the offline environment								
Authors	Definitions	One of the parties participating in PSR	The other parties participating in PSR	The nature of PSR	The main domain characteristics of PSR	The process of PSR (from viewer's perspective)	The time when PSR can occur	The platform where PSR can occur
Stephens et al. (1996)	Feelings of friendship and intimacy on the viewer's part-with remote "personae" such as soap opera regulars, news anchors, and talk-show hosts.	viewer	personae such as soap opera regulars, news anchors, and talk-show hosts		feelings of friendship and intimacy			
Sun and Wu (2012)	Emotional attachment to sports celebrities (including those from a losing team) can be characterized as a parasocial relationship.		sports celebrities		emotional attachment			
Young et al. (2013)	Psychological connections with media figures, referred to as parasocial relationships.		media figures		psychological connections			
Hoffner and Cohen (2014)	A parasocial relationship (PSR) with a media figure reflects the sense of a real social bond in that the relationship is deeply felt and has many of the characteristics of "real" relationships.		media figure		sense of a real social bond			

Appendix 3 (cont'd): The reviewed PSR definitions in the offline environment

		The reviewed PSR definitions in the offline environment						
Authors	Definitions	One of the parties participating in PSR	The other parties participating in PSR	The nature of PSR	The main domain characteristics of PSR	The process of PSR (from viewer's perspective)	The time when PSR can occur	The platform where PSR can occur
Behm-Morawitz et al. (2017)	Parasocial relationship refers to the formation of a one-way "pseudorelationship" in which the viewer imagines a face-to-face relationship with the performer that is unreciprocated.	viewer	performer		one-way/unreciprocated/ imagines a face-to-face relationship			
Dias et al. (2017)	Viewer has the illusion of a face-to-face relationship with a fictional character or a celebrity (real person) and therefore feels part of a close, intimate relationship.	viewers	a fictional character or a celebrity (real person)		illusion face-to-face relationship			
Gabriel et al. (2018)	Parasocial relationships are one-sided psychological bonds with specific media figures such as favorite celebrities or fictional characters.		specific media figures such as favorite celebrities or fictional characters		one-sided psychological bonds			
Bernhold (2019)	Parasocial relationships are the durable and continuing bonds viewers form with television characters.	viewers	television characters		durable and continuing bonds			

Appendix 3 (cont'd): The reviewed PSR definitions in the offline environment

	The reviewed PSR definitions in the offline environment							
Authors	Definitions	One of the parties participating in PSR	The other parties participating in PSR	The nature of PSR	The main domain characteristics of PSR	The process of PSR (from viewer's perspective)	The time when PSR can occur	The platform where PSR can occur
Bernhold and Metzger (2020)	A parasocial relationship is a long-term mental schema about one's relationship with a character that is fueled by repeated parasocial interactions, or a "cross-situational, stable, and schematic cognitive pattern of images and interaction scripts that includes affective aspects".	one	character		a long-term mental shema/ relationship	repeated parasocial interactions, or a "cross-situational, stable, and schematic cognitive pattern of images and interaction scripts that includes affective aspects		
Bond (2021)	PSRs are affective bonds audiences foster with media characters and celebrities that last beyond episodic exposure (Dibble et al., 2016; Horton & Wohl, 1956).	audiences	media characters		affective bonds		last beyond episodic exposure	

Appendix 4: The reviewed PSI definitions in the online environment

The reviewed PSI definitions in the online environment								
Authors	Definitions	One of the parties participating in PSI	The other parties participating in PSI	The nature of PSI	The main domain characteristics of PSI	The process of PSI (from viewer's perspective)	The time when PSI can occur	The platform where PSI can occur
Thorson and Rodgers (2006)	Interpersonal involvement of the media user with what he or she consumes.	media user	what he or she consumes		interpersonal involvement			
Goldberg and Allen (2008)	Interpersonal involvement of the user with the Web site, and the extent to which users perceive themselves as interacting with a stable personality.	user	website		interpersonal involvement			website
Lee and Jang (2011)	"intimacy at a distance" (Horton & Wohl, 1956, p. 215), media audience develops the illusion of intimacy with media personalities, such as news anchor and TV show host, in the complete absence of direct interpersonal encounter.	media audience	media personalities		illusion of intimacy			
Keng et al. (2011)	PSI paradigm to describe one-sided, parasocial relationships between the mass media and audiences.	audiences	mass media		one-sided, parasocial relationships			

Appendix 4 (cont'd): The reviewed PSI definitions in the online environment

		The reviewed PSI definitions in the online environment							
Authors	Definitions	One of the parties participating in PSI	The other parties participating in PSI	The nature of PSI	The main domain characteristics of PSI	The process of PSI (from viewer's perspective)	The time when PSI can occur	The platform where PSI can occur
Lueck (2012)	Audiences interact, relate to and develop relationships with a celebrity.	audiences	celebrity		relationship			
Colliander and Erlandsson (2013)	The illusion of a face-to-face relationship with a media performer.		media performer		illusion of a face-to-face relationship			
Lee (2013)	Feelings as imagined intimacy, personal interest, and attributional confidence.				Feelings as imagined intimacy, personal interest, and attributional confidence.			
Men and Tsai (2013) a	Audiences perceive having an intimate and personal relationship with media personalities, such as fictional TV characters and news hosts (Horton & Wohl, 1956; Russell & Stern, 2006).	audiences	media personalities		an intimate and personal relationship			

Appendix 4 (cont'd): The reviewed PSI definitions in the online environment

		The reviewed PSI definitions in the online environment							
Authors	Definitions	One of the parties participating in PSI	The other parties participating in PSI	The nature of PSI	The main domain characteristics of PSI	The process of PSI (from viewer's perspective)	The time when PSI can occur	The platform where PSI can occur
Men and Tsai (2013) b	A user's interpersonal involvement with a media personality (including companies' SNS representatives) through mediated communication.	users	media personality		interpersonal involvement			mediated communication
Tsai and Men (2013)	A user's interpersonal involvement with a media personality (including brands' SNS representatives) through mediated communication.	users	media personality		interpersonal involvement			mediated communication
Labrecque (2014)	An illusionary experience, such that consumers interact with personas (i.e., mediated representations of presenters, celebrities, or characters) as if they are present and engaged in a reciprocal relationship.	consumers	personas (i.e., mediated representations of presenters, celebrities, or characters)		illusionary experience			
Men and Tsai (2015)	Imagined intimacy and personal relationship with mediated characters.		mediated characters		imagined intimacy and personal relationship			

Appendix 4 (cont'd): The reviewed PSI definitions in the online environment

		The reviewed PSI definitions in the online environment						
Authors	Definitions	One of the parties participating in PSI	The other parties participating in PSI	The nature of PSI	The main domain characteristics of PSI	The process of PSI (from viewer's perspective)	The time when PSI can occur	The platform where PSI can occur
Chiu and Huang (2015)	Individuals' behavior in establishing and maintaining a relationship of friendship or intimacy with others using the SNSs.	individual	others		a relationship of friendship or intimacy		using SNS	SNS
Kim and Song (2016)	An imaginary relationship to a person whom one knows well but who barely knows the other.	one	person		imaginary relationship			
Yuksel and Labrecque (2016)	PSI occur during media exposure when media users respond to media personae in a quite similar way with real social interactions, whereas the relationships that emerge from such one-sided interactions are defined as PSR.	media users	media personae				during media exposure	
Xiang et al. (2016)	A one-sided relationship a user forms with other users on a SCP, especially with celebrities or experts, which stems from imagined intimacy or illusion.	user	other user (celebrities or experts)		one-sided relationship			social commerce platform

Appendix 4 (cont'd): The reviewed PSI definitions in the online environment

	The reviewed PSI definitions in the online environment							
Authors	Definitions	One of the parties participating in PSI	The other parties participating in PSI	The nature of PSI	The main domain characteristics of PSI	The process of PSI (from viewer's perspective)	The time when PSI can occur	The platform where PSI can occur
Kim et al. (2016)	Publics feel personally attached to and develop perceived personal relationships with public figures such as television characters (Rubin & McHugh, 1987).	publics	public figures		personally attached to and develop perceived personal relationships			
Lee and Watkins (2016)	Labrecque (2014) defines PSI as, "an illusionary experience, such that consumers interact with personas (i.e., mediated representations of presenters, celebrities, or characters) as if they are present and engaged in a reciprocal relationship".	consumers	personas		an illusionary experience… engaged in a reciprocal relationship			
Sanz-Blas et al. (2017)	Audience intervention in TV shows/communication media and, thus, the relationship with the viewer and other members of the audience (Skumanich and Kintsfather, 1998).	audience	other members of the audience		relationship			TV shows/communication media

Appendix 4 (cont'd): The reviewed PSI definitions in the online environment

The reviewed PSI definitions in the online environment
Authors	Definitions	One of the parties participating in PSI	The other parties participating in PSI	The nature of PSI	The main domain characteristics of PSI	The process of PSI (from viewer's perspective)	The time when PSI can occur	The platform where PSI can occur
Tsai and Men (2017)	PSI refers to the media audience's perception of having an intimate and personal relationship with media personalities, such as TV characters, show hosts, and news anchors (Russell and Stern 2006).	audience	media personalities		perception of having an intimate and personal relationship			
Kim and Kim (2017)	On a website, people may experience a one-sided interaction, that is, parasocial interaction (PSI).	people			one-sided interaction			website
Gong and Li (2017)	Fans mostly engage in one-way interpersonal interaction with the celebrity, which is called "parasocial interaction".	fans	celebrity		one-way interpersonal interaction			
Hu et al. (2017)	An illusive sense of mutual awareness and intimacy with media personas (e.g. celebrities, news hosts, characters).		media personas (e.g. celebrities, news hosts, characters)		illusive sense of mutual awareness and intimacy			

Appendix 4 (cont'd): The reviewed PSI definitions in the online environment

	The reviewed PSI definitions in the online environment							
Authors	Definitions	One of the parties participating in PSI	The other parties participating in PSI	The nature of PSI	The main domain characteristics of PSI	The process of PSI (from viewer's perspective)	The time when PSI can occur	The platform where PSI can occur
Lee and Lee (2017)	An intimate relationship between customers and the hotel.	customers	hotel		intimate relationship			
De Jans et al. (2018)	The relationship media users have with media personalities.		media personalities		relationship			
Lee (2018)	PSI refers to media-enabled connections between users and media personalities.	users	media personalities		media-enabled connections			
Daniel et al. (2018)	A viewer's one-way experience with a media personality is known as PSI when it feels like an actual interaction to the viewer.	viewer	media personality		one-way experience			
Phua et al. (2018)	A one-sided personal relationship that an individual develops with a media character.	individual	media character		one-sided personal relationship			

Appendix 4 (cont'd): The reviewed PSI definitions in the online environment

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Authors	Definitions	One of the parties participating in PSI	The other parties participating in PSI	The nature of PSI	The main domain characteristics of PSI	The process of PSI (from viewer's perspective)	The time when PSI can occur	The platform where PSI can occur
Jin (2018)	A media user develops the illusion of intimacy with media figures.	media user	media figures		illusion of intimacy			
Zhou and Jia (2018)	Virtual conversation that is stimulated by the website's brand attraction, media "persona," and communications strategy to improve the interaction quality between the consumer and the website information and make the consumer feel like he/ she is having a face-to-face dialogue (i.e., social presence).	consumer	website		a face-to-face dialogue			website
Breves et al. (2019)	The nonreciprocal cognitive, affective, and conative interactions of media users with the media personality.	media user	media personality		interaction			
Jin and Muqaddam (2019)	Parasocial interaction (PSI) refers to the feeling of companionship or illusion of friendship with media figures.		media figures		feeling of companionship or illusion of friendship			

Appendix 4 (cont'd): The reviewed PSI definitions in the online environment

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Choi et al. (2019)	Interactions among community members regarding shared interests are likely to evoke affective responses such as intimacy, friendship, and empathy.	community members	community members		interactions			
Liu et al. (2019)	PSI refers to the extent to which a media user perceives a media persona as an intimate social partner.	media user	media persona		relationship			
Shan et al. (2019)	The seeming face-to-face and one-sided quasi-interactions between a media viewer and a media character.	media viewer	media character		seeming face-to-face and one-sided quasi-interactions			
Jin and Ryu (2020)	PSI refers to a media user's "illusion of face-to-face relationship with a media personality".	media user	media personality		illusion of face-to-face relationship			
Zheng et al. (2020)	Interpersonal involvement of the media user with what he or she consumes.	media user	what he or she consumes		interpersonal involvement			

Appendix 4 (cont'd): The reviewed PSI definitions in the online environment

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Authors	Definitions	One of the parties participating in PSI	The other parties participating in PSI	The nature of PSI	The main domain characteristics of PSI	The process of PSI (from viewer's perspective)	The time when PSI can occur	The platform where PSI can occur
Aw and Labrecque (2020)	Parasocial interactions are one-sided relationships that individuals form with mediated persona, including celebrities.	individuals	mediated persona, including celebrities		one-sided relationships			
Sokolova and Kefi (2020)	The theory of para-social interaction (PSI) defines the relationship between a spectator and a performer with an illusion of intimacy as for the 'real' interpersonal relationships.	spectator	performer		relationship			
Boerman (2020)	A PSI is the illusion of having an intimate, personal relationship with a media personality		media personality		intimate and personal relationship			
Sakib et al. (2020)	PSI is the mechanism whereby a media consumer believes that the media character is directly communicating to him or her, resulting in a one-sided feeling of closeness.	media consumer	media character		feeling of closeness			

Appendix 4 (cont'd): The reviewed PSI definitions in the online environment

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Kim (2020)	PSI is defined as the illusionary relationship viewers develop with media performers.	viewers	media performers		illusionary relationship			
Kelton and Pennington (2020)	Parasocial interaction is a media user's perception of personal contact and interpersonal interaction with media figures in the absence of any direct interactions.	media user	media figures		perception		in the absence of any direct interactions	
Kim et al. (2020)	The interpersonal involvement of the media user with what he or she consumes.	media user	what he or she consumes		interpersonal involvement			
Handarkho (2020)	Emotional relationship where the form tends to be a one-way bond and usually occurs between individuals and their idols, such as a celebrity.	individuals	idols, such as a celebrity		emotional relationship			

Appendix 4 (cont'd): The reviewed PSI definitions in the online environment

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Nanda and Banerjee (2020)	A specific case of social interaction that happens in a one-sided way.				a specific case of social interaction in a one-sided way			
Ledbetter and Meisner (2021)	Viewer's sense of having a relationship with a media figure.	viewers	media figure		relationship			
Xu et al. (2021)	The intimacy between media users and media characters can be regarded as a one-sided interaction.	media users	media characters		Intimacy			
Kang et al. (2021)	Parasocial interaction refers to a self-defined, one-way relationship with a mediated personality (Brown, 2015).		mediated personality		self-defined, one-way relationship			
Yılmazdoğan et al. (2021)	PSI is described as interaction of media users with people covered in the media (Grant et al., 1991; Rubin et al., 1985). This is an emotional relationship (Zhang et al., 2020).	media users	people		interaction/emotional relationship			media

Appendix 4 (cont'd): The reviewed PSI definitions in the online environment

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Authors	Definitions	One of the parties participating in PSI	The other parties participating in PSI	The nature of PSI	The main domain characteristics of PSI	The process of PSI (from viewer's perspective)	The time when PSI can occur	The platform where PSI can occur
Youn and Jin (2021)	Parasocial interaction (PSI) refers to an illusionary mediated experience such that media users interact with media personas as if they are present and engaged in reciprocal relationships (Horton & Wohl, 1956).							
Handarkho (2021)	Para-social interaction is a relationship founded on emotions between an individual and an idolized or admired people such as influencers, respected person or celebrities (Sokolova and Kefi, 2020; Ward, 2016).	individual	an idolized or admired people such as influencers, respected person or celebrities		a relationship founded on emotions			
Kim and Kim (2021)	People experience a one-sided relationship when interacting with media personae in the mass media (Auter & Palmgreen, Citation2000; Horton & Wohl, 1956).	people	media personae		experience a one-sided relationship when interacting		in mediated encounters with performers	in the mass media

Appendix 4 (cont'd): The reviewed PSI definitions in the online environment

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<tr><td colspan="9" align="center">The reviewed PSI definitions in the online environment</td></tr>
<tr>
<th>Authors</th>
<th>Definitions</th>
<th>One of the parties participating in PSI</th>
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<th>The nature of PSI</th>
<th>The main domain characteristics of PSI</th>
<th>The process of PSI (from viewer's perspective)</th>
<th>The time when PSI can occur</th>
<th>The platform where PSI can occur</th>
</tr>
<tr>
<td>Chen et al. (2021)</td>
<td>Parasocial relationships, as a kind of psychological relationship experienced by an audience in mediated encounters with performers, definitely play an important role in interactive marketing (Labrecque, 2014).</td>
<td>audience</td>
<td>performers</td>
<td></td>
<td>psychological relationship</td>
<td></td>
<td>in mediated encounters</td>
<td>in mediated encounters</td>
</tr>
<tr>
<td>Tsai et al. (2021)</td>
<td>PSI as a user's perceived interpersonal involvement with a media character, including brands' bot representatives, through mediated communication.</td>
<td>users</td>
<td>media character, including brands' bot representatives</td>
<td></td>
<td>perceived interpersonal involvement</td>
<td></td>
<td></td>
<td>through mediated communication</td>
</tr>
<tr>
<td>Hsieh and Lee (2021)</td>
<td>Horton and Wohl (1956) posited that parasocial interaction is a "simulacrum of conversational give and take" (p. 215) that occurs between users and mass media performers.</td>
<td>users</td>
<td>mass media performers</td>
<td></td>
<td>simulacrum of conversational give and take</td>
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Appendix 4 (cont'd): The reviewed PSI definitions in the online environment

	The reviewed PSI definitions in the online environment							
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Hoabin Ye et al. (2021)	Parasocial interaction refers to the imagined intimacy between media characters and an audience (Perse & Rubin, 1989).	audience	media character		imagined intimacy			
Jin et al. (2021)	PSI refers to the relationship viewers and audiences form with fictional or real characters presented in media outlets such as film, TV, radio, and so on.	viewers and audiences	fictional or real characters		relationship			media outlets such as film, TV, radio and so on
Lee et al. (2021)	PSI refers to a sense of mutual awareness that is limited to the duration of media consumption (Dibble et al., 2016).				mutual awareness		limited to the duration of media consumption	

Appendix 4 (cont'd): The reviewed PSI definitions in the online environment

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Authors	Definitions	One of the parties participating in PSI	The other parties participating in PSI	The nature of PSI	The main domain characteristics of PSI	The process of PSI (from viewer's perspective)	The time when PSI can occur	The platform where PSI can occur
Penttinen et al. (2022)	Parasocial interactions (Horton and Wohl 1956) or parasocial relationships (Rubin and McHugh 1987) are one-sided, imaginary connections that consumers experience with media personalities such as artists, online influencers, or even fictional characters (Hartmann and Goldhoorn 2011; Rubin and McHugh 1987).	consumers	media personalities such as artists, online influencer, or even fictional characters		one-sided, imaginary connections that consumers experience			
Yousaf (2022)	PSI is a relationship between media users and a media persona.	media users	media persona		relationship			
Hudders and De Jans (2022)	Parasocial interaction refers to the 'one-sided mediated form of social interaction between audience and media characters' (p. 5) (Liebers and Schramm, 2019).	audience	media characters		one-sided mediated form of social interaction			

Appendix 4 (cont'd): The reviewed PSI definitions in the online environment

The reviewed PSI definitions in the online environment								
Authors	Definitions	One of the parties participating in PSI	The other parties participating in PSI	The nature of PSI	The main domain characteristics of PSI	The process of PSI (from viewer's perspective)	The time when PSI can occur	The platform where PSI can occur
Lo et al. (2022)	PSI is defined as the digital interactions between viewers and social actors, conceptualized by the feeling of reciprocity that is comprised of mutual awareness, attention, and adjustment.	viewers	social actors		digital interaction, the feeling of reciprocity that is comprised of mutual awareness, attention, and adjustment.			
AW et al. (2022)	Consumers can generate a sense of social relationship with their digital voice assistants through frequent interactions.	consumers	digital voice assistants		a sense of social relationship		through frequent interactions	
Chen et al. (2022)	Audiences usually maintain a unidirectional attachment relationship with media characters, which is similar to but different from social relationships (Rasmussen, 2018).	audiences	media characters		unidirectional attachment relationship			

Appendix 4 (cont'd): The reviewed PSI definitions in the online environment

	The reviewed PSI definitions in the online environment							
Authors	Definitions	One of the parties participating in PSI	The other parties participating in PSI	The nature of PSI	The main domain characteristics of PSI	The process of PSI (from viewer's perspective)	The time when PSI can occur	The platform where PSI can occur
Wang and Hu (2022)	The process by which users attach themselves to and build relationships with media celebrities with whom they are not acquainted in real life (Ding and Qiu, 2017).	users	media celebrities		attach themselves to and build relationships			
Chang and Kim (2022)	Media such as video, television, radio, or movies give the illusion of having an actual relationship with the characters shown in media.		characters		give the illusion of having an actual relationship			media such as video, television, radio, or movies
Tseng et al. (2022)	Parasocial interaction as the illusive experience that is perceived by the audience that a "seemingly face-to-face friendship" Horton and Richard Wohl (1956).							
Kim (2022)	The concept of parasocial interaction (PSI) is defined as the illusionary relationships viewers develop with media characters (Horton and Wohl Citation1956).	viewer	media characters		illusionary relationships			

Appendix 4 (cont'd): The reviewed PSI definitions in the online environment

		The reviewed PSI definitions in the online environment							
Authors	Definitions	One of the parties participating in PSI	The other parties participating in PSI	The nature of PSI	The main domain characteristics of PSI	The process of PSI (from viewer's perspective)	The time when PSI can occur	The platform where PSI can occur
Masuda et al. (2022)	Horton and Wohl (1956) defined PSR as the enduring relationships that users form with a mediated performer.	users	mediated performer		enduring relationships			
Zhang et al. (2022)	The illusion of face-to-face relationships between individuals and media figures (e.g., presenters, actors, or celebrities) Horton and Wohl (1956).							
Kim (2022)	PSI is referred to as the illusionary relationships viewers develop with media personae (Horton and Wohl, 1956).	viewers	media personae		the illusionary relationships			
Lee and Lee (2022)	Parasocial interactions can be defined as a viewer's perceived relationship with a media personality (Papa et al., 2000).	viewers	media personality		perceived relationship			
Deng et al. (2022)	A perceived short- or long-term social relationship (positive or negative) with a media figure (Giles, 2002).		media figure		short-term or long-term social relationship			

Appendix 4 (cont'd): The reviewed PSI definitions in the online environment

		The reviewed PSI definitions in the online environment							
Authors	Definitions	One of the parties participating in PSI	The other parties participating in PSI	The nature of PSI	The main domain characteristics of PSI	The process of PSI (from viewer's perspective)	The time when PSI can occur	The platform where PSI can occur
Wei et al. (2022)	PSI can be defined as unilateral psychology associations that media audiences develop with media figures (Rubin and Step, 2000).	media audiences	media figures		unilateral psychology			
Manchanda et al. (2022)	As per the definition of Giles (2002, p. 279), "interaction between users of mass media and representations of humans appearing in the media ("media figures," such as presenters, actors, and celebrities) and can produce a form of relationship, to which the user responds as though in a typical social relationship".	users of mass media	media figures, such as presenters, actors and celebrities		a form of relationship, to which the users respond as though in a typical social relationship			
Liao et al. (2022)	Perceived parasocial interaction refers to the extent to which an audience perceives a media performer as an intimate conversational partner (Dibble, Hartmann, and Rosaen 2016; Horton and Wohl 1956).	audience	media performer		an intimate conversational partner			

Appendix 5: The reviewed PSR definitions in the online environment

		The reviewed PSR definitions in the online environment							
Authors	Definitions	One of the parties participating in PSR	The other parties participating in PSR	The nature of PSR	The main domain characteristics of PSR	The process of PSR (from viewer's perspective)	The time when PSR can occur	The platform where PSR can occur
Richards and Calvert (2015)	The deliverers of those rewards are at times popular and familiar media characters, with whom children have sometimes formed close, one-sided, emotionally tinged relationships called parasocial relationships.	children	popular and familiar media characters		close, one-sided, emotionally tinged relationships			
Tsiotsou (2015)	The one-sided interpersonal relationships developed between members of SNSs groups which may include cognitive, affective and behavioral responses.	members of SNSs groups	members of SNSs groups		one-sided interpersonal relationships			
Tsiotsou (2016)	The one-sided interpersonal relationships consumers develop with the members of a consumption community.	consumers	members of a consumption community		one-sided interpersonal relationships			
Yuan et al. (2016)	Parasocial relationships are psychological connections that users form unilaterally with media personalities/celebrities through virtual media.	users	media personalities/ celebrities		psychological connections			
Escalas and Bettman (2017)	Parasocial relationships are one-sided relationships that a media user establishes with a media figure.	media user	media figure		one-sided relationships			
Chung and Cho (2017)	Parasocial relationships refers to intimate relationships between audiences and celebrities.	audiences	celebrities		intimate relationships			

Appendix 5 (cont'd): The reviewed PSR definitions in the online environment

		The reviewed PSR definitions in the online environment							
Authors	Definitions	One of the parties participating in PSR	The other parties participating in PSR	The nature of PSR	The main domain characteristics of PSR	The process of PSR (from viewer's perspective)	The time when PSR can occur	The platform where PSR can occur
Hwang and Zhang (2018)	Parasocial relationships can be defined as unilateral relationships that a media audience develops with a media character.	media audience	media character		unilateral relationships			
Lim and Kim (2018)	A passive and unilateral relationship in which one party is known but the other party is not.	one party	the other party		unilateral relationship			
Iannone et al. (2018)	One-sided relationships with media figures.		media figures		one-sided relationships			
Han and Yang (2018)	The perception of imaginary in interpersonal relationships between people (viewers) and media characters.	people (viewers)	media characters		imaginary in interpersonal relationships			
de Bérail et al. (2019)	A parasocial relationship is a relationship an individual forms with someone he does not actually know by consuming media about that person.	individual	someone		relationship	by consuming media		
Munnukka et al. (2019)	Illusionary relationship and involvement with the vlogger.		vlogger		Illusionary relationship and involvement			

Appendix 5 (cont'd): The reviewed PSR definitions in the online environment

	The reviewed PSR definitions in the online environment							
Authors	Definitions	One of the parties participating in PSR	The other parties participating in PSR	The nature of PSR	The main domain characteristics of PSR	The process of PSR (from viewer's perspective)	The time when PSR can occur	The platform where PSR can occur
Lee and Cho (2020)	A parasocial relationship is defined as the degree to which a media consumer perceives they have developed a social relationship with a media character.	media consumer	media character		social relationship			
Hu et al. (2020)	The emotional bonds that audiences form with media personas.	audiences	media personas		emotional bonds			
Zafar et al. (2020)	The media-enabled associations among individuals and celebrities.	individuals	celebrities		media-enabled associations			
Lim et al. (2020)	PSR, which can be defined as a one-sided intimate relationship that an audience feels toward a media performer, based on repeated encounters with the performer through mediated reality.	audience	media performer		one-sided intimate relationship	repeated encounters with the performer		mediated reality
Reinikainen et al. (2020)	PSRs are imaginary relationships with media performers that begin with spending time with the performer through media consumption and that are characterised by perceived relational development with the performer and knowing the performer well.		media performers		imaginary relationships	begin with spending time with the performer through media consumption		

Appendix 5 (cont'd): The reviewed PSR definitions in the online environment

		The reviewed PSR definitions in the online environment							
Authors	Definitions	One of the parties participating in PSR	The other parties participating in PSR	The nature of PSR	The main domain characteristics of PSR	The process of PSR (from viewer's perspective)	The time when PSR can occur	The platform where PSR can occur
Agnihotri and Bhattacharya (2020)	Mutual relationship characterized by intimacy and liking.				mutual relationship			
Yuan and Lou (2020)	A socioemotional bond between media personae and audiences.	media personae	audiences		socioemotional bond			
Sokolova and Perez (2021)	Para-social relationships can be defined as "illusory" relationships created between a spectator and a performer. Such relationships can be observed between celebrities and their fans that feel the proximity with their idols as in a real relationship.	spectator	performer		"illusory" relationships			
Yuan et al. (2021)	Emotional and long-term bonding between consumers and media characters can be defined as a parasocial relationship.	consumers	media characters		emotional and long-term bonding			
Feder (2020)	Strong one-sided connections "arise when individuals are repeatedly exposed to a media persona, and the individuals develop a sense of intimacy, perceived friendship, and identification with the [athlete]".	individuals	media persona (athlete)		one-sided connections	individuals are repeatedly exposed to a media persona		

Appendix 5 (cont'd): The reviewed PSR definitions in the online environment

	The reviewed PSR definitions in the online environment							
Authors	Definitions	One of the parties participating in PSR	The other parties participating in PSR	The nature of PSR	The main domain characteristics of PSR	The process of PSR (from viewer's perspective)	The time when PSR can occur	The platform where PSR can occur
Hwang et al. (2020)	A motive to create relationships that fans form with celebrities and in turn form a virtual intimacy in the sport media context.	fans	celebrities		relationships			
Farivar et al. (2021)	Parasocial relationship refers to a one-sided relationship an audience perceives with a media person.	audience	media person		one-sided relationship			
Utz et al. (2021)	Parasocial relationships are asymmetrical relationships that develop between media users and media figures.	media users	media figures		asymmetrical relationships			
Chen et al. (2021)	The imagined, one-sided quasi-relationship between a media user and a media character (Labrecque, 2014; Rubin & Step, 2010), with social media influencers.	media user	media character/social media influencers		imagined, one-sided, quasi-relationship	encountered through media		media
Reinikainen et al. (2021)	A parasocial relationship refers to the illusion of a face-to-face relationship with a person who is encountered through media (Horton and Wohl, 1956).		person		illusion of a face-to-face relationship			
Aw and Chuah (2021)	Parasocial relationships denote one-sided relationships that a person develops with mediated personas,	person	mediated personas, including		one-sided relationships			

Appendix 5 (cont'd): The reviewed PSR definitions in the online environment

		The reviewed PSR definitions in the online environment						
Authors	Definitions	One of the parties participating in PSR	The other parties participating in PSR	The nature of PSR	The main domain characteristics of PSR	The process of PSR (from viewer's perspective)	The time when PSR can occur	The platform where PSR can occur
Yuan et al. (2021)	Parasocial relationship refers to intimate relationship between an actor and an audience.	audience	actor		Intimate relationship			
Whang and Im (2021)	A person engaged in a parasocial interaction feels reciprocity and rapport with the counterpart (Hartmann, 2008; Horton & Wohl, 1956), and gradually develops an illusory interpersonal relationship with the counterpart such as friendship and intimacy over time. This relationship is referred to as a parasocial relationship (Stern et al., 2015).	person	counterpart		illusory interpersonal relationship, such as friendship and intimacy	over time		
Breves et al. (2021)	PSR extends the concept by describing the cross-situational relationships between media characters and media users (Schramm Citation2008).	media users	media characters		cross-situational relationships			
Yuan et al. (2021)	Parasocial relationship with an AR application refers to an emotional bonding experience associated with the users' perception of the interactivity and vividness features of AR technology.	users	AR application		emotional bonding experience…users' perception of the interactivity and vividness features of AR technology			

Appendix 5 (cont'd): The reviewed PSR definitions in the online environment

	The reviewed PSR definitions in the online environment							
Authors	Definitions	One of the parties participating in PSR	The other parties participating in PSR	The nature of PSR	The main domain characteristics of PSR	The process of PSR (from viewer's perspective)	The time when PSR can occur	The platform where PSR can occur
Yang and Ha (2021)	A parasocial relationship is defined as a pseudo friendship (Lee and Watkins, 2016) and psychological associations between an audience and a performer (Horton and Wohl, 1956).	audience	performer		pseudo friendship and psychological associations			
Tsfati et al. (2022)	Citizens' feelings of closeness and pseudo-friendships with politicians as similar to real-life relationships (Gabriel et al., 2018).	citizen	politicians		feelings of closeness and pseudo-friendship as similar to real-life relationships			

Appendix 5 (cont'd): The reviewed PSR definitions in the online environment

	The reviewed PSR definitions in the online environment							
Authors	Definitions	One of the parties participating in PSR	The other parties participating in PSR	The nature of PSR	The main domain characteristics of PSR	The process of PSR (from viewer's perspective)	The time when PSR can occur	The platform where PSR can occur
Balaban et al. (2022)	Users…represents a long-lasting relationship that could occur outside an exposure situation as a result of previous media exposure (Eyal & Dailey, 2012; Klimmt et al., 2006).	users			long-lasting relationship		as a result of previous media exposure, could occur outside an exposure situation	
Wahab et al. (2022)	PSR refers to followers' psychological association with SMCs, which drives them to establish a sense of familiarity and linkages (Zafar et al., 2020).	followers	SMCs		psychological association, a sense of familiarity and linkages			
Farivar et al. (2022)	Parasocial relationship is a bond-based attachment, in which followers consider that they are in a relationship with an influencer.	followers	influencer		bond-based attachment			
Lee and Park (2022)	An individual's perceived emotional intimacy with media personnel.	individual	media personnel		perceived emotional			

Appendix 5 (cont'd): The reviewed PSR definitions in the online environment

		The reviewed PSR definitions in the online environment							
Authors	Definitions	One of the parties participating in PSR	The other parties participating in PSR	The nature of PSR	The main domain characteristics of PSR	The process of PSR (from viewer's perspective)	The time when PSR can occur	The platform where PSR can occur
Sundermann and Munnukka (2022)	A parasocial relationship (PSR) is defined by an illusionary face-to-face relationship between a media performer and a media consumer (Horton and Wohl 1956).	media consumer	media performer		an illusionary face-to-face relationship			
Liao et al. (2022)	Perceived parasocial interaction refers to the extent to which an audience perceives a media performer as an intimate conversational partner (Dibble, Hartmann, and Rosaen 2016; Horton and Wohl 1956).	audience	media performer		intimate conversational partner			
Cheung et al. (2022)	Parasocial relationships are conceptualized as one-sided relationships that consumers develop with SMIs (Horton and Wohl, 1956).	consumers	SMIs		one-sided relationships			
Jacobson et al. (2022)	A parasocial relationship is a one-sided relationship that occurs between media users and people or characters who are influential on the media (Ballantine and Martin, 2005).	media users	people or characters who are influential on the media		a one-dided relationship			media
Noor et al. (2022)	the illusionary bond that viewers form with characters played by performers in media such as television and theater.	viewers	characters		illusionary bond			media such as television and theater

Appendix 5 (cont'd): The reviewed PSR definitions in the online environment

<table>
<tr><td colspan="9" align="center">The reviewed PSR definitions in the online environment</td></tr>
<tr>
<td>Authors</td>
<td>Definitions</td>
<td>One of the parties participating in PSR</td>
<td>The other parties participating in PSR</td>
<td>The nature of PSR</td>
<td>The main domain characteristics of PSR</td>
<td>The process of PSR (from viewer's perspective)</td>
<td>The time when PSR can occur</td>
<td>The platform where PSR can occur</td>
</tr>
<tr>
<td>Leite and Baptista (2022)</td>
<td>PSR is a long-term relationship that can last beyond media exposure (Giles, 2002; Schramm & Hartmann, 2008; Tukachinsky & Sangalang, 2016).</td>
<td></td>
<td></td>
<td></td>
<td>long-term relationship</td>
<td></td>
<td>beyond media exposure</td>
<td></td>
</tr>
<tr>
<td>Burnasheva and Suh (2022)</td>
<td>Parasocial relationships are one-sided, psychological links that individuals establish with celebrities through virtual media (Horton and Wohl, 1956; Rubin and Step, 2000).</td>
<td>individuals</td>
<td>celebrities</td>
<td></td>
<td>one-sided, psychological links</td>
<td></td>
<td></td>
<td>through virtual media</td>
</tr>
</table>

Appendix 6: Antecedents of PSR

Antecedents of PSR		
	Antecedents	**References**
Viewer-related factors	Amount of time spend on social media	Pressrove and Pardun (2016)
	Motivations	Yuan et al. (2016); Lee and Cho, 2020; Zafar et al. (2020)
	Need to belong	Escalas and Bettman (2017); Iannone et al. (2018)
	Empathy	Hwang and Zhang (2018)
	Self-esteem	Sun and Wu, 2012; Hwang and Zhang (2018)
	Security	Han and Yang (2018)
	Social anxiety	de Bérail et al. (2019)
	Audience participation	Munnukka et al. (2019)
	Wishful identification	Lim et al. (2020)
	Emotional engagement	Lim et al. (2020)
	Chronic ostracism	Iannone et al. (2018)
	Exposure	Utz et al. (2021); Sokolova and Perez (2021); Gabriel et al. (2018)
	Materialism	Sun and Wu (2012)
	Interest	Sun and Wu (2012)
	People contact	Hoffner and Cohen (2014)
	Life-quality	Bernhold and Metzger (2020)
	Friendship	Bernhold and Metzger (2020)
	Attachment anxiety	Bernhold and Metzger (2020)
	Self-disclosure	Chung and Cho (2017)
	Self-presence	Farivar et al. (2022)

Appendix 6 (cont'd): Antecedents of PSR

Antecedents of PSR		
	Antecedents	**References**
The other party-related factors	Attractiveness	Han and Yang (2018); Sokolova and Perez (2021); Yuan and Lou (2020); Reinikainen et al. (2021); Masuda et al. (2022)
	Similarity	Hu et al. (2020); Yuan and Lou (2020)
	Expertise	Yuan and Lou (2020)
	Identify distinctiveness	Hu et al. (2020)
	Identity prestige	Hu et al. (2020)
	Opinion leader	Quelhas-Brito et al. (2020)
	Features endorser	Yuan et al. (2021)
	Perceived human likeness	Whang and Im (2021)
	Trustworthiness	Yuan and Lou (2020)
	Influencer credibility	Yuan and Lou (2020)
	Endorser type	Agnihotri and Bhattacharya (2020)
	Influencer coolness	Reinikainen et al. (2021)
	Leverage	Yuan et al. (2021)
	Fashionable	Yuan et al. (2021)
	Creativity	Cheung et al. (2022)
	Affinity	Yuan et al. (2021)
	Social media celebrities	Wahab et al. (2022)
	Non-followers vs followers	Breves et al. (2021)
	Followers vs non-followers	Balaban et al. (2022)
	Attitude homophily	Noor et al. (2022)
	Influencers' intimate self-disclosure	Leite and Baptista (2022)

Appendix 6 (cont'd): Antecedents of PSR

Antecedents of PSR		
	Antecedents	**References**
Other factors	Features of purchasing platform	Yuan et al. (2021)
	Perceived usability of blog	Quelhas-Brito et al. (2020)
	Source credibility	Yuan et al. (2016)
	Attitude toward product placement	Dias et al. (2017)
	Design quality	Cheung et al. (2022)
	Following length	Farivar et al. (2022)
	Technology quality	Cheung et al. (2022)

Appendix 7: Consequences of PSR

Consequences of PSR		
	Consequences	**References**
Viewer-related factors	Satisfaction	Han and Yang (2018)
	Offline intention	Pressrove and Pardun (2016)
	Stereotypes of mental illness	Hoffner and Cohen (2014)
	Social distance	Hoffner and Cohen (2014)
	Loneliness	Bernhold (2019)
	Discouraging teen pregancy	Behm-Morawitz et al. (2019)
	Depressive symtoms	Bernhold and Metzger (2020)
	Belonging	Derrick et al. (2009)
	Self-serving motive	Aw and Chuah (2021)
	Flow experience	Yuan et al. (2021)
	Subjective well-being	Noor et al. (2022)

Appendix 7 (cont'd): Consequences of PSR

Consequences of PSR		
	Consequences	**References**
	Forgiveness to the celebrity transgression	Finsterwalder et al. (2017)
	Perceived credibility of the vlogger	Munnukka et al. (2019)
	Wishful identification	Hu et al. (2020)
	Repeated viewing	Lim et al. (2020)
	Intention to watch influencers' video	Sokolova and Perez (2021)
	Stickiness	Hu et al. (2020)
	Perceived credibility of the vlogger	Munnukka et al. (2019)
	Loyalty	Tsfati et al. (2022)
	Influencer credibility	Reinikainen et al. (2020); Balaban et al. (2022)
	Attitude to character	Gabriel et al. (2018)
The other party-related factors	Believing character's promises	Gabriel et al. (2018)
	Believing character's controversal statements	Gabriel et al. (2018)
	Influencer coolness	Reinikainen et al. (2021)
	Ronceptual persuasion knowledge	Breves et al. (2021)
	Identification	Wahab et al. (2022)
	Voting for the candidate	Tsfati et al. (2022)
	Social relationships	Tsiotsou (2016); Tsiotsou (2015)
	Voting behaviour	Gabriel et al. (2018)
	Communication accuracy	Lee and Park (2022)
	Communication credibility	Lee and Park (2022)
	Communication competence	Lee and Park (2022)
	Persuasive resistance	Breves et al. (2021)

Appendix 7 (cont'd): Consequences of PSR

Consequences of PSR		
	Consequences	**References**
Brand-related factors	Attitude to brand	Agnihotri and Bhattacharya (2020); Lee and Cho (2020);Yuan et al. (2016); Reinikainen et al. (2021); Balaban et al. (2022)
	Ad attitude	Lee and Cho (2020)
	Attitude toward product placement	Breves et al. (2021)
	Attitude toward branded content	Chen et al. (2021)
	Customer equity drivers	Yuan et al. (2016)
	Product attutude	Dias et al. (2017)
	Product interest	Yuan and Lou (2020)
	Evaluation	Whang and Im (2021); Utz et al. (2021)
	Self-brand connnection	Escalas and Bettman (2017)
	Value equity	Yuan et al. (2021)
	Brand equity	Yuan et al. (2021)
	Relationship equity	Yuan et al. (2021)
	Engagement with branded content	Chen et al. (2021)
	Problem engagement	Farivar et al. (2022)
	Brand engagement	Zhong et al. (2021)
	Online engagement	Pressrove and Pardun (2016)
	Consume	Cheung et al. (2022)
	Contribute	Cheung et al. (2022)
	Create	Cheung et al. (2022)
	Trust in branded content	Chen et al. (2021)
	Brand trust	Reinikainen et al. (2020)
	Source credibility	Sundermann and Munnukka (2022)

Appendix 7 (cont'd): Consequences of PSR

Consequences of PSR		
	Consequences	**References**
Brand-related factors	Source trustwothiness	Chung and Cho (2017)
	Continuance intention	Han and Yang (2018); Hwang et al. (2020)
	Youtube addiction	de Bérail et al. (2019)
	Electronic world-of-mouth	Hwang and Zhang (2018); Balaban et al. (2022)
	Purchase intention	Hwang and Zhang (2018); Farivar et al. (2021); Agnihotri and Bhattacharya (2020); Yang and Ha (2021); Wahab et al. (2022); Masuda et al. (2022); Leite and Baptista (2022); Breves et al. (2021); Balaban et al. (2022)
	Urge to buy	Zafar et al. (2020)
	Repeat purchase intention	Yuan et al. (2021)
	Impulse buying	Zafar et al. (2020)

Appendix 8: Interview guide

Semi-Structured Interview Guide

Developing a measurement of parasocial relationship in the online environment

Introduction
- Thank the interviewee for taking part.
- Briefly introduce myself (the researcher).
- Remind the interviewee briefly of the topic and the study's context.
- Ensure the interviewee that there are no right or wrong answers, and that as the researcher I am interested in the interviewee's opinion.
- Inform the interviewee that the interview may take up to 60 minutes (approximately).
- Ask the interviewee if they have any questions before start.
- Ask the interviewee for permission to record the conversation. **The interviews will be recorded for transcription, after which the recordings will be deleted.**
- Turn on the recording.
- Reassure the interviewee that the data is kept only for research purposes, and is confidential, and will be anonymous. Remind the interviewee that they have the right to withdraw anytime without providing any reasons to me as the researcher, and in that case any data provided by the interviewee will be deleted.

Questions:

Part 1: Warm-up questions

Q1: Can you tell me what video-based social media you use?
Probing: What do you like about this media site?

Part 2: Explore online users' parasocial relationship with influencers

Can you recall any influencers you follow on this media site and think of one of them?

Q2: Can you tell me about this influencer? (Influencer name/field)
Probing: Can you give a more detailed description of this influencer?

Q3: Do you visit this influencer's social media account? If you do, for what reason? How often?

Q4: What do these videos/contents mean to you?
Probing: How do you feel about the content of the video?

Q5: Some fans say that when they watch their favourite influencers' videos, they feel that the influencer is talking directly to them as if they are having a conversation. Have you experienced this yourself?
Probing: Do you have further examples of this?

Q6: Have you ever engaged or reacted to this influencer?
Probing: Can you give some examples of how you interact with this influencer? (like/comment/share with others).
Q7: Have you had real/direct interaction with this influencer outside of the online environment?
Probing: (If yes) Can you give a more detailed description of what happened?

Appendix 8 (cont'd): Interview guide continued

Part 3: I would now like to know how you developed this relationship with this influencer.

Q8: Do you remember the occasion when you first noticed this influencer?
Probing: Could you say something more about that?

Q9: What would you say was the reason that you decided to become one of the fans/followers of the influencer?
Probing: Can you give a more detailed description of what happened?

Q10: Has anything changed in your relationship with the influencer since you have become a (loyal) fan/follower?
Probing: Could you say something more about that?

Q11: Why do you keep following this influencer?
Probing: what does this mean to you?
Follow-up: What would make you stop following this influencer?

Q12: Can you tell me the instances when you wanted to do or did something to help this influencer?
Probing: Why did you want to help them?
What did you actually do when you helped this influencer?

Q13: In your opinion, how are fans influenced by their favourite influencers when it comes to buying influencer-endorsed products?
Probing: Have you ever purchased any products because this influencer endorsed them?

Part 4: The concept of parasocial relationship

Q14: In your own words, how would you describe your relationship with this influencer?

Q15: Some followers consider influencers they follow as their friends. Have you ever had the same feeling?
Follow-up: Do you think the relationship between you and this influencer is different from the relationship between you and your real-life friends/family members?
Probing: Could you say something more about that?

Finally, we conclude this interview by asking a few questions about you.

Closure

• Seek the demographic information upon permission, including name, age, gender, years of internet use, years of social media use, and frequency of using social media (daily).

• Thank the interviewee once again.

• Turn the recording off.

Appendix 9: Participant information sheet

University of Glasgow

College of Social Sciences

Participant Information Sheet

Study title: An exploration of the influence of online parasocial interaction and parasocial relationship on consumer behaviour

Researcher: Jie Sheng
Student ID:
School & Subject: Adam Smith Business School & Marketing Cluster
PGR Programme Title: Management
Supervisors:
Dr. Alena Kostyk
Email: Alena.Kostyk@glasgow.ac.uk
Dr. Kalliopi Chatzipanagiotou
Email: Kalliopi.Chatzipanagiotou@glasgow.ac.uk

You are being invited to take part in a research study. Before you decide to take part, it is important for you to understand why the research is being done and what it will involve. Please read the following information carefully and discuss it with others if you wish. Ask the researchers if there is anything that is not clear or if you would like more information. Take some time to decide whether or not you wish to take part.

Thank you for reading this.

FAQs

1. **What is the purpose of the study?**

The purpose of this research is to investigate how consumers perceived the direct behaviour from the influencers and their long-term relationships with influencer influence online consumer behaviours. This research could benefit for participants in terms of helping participants reflect on their online behaviour and re-evaluate the impact of social networking on participants' lives. At the same time, participants will evaluate their relationship with online celebrities and influencers, and benefit for participants assessing the impact of online celebrities and influencers on their well-being and behaviours.

2. **Why have I been chosen?**

You are invited to participate in this research project because the researcher is interested in knowing social media users' long-term relationships with influencers. You, as an online and social media user,

Appendix 9 (cont'd): Participant information sheet

are the best person to participate in this research. Approximately 20 other participants will be recruited for the study.

3. Do I have to take part?

Your participation is entirely voluntary: if you decide to take part and later change your mind, you are free to withdraw from the project at any time without prejudice, for example, to your job, studies or well-being and without providing a reason. In addition, your relationship with the researcher will not be affected by your decision to participate or not. There are no right or wrong answers. In the case of respondent withdrawal, the data provided by the respondent will be deleted.

4. What will happen if I take part?

The interview will take approximately 45 minutes. Interviews will take place over Zoom. Interviews will only be audio-recorded with participants' consent. Before the interview, the researchers will ask the interviewee for permission to record the conversation (audio-recorded) and then turn on the recording. During the interview, you will be asked a series of open-ended questions about your experience with social media influencers. The discussion will be organized in a friendly, semi-structured fashion and with some probe questions. The interview will NOT be video-recorded.

The interview will be audio-recorded. The audio file will be stored securely for the purposes of transcribing. Once the transcript of your interview is completed, the researchers will delete the audio file. The transcript will not be stored together with any of your personal data, there will be no personal identifiers (e.g., name) in the transcript file.

You will not be at physical or psychological risk and should experience no discomfort resulting from the research study methods.

5. Will my taking part in this study be kept confidential?

Confidentiality will be maintained. All data will be collected anonymously, confidentially, and stored securely. Only the researcher will have access to the research materials, which will be kept on a password protected computer.

Only basic personal data will be collected – specifically, your first name and an email address – for the purposes of scheduling the Zoom interview. This information will then be discarded after the interview is completed. The transcript of your interview will not be stored together with any of your personal data, there will be no personal identifiers (e.g., name) in the transcript file.

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/agencies.

Appendix 9 (cont'd): Participant information sheet

6. What will happen to the results of the research study?

The results of this research will be used to in PhD thesis in the University of Glasgow, future conference papers, or future journal publications, both print and online. Full confidentiality of your information will be kept by the researchers, that is, by all people helping with the study. Any information provided by you is only for academic use and will be kept securely: research data will be openly available. Interview transcripts CONTAINING NO PERSONAL INFORMATION of the participants will be stored electronically on a password-protected computer in encrypted files for 10 years after the completion of the research project. Participants should aware that data may be shared/archived or re-used, including PhD thesis, future conference papers, future journal publications, both print and online. Copy of this summary of results will be presented to you directly if you wish to request it (contact email: @student.gla.ac.uk).

7. Who has reviewed the study?

This project has been considered and approved by the College Research Ethics Committee.

8. Contact for Further information

If you have any complaints about any aspect of the project, the way it is being conducted or any questions about your rights as a research participant, then you may contact the researcher Jie Sheng at   @student.gla.ac.uk or the supervisor Dr Alena Kostyk at Alena.Kostyk@glasgow.ac.uk and Dr Kalliopi Chatzipanagiotou at Kalliopi.Chatzipanagiotou@glasgow.ac.uk.

In addition, *if you have any complaints regarding the conduct of this research project, you can also contact the College of Social Sciences Acting Lead for Ethical Review, Dr Benjamin Franks at socsci-ethics-lead@glasgow.ac.uk.*

_____End of Participant Information Sheet_____

Appendix 10: Consent form

University of Glasgow

College of Social Sciences

Consent Form

Title of Project: An exploration of the influence of online parasocial interaction and parasocial relationship on consumer behaviour
Name of Researcher: Jie Sheng

Please tick as appropriate

Yes ☐ No ☐   I confirm that I have read and understood the Participant Information Sheet for the above study and have had the opportunity to ask questions.

Yes ☐ No ☐   I confirm that I am 18 years old or over.

Yes ☐ No ☐   I understand that my participation is voluntary and that I am free to withdraw at any time, without giving any reason.

Yes ☐ No ☐   I consent to interviews being audio-recorded

Yes ☐ No ☐   I acknowledge that participants will be referred to by pseudonym.

I agree that:

Yes ☐ No ☐   All names and other material likely to identify individuals will be anonymised.

Yes ☐ No ☐   The material will be treated as confidential and kept in secure storage at all times.

Yes ☐ No ☐   The material may be used in PhD thesis, future conference papers, future journal publications, both print and online.

Yes ☐ No ☐   Other authenticated researchers will have access to this data only if they agree to preserve the confidentiality of the information as requested in this form.

Yes ☐ No ☐   Other authenticated researchers may use my words in publications, reports, web pages, and other research outputs, only if they agree to preserve the confidentiality of the information as requested in this form

Yes ☐ No ☐   I acknowledge the provision of a Privacy Notice in relation to this research project.

I agree to take part in this research study   ☐
I do not agree to take part in this research study   ☐

Name of Participant .... Signature ....

Date ....

Name of Researcher ....Jie Sheng...........................Signature ....Jie Sheng...............................

Date ....

Appendix 11: Interviewee profile

Interviewee list =25											
Name	Gender	Age	Occupation	Years of use Internet	Years of use social media	Time spends on social media (Daily)	Used video-based social media	Favourite Influencer(s)	Influencer field	Way of contact	Interview Duration
Interviewee 1	Female	30	Working full-time	20	13	4 hours	Bilibili	Pamela Reif	Fitness	Zoom	40 min
Interviewee 2	Male	26	Working part-time	15	8	3 hours	Bilibili TikTok	Silence Wang	Music	Zoom	38min
Interviewee 3	Female	28	Student	16	16	3 hours	Bilibili Weibo	Xiaochao Yuanzhang Oh_Emma	Entertainm ent; Lifestyle	Zoom	43min
Interviewee 4	Female	24	Student	10	10	6 hours	Bilibili Weibo	Xianxunheboluo you Kim Seokjin	Thought leaders	Zoom	45min
Interviewee 5	Male	38	Student	15	15	4 hours	TikTok YouTube Instagram	Jeremy Fragrance	Perfume	Zoom	45min
Interviewee 6	Female	31	Working full-time	23	12	1 hour	LinkedIn	Simon Sinek Taj Lavani	Entreprene ur	Zoom	32min
Interviewee 7	Female	26	Working full-time	10	10	5 hours	TikTok, Bilibili Weibo	Jiaqi Li	Beauty	Zoom	40min
Interviewee 8	Male	27	Student	20	10	2 hours	YouTube	Sam Chui The Detail Geek	Entertainm ent; Leisure	Zoom	39min

Appendix 11 (cont'd): Interviewee profile

Interviewee list =25											
Name	Gender	Age	Occupation	Years of use Internet	Years of use social media	Time spends on social media (Daily)	Used video-based social media	Favourite Influencer(s)	Influencer field	Way of contact	Interview Duration
Interviewee 9	Female	24	Student	10	10	2 hours	YouTube Bilibili TikTok	Oh_Emma Daoyueshe Jianyuerumian	Beauty; Lifestyle; Entertainment	Zoom	45min
interviewee 10	Female	27	Student	20	19	3-4 hours	YouTube; Bilibili; Weibo	Wulie; Chizhihuoyan; E_volution	Art; Video games	Zoom	32 min
Interviewee 11	Female	30	Student	18	10	1 hour	WeChat moments	Yigongzi Ouyangchunxiao Jiaqi LI	History; Fitness; Beauty	Zoom	31min
Interviewee 12	Female	29	Working full-time	20	12	2-3 hours	WeChat moments; Bilibili; TikTok	Liurun; Cathy Chen	Management; Marketing	Zoom	29 min
Interviewee 13	Female	35	Working full-time	24	17	45 min	TikTok, Instagram	Jillian Harris; Abbey Sharp	Lifestyle; Food and nutrition	Zoom	34 min
Interviewee 14	Female	29	Student	19	11	4 hours	Instagram; Facebook	Tessbegg; Nimai Delogado; Sherylsandberg	Vegan; Fitness; Female leader	Zoom	30min
Interviewee 15	Female	37	Working part-time	20	15	1-2 hours	YouTube	Lisa Eldrige; Claire Dim; Charlotte Tilburry	Makeup	Zoom	28min
Interviewee 16	Male	25	Student	15	13	5 hours	Instagram; TikTok; YouTube	Farahrdara; Raditya Dika	Model; Writer	Zoom	23min

Appendix 11 (cont'd): Interviewee profile

					Interviewee list =25						
Name	Gender	Age	Occupation	Years of use Internet	Years of use social media	Time spends on social media (Daily)	Used video-based social media	Favourite Influencer(s)	Influencer field	Way of contact	Interview Duration
Interviewee 17	Female	32	Student	24	15	A lot	Instagram	Vimoh; AndheriWestShit Posting; fraz_invsoutnutrition	Opinion leader; Food	Zoom	28min
Interviewee 18	Female	30	Working full-time	17	14	1-2 hours	Instagram; TikTok	Xenia Adonts; Carin Olsson (@parisinfourmonths); Amanda du Pont	Lifestyle; Sustainable fashion	Zoom	30min
Interviewee 19	Male	45	Working full-time	27	21	1 hour	Instagram; TikTok	JK Rowling	Cook; Writer	Zoom	26min
Interviewee 20	Male	42	Working full-time	20	Over 10	2-3 hours	Instagram TikTok	Courtney Act Rupaul	Drag queens	Zoom	15min
Interviewee 21	Male	26	Working full-time	16	14	2-3 hours	TikTok; Bilibili	Hearthstone Valila; LOL DYS Tianyi Luo	Game; AI singer	Zoom	24min
Interviewee 22	Female	26	Working full-time	14	14	1-2 hours	Instagram	Sophie Hinchliffe	Home cleaning	Zoom	25min
interviewee 23	Female	23	Student	13	Over 10	A lot	Instagram; YouTube	Jipu Xin	Makeup	Zoom	26min

Appendix 11 (cont'd): Interviewee profile

	Interviewee list =25										
Name	Gender	Age	Occupation	Years of use Internet	Years of use social media	Time spends on social media (Daily)	Used video-based social media	Favourite Influencer(s)	Influencer field	Way of contact	Interview Duration
Interviewee 24	Male	26	Student	20	17	5 hours	YouTube; Bilibili	Andaxiong Greg Doucette	Psychotherapist; Fitness	Zoom	29min
Interviewee 25	Male	23	Student	Over 10	Over 10	1-2 hours	YouTube; Instagram	Toress Pit Messi Marques	Lifestyle; Football; Technology	Zoom	21min

Appendix 12: Thematic analysis of the interview

No	Theme	Sub-theme	Initial Code
		Thematic analysis of the interview		
1	Time	Accumulation of time	Accumulation of time
		Habit	Become habit
		Interaction frequency	Few visit
			Visit every day
			Visit every week
2	Psychological closeness	Emotion	Influencer preference
			Positive attitude to influencer
			Respect to influencers
			Get support from influencer
			Worship
			Emotional attachment
			Like influencer
			Love influencer
		Motivation	Want to have fun
			Want to find interesting things
			Want to relax
			Get discount
			Want to get diverse information
			Want to get latest information
			Want to get useful information
			Want to learn new knowledge
			Want to search information
			Want to connect with friends
			Want to get connection with home country
			Want to get connection with the world
			Want to see influencer undated posts
		Belongingness	Same character
			Same interest
			Same opinion
			Common people
			Similarity
			Same background
			Same life journey

Appendix 12 (cont'd): Thematic analysis of the interview

No	Theme	Sub-theme	Initial Code
header: **Thematic analysis of the interview**			
3	Value	Hedonic value	Enjoyable
			Escape
			Fun
			Funny
			Happiness
			Interesting
			Joy
			Kill time
			Relax
		Utilitarian Value	Convenience to purchase products
			Get discount information
			Get influencer personal information
			Get influencer update information
			Get influencer work-related information
			Get product feedback
			Get useful information
			Insights
			Inspiration
			Learn new knowledge
		Symbolic value	Reflect myself
			Resonance
			Ideal self

Appendix 12 (cont'd): Thematic analysis of the interview

Thematic analysis of the interview			
No	Theme	Sub-theme	Initial Code
4	Inequality	Influencer efforts to establish relationship	Care needs
			Update frequency
			Influencer self-exposure
		Follow influencer	Follow influencer
		Support influencer	Attend offline events
			Go to airport
			Create content
			Intention to support
			Let more people know this influencer
			Let other people follow this influencer
			Participate online campaign
			Become more popular and famous
			Purchase album
			Reward
			Rich
			Support job
			Support life
			Voice support
		Engagement with influencers online	Cognitive engagement
			Behavioural engagement
			Two-way engagement online
		Interest to influencer	Want to know more about the influencer

Appendix 12 (cont'd): Thematic analysis of the interview

No	Theme	Sub-theme	Initial Code
		Thematic analysis of the interview	
5	Influential	Influencer-related influential	Tolerant of different opinion
			Real interaction with influencers
			Offline training
			Become real-life friend
		Brand-related influential	Brand preference
			Interest to influencer-created products
			Positive attitude to product
			Purchase intention
			Purchase products
			Trust brand
			Try the brand
6	Connection	Connection	Connection
		Bonds	Bonds
		Relate	Relate
		Relationship	Relationship

Appendix 13: Questionnaire

University of Glasgow | Adam Smith Business School

Study title: An exploration of the influence of online parasocial interaction and parasocial relationship on consumer behaviour

You are being invited to take part in a research study. Before you decide whether to take part, it is important that you to understand why the research is being done and what it will involve. Please take time to read the following information. Ask us if there is anything that is not clear or if you would like more information. Take time to decide whether or not you wish to take part. Thank you for reading this.

1. What is the purpose of the study?

The purpose of this research is to investigate how parasocial interaction and parasocial relationship influence online consumer behaviours.

2. Do I have to take part?

Participation in this study is completely voluntary and you are free to stop participating at any time. In the case of respondent withdrawal, the data provided by the respondent will be deleted.

3. What does taking part involve?

You will be provided with a link to an online questionnaire. You are then asked to complete the questions to your best knowledge. There are no right or wrong answers. The questionnaire will take approx. 7 minutes. After completion, you are asked to return/submit the questionnaire. Answering "Yes" to the consent question, returning of the questionnaire, and clicking on the "Proceed to the Next Page" icon on the first page imply consent.

4. Will my taking part in this study be kept confidential?

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 of Glasgow may be obliged to contact relevant statutory bodies/agencies.

5. What will happen to the results of the research study?

The results of this research will be used to in PhD thesis in the University of Glasgow, future conference papers, or future journal publications.

6. Who has reviewed the study?

This project has been considered and approved by the College Research Ethics Committee.
If you have any complaints regarding the conduct of this research project, you can also contact the College of Social Sciences Lead for Ethical Review, Dr Susan Batchelor at socsci-ethics-lead@glasgow.ac.uk.

Researcher and Supervisor's Contact Details for Further Information:
Researcher: Jie Sheng
E-mail address: @student.gla.ac.uk
Supervisor: Dr. Alena Kostyk, Senior Lecturer in Marketing
E-mail: Alena.Kostyk@glasgow.ac.uk
Supervisor: Dr. Kalliopi Chatzipanagiotou, Senior Lecturer in Marketing

Appendix 13 (cont'd): Questionnaire

E-mail: Kalliopi.Chatzipanagiotou@glasgow.ac.uk

- -

Q1. Please indicate whether you consent to take part in this study:

[ ] I agree to take part in this research study

[ ] I do not agree to take part in this research study (this will terminate the study)

- -

Please note that there are checks in this survey to assess whether you are reading the survey questions attentively.

Q2. What social media platform do you use the most in general?

[ ] Instagram

[ ] YouTube

[ ] Facebook

[ ] TikTok

[ ] Twitter

[ ] Reddit

[ ] Other, please indicate

- -

Q3. Please write below **ONE** name of your favourite **social media influencer** who promotes brands on social media platforms.

In this research, social media influencer refers to people who actively gain people's attention on multiple social media platforms and could influence their fans' behaviour in a particular field by generating texts, images, videos and live streaming.

- -

Q4. Please choose the type of content this influencer typically posts:
[ ] Fashion
[ ] Health & Wellness
[ ] Beauty
[ ] Lifestyle
[ ] Food
[ ] Pet & Animal
[ ] Sports & Fitness
[ ] Travel
[ ] Parenting
[ ] Gaming
[ ] Technology

Appendix 13 (cont'd): Questionnaire

[   ] Entertainment
[   ] Entrepreneurship
[   ] Education
[   ] News
[   ] Book
[   ] Science
[   ] Chess
[   ] Politics
[   ] Cleaning
[   ] Finance
[   ] LGBTQ
[   ] Watch
[   ] Art & Music
[   ] Other, please indicate

- -

Q5. How long have you been following this influencer?

[   ] No more than three months
[   ] Three months to six months
[   ] Six months to one year
[   ] One to two years
[   ] Two to five years
[   ] More than five years

- -

Q6. Please write below a name of ONE brand that this influencer promotes: [ ]

- -

Part two

Q7. How often do you view the messages (e.g., text, picture, or video) posted by your favourite influencer on social media?

(Su et al.,2015)

[   ] Less than once per month
[   ] Once per month
[   ] Several time per month
[   ] Once per week
[   ] Several time per week
[   ] Once per day
[   ] Several times per day

Appendix 13 (cont'd): Questionnaire

- -

Q8. Please answer the following questions thinking of this influencer.

Indicate to what extent you agree or disagree with the following statements.

There are no wrong or right answers; therefore, please choose the response you personally find the most appropriate.

When I am watching this influencer's social media content,

PSI (Hartmann and Goldhoorn, 2011)	1	2	3	4	5	6	7
I have the feeling that this influencer is aware of me.							
I have the feeling that this influencer knows I am there.							
I have the feeling that this influencer knows I am aware of them.							
I have the feeling that this influencer knows I pay attention to them.							
I have the feeling that this influencer knows that I react to them.							
I have the feeling that this influencer reacts to what I say or do.							

Q9. Please answer the following questions thinking of this influencer.

Indicate to what extent you agree or disagree with the following statements.

There are no wrong or right answers; therefore, please choose the response you personally find the most appropriate.

When I am watching this influencer's social media content,

Expertise (Ladhari et al., 2020)	1	2	3	4	5	6	7
This influencer is an expert in topics related to their content.							
This influencer is experienced in topics related to their content.							
This influencer is knowledgeable in topics related to their content.							
This influencer is qualified in topics related to their content.							

Appendix 13 (cont'd): Questionnaire

Q10. Please answer the following questions thinking of this influencer.

There are no wrong or right answers; therefore, please choose the response you personally find the most appropriate.

Please describe your overall evaluation of this influencer's social media content:

Perceived utilitarian value (Lou and Yuan, 2019)	1	2	3	4	5	6	7	
Ineffective								Effective
Unhelpful								Helpful
Not functional								Functional
Unnecessary								Necessary
Impractical								Practical

Q11. Please answer the following questions thinking of this influencer.

There are no wrong or right answers; therefore, please choose the response you personally find the most appropriate.

Please describe your overall evaluation of this influencer's social media content:

Perceived utilitarian value (Lou and Yuan, 2019)	1	2	3	4	5	6	7	
Not fun								Fun
Dull								Exciting
Not delightful								Delightful
Not thrilling								Thrilling
Unenjoyable								Enjoyable

Q12. Please answer the following questions thinking of this influencer.

Indicate to what extent you agree or disagree with the following statements.

There are no wrong or right answers; therefore, please choose the response you personally find the most appropriate.

Appendix 13 (cont'd): Questionnaire

Perceived authenticity (Shoenberger and Kim, 2022)	1	2	3	4	5	6	7
This influencer is real.							
This influencer is authentic.							
This influencer is truthful.							

Q13. Please answer the following questions thinking of this influencer.

Indicate to what extent you agree or disagree with the following statements.

There are no wrong or right answers; therefore, please choose the response you personally find the most appropriate.

Trust (Alboqami, 2023)	1	2	3	4	5	6	7
This influencer can be relied upon on their content.							
I believe what this influencer says and that they would not try to take advantage of the followers.							
This influencer is straightforward and honest even though their self-interests are involved.							
This influencer would not tell a lie even if they could gain by it.							
This is a quality check. Please do not answer this question if you are reading this.							

Q14. Please answer the following questions thinking of this influencer.

Indicate to what extent you agree or disagree with the following statements.

There are no wrong or right answers; therefore, please choose the response you personally find the most appropriate.

PSR	1	2	3	4	5	6	7
This influencer makes me feel comfortable, as if I am with family.							
I think I understand this influencer quite well.							
I treat this influencer as a friend.							
I want to support this influencer.							
I would like to continue engaging with this influencer.							

Appendix 13 (cont'd): Questionnaire

If this influencer appeared on a different media platform, I would watch it.						
I would like to be friends with this influencer in real life.						
I would like to meet this influencer in person.						

- -

Part three – PSR outcomes

Q15. Please answer the following questions thinking of this influencer.

Indicate to what extent you agree or disagree with the following statements.

There are no wrong or right answers; therefore, please choose the response you personally find the most appropriate.

Brand attitude (Torres et al., 2019)	1	2	3	4	5	6	7
This brand is good.							
This brand is pleasant.							
This brand is favourable.							

Q16. Please answer the following question thinking of this influencer and the brand.

There are no wrong or right answers; therefore, please choose the response you personally find the most appropriate.

Purchase intention (Gong and Li, 2017)	1	2	3	4	5	6	7
How likely would you be to purchase this brand endorsed by this influencer?							

Q17. Please answer the following questions thinking of this influencer.

Indicate to what extent you agree or disagree with the following statements.

There are no wrong or right answers; therefore, please choose the response you personally find the most appropriate.

Intention to support (Kim and Drumwright, 2016)	1	2	3	4	5	6	7

Appendix 13 (cont'd): Questionnaire

I will support this influencer to see they succeed.							
I will support this influencer because I want to.							
This influencer's success will make me happy.							
I will support this influencer if they need help from fans like me.							
I feel good when I support this influencer.							
I pay attention to this influencer's needs.							
I care about this influencer's success.							

- -

Part four – ID

Please enter your Prolific ID:

Appendix 14: Pre-screen study questions

No.	Question	Answer
	Pre-screen study questions	
1	Do you consent to participant this study?	Yes/No
2	Are you a social media user?	Yes/No
3	Do you follow influencers on social media?	Yes/No
4	Have you been following some influencers on social media for more than three months?	Yes/No
5	Are you still watching these influencers' updates?	Yes/No

Appendix 15: PSR scale items initial pool

No.	Scale items	Source
PSR scale items initial pool	
1	I look forward to seeing the other party's updates.	Sokolova and Perez (2021)
2	I want to learn more about the other party.	Iannone et al. (2018)
3	If the other party appeared on a different media platform, I would watch it.	Escalas and Bettman (2017)
4	I miss seeing the other party when they do not post an update.	Agnihotri and Bhattacharya (2020)
5	I have the feeling that I know the other party very well.	Utz et al. (2021)
6	I can feel the other party's emotions in certain situations.	Chung and Cho (2017)
7	I think I understand the other party quite well.	Chung and Cho (2017)
8	I treat the other party as a friend.	Richards and Calvert (2015)
9	The other party makes me feel comfortable, as if I am with family.	Han and Yang (2018)
10	The other party reminds me of myself.	Chung and Cho (2017)
11	I would like to meet the other party in person.	Hu et al. (2020)
12	I would like to follow what the other party is saying and doing.	Escalas and Bettman (2017)
13	I feel fascinated by the other party.	Zafar et al. (2020)
14	I feel sorry for the other party when they make a mistake.	Escalas and Bettman (2017)
15	I can rely on information I get from the other party.	Hwang and Zhang (2018)
16	When the other party shows me how they feel about something, it helps me make up my own mind about the issue.	Munnukka et al. (2019)
17	I would like to be friends with the other party in real life.	Interview
18	I want to support the other party.	Interview
19	I would like to continue engaging with the other party.	Interview
20	I feel connected with the other party.	Interview
21	I feel close to the other party.	Interview
22	I am emotionally attached to the other party.	Interview
23	I worship the other party.	Interview
24	The other party is similar to me.	Interview
25	The other party reflects my ideal-self.	Interview

Appendix 15 (cont'd): PSR scale items initial pool

	PSR scale items initial pool	
No.	Scale items	Source
26	I know the other party cares about me like family.	Interview
27	If given a chance, I would give virtual money to the other party.	Interview
28	I can tolerate the other party's different opinion.	Interview
29	The other party influenced my decisions.	Interview
30	I think I have a distance relationship with the other party.	Interview
31	I regard my connection with the other party as private.	Interview
32	I can learn new information from the other party.	Interview
33	I can get support from the other party.	Interview
34	I can get encouragement from the other party.	Interview
35	It is fun for me to watch or listen to the other party.	Interview
36	I prefer to see this other party as opposed to others.	Interview
37	I like to create content about the other party.	Interview
38	I want the other party become more popular.	Interview
39	I would like to purchase things created by the other party.	Interview
40	The other party resonates with me.	Interview

Appendix 16: Experts survey

Dear Professor xxx,

I hope that this email finds you well.

My name is Jie Sheng, and I am a doctoral researcher at the University of Glasgow, Scotland, working under the supervision of Dr. Alena Kostyk and Dr. Kalliopi Chatzipanagiotou.

My PhD focuses on how online parasocial interactions and parasocial relationships influence consumer behaviour. As no appropriate parasocial relationship scale could be identified in the existing literature, I am developing one.

I am contacting you to ask for your help. I hope that as an expert in the field, you can help me develop an appropriate scale for the core construct of my thesis, parasocial relationship. Your response will be of great value in developing an appropriate scale to formally measure parasocial relationship.

If you choose to participate in the study, you will be invited to answer a few questions about the completeness and clarity of the definition of parasocial relationship, and the scale items that intend to measure it. The survey takes approximately 15 minutes to complete and has been approved by the Ethics board at the University of Glasgow.

Link to the survey: https://uofg.qualtrics.com/jfe/form/SV_3lwyovToTgvp3ue

I thank you in advance for your kind help!

Kind regards,
Jie

Appendix 17: Experts comments about PSR working definition

No.	Comments
Experts' comments about PSR working definition	
1	I did not find it particularly clear. It does not indicate explicitly that the exposure is to the other party, and it doesn't indicate explicitly that the value is solely to the focal individual. The definition also does not address potentially different motivations/perceptions of the connection. For example, there is no distinction between benefits accruing to the indivdual from other signaling (i.e., describing the other as in a relationship with the individual to the individual's friends) versus self-signaling (building up one's self-perception/self-worth by convincing oneself of the relationship).
2	Psychological connection might be, I am not sure, a little bit narrow, can it cover all the cases?
3	Very convoluted and incomplete.
4	Does the repeated exposure need to be only through media or technology? As long as the other party is completely unaware of the other's existence it still is a parasocial relationship.
5	What is "valuable"? Does it have to be "unilaterally developed"? There is debate in the field over this idea. What's the difference between "media" and "technology"? Overall, I think this definition lacks the necessary specificity.

Appendix 18: The summary of PSR scale items

No.	Dimensions	Scale items	Source	Reason for deletion
		The summary of PSR Scale Items		
1	Intimacy	I have the feeling that I know the other party very well.	Utz et al. (2021)	
2		I think I understand the other party quite well.	Chung and Cho (2017)	
3		The other party makes me feel comfortable, as if I am with family.	Han and Yang (2018)	
4	Relationship maintenance	I want to support the other party.	Interview	
5		I would like to continue engaging with the other party.	Interview	
6		If the other party appeared on a different media platform, I would watch it.	Escalas and Bettman (2017)	
7	Real-life relationship intention	I would like to be friends with the other party in real life.	Interview	
8		I would like to meet the other party in person.	Hu et al. (2020)	
9		I look forward to seeing the other party's updates.	Sokolova and Perez (2021)	Deleted - First EFA
10		I am emotionally attached to the other party.	Interview	Deleted - First EFA
11		I want to learn more about the other party.	Iannone et al. (2018)	Deleted - First EFA
12		I feel close to the other party.	Interview	Deleted - First EFA
13		I worship the other party.	Interview	Deleted - First EFA
14		I treat the other party as a friend.	Richards and Calvert (2015)	Deleted - First EFA
15		I miss seeing the other party when they do not post an update.	Agnihotri and Bhattacharya (2020)	Deleted - First EFA

Appendix 18 (cont'd): The summary of PSR scale items

		The summary of PSR Scale Items		
No.	**Dimensions**	**Scale items**	**Source**	**Reason for deletion**
16		I would like to follow what the other party is saying and doing.	Escalas and Bettman (2017)	Deleted - First EFA
17		It is fun for me to watch or listen to the other party.	Interview	Deleted - First EFA
18		I can feel the other party's emotions in certain situations.	Chung and Cho (2017)	Deleted - Second EFA
19		I feel connected with the other party.	Interview	Deleted - Second EFA
20		The other party resonates with me.	Interview	Deleted - Second EFA
21		I prefer to see this other party as opposed to others.	Interview	Deleted - Experts
22		I like to create content about the other party.	Interview	Deleted - Experts
23		I want the other party become more popular.	Interview	Deleted - Experts
24		I would like to purchase things created by the other party.	Interview	Deleted - Experts
25		I feel fascinated by the other party.	Zafar et al. (2020)	Deleted - Experts
26		I feel sorry for the other party when they make a mistake.	Escalas and Bettman (2017)	Deleted - Experts
27		I can rely on information I get from the other party.	Hwang and Zhang (2018)	Deleted - Experts
28		I can learn new information from the other party.	Interview	Deleted - Experts
29		I can get support from the other party.	Interview	Deleted - Experts

Appendix 18 (cont'd): The summary of PSR scale items

No.	Dimensions	Scale items	Source	Reason for deletion
The summary of PSR Scale Items				
30		I can get encouragement from the other party.	Interview	Deleted - Experts
31		The other party reminds me of myself.	Chung and Cho (2017)	Deleted - Experts
32		The other party reflects my ideal-self.	Interview	Deleted - Experts
33		I know the other party cares about me like family.	Interview	Deleted - Experts
34		If given a chance, I would give virtual money to the other party.	Interview	Deleted - Experts
35		I can tolerate the other party's different opinion.	Interview	Deleted - Experts
36		The other party influenced my decisions.	Interview	Deleted - Experts
37		I think I have a distance relationship with the other party.	Interview	Deleted - Experts
38		I regard my connection with the other party as private.	Interview	Deleted - Experts
39		When the other party shows me how they feel about something, it helps me make up my own mind about the issue.	Munnukka et al. (2019)	Deleted - Experts
40		The other party is similar to me.	Interview	Deleted - Experts

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