

Curtin Business School

School of Marketing

Tendency towards the Fear of Missing Out

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STATEMENT OF ORIGINAL AUTHORSHIP

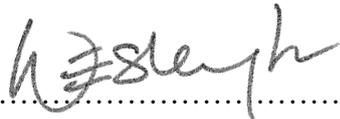
Declaration

To the best of my knowledge and belief, this thesis contains no material previously published by any other person except where due acknowledgment has been made.

This thesis contains no material which has been accepted for the award of any other degree or diploma in any university.

The research presented and reported in this thesis was conducted in accordance with the National Health and Medical Research Council National Statement on Ethical Conduct in Human Research (2007) – updated March 2014. The proposed research study received human research ethics approval from the Curtin University Human Research Ethics Committee (EC00262), Approval Number # SOM2014075

Signature:

A handwritten signature in black ink, appearing to read 'H. Z. Singh', is written over a dotted line.

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ABSTRACT

The purpose of this research is to extend the current body of literature pertaining to the 'Fear of Missing Out' (FOMO) within a luxury branding context. Specifically, the research aims to investigate the effects of FOMO on consumer behaviour. The study adopted a rigorous theory building process to conceptualise FOMO as a general personality trait that varied across different individuals, and demonstrated how this trait influenced consumption behaviour. Subsequently, this led to the development and validation of a uni-dimensional 'Tendency towards the Fear of Missing Out' (T-FOMO) scale, which built on the existing FOMO scale (Przybylski et al. 2013). The T-FOMO scale which is more relevant and suitable for use in a marketing context.

A theoretically-driven research model was developed to empirically test the impact of T-FOMO on two different scarcity messages, namely, limited quantity scarcity and limited time scarcity. This was done across two product categories, namely, private and public goods. Moreover, the context of the study was restricted to limited edition aspirational luxury products. The research model consisted of T-FOMO and other related constructs such as desire for uniqueness, attitude toward the advertisement, purchase intention, consumer susceptibility towards interpersonal influence and inferences of manipulative intent. These constructs were incorporated into the research model to test the effects FOMO has on consumer behaviour.

This research utilised a two by two factorial experimental design (type of scarcity message: limited quantity scarcity and limited time scarcity and type of product category: public and private). This resulted in six studies that were used to examine the effects of FOMO on consumer attitudes and purchase intentions. A total of 936 useable responses were collected for the study. For the scale development, the process involved a combination of statistical analysis techniques which were used to generate, purify and validate the scale items. The key ones employed were Exploratory Factor Analysis (EFA) and Confirmatory Factor Analysis (CFA). To investigate the hypothesised relationships for the main study, the key statistical techniques used were Structured Equation Modelling (SEM), Hierarchical Moderated regression (HRM) and Mediation Analysis (MA).

The findings of the study found further evidence that the use of the 'limited edition' label is an effective marketing communication strategy. More importantly, the findings identified that the use of explicitly expressed scarcity messages in the advertisement were found to be effective

in enhancing the perceived value of the advertised limited edition product. Furthermore, this finding also proved that the use of scarcity cues was effective in generating favourable attitudes and purchase intentions towards the advertised product for FOMO consumers across the majority of the studies. Additionally, the findings of the study revealed that individuals with the FOMO trait responded differently, depending on the type of scarcity message and product type.

Finally, these findings provide some key theoretical, methodological and managerial contributions. Firstly, these contributions are pertinent for researchers who want to further investigate the effects of FOMO in other marketing contexts. Secondly, these insights will be useful for brand managers when formulating their communications strategies to appeal to the FOMO consumer. Thirdly, the findings also provide strategies for product development and launches.

Key words: Fear of Missing Out, Scarcity Messages, Aspirational Luxury Brands, Public and Private Goods, Scale Development, Attitudes, Purchase Intentions

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1 INTRODUCTION

1.1 HUMAN EVOLUTION AND FOMO

The ‘Fear of Missing Out,’ or popularly referred to as FOMO, is a contemporary phenomenon that has generated a lot of attention over the past decade, in both popular press as well as scholarly literature. However, while this concept may have garnered attention at this point in time, its existence can be traced as far back as to the beginnings of human civilisations. In particular, an entry in *Urban Dictionary* defines FOMO as “evolutionary biology – an omnipresent anxiety brought on by our cognitive ability to recognize potential opportunities” (FOMO 2013).

For early humans, their inherent need to congregate in groups was important to their survival during that period of time. Being part of a group meant that someone was looking out for them, warning them of impending danger, as well as providing mutual aid when needed. Individuals experienced intense unease whenever they were separated from their group (Darwin 1871). Furthermore, what distinguished humans from other species was their predisposition towards social learning, problem solving, and their capacity of language (Catton and Dunlap 1978). Humans were unique as a species because of their ability to create artefacts (e.g. tools) and to pass this technology on to subsequent generations (Schiffer and Miller 1999; Schroeder 2015).

This process of sharing technology led to the development of more complex social systems within groups, especially during food procurement. More specifically, during the period when humans were known as hunter-gatherers, they were physically disadvantaged compared to many of the animals they hunted, and to predators that saw them as easy prey. Hence, to survive in these environments, it was necessary for them to rely on their ability to cooperate and communicate effectively as a group (Schiffer and Miller 1999; Schroeder 2015). This ability to communicate through speech and written language was also crucial to the sharing of complex technologies with one another. Hence, an individual’s survival depended on the knowledge they gained during these interactions (Sanz 2015).

Additionally, hunter-gatherers were opportunists (Domínguez-Rodrigo 2002) and FOMO often drove their way of life. For example, when potential food sources became available, they had to make quick decisions and take action immediately as any delay may result in the loss of the food source. It was this mentality that ensured their survival.

As humans evolved from hunter-gatherers to agrarian societies, the numbers within their groups grew substantially. They stopped roaming to search for food. Instead, they started to settle down in communities, where they learnt how to domesticate both plants and animals (Zeder et al. 2006). As a result, these people started to accumulate possessions, which they were unable to do so as hunter-gatherers because they moved from place to place frequently. As a result, the concept of wealth started to become more prevalent within these societies. People during this period started to be more concerned with materialism. Dittmar et al. (2014, 880) define materialism as ‘the long-term endorsement of values, goals or beliefs which emphasize the importance of acquiring money and possessions that convey status.’ During this period, their priorities shifted from fighting for their survival to improving their well-being through the accumulation of material possessions.

Similar to the hunter-gatherer era, people in these agrarian societies had to rely on interacting and integrating within their social community as means to accumulate knowledge on increasing their wealth. This involved understanding the techniques and opportunities that enabled them to better utilise nature’s resources for both sustenance and profit (Bennett 1969; Smelser and Baltes 2001). In this era, money or currency did not exist yet. Hence, to ‘purchase’ a good or service, people engaged in ‘bartering’. Bartering is defined as ‘the exchange of goods/services for other goods/services without using money’(Online 2010). As there was no clear value assigned to these goods/services (e.g. there was no way to determine exactly how much wheat is needed to exchange for a cow), people had to learn to be knowledgeable on recognising a good deal, as well as be opportunists when such deals presented themselves.

Today, the environment in which people exist has changed significantly over the past few millennia. In particular, the way in which people communicate has evolved at a dramatic rate. People are now able to communicate and interact with each other using a multitude of platforms. The emergence of internet as a communication medium has led to the development of sophisticated communication tools such as social media networking sites (Boyd and Ellison 2007).

As people interact on social media, what they read on social media become triggers for the onset of FOMO. Posts pertaining to activities that people within their social circles are involved with, are significant in triggering FOMO (e.g. finding out about activities they have been left out from or have missed out on) (Clark 2015) Many scholars agree that the most painful experiences are those that involve hurt attributed to damaged social connections. This is

because pain caused by physical injury undergo the same neural processing as pain caused by social rejection (Eisenberger and Lieberman 2004). This means that the brain processes the two in a similar way. Hence, the pain of being left out motivates individuals to alleviate these feelings (Eisenberger and Lieberman 2004).

Being left out of social group during the period of hunter-gatherers had detrimental consequences to a person's survival. People depended on each other for protection and procuring food. Though not the same as a life and death situation, not being active on social media platforms, and thus missing out various events or activities can have detrimental to one's social standing and subsequent psychological well-being. Moreover, the opportunistic behaviour of humans has evolved over time, from the need to survive to fulfilling material needs, like queuing for hours so as not to miss out on the chance to be the first to own the latest *Apple* product. Thus, drawing parallels between past and present, FOMO today still depicts that same hypervigilant state that humans experience when fighting for their survival (Sanz 2015).

1.2 BACKGROUND OF FOMO

The 'Fear of Missing Out' or FOMO for short, is defined in the Oxford Dictionary as 'anxiety that an exciting or interesting event may currently be happening elsewhere, often aroused by posts seen on a social media website' ("FOMO," n.d.). FOMO evolved from what seemed like a neologism, and has eventually made its way into mainstream culture.

On one hand, there are some who argue against the inclusion of such words such as 'FOMO' and 'Selfie' into the Oxford dictionary. They claim such terms circumvent traditional review processes. On the other hand, there are others who share a contrasting belief that additions like these show how language ought to be viewed today – a constantly evolving mode of communication that adapts to the changes in society and the world at large (Robehmed 2013). It is also important to note these words are only made relevant in modern culture with use, and many similar terms and words become forgotten in the process when people stop using them.

FOMO however, has managed to stand the test of time (as discussed in the earlier section). In fact, it has since inspired a more in-depth investigation into the understanding of its origins (Schreckinger et al. 2014). Behaviourist Dr Andrew Przybylski and his fellow colleagues conducted a formal empirical study in 2013 to conceptualise FOMO through a theoretically

driven framework outlined by the self-determination theory (Ryan and Deci 2000) as well as to develop a measurement instrument to determine an individual's level of FOMO (Przybylski et al. 2013).

Many of these research describe how FOMO stems from an individual's innate need to compare their own well-being with that of others (Festinger 1954) because of various unfulfilled psychological factors (Przybylski et al. 2013; Reagle 2015). The growth of social media platforms has made these comparisons easier, allowing an individual to have easy access to what people in their social circles are up to, thus inadvertently increasing the effect of FOMO.

In the area of marketing, there are studies which examined how FOMO can be utilised to influence consumption behaviour (JWT Intelligence 2011; JWT Intelligence 2012). This will be elaborated in the following section.

1.3 LEVERAGING FOMO

One of the primary drivers of FOMO is the need for social interactions and acceptance. Current social media has a variety of platforms for individuals fulfill these needs by providing endless opportunities for people to connect and interact with people worldwide. These include 'posting pictures of recent purchases, 'creating and inviting friends to a specific event' or 'sharing posts made by someone else on their own social media profile'.

Many organisations today still struggle to fully comprehend the impact social media has on their brands. Though many brands have invested considerable amounts of resources into developing content on social networks, their reputation on these networks are reliant on what their consumers say about them (Booth and Matic 2011). For brands that are able to effectively manage their communication strategies, social media can facilitate and act as a powerful tool to trigger FOMO.

With the evolution of communication technologies, the reach of the social media has allowed ordinary consumers to have a large share of voice, and consequently influence, in the market. These consumers make their opinions of the brand known through the sharing and posting of their own personal brand experiences through a variety of social media platforms (e.g. Facebook, Twitter and Instagram), with the potential of reaching even people outside of their own personal social networks (Booth and Matic 2011). Based on the social exchange theory

by Homans (1958), it suggests that individuals are motivated to engage in sharing behaviour on this social media networks because they expect to get some form of approval or recognition by their peers.



Figure 1-1: Cascio Photo Competition ('Win a Cascio Gift Card' 2016)

By encouraging the sharing of content, brands today are able to tap into the FOMO mindset. They are able to reach consumers who are reading these shared posts on their social media feeds. For example, in Figure 1-1, many brands like *Cascio* hold competitions to encourage consumers to post pictures of their brand experiences on their social media accounts in exchange for incentives. For the individual with FOMO, reading what someone else has bought, especially if it is someone they regard as an opinion leader, will have a significant influence on their attitude and behaviour toward the advertised product (Bearden, Netemeyer, and Teel 1989).



Figure 1-2: Melbourne Storm Rugby Promotion
(‘Dont Miss out’ 2016)

Apart from encouraging the sharing of content, brands leverage FOMO through advertising campaigns that induce FOMO through emphasising on missed experiences or opportunities. Many of these strategies are focused on the idea that ‘someone else is benefiting from those missed experience or opportunities’. The strategies emphasise on a ‘bandwagon’ effect which is the tendency for people to figuratively ‘climb on the bandwagon’ of anything that seems to be gaining popularity (Sutherland and Sylvester 2000). This strategy involves the brand communicating the idea that since ‘everyone is going/buying/doing it,’ individuals who do not follow suit will be ‘missing out.’ An example of this is depicted in Figure 1-2.

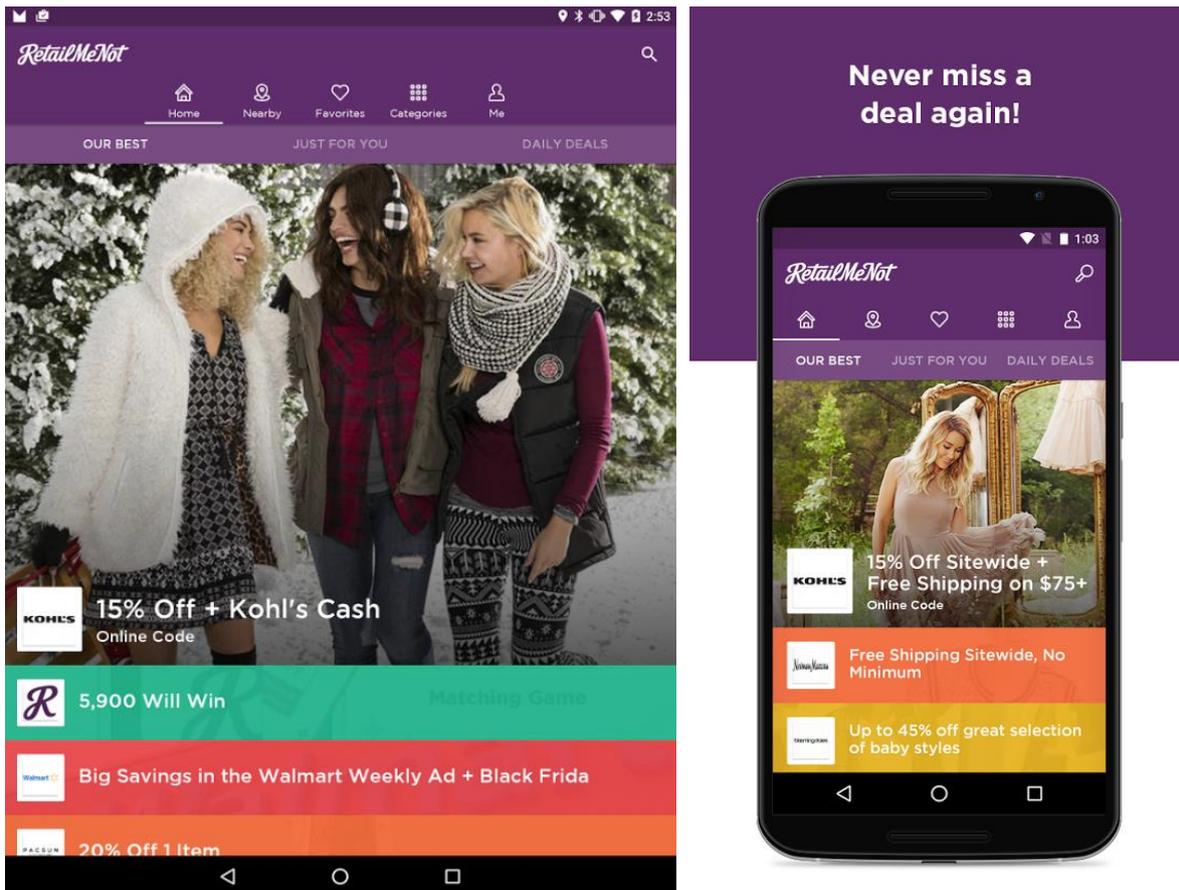


Figure 1-3: *RetailMeNot* Application Screenshot ('RetailMeNot' 2016)

Some brands also focus on helping consumers prevent FOMO through developing mobile phone apps that notify them of deals and offers through their smartphone. Figure 1-3 depicts an example of one such app designed by *RetailMeNot*.

Based on the prior discussion, it can be seen how FOMO can be effectively leveraged to influence consumer's attitudes and purchase behaviour.

1.4 EFFECTS OF SCARCITY ON FOMO

This year, Chinese e-commerce giant, Alibaba, smashed its own record for the Singles Day shopping bonanza, which was set just one year ago. The company generated \$14.3 billion in gross merchandise value (GMV), a 60 percent rise compared with the last year, according to unaudited company figures' (Wang 2015). The shopping event is held every year on November 11 to celebrate Singles' Day, an anti-Valentine's Day holiday that emerged in China two decades ago as a time to celebrate the single life. The significance of the date is symbolized by 'four number ones', reading '11/11'. In 2009, Alibaba, China's largest e-commerce company has turned the occasion into the biggest ever 24-hour online shopping frenzy worldwide, by offering massive discounts on a variety of products ranging from cars to clothes (Peterson 2015).

'Singles Day' and other similar single day shopping events in the year such as 'Black Friday' and 'Cyber Monday' have provided retailers another opportunity to persuade consumers to buy their products with notions of massive savings. The idea of not participating in these once a year sale events may mean that the consumer would have to wait another year to attain an amazing deal. This is something that many find hard to resist, which is evident from the huge turnout at these events. Also, this means that these exceptional savings are only limited to the lucky few, which increases the sense of urgency to participate in such events. As a result, some consumers even resorted to camping in front of stores weeks in advance, in anticipation of the start of such events (Schwartz 2015).

Emotions are rampant during these annual sale events for those who choose to participate in the buying frenzy. In the UK, there are recorded footages of violence during these events as people compete to get £20 discount on a coffee-maker (Ruz 2015). Such seeming irrational behaviour and determination not to miss out can be attributed to the scarcity principle. This principle explains the attractiveness of these sale events and the motivation to participate in these events in two ways. Firstly, there are only **limited quantities** of the sale items, hence if a person is likely to miss out if they do not arrive early to these events. Secondly, there is **high demand** for the products on sale, and people know there is going to be strong competition for these limited items. As cited by Roux, Goldsmith, and Bonezzi (2015), scarcity encourages a competitive disposition, which guides the consumer toward advancing their own welfare in such situations. Finally, these deals are only available once a year (**during a designated time**

frame). Hence, consumers know if they miss out this year, they would have to wait a whole year before such an event happens again

The use of this same scarcity principle has proven to drive demand for products and trigger FOMO tendencies. Based on the commodity theory, scarcity enhances the value of anything that can be possessed, is useful to the possessor, and is transferable from one person to another (Brock 1968). Studies have shown that marketers are able to increase the perceived value of products, services and promotions through the manipulation of perceived scarcity (Gierl and Huettl 2010; Lynn 1991; Wu et al. 2012).

Marketers who understand the persuasive effect of scarcity on consumers have devised countless advertising tactics to exploit this weakness of consumers. The various techniques used in infomercials provide a useful illustration of how the scarcity principle can be applied.

An infomercial is a program-length paid advertisement that promotes an organisation's products or services usually with a direct response element. Interested viewers are persuaded to call a toll-free number to order the product or service or seek additional information (Chapman and Beltramini 2000). After a demonstration and explanation of the benefits of the advertised products, the salesperson on screen would engage in a variety of call to action techniques to persuade the viewer to purchase the product. For example, offering the **first few viewers** that call in an additional incentive such as a free gift or discount, or offering additional incentives for a **limited period of time** e.g. 'call in the next hour and you will receive a 20 percent discount on the original advertising price etc.'

Based on the preceding discussion, and the review of past literature (elaborated further in chapter two), the following section outlines the research questions and objectives for this thesis.

1.5 OBJECTIVES OF THE STUDY

Research Question One: How does FOMO impact on consumer attitudes and purchase intentions?

Objective 1: To develop the Tendency towards the Fear of Missing Out (T-FOMO) scale

Objective 2: To develop a theoretically driven framework to measure FOMO in a marketing context

Research Question Two: What other variables (including FOMO) impact on the effectiveness of different scarcity messages on limited edition aspirational luxury products?

Objective 3: To validate desire for uniqueness and T-FOMO as correlated by separate and distinct constructs

Objective 4: To examine how traits such as T-FOMO and desire for uniqueness influence the effectiveness of scarcity messages

Objective 5: To examine the effectiveness of different types of scarcity messages on limited edition products across different product categories within a luxury branding context

Objective 6: To examine the mediating role of attitudes on the relationship between traits and behaviour

Objective 7: To examine the moderating effects of inferences of manipulative intent and consumer susceptibility to interpersonal influence on the relationship between traits (T-FOMO and Desire for Uniqueness) on attitudes and purchase intentions.

1.6 DELIMITATIONS AND SCOPE

The purpose of this section is to address the delimitations and scope of the study. This will also support the preceding discussion on the research question and objectives for the study.

Due to the limited work done in the area of FOMO, this research looks to explore and extend the theoretical and conceptual framework underpinning FOMO. Hence, the study is primarily focused on the theory building approach rather than a theory testing investigation. More specifically, the main purpose of the study is to investigate the impact of FOMO in a marketing context. Hence, one of the objectives is to develop the T-FOMO scale, a scale which is specific and relevant within a marketing context.

Current work done in the area of FOMO has focused more on a social science perspective, where FOMO has been utilised to understand its impact on an individual's well-being as well as in explaining negative social behaviour, such as distracted driving and learning (Przybylski et al. 2013). Furthermore, the current FOMO measurement scale is predominantly based on scenarios pertaining to an individual's interaction with social media and their peers (Przybylski et al. 2013). Hence, the development of the T-FOMO scale is in response to the existing scale's applicability in testing for effects on consumer behaviour.

Finally, to understand the effects of FOMO in a marketing context, the scope of the study encompasses the use of scarcity messages across different product types to examine its effects on consumer behaviour. Scarcity has the ability to enhance the value of a particular product. Furthermore, many brands have employed the effect of scarcity on their products by introducing 'limited edition' versions. These 'limited editions' communicated a sense of exclusivity to its potential buyers (Gierl and Huettl 2010). Hence, a FOMO consumer is likely to be susceptible to products advertised as scarce as the value or opportunity of buying such a product is greatly enhanced. Hence, this study follows work done by Jang et al. (2015) on the use of limited edition products. In particular, understanding the use of scarcity messages namely LQS (Limited Quantity Scarcity) and LTS (Limited Time Scarcity) across different product types (Public vs Private goods) in a luxury branding context.

1.7 DEFINITION OF KEY CONSTRUCTS AND THEORIES

1.7.1 Definition of Key Constructs

For the purposes of the study, the following definitions of the constructs are adopted:

- **Tendency towards the Fear of Missing Out (T-FOMO)** is defined as an individual's innate tendency to engage in behaviours that will alleviate the negative tension caused by the fear that one might miss out on potential opportunities.
- **Desire for Uniqueness** is described as the "dispositional tendency to pursue uniqueness through consumption" (Lynn and Harris 1997, 16).
- **Attitude towards the Advertisement** is described as the "predisposition to respond in a favourable or unfavourable manner to a particular advertising stimulus during a particular exposure occasion" (Lutz 1985, 46).
- **Purchase Intention** is described as the measure of the strength of an individual's willingness towards performing a planned action towards the procurement of a product or service (Ajzen 1991).
- **Inferences of Manipulative Intent** is defined as "consumers' perception that the advertiser is attempting to persuade them through inappropriate, unfair or manipulative means" (Campbell 1995, 226).
- **Consumer Susceptibility to Interpersonal Influence** defined as "the need to identify or enhance one's image with significant others through the acquisition and use of products and brands, the willingness to conform to the expectations of others regarding purchases, and/or the tendency to learn about products and services by observing others and/or seeking information from others" (Bearden, Netemeyer, and Teel 1989, 474).

1.7.2 Key Theories

The study is underpinned by two key theories namely the drive-reduction theory and the social cognition theory.

- **Drive-Reduction Theory** describes how individuals are motivated to reduce negative states (e.g. hunger) to maintain homeostasis or a sense of equilibrium (Hull 1943)
- **Social Cognition Theory** involves understanding how people perceive and interpret the world around them. Specifically, it looks at how individuals make sense of others

which in turn impacts on how they evaluate themselves, and ultimately influences how they interact with the world around them (Fiske and Taylor 2013).

1.7.3 Secondary Theories

- **Theory of Social Comparison** postulates that humans possess an innate drive for self-evaluation, which is reliant on comparisons to others (Festinger 1954).
- **Uniqueness Theory** postulates that people are motivated to maintain a certain level of distinctiveness in relation to other people (Snyder and Fromkin 1980).
- **Protection Motivation Theory** describes how individuals are motivated to protect themselves from the negative consequences associated with fear appeals (Rogers 1975).
- **Theory of Regret Intensity** postulates that regret is intensified when individuals feel they could have made better decisions when an opportunity first become available. Hence, missing out on past opportunities which were once available creates a sense of lost opportunity and further intensifies feelings of regret (Beike, Markman, and Karadogan 2009).
- **The Theory of Planned Behaviour** postulates that when consumer attitudes are positive, it translates to positive behaviour (Ajzen 1991).
- **Cognitive Response Theory** suggests that cognitive responses (or thoughts) have an indirect influence on attitude change in persuasive communications (Greenwald 1968).
- **Persuasion Knowledge Model** postulates that consumers develop knowledge about persuasion attempts over time and draw on this knowledge to identify and deal with attempts to influence them (Friestad and Wright 1994).
- **Reactance Theory** postulates that when people perceive that their freedom to choose is threatened, they undergo a negative state of reactance, thus having a negative effect on their subsequent behaviour (Brehm 1989).
- **Field Theory** examines the interactions between the individual and the environment and how positive and negative opposing forces guide decision-making (Lewin 1951).

1.8 METHODOLOGY

Due to the experimental nature of the research, there was no intention to generalise point and interval estimates from the findings to any specific group of consumers. Hence, general consumers were deemed as an appropriate sample population and use of an online consumer panel was found to be a suitable method for data collection. This was done through a web-based survey instrument consisting of established scales (reflected in the constructs in the overall research model), a stimulus to elicit the scarcity message and reflect the different product categories, and simple demographic questions.

The research was conducted in two phases. The first phase: scale development (chapter five) will outline the steps taken to develop and validate a single scale measuring the tendency towards the fear of missing out (T-FOMO). The scale will then be used in phase two: main study (chapter six) to measure the effects of FOMO in marketing context. Phase two is an empirical study which employs a two by two (types of scarcity message: limited quantity scarcity and limited time scarcity and product categories: private versus public) factorial experimental design. In addition, two control groups without the scarcity manipulation were included. The research design is adapted from Jang et al. (2015). Exploratory Factor Analysis (EFA) in SPSS and Confirmatory Factor Analysis (CFA) are the main statistical techniques used in phase one for scale development and validation. For phase two, Structured Equation Modelling (SEM), Mediation Analysis (MA) and Hierarchical Moderated Regression (HMR) were the main methods used to examine the relationships in the overall research model. The method and support for the chosen instrument and methods are detailed in chapter four (research methodology).

1.9 SIGNIFICANCE OF STUDY

Due to the contemporary nature of FOMO concept, most of the research done on FOMO and its impacts are still relatively unexplored within a marketing context, particularly in understanding its effects on consumer behaviour. Despite the lack of academic research in this area, there is an abundance of popular press, news articles, and industry publications that have explored the use and effects of FOMO and its relevance to consumers today.

These sources have highlighted that when properly implemented, FOMO can be effective in influencing consumer behaviour (JWT Intelligence 2011; JWT Intelligence 2012). Furthermore, the increased relevance of FOMO today can be seen in how online technologies today shape the way consumers shop. In particular, by the end of 2016, it is forecasted that the total global e-commerce retail sales will reach \$22.049 trillion, up 6 percent from 2015 (“Worldwide Retail Ecommerce Sales Will Reach \$1.915 Trillion This Year” 2016). Duncan Clark, managing director of Beijing based consultancy BDA commented, “What keeps people up at night is the fact that **they might miss a certain trend or a certain hot company that really is going to bring all the attention and the users in**. The fight to stay essential, to stay relevant, to stay on top of the home screen, it's what it's all about” (Carsten and Ruwitch 2015). Hence, many brands are driven to invest considerable resources into these online platforms (Hollis 2005) so that their brand stays ‘top of the mind’ in this generation of FOMO consumers. This also holds true for many luxury brands today (Okonkwo 2009).

1.9.1 Theoretical and Conceptual Significance

The theoretical and conceptual significance of this study lies in expanding the current knowledge pertaining to FOMO. Current literature on FOMO is limited to a social sciences context (e.g. Elhai et al. 2016; Przybylski et al. 2013). Hence, this study will look at incorporating FOMO within a marketing context to understand its significance to consumer behaviour. It contributes by developing a theoretically driven framework to establish FOMO as a general personality trait that varies across individuals. This process will involve drawing from relevant behavioural, psychological and sociological theories so as to ensure that the research outcome is theoretically sound.

1.9.2 Methodological Significance

The research methodology undertaken is sound and adopts an experimental approach using real consumers and brands, which adds to its ecological validity. This will assist future studies that are looking to incorporate FOMO in order to understand its effects on consumer behaviour. More importantly, the most significant methodological contribution is the development and validation of the T-FOMO scale, which will be used to measure the effects of FOMO within a marketing context.

1.9.3 Managerial Significance

The findings of this study may prove useful for managers who are looking to appeal to the FOMO consumer. These consumers are characterised by their insatiable need to grab all possible opportunities of a good deal as soon as they become available so they do not miss out. The outcomes of the study will provide luxury brand managers with insights into how they can effectively tailor their advertising strategies to match such individuals. More specifically, the study will look at how the FOMO consumers will respond to the use of different scarcity messages in different limited luxury product contexts. For luxury brand managers, this will clarify how and when to use scarcity messages to best appeal to the FOMO consumer.

Additionally, for policy makers, the use of the T-FOMO scale may provide means for these companies/associations to identify individuals who have a strong tendency towards FOMO. These individuals are likely to be more susceptible to the persuasive effects of advertising compared to those who have lower tendencies towards FOMO. As a result, highly FOMO consumers may end up overspending, which may lead to detrimental outcomes such as an accumulation of credit card debt and low personal savings (Redmond 2000). Hence, by being able to target these individuals specifically, they can tailor their initiatives more effectively to teach these consumers how to overcome FOMO as well as on how to make smarter purchase decisions.

1.10 CHAPTER SUMMARY

This chapter provides an overview of the entire process undertaken for this research. The research from this point onwards is structured as follows: Chapter 2 contains the literature review exploring FOMO and the other relevant constructs used for the study. Next, the theoretical framework and development of the hypotheses is discussed in Chapter 3. Following this, Chapter 4 will describe the research's methodology for the main study. Chapter 5 then proceeds to explain the processes undertaken to develop and validate the T-FOMO scale. Chapter 6 provides an in-depth discussion on analysis and results of the main study. Finally, Chapter 7 concludes the study with a discussion on the implications based on the findings from the previous chapter. The chapter includes a discussion on the limitations and suggestions for future research. An overview of this process is depicted in Figure 1-4.

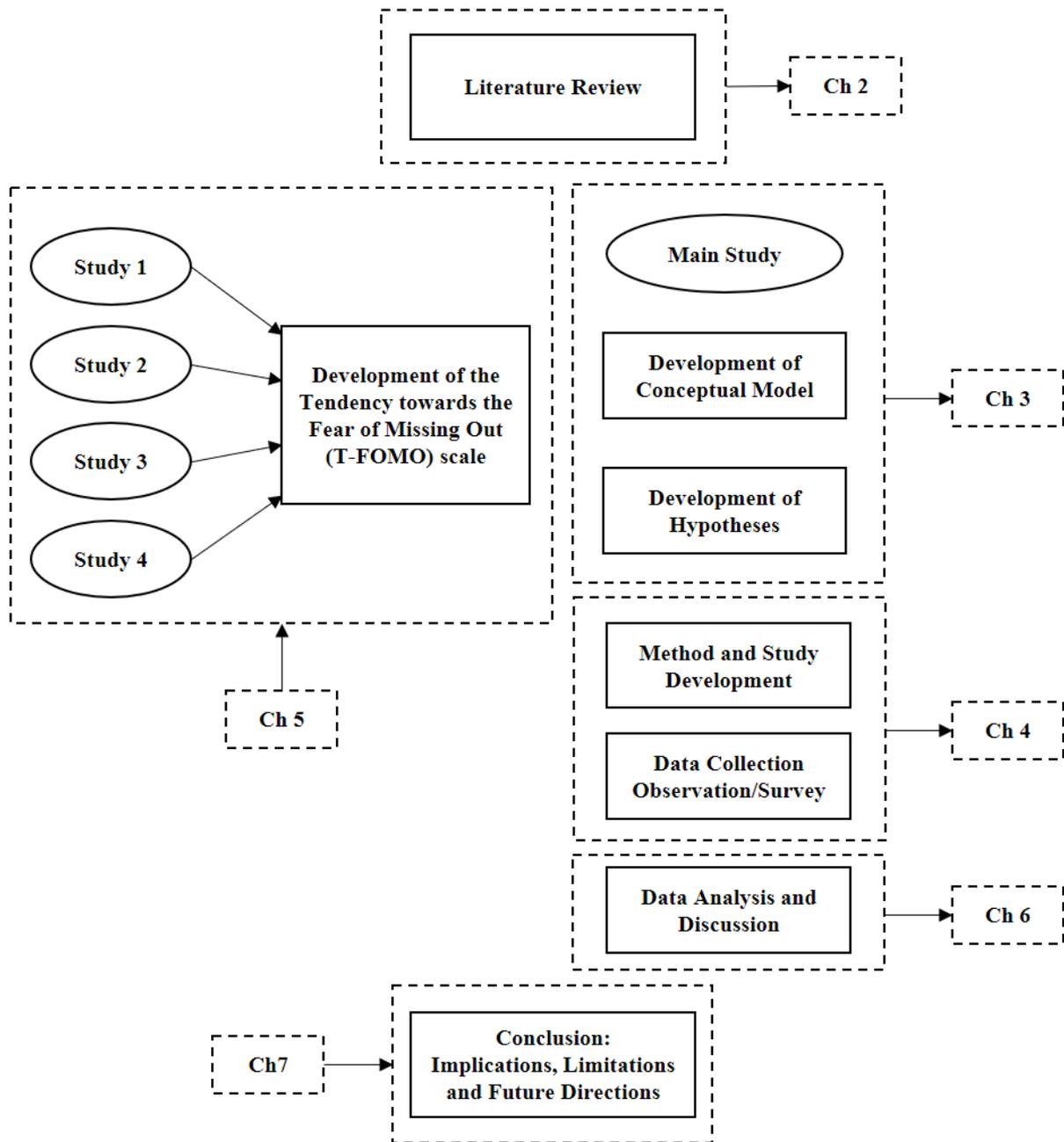


Figure 1-4: A Schematic Overview of the Research Process

2 LITERATURE REVIEW

2.1 OVERVIEW

This chapter provides a detailed discussion on the Fear of Missing Out (FOMO) literature and other variables that can influence the effectiveness of scarcity messages. Firstly, the chapter discusses the relevant literature pertaining to the use of scarcity messages as an effective means to influence consumer's attitudes and behaviours. Following that, it will discuss the different types of scarcity messages and the various ways these messages have been used.

Secondly, the chapter presents current literature on FOMO, which is the main focus of this thesis. This chapter explains how FOMO is viewed, conceptualised and utilised, drawing from work by practitioners and scholars from various disciplines. Hence, an extensive review of sources in scholarly literature, popular press and industry publications was conducted to achieve a holistic and comprehensive interpretation of FOMO. The chapter will also discuss the proposed dimensions of FOMO, which will be investigated in chapter five.

Following this, the chapter will continue to discuss other variables related to FOMO, which also represent the constructs that are adopted for the study's research model. These constructs include desire for uniqueness, attitude toward the advertisement, purchase intention, inferences of manipulative intent and consumer susceptibility to interpersonal influence.

Finally, the chapter concludes by presenting the major research gaps identified from the literature review.

2.2 BACKGROUND ON SCARCITY

Past literature has shown that specific objects or opportunities become more valuable as they become less available. This is known as the principle of scarcity. This is supported by the commodity theory which states that “any commodity will be valued to the extent that it is unavailable” (Brock 1968, 246). As discussed by Shen (2013), this assumption is also confirmed by the heuristic-cue theory, which posits that scarcity functions as a heuristic cue. It is seen as a mental shortcut for individuals in determining the value of an object (Cialdini 2008). In other words, individuals are conditioned to perceive that the value on an object is enhanced when it is scarce. Furthermore, these perceptions are reinforced and strengthened through an individual’s experiences with economics of supply and demand, day-to-day encounters, as well as from the popular press (Lynn 1991; Shen 2013).

Scarcity can also act as a motivation moderator like involvement as opposed to a heuristic cue (Brannon and Brock 2001; Shen 2013). This is supported by the motivation enhancement theory, which explains that high scarcity can alert individuals to scrutinise the benefits of a particular object (Bozzolo and Brock 1992). For example, when a consumer sees a product promoted as being scarce, it motivates them to examine the quality of the product more thoroughly (Brannon and Brock 2001; Shen 2013).

In addition, as proposed by reactance theory, when an individual’s freedom to choose is threatened or restricted, they will attempt to reassert their free choice (Brehm 1989). Hence, by restricting opportunities or limiting the availability of specific objects, individuals will tend to desire these objects more. By doing so, it serves a coping mechanism to negate the perceived loss (Aggarwal, Sung Youl, and Jong Ho 2011; Cialdini and Goldstein 2002).

Scarcity exists across time because of events such as droughts, famine, and economic recessions, which impact on the availability of products and resources (Roux, Goldsmith, and Bonezzi 2015). For firms, these events represent scarcity that is out of the firm’s control and can be described as ‘natural scarcity.’ On the other hand, there is also ‘virtual scarcity.’ This type of scarcity is manipulated by firms through carefully executed marketing and distribution strategies, which takes advantage of an individual’s vulnerability towards the effects of scarcity. According to Cialdini (2001), individuals are susceptible to scarcity effects because “people want more of what they can have less of”.

The concept of scarcity has been extensively researched in marketing literature with numerous studies demonstrating its effectiveness (Aguirre-Rodriguez 2013; Chandy et al. 2001; Eisend 2008; Mukherjee and Lee 2016). It has been empirically proven to positively influence product evaluation, value perceptions (Jung and Kellaris 2004; Lynn 1991; Verhallen and Robben 1994) and purchase intentions (Eisend 2008).

2.3 TYPES OF SCARCITY MESSAGES

Advertisers have communicated the limited availability, or scarcity, of an advertised product in various ways. In general, these can be categorised into two main types, namely, limited-supply scarcity and limited-time scarcity (Aggarwal, Jun, and Huh 2011; Cialdini 2001; Cialdini 2008; Jang et al. 2015).

2.3.1 Limited-Supply Scarcity

Current literature distinguishes the communication of the limited supply scarcity in two forms. Firstly, it can be caused due to the **limited quantities** of the advertised products. Products such as wines are known to only produce limited quantities each year. For example, *Bordeaux* produces only 150,000 – 300,000 bottles per year for their first growths wine (top of the range wines) (Masset and Weisskopf 2013). These are also commonly referred to in literature as ‘supply-driven scarcity.’

The most prominent example of this type scarcity is through the implementation of ‘**limited edition**’ products (Aggarwal, Jun, and Huh 2011; Balachander and Stock 2009; Gierl and Huetl 2010). Many brands implement these ‘limited’ or ‘special’ edition products as part of their product line as they are perceived to be more ‘attractive’ and ‘valuable’ by consumers (Aggarwal, Jun, and Huh 2011; Jang et al. 2015). ‘Limited edition’ products first originated in the arts industry where it was a common strategy implemented by artists who selected and managed output of their artwork to secure higher selling prices (R. Bennett and Kottasz 2013). However, this strategy has extended far beyond art pieces and has been successful in the marketing of products such as cars, clothing, jewellery, musical instruments, toys and many more (Balachander and Stock 2009; Bennett and Kottasz 2013).



Figure 2-1: Volvo's XC90 Limited First Edition (“ Volvo XC90 - First Edition” 2014)

For example, Figure 2-1 depicts the limited first edition XC90 released by *Volvo* in 2014. Only 1927 (based on the year where *Volvo* was founded) individually numbered cars went on sale via their online website (“All-New Volvo XC90” 2014) and they were sold out within 47 hours after it was released. ‘Most of the cars were reserved within one hour from sales start. At its peak, 7 cars were sold every minute’ (“Instant Success: First Edition of All-New Volvo XC90 Sold out in 47 Hours” 2014).



Figure 2-2: Limited Edition Bottles Designed for the Chinese Market
 (“Absolut Vodka: Chinese Limited Edition” 2010)

As seen in Figure 2-2, introducing limited edition products have also been found to effective in revitalising brands as with the case of the brand *Absolut Vodka*. In 2010, sales figures were stagnant in the Chinese market for the brand. After much research, *Absolut Vodka* decided to launch a special limited edition bottle that was unique to the Chinese market. The strategy was successful not only because how scarcity cues enhanced the perceived value of the product, but the release of the limited edition bottle also generated buzz and excitement amongst its consumers (Lu and Davis 2014).



Figure 2-3: Puma evoSPEED Advertisement (“Puma evoSPEED 1.3 PINK” 2015)

To communicate supply-driven scarcity, advertisers often use phrases that emphasise the exclusive nature of the advertised product. For example, in Figure 2-3, it depicts *Puma*’s limited edition ‘evoSPEED 1.3 PINK’ shoes, which are “limited to only 500 pairs worldwide”. Furthermore, this also highlights how brands have complemented the release of their limited edition products with scarcity messages. Limited edition products by nature are already seen as scarce. By reinforcing this perceived scarcity through explicit messages which specify the exact quantity of the product available, it has the effect of enhancing the value and attractiveness of the limited edition product (Jang et al. 2015). In particular, for many brands which have implemented limited edition products, they commonly use both limited quantity scarcity (LQS) messages and limited time scarcity (LTS) messages as part of their communications strategy (Cialdini 2008). As discussed earlier, studies have found that the uses of scarcity messages are an effective means to advertise limited edition products. More specifically, these messages have been found to positively influence brand evaluations, purchase intentions and word of mouth (WOM) recommendations (Jang et al. 2015).

Secondly, limited-supply scarcity can be caused by **excessive demand** for the advertised product. This type of scarcity occurs when supply fails to meet market demand (Ku et al. 2013). This type of scarcity is also commonly referred to in literature as ‘demand-driven scarcity.’ It generally occurs when firms are unable to predict the popularity or success of a product (Aguirre-Rodriguez 2013). In 2010, when *Amazon* announced priced-reductions on its e-book reader Kindle, its entire stock of the e-book reader completely sold out within days. Moreover, the company was not able to provide an estimated date on which the Kindle would be available for purchase again (Musil 2010). This type of scarcity often leads to consumers having positive perceptions of the product because of its popularity (Gierl and Huettl 2010; van Herpen, Pieters, and Zeelenberg 2009). Additionally, products which are communicated as scarce due to excessive demand are often perceived as being of high quality (Gierl and Huettl 2010).



Figure 2-4: Soundplate NYE Event Promotion (“Soundplate NYE Almost Sold Out’ 2015)

However, in most scenarios, the perceived popularity or scarcity is not market-driven but manipulated by advertisers. To communicate demand-drive scarcity, advertisers often use phrases which emphasise the popularity of the advertised product. For example, in Figure 2-4, it depicts *Soundplate* promoting its New Year’s Eve event and communicating ‘tickets selling out fast’, implying that many consumers have bought tickets already.



Figure 2-5: Vibe Music Festival Event Promotion (“Vibe Music Festival” 2016)

Another example is shown in Figure 2-5, where promoters of the event emphasized the popularity of the event through phrases such as “Pre-sale sold out!” and the limited availability of the remaining tickets “Limited early bird remaining”. This was firstly to highlight the

popularity of the event, and secondly, to encourage people to purchase the limited early bird tickets remaining before it sells out.

However, scarcity which is due to high demand is found to reduce consumer's attitudes towards conspicuous consumption of goods (Gierl and Huetl 2010). Conspicuous consumption is generally related to the purchase of products associated with high social status, wealth and power, and is found to be closely related to the purchase of luxury brands (Wiedmann, Hennigs, and Siebels 2009). Individuals who purchase products because of high demand "signal conformity to the masses" and hence, are seen to be in direct conflict with consumers who have a preference towards conspicuous consumption (Gierl and Huetl 2010). Hence, many luxury brands refrain from using this approach as it reduces the exclusiveness of the product.

2.3.2 Limited-Time Scarcity

Time can be described as the "ultimate scarce resource" (Deighton, Nicosia, and Wind 1983). As the saying goes "time and tide wait for no man" Hence, most individuals consider time as a precious resource.

Time-related scarcity often relates to an opportunity or object which is only available for a pre-defined period of time (Aggarwal, Jun, and Huh 2011). In particular, time pressure often imposed by deadlines have been found to have a significant impact on consumer behaviour (Ackerman and Gross 2000; Lim 2013; Vallen, Block, and Eisenstein 2014). In marketing literature, studies have found that limiting the duration of a particular offer can lead to more positive product evaluations (West 1975) and drive purchase behaviour (Aggarwal and Vaidyanathan 2003; Aggarwal, Sung Youl, and Jong Ho 2011).



Figure 2-6: Starbucks 'Share the Love' Promotion
(Dunfee 2014)

To communicate time-related scarcity, advertisers often placed time-restrictions on offers on the advertised products. For example, in Figure 2-6, for Valentine's Day, *Starbucks* ran a promotional offer on its handcrafted latte 'Buy one handcrafted latte and share one on us.' However, this offer was only limited to February 14 between 2 to 5 p.m.



Figure 2-7: Diane Von Fürstenburg Limited Edition Coke Bottles (Navarro 2012)

As discussed earlier, when introducing limited edition products, brands tend to enhance its perceived scarcity through different scarcity messages. More specifically, for this example, fashion designer Diane von Fürstenburg and Diet Coke collaborated to create a set of limited edition iconic diet coke bottles. The bottles were only made available during the month of February, which made owning of the limited edition bottles even more attractive. Furthermore, 100 percent of the proceeds which came from the sales of these bottles were donated to the Foundation for the National Institute of Health, which further enhanced the intangible benefits of purchasing the product (Navarro 2012).

2.4 FEAR OF MISSING OUT

The fear of missing out or popularly referred to as FOMO for short is defined as “pervasion that others might be having rewarding experiences from which one is absent” (Przybylski et al. 2013, 1841). For example, FOMO can be triggered when one sees their friends or peers buying

something that they have not bought yet, or finding out that their friends or peers are going to a social event that they are not part of or invited to.

The now ubiquitous nature of FOMO is evident through mentions from countless sources in popular press, published academic research (Przybylski et al. 2013), an entry in the *Oxford Dictionary* and even warranting studies from reputable advertising agencies such as JWT (J. Walter Thompson) (JWT Intelligence 2011; JWT Intelligence 2012). Schreckinger et al. (2014) traced its origin to early 2000 where marketing strategist Dan Herman described the phenomenon (Herman 2000; Herman 2011). However, the term only started to reach prominence several years later. In 2004, a student newspaper published an article titled ‘Social Theory at HBS: McGinnis’ Two FOs’. It described how university students suffer from FOMO, evident from routinely scheduling as many social activities they can during their nights off (McGinnis 2004; Schreckinger et al. 2014).

By 2010, the term FOMO was seen to be synonymous with the use of social media. Przybylski et al. (2013) highlighted how FOMO was fuelled through the proliferation of social media platforms such as Facebook and Twitter. Individuals are drawn to the use of these platforms as it provides its users the means to communicate with others, develop social competence and an opportunity to form social ties. In particular, the research suggested that individuals who suffered from low levels of psychological need satisfaction, such as “connectedness to other”, were more vulnerable to the effects of FOMO.

A report by JWT found that there was a huge potential for brands to tap into their consumers’ FOMO. For example, brands can address FOMO by encouraging people to join in on the things that make them feel left out, or showing consumers how to get a taste of what they’re missing by developing products that are more affordable or convenient (JWT Intelligence 2012). In addition, brands can also offer exclusive and unique consumption experiences that intensify feelings of FOMO and motivate desired actions (Herman 2011).

Reagle (2015) suggested that the FOMO arose from envy-related anxiety as individuals start to compare their current state of well-being to that of others. This proliferation of FOMO is aided by the growth of social media platforms, which allow users to easily communicate and exchange information about what they are doing, where they are going and what they are buying. In addition, modern technologies, such as portable mobile and handheld devices allow increased accessibility to these social media platforms.

Based on current literature, social influences play a key role in the conceptualisation of FOMO. However, this study proposes that FOMO is more than just a reaction to an envy-related anxiety driven by social influences. The following sections will seek to expound on how FOMO is a general personality trait that varies across different individuals, and is driven by an opportunistic tendency. To do this, it is important to investigate the origins of FOMO and how it was first conceptualised. This will help to establish a holistic conceptual definition for FOMO. The following sections will elaborate more on this area.

2.5 CONCEPTUALIZING FOMO

2.5.1 Personality Traits and Consumer Traits

To reiterate, this study proposes that FOMO is a general personality trait that varies across different individuals. Drawing from personality literature, this study aims to examine the psychological correlates of FOMO to develop a better understanding of how it functions as a trait. Hence, to understand the rationale behind this proposed perspective, it is crucial to have an appreciation of what a personality trait is and its development process.

Understanding why individuals are unique compared to another has fascinated researchers for many years. Personality traits hold potential answers for this question by looking at the innate characteristics that define an individual. Trait theory suggests that individuals behave differently because they possess varying degrees of measurable traits (Goldberg 1999).

Personality psychology is seen as an integrative approach that takes into account the idiosyncrasies that shape the mind of an individual (Orom and Cervone 2009). The way people exist and cope within their world to establish their identity is contextual as each person is unique. Hence, as personality trait research is fundamentally the study of persons, it is important to examine the different life contexts which determine how various traits of an individual are formed (Rook and Fisher 1995).

As cited by Mischel and Shoda (1995), interactions between personality systems and different social contexts produced distinctive patterns of consistency. To illustrate this, Funder and Colvin (1991) conducted an experiment with 140 undergraduate subjects who were observed in two different experimental conditions. The experiment was based around measures for behavioural traits exhibited amongst individuals in social situations.

For the experiment, participants of the same sex were placed in a small room containing a couch and video camera. Next, facilitators of the experiment gave each participant instructions to talk about anything they liked and left the room. Their responses were recorded and assessed by trained research assistants. A few weeks later, a similar experiment conducted, the only difference was that each subject was paired with a different opposite sex partner.

For the first experiment, subjects displayed behaviour that was relatively awkward, tense and fearful. In the second experiment, however, subjects were much more at ease because they were found themselves in a more familiar situation having already taken part in the first experiment. In these two situations, though the conditions are essentially identical (except for the introduction of a partner), the mental state of the subjects in the second condition was comparatively different from the first.

Subjects learnt to adapt based on their prior experience gained from the first experiment. However, though there were identifiable differences between both experiments. What remained constant was that each subject still maintained his/her individuality, or personality. The experiment found that people who were most fearful during the first session still exhibited the most fear. Similarly, those that were more expressive in the first session were also most expressive in the second situation (Funder 2006). This experiment offers an illustration of how traits are consistent, but can vary at different intensities.

Roberts (2009) identifies two primary influences of the development of traits, namely environmental influences and biology. Environmental influences play an important role in a person's transition from adolescence to adulthood. A number of studies have found that diversities in experiences can shape the development of personality traits in each individual. More specifically, the development of these traits is influenced by both cultural and environmental mechanisms (Bouchard and Loehlin 2001). In addition, evidence also show that traits are hereditary from birth (Bouchard and Loehlin 2001; Eaves, Eysenck, and Martin 1989). The impact of these two influences can be illustrated in the following example: traumatic life events, such as an accident, can have serious ramifications on an individual's neuroanatomy, which in turns affects personality traits through impact on their physiological systems. Stressful states occurring at various life stages of an individual affects neuroanatomy,

which in turn shapes the habitual capacity of an individual to respond consistently to future environmental triggers (Roberts 2009).

As seen from the above discussion, there is sufficient evidence that demonstrates the stability of traits which permits generalisations on how traits are a good approach to understanding behaviour (Parks and Guay 2009).

The concept of a personality trait can be described as “differences among individuals in a typical tendency to behave, think, or feel in some conceptually related ways, across a variety of relevant situations and across some fairly long period of time” (Ashton 2013, 27). This definition is reinforced by Roberts (2009, 140), who describe personality traits as the “relatively enduring patterns of thoughts, feelings, and behaviours that reflect the tendency to respond in certain ways under certain circumstances”; and Shiner and Caspi (2003, 2) who describe personality as “people’s tendencies to behave, think and feel in certain consistent ways”.

In summary, the following list breaks down the concept of personality traits into four distinct points. Each point will also briefly discuss its relevance to FOMO as a trait.

1. Personality traits measures the differences amongst individuals: The study of personality is only relevant to the extent that it offers a **comparison with others**.
 - A person may experience more intense FOMO compared to another person to buy a certain product because he/she is loyal to that product’s brand.
2. Personality traits describe an individual’s **tendencies** to behave, think and feel: An individual described as having a particular personality trait does not suggest the individual **will always** react in a particular manner. Different contexts may affect how the person reacts and behaves. If someone possesses an aggressive trait, this means that that particular person has the **tendency** to behave aggressively towards other people in **most** situations. However, in some situations such as during a meeting with a superior, they may need to adapt their behaviour accordingly due to the respect for authority or fear of punishment.
3. Personality traits are applicable across a variety of relevant situations - A personality trait is not simply a habit that is confined to specific situations, but is displayed in a variety of settings. To illustrate, if one is to refer to John as friendly, it would mean that John would be friendly in a wide range of situations. However, if John was only friendly to his close

friends for example, or only friendly when there is something to gain, then one would probably not refer to John as friendly.

- In a marketing context, an individual is likely to experience FOMO for both a limited time deal on a laptop as well as a watch that is only available in limited quantities. The difference is that they would experience FOMO in varying intensities for each situation.
4. Personality traits are representative of an individual's behaviour, cognition, emotional responses over a fairly long period of time – For personality traits, it should indicate some pattern which can be observed over a long run as compared to a temporary basis. The idea of a trait is that it is relatively stable over a “fairly long period of time”. However, a person who exhibits a particular trait does not necessarily need to show this tendency throughout the entire life span. As discussed earlier, there may be different factors such as environmental influences that may affect an individual's personality trait in their lifetime. For example, for the trait “nurturance” (Goldberg 1999), someone may exhibit low levels of the trait during adolescence, but after entering adulthood and starting a family, may inevitably start to exhibit higher nurturing tendencies.
- As millennials, individuals may experience FOMO more intensely with regards to missing out on social activities and engagements during this stage of their life. As these individuals grow older, “missing out” on such activities may not be as important as it was before.

Similarly, the notion of consumer traits originates from the preceding discussion. Consumer traits are described as the “dimensions of individual differences in people’s tendencies to show consistent patterns of thoughts, feelings and behaviours in their role as consumers” (Joachimsthaler and Lastovicka 1984; Steenkamp and Maydeu-Olivares 2015). More precisely, consumer traits are based on the concept of personality traits where individuals acquire more narrowly defined dispositional tendencies through their personal experiences as consumers (Steenkamp and Maydeu-Olivares 2015).

Since the meaning of an advertisement can be created in the person who receives the message, it is logical to suggest that different people have unique preferences for different types of advertisements. Hence customers may react most positively when exposed to an advertising stream that matches their personality (Myers, Sen, and Alexandrov 2010). Unfortunately, in marketing, the study of traits has not been a key focus. Based on the concept of relationship marketing (Sheth and Parvatiyar 1995), or more accurately, Customer-Relationship Management, it is believed that an individualised approach is the most effective way to reach the consumer (Winer 2001; Verhoef 2003). This approach has potential drawbacks as it only focuses on what the customer wants as opposed to what they really are. This means that companies can produce a product that a customer may think they want, but is not what they really want.

Personality traits dwell deeper into the psychological correlates that make up an individual (Roberts 2009). Hence, understanding how personality traits work in consumer behaviour can provide marketers valuable insight into what customers really want. In a persuasion context, this would allow advertisers to formulate strategies or determine what strategies best appeals to the consumers, which is based **on who they are rather than what they want**.

As discussed by Myers, Sen, and Alexandrov (2010), if companies are determined to build successful relationships with the customer, they need tap into and understand the customer’s psychological tendencies (traits) that define an individual. **The interaction between traits and the marketing mix is an area that should be explored and tested** so that more effective strategies can be formulated to reach the consumer.

2.5.2 Loss Aversion

FOMO can also be understood by the concept of loss aversion. Loss aversion posits that people have the tendency to prefer avoiding losses as opposed to securing an equivalent gain (Brenner et al. 2007). In an experimental study conducted on consumer sensitivity towards price changes to insurance policies, results indicated that policy price increases had double the effect on customer switching as compared to price decreases of an insurance policy of a competing firm (Dawes 2004). This means that the customer is more willing to change their insurance policy if their current insurance provider increases the price of their policy compared to if a competing insurance company provides them with a cheaper insurance policy alternative. Furthermore, this is supported by an individual's preference to remain at the status quo (Kahneman, Knetsch, and Thaler 1991).

In the same way, missed opportunities are seen as potential losses. FOMO is often triggered when opportunities present themselves, such as seeing a limited time deal for a particular product. Hence, if the individual does not adopt the offer and ends up missing out on the deal, this is perceived as a loss to the consumer. Adopting the deal is not seen as a gain, but rather negating a perceived loss. Thus, FOMO consumers are driven to behave in ways to mitigate that potential loss.

2.6 EMOTIONAL CORRELATES OF FOMO

2.6.1 Fear and Anxiety

To further illustrate how FOMO operates and exist within an individual, the following section explores the emotion of fear and how it drives FOMO.

One negative emotion that is commonly employed to influence consumer behaviour is fear. Fear is instinctual and has the ability to drive behaviour. Fear results in feelings of anxiety and tension, which are negative states that people avoid and seek to reduce (LaTour, Snipes, and Bliss 1996). This is supported by the drive reduction theory, which conceptualises fear as “a drive state that motivates individuals to adopt recommendations expected to alleviate the unpleasant state” (Williams 2012, 6). Fear and anxiety are ordinary responses to situations in everyday life, and are an essential part of being human. The word “fear”, initially represented impending peril or calamity, but later has been described as the feeling of uneasiness triggered by the sensing of potential danger. Anxiety on the other hand means ‘troubled in mind,

solicitous or uneasy.” Though the two are conceptually similar, they do share subtle differences. Fear is an instinctual response to a more immediate threat, whereas anxiety is an outcome of fear of a more distal, non-present threat that is predominantly more cognitive in nature (McNeil et al. 2012). Steimer (2002) similarly describes fear being focused on a recognized threat of danger, whereas anxiety is a more generalised response to an unidentified threat or internal conflict. For FOMO, these two emotions work simultaneously with each other.

Fear and anxiety are important emotional states which has contributed to the survival and evolution of human kind (Williams 2012; Misslin 2003; McNeil et al. 2012). Fear can be understood as a functional defence behaviour system, which is a basic to the survival of both humans and animals alike. It functions as a mechanism to protect humans and animals from threats of danger or the avoiding of aversive situations. This is typified through the “fight or flight” system where living beings either stand their ground and defend or flee when faced with predators or stressful, aversive situations (Misslin 2003; McNeil et al. 2012).

The adaptive nature of fear and anxiety allows an individual to respond more effectively to dangers. In particular, anxiety allows for people to anticipate and prepare for potential negative outcomes in the future. Elicitation of these approach-avoidance behaviours as described in the “fight or flight” instance is not necessarily confined as a response to adverse situations. Novel objects, foods, and situations also prompt adaptive approach-avoidance behaviours in humans and animals. These behaviours can be beneficial as the unfamiliar carries with it the possibility of both danger and opportunity (McNeil et al. 2012). Since the manner in which people respond to fear is learned, marketers often rely on such appeals to arouse interest in products or services (LaTour, Snipes, and Bliss 1996).

In addition, in a lot of instances, fear is sometimes more powerful than reason. People are hard-wired to flinch first and ask questions after. For example, reacting to non-existent threat, like avoidance of a stick which looks like a snake; as this is more favourable than failing to respond to an actual threat of a real snake (Williams 2012). As such, fear can be easily evoked in such a way that it is not subject to reason (Williams 2012; Maren 2008).

2.6.2 Fear Appeals in Marketing

In general, fear appeals are found to be an effective means to increase interest, involvement, recall and persuasiveness (LaTour, Snipes, and Bliss 1996; Williams 2012). Compared to

positive affect campaigns using warmth and humour to gain compliance, evidence shows that the use of negative emotions, such as fear, are more effective in arousing attention and enhancing recall (Snipes, Latour, and Bliss 1999). Fear appeals are not only used in discouraging negative social behaviour like drink driving and smoking (e.g. Witte and Allen 2000; Brennan and Binney 2010; Jessop and Wade 2008), but also in other forms of communications such as the marketing of products, services, political agendas, social causes and ideas (e.g. LaTour, Snipes, and Bliss 1996; Hartmann et al. 2014). Fear appeals are used to persuade an individual to take a particular course of action (e.g. refrain from drink driving, buying a particular product) through the threat of impending danger or harm which arouses fear (Williams 2012; Rogers 1975; Shimp 2010).

In general, fear appeals, which are neither extremely strong nor very weak, are the most effective. For example, if fear levels are too high, there is the possibility of defensive avoidance, denial of the threat or selective distortion exposure or distortion of the ad. In addition, advertisements that elicit feelings of fear, guilt or anger have the potential to cause the consumer to ignore or dislike them (Cotte and Ritchie 2005). However, research has found that high fear arousal can be effective if controlled for the right type of consumer segments. This is because some individuals may be more susceptible when the intensity of the fear is increased (Burnett and Wilkes 1980).

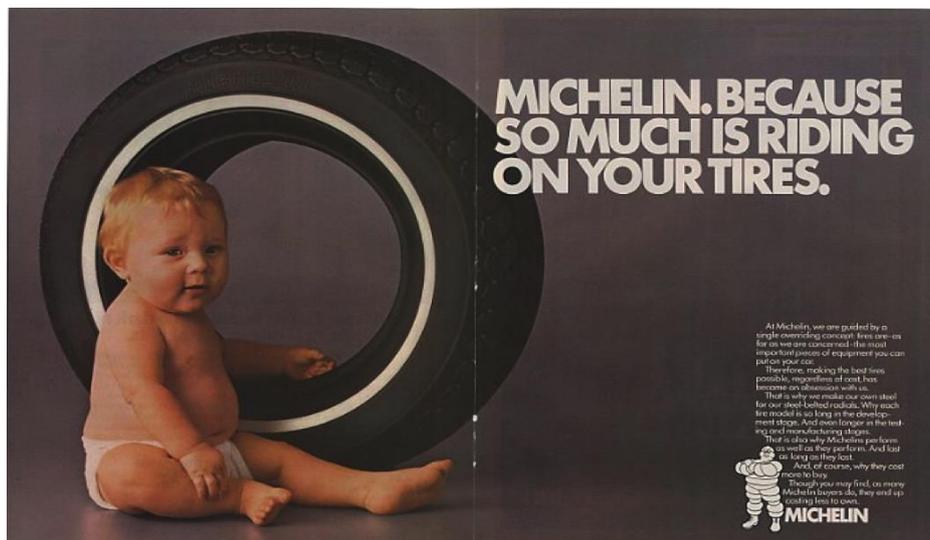


Figure 2-8: Michelin Tyre Advertisement (“Pathos, Ethos And Logos” 2016)

The decision to use a high or low intensity fear also depends on the degree of relevance the product or subject has with the receiver. In other words, people who are highly involved in a topic can be motivated by a relatively low fear appeal compared to someone who is less

involved, and may require a more intense level of threat to be motivated to take action (Shimp 2010). For example, a *Michelin* tire advertisement only needs to use subtle fear cues such as “babies sitting on or being surrounded by tyres” to influence the target audience (parents) to buy their tyres, because the safety of their children is of high relevance and priority to them (See Figure 2-8). On the other hand, advertisements which discourage young people from drink driving will need to employ a higher intensity fear appeal to impress on them that they are not only putting themselves at risk, but others as well (Shimp 2010). In the same way, individuals can experience varying intensities of FOMO and certain situations may trigger FOMO in higher intensities compared to others.

2.6.3 Types of Fear Appeals

Broadly speaking, fear appeals can be executed using either a rational or an irrational approach. Rational fear appeals induce fear **relating to potential physical harm**. For example, in a marketing context, advertisements for products such as smoke detectors and automobile tyres highlight the potential physical danger an individual might face if they do not adopt the products recommended by the advertiser.

Irrational fear on the other hand induces fear relating to risks which relate to **psychological harm**. For example, mouthwashes, deodorants, toothpastes and other similar products appeal to fears emphasizing on potential social disapproval. These advertisements may highlight how one maybe ostracized socially if they suffer from bad breath, have sweaty underarms, or if their teeth are not perfectly white.



Figure 2-9: People lining up days to buy limited-edition Air Jordan (Wong 2016)

In particular, **FOMO is driven by irrational fear**. The fear that by not going to an event, buying a product on sale or checking one’s social media feed, one would be missing out on a potential rewarding outcome. These types of fear relate to how FOMO individuals cope psychologically when these types of “opportunities” present themselves. Moreover, in these situations, it is the intense emotions experienced which drives behaviour. For example, some people would resort to queuing up for days before the limited edition product goes on sale (See Figure 2-9). As described earlier, products advertised as “limited edition” utilise the persuasive power of scarcity to influence purchase intention. This suggests that perceived scarcity can trigger the irrational fear of missing out in individuals, which in turn evokes positive purchase intentions.

2.7 DEFINING FOMO

To provide a more comprehensive definition for developing the scale, it is important to review current definitions of the term. This step is important to ensure a more holistic approach in its conceptualization.

Table 2-1: Summary of Current Definition and Descriptions of FOMO

Source Type	Source Name	Title	Definitions
Peer-Reviewed Journal	First Monday	“Following the Joneses: FOMO and Conspicuous Sociality.”	“FOMO can be understood as envy-related anxiety about missed experiences” (Reagle 2015, 2).
Peer-Reviewed Journal	Computers in Human Behaviour	“Motivational, Emotional, and Behavioural Correlates of Fear of Missing Out”	“Pervasion that others might be having rewarding experiences from which one is absent,” “FOMO is characterised by the desire to stay continually connected with what others are doing” (Przybylski et al. 2013, 1841).
Dictionary	Oxford Dictionary	“FOMO”	“Anxiety that an exciting or interesting event may currently be happening elsewhere, often aroused by posts seen on a social media website” (“FOMO,” n.d.).
Website	Danherman.com	“The Fear of Missing Out (FOMO)”	“FOMO is experienced as a clearly fearful attitude towards the possibility of failing to exhaust available opportunities and missing the expected joy associated with succeeding in doing so” (Herman 2011).
Dictionary	Urban Dictionary	“fomo”	“The fear that if you miss a party or event you will miss out on something great,’ ‘A state of mental or emotional strain caused by the fear of missing out,’ and ‘Evolutionary biology - An omnipresent anxiety brought on by our cognitive ability to recognize potential opportunities” (FOMO 2013).
Industry Publication	Slide Share: J. Walter Thompson Intelligence	“Fear of Missing Out (FOMO) (May 2011)”	“The uneasy and sometimes all-consuming feeling that you’re missing out – that your peers are doing, in the know about or in possession of more or something better than you” (JWT Intelligence 2011).

Source Type	Source Name	Title	Definitions
Popular Press	Huffington Post	“If You Don't Have FOMO You Don't Know What You're Missing Out On.”	“FOMO is basically an anxiety or apprehension around the idea that others might be experiencing something that you're not. It's the fear that your experiences aren't good enough when compared to those of others” (Jones 2016).
Popular Press	Time Magazine	“This Is the Best Way to Overcome Fear of Missing Out.”	‘It’s certainly not a good thing. And it leads you to check social media again and again and again so you don’t feel out of the loop. So you know you’re doing okay. So you don’t feel left out,’ ‘Sometimes that alleviates the anxiety — but often it doesn’t. And either way it drives you to keep running around the digital hamster wheel to feel okay with yourself’ (Barker 2016)

As seen in Table 2-1, majority of the definitions highlight the importance of social influences in triggering FOMO. For example, Przybylski et al. (2013) defines it as “pervasion that others might be having rewarding experience.” Reagle (2015) suggests it arises from “envy-related anxiety.” Oxford Dictionary indicates that it is “often aroused by posts seen on a social media website” (“FOMO,” n.d.). However, deeper analysis into the preceding definitions reveals three key components of FOMO. These are discussed in the following section.

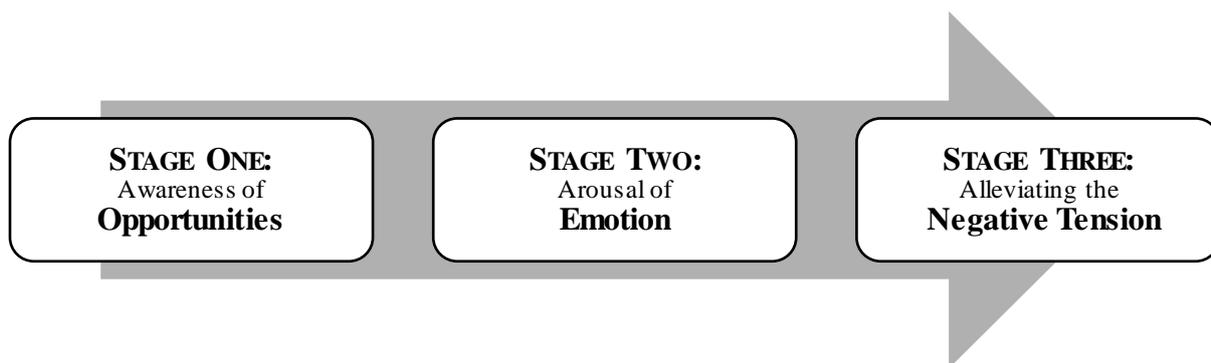


Figure 2-10: FOMO Behavioural Model

2.7.1 FOMO Behavioural Model

As seen in Figure 2-10, the FOMO Behavioural Model (FBM) was developed for this study to illustrate the stages that an individual undergoes when FOMO is first triggered.

2.7.1.1 Stage One – Awareness of Opportunities

The first stage of the FBM is the ‘awareness of opportunities’. These opportunities come with the promise of tangible and intangible benefits. A tangible benefit happens when an individual comes across an opportunity to enjoy significant savings when he/she comes across a limited time discount. An intangible benefit could in the form of a ‘rewarding experience’ – going to

an enjoyable concert or social event with friends. However, one of the key components of FOMO is that the individual must **be aware or informed about the opportunity**.



Figure 2-11: Global Snapshot of Social Media Users (Allen 2016)

As cited in Przybylski et al. (2013), social utilities today allow for individuals to have easy access to real-time information about these ‘opportunities’ such as activities, events or conversations that are happening within their social networks. As such, individuals today are exposed to an unfiltered number of such ‘opportunities’ evident by the staggering number of active social media users (See Figure 2-11).

Looking at it from a marketing perspective, these opportunities are presented to customers through a variety of persuasive messages and offers. One example is the use of scarcity appeals which research has found to increase the attractiveness of the particular product on offer (Gierl and Huettl 2010). Advertisers tend to use persuasive messages like ‘limited time sale,’ ‘only available for a limited period of time’ and ‘almost sold out’ to emphasize the inherent scarcity of the product on offer. These messages are communicated in both online and offline channels, aiming to reach as many consumers as possible.

2.7.1.2 Stage Two – Arousal of Emotions

The second stage of the FBM is the ‘arousal of emotions’ such as anxiety and fear. This is triggered by the awareness of a particular opportunity (as discussed earlier). As discussed earlier, this type of fear is not triggered because of impending danger (e.g. getting attacked by someone) but is more irrational in nature.

In a marketing context, these emotions can be intensified when the advertiser highlights or enhances the attractiveness of these ‘opportunities’ through the use of scarcity cues. A good example is during the ‘Black Friday sales’ where emotions run high during these one-day sale events leading to verbal and physical fights over sale items (Boyle 2015). In addition, repeating promotional offers reminds consumers of these ‘opportunities’, which has the ability to arouse feelings of anxiety and fear to be aroused each time the consumer fails to act.

2.7.1.3 Stage Three – Alleviating the Negative Tension

The third and last stage of the FBM is ‘alleviating the negative tension.’ Individuals experiencing fear and anxiety are motivated to reduce the negative tension they are feeling (Snipes, Latour, and Bliss 1999). This is supported by the drive reduction theory, which states that “individuals resort to behaviours that are expected to alleviate the unpleasant state” (Williams 2012). Looking at FOMO from a ‘social media addict’ perspective, this can explain why some individuals develop the compulsive need to check their social media feeds as means cope with the negative tension that they are feeling. Similarly, in a consumption setting, FOMO prone consumers, when presented with a message such as ‘buy now or you will regret missing out on this once in a lifetime opportunity,’ will start to experience intense feelings of anxiety and fear. As a result, it drives them to adopt the advertiser’s ‘recommended course of action’ so as to reduce or alleviate these negative emotions

Closely related to the concept of FOMO is the buying impulsiveness trait. It is defined as ‘a consumer’s tendency to buy spontaneously, unreflectively, immediately and kinetically’ (Rook and Fisher 1995, 306). Both traits are activated through a heightened emotional state, where the individual has low cognitive control (Vojvodic and Matic 2013). Sharma, Gandharva, and Kumar (2015) found that these impulsive individuals undergo the same negative state when they see triggers like point-of-sale displays and resort to impulse purchases to relieve stress, and such behaviour can be pleasurable as well. In the same way, the stress caused by the ‘need to

engage in the opportunity' can be averted through taking action. This has the effect of relieving the stress, which may result in a positive impact on the particular individual's mood state.

It is also important to note that impulsive buying and buying impulsiveness are different, as the former represents an enduring trait which motivates the latter (Sun and Wu 2011). More specifically, consumers with a buying impulse may not necessarily engage in impulsive buying. Research on impulsive buying found that even those with high impulsive tendencies do not necessarily give in to every spontaneous buying opportunity. Rather, there is a shift from an immediate impulsive feeling to buy, to the need for an immediate deliberation. This is because there are a multitude of factors (e.g. economic pressure, time pressure, social visibility etc.) that can influence impulse buying behaviour (Sharma, Gandharva, and Kumar 2015).

In a similar manner, FOMO consumers do not always succumb to their FOMO tendencies. It would depend on the degree to which they can control their emotional urges. Furthermore, the intensity of these feelings is determined by the situational context. For example, an individual may notice that all his/her friends are going swimming, which inadvertently triggers their FOMO tendencies. However, the intensity to which it is felt is negated by the fact that they do not actually enjoy swimming. This study proposes that this intensity or the attractiveness of the opportunity can be enhanced by the use of scarcity messages.

Based on the above discussion, this study defines FOMO as 'an individual's innate tendency to engage in behaviours that will alleviate the negative tension caused by the fear that one might miss out on potential opportunities.'

2.8 MEASURING FOMO

FOMO is a relatively contemporary phenomenon only popularized in the recent decade. As such, it is not surprising that there is a lack of empirical research done in the area.

To date, only one study by Przybylski et al. (2013) has looked at developing a measurement instrument for FOMO. The study used a self-report assessment technique underpinned by the latent trait theory to measure FOMO. As cited by Przybylski et al. (2013, 1841), FOMO is a "pervasive apprehension that others might be having rewarding experiences from which one is absent," and that "FOMO is characterised by the desire to stay continually connected with what others are doing". The approach taken to develop the scale emphasizes people's fears, worries and anxieties related to events, experiences and conversations, which take place across their

extended social circles. The conceptualization of the scale only focuses on specific domain of FOMO, in particular, social influences.

Furthermore, the scale has only been successfully implemented in relation to need satisfaction and an individual's psychological well-being (Beyens, Frison, and Eggermont 2016; Elhai et al. 2016; Przybylski et al. 2013). More specifically, it focuses on the affective and behavioural correlations on social issues such as distracted learning and driving (Przybylski et al. 2013), and its effect on social media usage (Beyens, Frison, and Eggermont 2016; Elhai et al. 2016; Przybylski et al. 2013). This highlights the limitations of Przybylski et al. (2013) FOMO scale in its applicability to measure FOMO in a marketing context, as well as in measuring other aspects of FOMO, that will be discussed in the following section.

2.9 DIMENSIONALITY OF FOMO

To reiterate, based on an analysis of a number of definitions in existing literature and popular press, 'fear of missing out' e.g. FOMO is defined as an individual's innate tendency to engage in behaviours that will alleviate the negative tension caused by the fear that one might miss out on potential opportunities. The general view of FOMO described in past studies related it to an 'envy-related anxiety about missed experiences' (Reagle 2015). It is seen as a social angst triggered by being deprived of what someone else is doing or is in possession of. For this study, the author describes the Comparative FOMO tendencies dimension. Additionally, the study posits that there are two other types of FOMO tendencies, namely Reactive FOMO tendencies and Anticipatory FOMO tendencies.

The rationale behind this approach is inspired by Huhmann and Brotherton (1997) who similarly described three dimensions in which guilt is elicited. They are namely reactive, anticipatory and existential guilt; more specifically, the existential and reactive dimensions conceptually correspond to two of the dimensions proposed. The subsequent sections will discuss and elaborate on each dimension of FOMO in detail.

2.9.1 Comparative FOMO Tendencies

As highlighted earlier, existing work on FOMO has described the impact of social influences on FOMO. More precisely, FOMO is associated with being deprived of something someone else possesses or has experienced. This type of FOMO can be illustrated in the following example. In early 2000, *McDonald's* Singapore launched a promotion which included a limited

edition *Hello Kitty* plush toy for every purchase of their 'Happy Meal'. At the peak of its popularity, almost 300,000 Singaporeans, which is approximately 8 percent of the population, resorted to queuing for hours outside 114 *McDonald's* outlets in Singapore just to get their hands on the limited edition plush toy. It turned into a nation-wide frenzy which generated a lot of media publicity. Moreover, the insatiable desire to possess these plush toys resulted in outbreaks of violence at some of the outlets ("Toy Riot in Singapore Burger Joint" 2000). An interesting statistic reported by the media was that of those who were queuing up for these plush toys, the majority were not even fans of the *Hello Kitty* franchise (Ng 2001). Many who were queuing up for the plush toys did so because of the limited quantities of the plush toy, but more so **because everyone else was doing it** ("On a Hello Kitty Hunt" 2013). As cited by Ng (2001) it was the **'inexplicable desire to have something which everyone else is having, regardless of whether it is of any use.'** Furthermore, this example also reinforces the impact that scarcity can have in driving behaviour. As cited by Roux, Goldsmith, and Bonezzi (2015), scarcity can induce a competitive drive towards advancing one's own interests.

Theoretically, this dimension can be understood through the concept of relative deprivation. It suggests that 'individuals are adversely affected when they perceive themselves to be socially or economically deprived relative to their peers' (Balsa, French, and Regan 2014). For example, a person's economic status relative to others has been shown to affect their level of happiness and health status (Gerdtham and Johannesson 2001; Lam and Liu 2014). A study conducted by Luttmer (2005) also reported that people who had neighbours earning a higher income compared to them were less happy compared to those who had neighbours with similar incomes.

Drawing from the conceptual definition of existential guilt, which is defined as guilt evoked based on the comparison of one's own well-being relative to others (Izard 1977), and the preceding discussion, **Comparative FOMO tendencies** is defined as 'the innate tendency towards FOMO which is driven by the desire not be deprived of what someone else is experiencing or is in possession of'.

2.9.2 Hedonistic FOMO Tendencies

This dimension of FOMO represents the hypervigilant state that individuals are constantly in which drives them to grab to every 'attractive opportunity' that comes their way. This is illustrated in Clark (2015) which described how FOMO drove the addiction towards being connected to social media networking sites. Furthermore, the article also revealed that a survey

conducted on teenagers found that over 53 percent of those surveyed checked their social media accounts at least 15 minutes before sleeping every night. In a marketing context, the ‘nagging’ feeling that one might miss out on a good deal may drive individuals to be constantly online checking for any available deals or sales. These behaviours are not driven by the tangible benefits associated with potential savings, but the emotional satisfaction obtained when the individuals manages to find a good deal. Similarly, such behaviour is also observed by that of deal prone consumers. Although previous research viewed deal proneness as a function of opportunity cost (consumers are prone to deals because of the significant potential savings), recent observations found that high-income consumer groups participated in deal hunting as well – where the monetary savings gained were insignificant to their high disposable incomes. This meant that they participated in such behaviour for more intangible reasons (Schindler, Lala, and Corcoran 2014). This is further supported by Kwon and Kwon (2013) who found that consumers derived great enjoyment and satisfaction from deal shopping.

Furthermore, this dimension relates to the negative state experienced due to anticipated regret if the individual were to miss out on the opportunity. It describes the period between the time when the individual first recognizes the opportunity to when he/she actually capitalizes on it.

Based on the preceding discussion, **Hedonistic FOMO tendencies** are defined as ‘the constant state of tension driven by the anticipated regret of missing out’.

2.9.3 Reactive FOMO Tendencies

Regret is a common and distressing emotional experience that has long-term consequences for health and well-being (Beike, Markman, and Karadogan 2009). This dimension of FOMO represents the regret experienced whenever individuals miss out on opportunities, which plays a significant role in determining future behaviour.

Theoretically, this can be understood by the lost opportunity principle (Beike, Markman, and Karadogan 2009) where lost opportunities act as a constant reminder to people not to lose out on future opportunities. In a marketing context, the reactive dimension looks at how missing out on consumption opportunities in the past can influence how individuals respond to future deals or promotional offers. More specifically, past regret motivates consumers to adopt these opportunities with less hesitation. This dimension represents a ‘buy first think later’ mentality where consumers are almost conditioned to respond positively when such opportunities present

themselves again. Moreover, each time they miss out on an opportunity, the regret motivates to be more vigilant in the future, making every effort not to miss out on the opportunity again.

Drawing from the conceptual definition of reactive guilt which is defined as guilt evoked based on ‘a response to the past and over an act of having violated those standards’ (Lwin and Phau 2011, 304), and the preceding discussion, **Reactive FOMO tendencies** is defined as ‘the regret experienced because of missed opportunities in the past which drives future behaviour’.

2.10 ASPIRATIONAL LUXURY BRANDING

Many scholars have argued that that luxury brand’s true identity is defined by its uniqueness and inaccessibility to the masses (Dubois and Paternault 1995; Kastanakis and Balabanis 2012). However, because of the changing dynamics in the marketplace today, luxury brands are no longer limited to the select few. Due to improved economic factors worldwide, such as increasing disposable incomes and lower unemployment rates, the luxury market is becoming more mass market, which not only caters to the wealthy, but also to those of more modest backgrounds (Truong, McColl, and Kitchen 2009). As a result, luxury brands today have started to stretch the perceived boundaries of luxury through introducing more affordable product lines to the market (Catry 2003; Kapferer and Valette-Florence 2016; Okonkwo 2009; Kastanakis and Balabanis 2012). This has created a type of luxury consumption which appeals to a wider audience, who are attracted by the prestige derived from the consumption of luxury brands (Kastanakis and Balabanis 2012). In literature, this transformation of luxury is described as the ‘democratization of luxury’ (Kapferer and Laurent 2016), and these affordable product lines introduced are known as ‘masstige luxuries’ (Silverstein and Fiske 2003; Kastanakis and Balabanis 2012).

Due to the inherent inaccessibility of its core products (the obvious barrier being price), many luxury brands have started to adopted category extensions to make it more accessible to the masses. This is also seen as means to attract new consumers to the brand. These brands have started to introduce products lines such as watches, eyewear, bags and perfume to the market at affordable prices (Kapferer and Laurent 2016). For example, luxury brands such as *Louis Vuitton* have included lifestyle products like watches and eyewear in their product line which are less costly than their premium flagship leather goods (Nueno and Quelch 1998). The success of these extensions can be attributed to how these luxury brands are seen as an aspirational target for many users. Luxury brands release these line extensions to allow people

who are not able to afford their premium lines feel that they are still part of the brand experience (Lamb 2011). As cited in Kapferer and Bastienm (2012), luxury brands should not only be perceived as unique and exclusive, they should also evoke aspirational goals in their target consumers. Hence, for consumers, these cheaper alternatives are seen to be a progressive step towards attaining the more premium lines in the future. Hence, it is important for luxury brands today to understand the importance of evoking such aspirational goals in consumers. For the purposes of this study, this study describes this approach to luxury as ‘aspirational luxury branding’.

2.10.1 Luxury Brands and Scarcity

Despite being inherently scarce in nature, luxury brand managers have found that they are able to further enhance this ‘perceived value’ through scarcity messages in their communication strategy. For example in 2013, despite seeing an increase in its sales, *Ferrari* decided to cut production of its cars so as to maintain the exclusivity of its brand (Allen 2013). Luxury brands also frequently release special or limited edition version of their products which are only available at limited quantities (Orlovic 2002). For example, luxury car manufacturer *Bentley* recently launched its first Australian limited-edition model dubbed the ‘Black Speed’ in conjunction of the Australian Formula 1 Grand Prix. Further, it was announced that only 10 such cars were available for purchase (Sinclair 2016). The release of these exclusive models have the effect of enhancing the overall perception of the brand (Snyder and Fromkin 1980; Snyder 1992).

2.10.2 Luxury Brands and FOMO

Luxury brands today have recognized the importance of social influences in their marketing communication strategies. In particular, this concept of FOMO has started to gain traction with advertisers in the development of their promotional strategies.

The demographic profile of luxury brand buyers is no longer confined to the stereotype of older, wealthier individuals. As discussed earlier, the global appeal of luxury brands has significantly changed as the distribution of wealth as seen in emerging economics has broadened (Nueno and Quelch 1998). The luxury market once thought of as a niche has started to become relative mass market, accessible not only to the wealthy, but also to more modest income groups (Nueno and Quelch 1998; Truong, McColl, and Kitchen 2009; Yeoman and McMahan-Beattie 2006).

This evolution has led the re-evaluation of marketing communication strategies adopted by luxury brands. Traditionally, luxury brands have refrained from a mass-marketing approach when it comes to promoting its brands as they see it as diluting the exclusive allure of the brand. This is because these brands perceive that consumers will seek out their brand and hence do not need to invest much resources to reach their consumers. However, if luxury brands continue with this approach today, they risk alienating their consumers.

Brands such as *Burberry* and *Tiffany and Co* have started to engage with their consumers using social media platforms such as *Instagram* and *Snapchat*. For example, *Burberry* became the first luxury brand to run a native ad through *Snapchat*'s discover channel. The *Burberry*-sponsored channel was dedicated to promote its latest men's fragrance and other grooming products. Within it, users were able to view articles, videos and interviews inspired by the theme 'how to be a modern man.' To appeal to an individual's FOMO nature, the sponsored channel only ran for 24 hours before disappearing. This encouraged its users to interact and engage with the content before it was 'too late.'

A report by *McKinsey & Company* found that globally, almost 95 percent of all luxury brand buyers own at least one smartphone. These consumers are also highly social digitally, with 80 percent of these shoppers using social media such as Facebook and Twitter on a monthly basis. Also, these consumers are not just passive users. Almost two-thirds of luxury brand buyers are involved with generating and posting their own social media content through photographs, reviews or sharing content created by other people (Remy, Catena, and Durand-Servoingt 2015).

The benefits for luxury brands engaging with their target audience through these channels are two-fold. Firstly, it allows brands to interact, engage and reach their current customer base more effectively. It allows brands to trigger an individual's FOMO tendencies by informing them about new product releases or exclusive events. Secondly, it also creates a platform to attract new users as their current clientele through their social media channels act as their brand ambassadors through the sharing of content generated by the brand as well as their own experiences with the brand. Seeing their friends owning and sharing their experiences with the brand, it further capitalizes on the prevailing fear of missing out which has captured the minds of this new generation of customers.

However, despite the obvious significance of the scarcity appeals and FOMO for luxury brands, a review of past literature still indicates a lack of research done in this area. Much of the work done so far has been limited to industry publications (JWT Intelligence 2011; JWT Intelligence 2012; Remy, Catena, and Durand-Servoingt 2015). In particular, few studies have looked at the success of the use of scarcity appeals to enhance the perceptions of these aspirational luxury brands who have adopted category extensions to allow their brand to more accessibility to new users.

2.11 PUBLIC AND PRIVATE PRODUCT DIMENSIONS OF LUXURY BRANDS

Based on Bourne (1957), Bearden and Etzel (1982) suggests that reference group influence can influence product and brand decisions based on two forms of ‘conspicuousness.’ These are operationalized as the necessity-luxury items dimension and the public-private consumption dimension.

The necessity-luxury item dimension compares products based on their ownership where necessities are ‘possessed by everyone’ and luxuries are products that possess a degree of exclusivity. Thus, in regards to reference group influence on product decisions, a product that is ‘possessed by everyone’ is not likely to be seen as conspicuous no matter how visible it is (Bearden and Etzel 1982).

The public-private consumption compares products based on where a product is consumed where publicly consumed products are observable by others whereas privately consumed products are not. Thus, in regards to reference group influence on brand decisions, products that are easily recognized are more prone to reference group influence (Bearden and Etzel 1982).

Table 2-2: Public-Private and Luxury-Necessity Dimensions with Product and Brand Decisions (Bearden and Etzel 1982)

	Weak RGI (-) (Product Decisions)	Strong RGI (+) (Product Decisions)
Strong RGI (+) (Brand Decisions)	Public Necessities: Consumed in public view that owned by most people	Public Luxuries: Consumed in public view and not commonly owned
Weak RGI (-) (Brand Decisions)	Private Necessities: Consumed out of public owned but owned by most people	Private Luxuries: Consumed out of public view and not commonly owned

RGI = Reference Group Influence

Combining the two dimension of public-private consumption and luxury-necessity, Bearden and Etzel (1982) produces following four conditions, namely, Publicly Consumed Luxuries, Publicly Consumed Necessities, Privately Consumed Luxuries and Privately Consumed Necessities. These are also depicted in

Table 2-2.

In measuring the necessity-luxury dimension, Bearden and Etzel (1982) described it as a continuum ranging from absolute necessity to absolute luxury. Subsequently, Kemp (1998) developed a six-point scale Likert scale ranging from ‘a necessity for everyone’ to ‘a luxury for everyone’ to measure this particular dimension (Heine 2011). However this assumption was found to be somewhat flawed (Heine 2011), and a study conducted by Chaudhuri (1998) who measured necessity and luxury as two separate variables found no significant between the two variables.

Furthermore, in relation to luxury brands, the relevance of the necessity-luxury dimension is also lacking. Luxury brands as portrayed by literature are characterized by their high price and exclusive to those that could afford it (Bian and Forsythe 2012; Snyder and Fromkin 1980; Frank Vigneron and Johnson 2004). Hence, the necessity-luxury dimension in the context of luxury brands may not be applicable. However, an interesting aspect of luxury brands is in relation to the public-private consumption dimension described by Bearden and Etzel (1982). Many consumers tend to buy luxury products because they signal wealth and social status (Wilcox, Kim, and Sen 2009). Hence, the visibility of the product is an important when choosing luxury brands. However, people still continue to buy luxury brands which are privately consumed. Thus, the differences between public vs private consumed luxury products warrant further investigation.

2.12 DESIRE FOR UNIQUENESS

The complexities of understanding unique value is attributed to its foundations in both interpersonal and personal effects (G. Sun, D’Alessandro, and Johnson 2016; Franck Vigneron and Johnson 1999). Desire for uniqueness is viewed as an inherent trait of an individual (Lynn and Harris 1997; Sun, D’Alessandro, and Johnson 2016). As postulated in the uniqueness theory, people in general seek to maintain an equilibrium between conformity and distinctiveness when comparing themselves to others (Snyder and Fromkin 1980). Snyder (1992, 10) suggests that the degree of similarity an individual’s experiences will be evaluated based on a uniqueness identity dimension, ‘a hypothetical cognitive continuum on which the person performs an overall analysis of his or her similarity relative to one or more people,’ in which varying levels of perceived similarity will be correlated in terms of its acceptability. More specifically, the author proposes that increases in perceived similarity from very slight

to moderate levels results in increased acceptability. However, when the individual sense of perceived similarity exceeds the moderate range, it becomes less acceptable.

This desire to express uniqueness has found to be a strong motivator of many aspects of behaviour including consumption (Lynn and Harris 1997). Though it is an individual's innate nature to pursue uniqueness, this pursuit has the potential of alienating others. Hence, many individuals strive to achieve a certain level of distinction between one self's to others in more socially acceptable ways (Lynn and Harris 1997; Snyder and Fromkin 1980).

For many consumers, the desire to be unique drives them to pursue goods, services and experiences that will help distinguish themselves from others. This drives consumption decisions such as purchasing rare or novel goods (Franke and Schreier 2008; Tian, Bearden, and Hunter 2001). These consumers have a preference for products which are unique and different from mainstream products (Tian, Bearden, and Hunter 2001).

Hence, for marketers, it is important to highlight the uniqueness of the product through their communications strategies. Lynn & Harris (1997) found that almost one quarter of all advertisements promote the exclusiveness of the product or its ownership.

2.12.1 Measures of an Individual's Uniqueness Disposition

In literature, many empirical studies have used the uniqueness construct in a variety of contexts to explain a range of consumer behaviours. In particular, many of these studies have looked at how an individual's inherent pursuit for uniqueness can influence an individual's attitudes and behaviour towards scarcity effects (Lynn and Harris 1997; Roy and Sharma 2015; Snyder 1992; Verhallen and Robben 1994; Wu et al. 2012). Hence, to test the effects of an individual's inherent desire for uniqueness, researchers have since developed specific measurement scales to achieve this. However, as reviewed by (Lynn and Harris 1997; Ruvio, Shoham, and Brencic 2008), many of these scales use items which emphasize on public and socially risky displays of uniqueness. For example, in Snyder and Fromkin (1977) need for uniqueness scale, some of the items include 'I find it sometimes amusing to upset the dignity of teachers, judges, and 'cultured' people' and 'I speak up in meetings in order to oppose those who I feel wrong.' Another example is from Tian, Bearden, and Hunter (2001) where some of the items include, 'When dressing, I have sometimes dared to be different in ways that others are likely to disapprove,' and 'If someone hinted that I had been dressing inappropriately for a social situation, I would continue dressing in the same manner.'

However, as cited by Snyder and Fromkin (1980), people have a preference for more socially conventional ways of being unique. Though the items described earlier may not be entirely reflective of the nature of the full scale, they still represent a degree of biasness within the aforementioned scales (Lynn and Harris 1997; Ruvio, Shoham, and Brencic 2008). In response to these criticisms, Lynn and Harris (1997) addresses these measurement problems by measuring consumer dispositions rather than specific behaviours, by developing the self-attributed need for uniqueness (SANU) scale. However, though preliminary work on the SANU scale offers promising results in understanding the role of uniqueness in explaining consumer behaviour, it is still very limited and warrants further investigation.

2.12.2 Uniqueness and FOMO

Based on the preceding literature, it reveals that FOMO and uniqueness are two distinct traits. However, there is evidence to suggest that though they are distinct, they are conceptually similar in terms of how they function as a trait. Although there are no existing empirical studies which support this assumption, an analysis of their conceptual definitions and how they are operationalized provides a preliminary evidence of this correlation. In particular, they share similarities in two main ways.

Firstly, both are subjective to the effects of interpersonal influences. One of the key drivers for human motivation is the need to form strong and stable interpersonal relationships (Baumeister and Leary 1995). This has a significant influence on an individual's emotional and cognitive processing, which in turn influences behaviour. The majority of current literature on FOMO reinforces this notion where FOMO tends to arise in response to an envy-related anxiety caused by seeing someone else doing or in possession of something they do not have or are not a part of (JWT Intelligence 2012; Reagle 2015). As highlighted in Przybylski et al. (2013), individuals who struggle with FOMO experience intense unease whenever they felt at risk of missing out, and many of whom who experience such feelings more intensely are those that suffer from low 'need for belongingness' (Maslow 1943).

Based on the uniqueness theory, individuals have a predisposition to compare themselves based on how similar they are relative to that of others (Snyder 1992). Though individuals who desire uniqueness tend to favour having higher levels of distinction compared to other people, this is limited to degree to which this 'distinction' is acceptable to other people. In other words, individuals can behave in ways that demonstrate their uniqueness, but they only do it within

the constrains that this behaviour is seen to be acceptable by other people (Snyder and Fromkin 1980).

Secondly, both traits drive behaviour because of the need to alleviate the negative tension experienced. For FOMO, this is evidenced in current literature where the onset of FOMO is accompanied by feelings of anxiety and uneasiness. Based on the FOMO behavioural model described earlier in this chapter, individuals are motivated to act on these opportunities because not doing so will prolong the unpleasant feelings of anxiety and unease. Similar, an individual's desire to perform behaviours which demonstrate uniqueness are done in response to a strong emotional tension (Helgar Dittmar 1992). More specifically, an individual pursuit for uniqueness is motivated by the need to avoid being labelled as being 'common' (Lynn and Harris 1997; Tian, Bearden, and Hunter 2001). Hence, based on preliminary evidence of the associations between these two traits, it warrants further investigation into how these two traits are related in an empirical sense, more precisely, how they influence consumer attitudes and behaviour.

2.13 ATTITUDE TOWARD THE ADVERTISEMENT

Attitudes are an important part of daily life. Routine activities like the choosing what to eat can be a complex process. For example, when choosing a brand of cereal to buy, if consumers did not have any enduring positive or negative feelings about any brands in the cereal category, it may take them considerably longer time to make a decision (because of the sheer number of choices available on the shelf). Hence, they are likely to spend more time and cognitive resources evaluating each brand before eventually coming to a decision. On the other hand, if they held favourable attitudes about certain brands of cereal, it would make their choice less difficult. As such, attitudes play an important role in helping consumers reach decisions more efficiently. In this sense, having enduring attitudes, either positive or negative is functionally favourable to consumers (Jaehwan and Nayakankuppam 2015).

Understanding consumer's emotional responses to advertisements has had increased significance for both academics and practitioners (Batra and Ray 1986; Brown and Stayman 1992). The belief that an individual's affective responses towards the advertisement can influence their evaluation as well as purchase intentions towards the brand has been conceptualised as the attitude towards the advertisement construct (Chattopadhyay and Nedungadi 1992).

Attitude towards the advertisement is defined as 'predisposition to respond in a favourable or unfavourable manner to a particular advertising stimulus during a particular exposure occasion' (Lutz 1985, 46). Mitchell and Olson (1981) and Shimp 1981) have introduced and suggested the important role that attitudes towards the advertisement construct plays in understanding advertising effectiveness. Haley and Baldinger (2000) suggested that positive affect towards an advertisement may be the best indicator for advertising effectiveness. Since then, there has been a growing number of empirical studies which have found it to be a useful measure of advertising effectiveness relating to brand attitudes and perceptions (Biehal, Stephens, and Curlo 1992; Lutz, McKenzie, and Belch 1983; Shimp 1981), affective responses (Batra and Ray 1986; Gelb and Pickett 1983; Kim, Baek, and Choi 2012; Olney, Holbrook, and Batra 1991).

In addition, empirical work by Mitchell and Olson (1981) found evidence of the mediating role of the attitude towards the advertisement construct when results their experiment concluded that they were able to better predict brand attitude and behavioural intention if attitude towards

the ad was taken in consideration, together with beliefs about certain product attributes. Similarly, using a classical conditioning perspective, Shimp (1981) suggested when consumers are repeatedly exposed to products in an advertisement are portrayed in a manner in which the consumer perceives as appealing or attractive (e.g. with use of pleasant stimuli such as music or a likeable character), these positive perceptions over time are eventually transferred to the brand that represents the product. In short, a positive affective response through a process of conditioning will not be just for the ad, but also to the branded product that is the subject of the ad (Gelb and Pickett 1983; Shimp 1981).

2.13.1 Attitudes and Traits

Although conceptually distinct, both attitudes and traits share many similar characteristics. For example, they are both are described as within-person constructs that have the ability to forecast future behaviour (Sherman and Fazio 1983; Ajzen 1987). In addition, attitudes and traits are also similarly derived based on observations of behaviours. When there is certain level of consistency observed in the behaviour which fits with the conceptual understanding of a particular trait/attitude, researchers are then able to draw similar conclusions when predicting other behaviours (Sherman and Fazio 1983). Further, there are parallels between attitudinal responses and traits seen from a classical conditioning perspective. For example, both traits and attitudes can be seen as a conditioned response that an individual has derived biologically from birth or has developed over time. Both share enduring effects in which the individual is conditioned to respond in a particular way when in a particular situation or presented with a particular stimulus. For example, an individual who possesses the FOMO trait is conditioned to respond favourably presented with an attractive opportunity. Similarly, an individual who has positive attitudes towards a particular brand is likely to respond favourably to the products that are developed by that particular brand.

One of the main distinctions between attitudes and traits is that attitudes can only exist in reference towards a particular object. It must be directed towards someone or something. In contrast, traits are more generalized concepts and do not need to be directed at something to make sense. For example, Adam is 'creative' is a meaningful statement without needing it to be directed at a particular object (Sherman and Fazio 1983). However, as discussed earlier, traits and attitudes are derived based on observed behaviour, and for a trait to be more meaningful, a situation/context is necessary. Further, traits unlike attitudes involve a variety of behaviour directed at multiple objects. For example, FOMO can be measured through different

such as ‘bothers me when I miss an opportunity to meet up with friends’ or ‘when I on a vacation, I continue to keep tabs on what my friends are doing’ (Przybylski et al. 2013).

Work done in the area of social sciences has attempted to integrate the two domains of attitudes and personality traits as means to better understand behaviour. In particular, Ulleberg and Rundmo (2003) found that attitudes mediated the relationship between personality traits and behaviours, meaning that personality traits influences behaviour through affecting the behaviours attitudinal determinants. For example, the study found that adolescents scoring high on altruism, as well as on trait anxiety, were more likely to have a positive attitude towards traffic safety and were less likely to undertake risky behaviour in driving. Results indicated that a total of 47 percent of the variance in attitude towards traffic safety were explained by the different personality traits. This lack of direct effects of personality traits on risk-taking reaffirms that behaviour was generally mediated by attitudes. This personality-attitudes behaviour model is supported by Lucidi et al. (2014), who reported similar findings.

In a marketing context, studies have reported significant relationships between attitudes and personality traits. For example, in Kolar and Zabkar (2014), results indicated that traits derived from the (Big Five). In particular extroversion and openness were found to have a significant influence on attitudes towards domestic versus multinational products. However, there is limited work done in understanding the mediating role of attitude towards the advertisement on traits and behaviour especially in an advertising context. Further, the intended meaning of advertisements can sometimes be misinterpreted by the receiver. This is because different people may have unique preferences for different types of ads, and may react more favourably when exposed to an advertisement that matches their personality (Myers et al. 2006). Myers et al. (2006) proposes that specific traits can influence the persuasiveness of the advertisement by moderating the links to attitude toward the advertisement, attitude towards the brand and purchase intentions. Hence, understanding the role of attitudes is important to better understand and predict the influence on traits and behavioural intention.

Finally, Lord, Lee, and Sauer (1995) suggest that though behaviour is driven primarily through attitude toward the advertisement, it is still important to recognize the influence of message arguments and how cognition plays an important role in eliciting favourable attitudinal responses. Hence for advertisers, there is a need to ensure that the messages are conform to the recipient’s existing beliefs (or in particular for the study’s context their traits), which in turn are likely to elicit favourable perceptions.

2.14 PURCHASE INTENTION

Past literature has suggested that stated intentions are perhaps the best predictors of actual behaviour (Fishbein and Ajzen 1975). In this context, it means that consumers stated intentions to purchase the product would lead to the purchase. Numerous studies have found statistical significant relationships between prior intentions and subsequent purchasing of goods at both household and aggregate levels. However, forecasting the value of these intentions has been both disappointing and controversial (Morwitz 1997; McNeil 1974; Juster 1966; Kalwani and Silk 1982; Chandon, Morwitz, and Reinartz 2005). Despite this, purchase intention is still a good measurement of advertising effectiveness used by marketers as a guide to forecast relative effectiveness of an advertising appeal or campaign (Stafford and Day 1995; Morris et al. 2002; Jamieson and Bass 1989).

Personality traits are found to play an important role in predicting and explaining human behaviour (Icek 2005). An individual's personal interests or traits act a part in establishing their choice criteria through enduring beliefs and values held by the individual. For example, preferences for different types of food vary amongst different individuals and individuals also tend to express traits such as being 'adventurous,' 'conservative' or 'picky' in relation to the food consumption choice (Furst et al. 1996). In a different context, results of the study by Chen and Tsai (2010) found that the impulsiveness and vanity trait was found to be a significant predictor on consumers purchase intention towards luxury goods.

2.15 INFERENCES OF MANIPULATIVE INTENT

Deceptive tactics are commonly employed as means to influence consumer behaviour. Deception takes place when the consumer believes that the advertiser has manipulated or presented the product/product information in a way to persuade them to act in a particular manner (e.g. purchasing an item based on a misleading or misrepresented information) (Riquelme and Roman 2014). Further, a tactic is deceptive regardless of whether it was the intention of the marketer to deceive or not (Burke et al. 1988).

Persuasion as defined by Hunt (1976) is the 'manipulation of symbols by one party in an attempt to induce certain changes in another party.' For marketers use a variety of persuasion tactics to induce behavioural and attitude change. This come in the form of guilt appeals (Cotte, Coulter, and Moore 2005), offering various pricing or other incentives (Carlson, Bearden, and

Hardesty 2007), placing restrictions on promotional offers such as limited time deals (Inman, Peter, and Raghurir 1997) just to name a few.

Many consumers believe that advertisers sometimes inappropriately employ the use of persuasion tactics to try and manipulate consumers, this is sometimes referred to as the inferences of manipulative intent (Campbell 1995; Chang 2007; Wentzel, Tomczak, and Herrmann 2010). Inferences of manipulative intent' is defined as the 'consumers' perception that the advertiser is attempting to persuade them through inappropriate, unfair or manipulative means' (Campbell 1995, 226). Literature suggests that individuals tend to reject information that believe is designed to manipulate them unfairly (Sagarin et al. 2002). As such, consumers are likely to respond contrary to the advertiser's objectives of a particular advertisement if they perceive the ad's message as manipulative (Wood and Eagly 1981; Campbell and Kirmani 2000; Cotte, Coulter, and Moore 2005; Carlson, Bearden, and Hardesty 2007; Sagarin et al. 2002).

Studies have found that consumers' perceptions of manipulative intent arise, consumers' personal experiences as well as their thoughts about experiences with the advertiser play a vital role (Campbell 1995; Cotte, Coulter, and Moore 2005). Over time, consumers develop knowledge about persuasion attempts made by marketers. This is an adaptive process which allows them to cope and respond to these persuasion attempts so that they are better able to make informed, objective decisions (Friestad and Wright 1994). This is outlined by the Persuasion Knowledge Model (Friestad and Wright 1994). When suspicions are aroused about an advertiser motives, it heightens awareness about the particular persuasion tactic and, as a result, lowers its persuasiveness.

The influence of IMI is particular relevant in scarcity appeals because of its repeated use as a persuasive tactic used in the marketplace (Aguirre-Rodriguez 2013; Tan and Chua 2004). Consumers are likely to infer manipulative intent when the particular ad conveys scarcity information that the marketer is unlikely to disseminate accurately or be objectively verify.

Research has found that scarcity caused by 'limited quantities' are generally more persuasive as consumers are less suspicious of its claims as compared to scarcity caused by 'excessive demand.' This is because it is more believable when marketers communicate product supply shortages as they have control over distribution and manufacturing strategies as opposed to demand-related product scarcity where these conditions are hugely subjective as they are

associated with other consumer's apparent purchase preferences and behaviour towards the item. This is coupled by the fact that information about DRS conditions are only accessible to the marketer (Aguirre-Rodriguez 2013).

Though scarcity can have a positive influence on preferences for the scarce product, it only has an effect if consumers believe that the scarcity is attributed to market forces. When consumers believe that the scarcity is created non-market forces, scarcity messages are generally not as effective (Parker and Lehmann 2011).

2.16 CONSUMER SUSCEPTIBILITY TO INTERPERSONAL INFLUENCE

Bearden, Netemeyer, and Teel (1989, 474) define consumer susceptibility to interpersonal influence (CSII) as a 'the need to identify or enhance one's image with significant others through the acquisition and use of products and brands, the willingness to conform to the expectations of others regarding purchases, and/or the tendency to learn about products and services by observing others and/or seeking information from others.' The literature identifies two dimensions for CSII. First, a normative dimension in which the consumer has the desire to conform to the expectations of others. Second, an informational dimension where the consumer learns about products through observation or seeking information from others (Bearden, Netemeyer, and Teel 1989). Research by Cheng et al. (2013) has found that interpersonal influence can enhance emotionally driven purchases such as impulse buying situations.

The presence of a companion in which the individual has a high-cohesive (someone whom he/she is very close) relationship with during the purchase scenario tend to exhibit a higher likelihood for impulse purchase behaviour.

In consumer decision making, social influences can motivate an individual towards either informational or social-normative goals (Bearden, Netemeyer, and Teel 1989; Deutsch and Gerard 1955). For example, those motivated by informational goals may use these groups when seeking information about a particular product or brand and those motivated by social-normative goals are likely choose product or brands that conform and are accepted by their peers. In short, consumers are influenced by the preferences of others to the extent that it is beneficial in aiding them in obtaining information, comprehending reality, maintaining relationships and building their identity (Wood and Hayes 2012).

Additionally, as highlighted in the preceding sections, social influences have a significant impact on triggering an individual's FOMO tendencies.

2.17 RESEARCH GAPS

2.17.1 Research Gap 1 – The need to develop a ‘Fear of Missing Out’ (FOMO) scale relevant to a marketing context

A review of literature reveals that the current measure of FOMO by Przybylski et al. (2013) is unable to effectively cover the full domain of FOMO. The current measure of FOMO is constrained to ‘missed social experiences’. In other words, this interpretation is limited to its relevance within socially-driven context. Hence, its use within a marketing context may be affected by its relevance to a consumer's perspective. In response to this limitation, a more holistic conceptualisation and measurement of FOMO is needed to adequately allow for FOMO to be adequately operationalized within a marketing context. Hence, a new measure of FOMO which is generalizable in a marketing context is required.

2.17.2 Research Gap 2 – The need to expand the knowledge on how traits can influence consumer's receptivity of different advertising messages. More specifically, to expand the operationalisation of FOMO in marketing, through the use of scarcity messages to promote aspirational luxury products.

A review of literature reveals that there is a lack of research in understanding how FOMO as a trait can be operationalized within a marketing context. Most work which has explored the use of FOMO and its impact of consumer behaviour has been limited to industry publications (JWT Intelligence 2012; Remy, Catena, and Durand-Servoingt 2015). In a broader sense, understanding how different traits can impact on advertising has not been a key focus in marketing literature. Based on the concept of relationship marketing (Sheth and Parvatiyar 1995), or a more formalized approach described as Customer-Relationship Management (CRM), which believes that an individualised approach is the most effective way to reach the consumer (Verhoef 2003; Winer 2001). This approach suggests that marketing efforts should be focused on what the customers wants as opposed to what they are. However, personality literature suggests that consumers can be more effectively reach via a more collective approach through reaching consumers based on their individual traits (Myers, Sen, and Alexandrov 2010). Hence, it may be more effective to focus on ‘who the customer is’ as opposed to ‘what the consumer wants.’ In other words, understanding how personality traits work can provide

marketers with valuable insight into how to effectively appeal to consumers based on their traits. In a persuasion context, it allows marketers to determine which strategies best appeal to a particular trait.

Within the context of this study, it provides an opportunity to close this gap by investigating how traits such as FOMO as well as desire for uniqueness impacts on the effectiveness of scarcity messages. In a broader sense, the outcome will provide insights into how advertisers can match specific traits to specific types of persuasive messages, which in turn has impact on the overall effectiveness of their advertising strategy. In addition, though there have been a substantial amount of literature in understanding the impact of scarcity messages in advertising (e.g. Gierl and Huettl 2010; Lynn 1991), there is still limited work exploring the effects of scarcity appeals in a luxury branding context, focusing on a aspirational luxury branding perspective.

2.17.3 Research Gap 3 – The need to validate the relationship between desire for uniqueness and FOMO

An examination of current literature has suggested opportunities in validating the conceptual relationships between desire for uniqueness and FOMO. An analysis of past literature for both construct has revealed that though both constructs are distinct constructs, they share similarities based on their conceptual definitions and operationalisations. Firstly, they are both trait which exist due to an individual's need to belong. Secondly, they drive behaviour in response to the need to alleviate a negative emotional tension. Hence, this unique relationship that both constructs share warrants further investigation.

2.17.4 Research Gap 4 – The need to examine the effects of different types of scarcity message within the context of private versus public limited edition products

Studies have found that brands today have started to implement scarcity messages to enhance the promotional effectiveness of their limited edition (LE) products (Balachander and Stock 2009; Gierl and Huettl 2010; Jang et al. 2015). These brands typically implement two types of scarcity messages to promote LE products namely limited time scarcity (LTS) and limited quantity scarcity (LQS). This concept of LE products has been explored extensively by scholars and marketing practitioners. However, the use of scarcity messages to enhance to effectiveness of introducing LE products has not been adequately examined and requires further investigation (Jung and Kellaris 2004). Pioneering work in this area has already commenced

by Jang et al. (2015), however further research is needed especially within a luxury branding context.

2.17.5 Research Gap 5 – To examine the direct and indirect effects of other key variables within the FOMO model

As discussed earlier in this chapter, there is a clear lack of empirical research examining the effects of FOMO in a marketing context. Studies on FOMO (e.g. Przybylski et al. 2013) have only examined the direct effects of FOMO on behaviour related to social issues such as distracted learning and driving. Hence, there is a need to develop a theoretically driven framework examining the direct/indirect effects of other key variables which impact on FOMO. This study has identified that the following constructs namely desire for uniqueness, attitude toward the advertisement, purchase intention, inferences of manipulative intent and consumer susceptibility to interpersonal influence were found to be integral to achieving this objective.

Additionally, a review of literature clearly indicates the lack of empirical research in understanding the mediating effects of attitudes on specific consumer traits and behaviour. Studies have looked at the mediating effects of attitudes on personality traits (e.g. Big Five personality trait framework) on behaviour. Ulleberg and Rundmo (2003) found that attitudes mediated the relationship between personality traits and behaviours, meaning that personality traits influence behaviour through affecting the behaviours attitudinal determinants. However, there are not many studies that have looked at the mediating effects of attitudes specifically between traits (e.g. desire for uniqueness and FOMO used for this study) and behavioural intentions.

2.18 CHAPTER SUMMARY

A discussion of the relevant literature for the study has been discussed in the current chapter. This has been done through a systematic review of past studies as well as popular press on the key constructs of the study. This process revealed several gaps which form the basis for the current's study research objectives and aims. The following chapter will discuss the conceptual framework and hypotheses which have been formulated to address the gaps identified in the current chapter.

3 THEORETICAL FRAMEWORK AND HYPOTHESES DEVELOPMENT

3.1 OVERVIEW

This chapter will discuss and examine the hypotheses for the study and their underpinning theories. Though existing literature has attempted to conceptualization FOMO (Przybylski et al. 2013), there is still a need to offer more theoretical support in understanding the function of FOMO in marketing, in particular its impact on consumer behaviour. Hence, one of the primary purposes of the research is to develop knowledge and findings in relations to these gaps.

The chapter will provide a discussion on the relevant sociological and psychological theories that underpin the development of the conceptual framework for this study. These theories are complemented with relevant literature and were used to formulate the hypotheses of the study.

3.2 RESEARCH QUESTIONS AND OBJECTIVES

The focus of this study is to operationalize FOMO in a marketing context. More specifically, it looks to examine how FOMO and desire for uniqueness impact on the overall effectiveness of scarcity messages. The scope of the research is also specific to ‘limited edition’ products to promote aspirational luxury brands. Based on the identified gaps, the following research questions and accompanying objectives underpin the research framework for this study.

Research Question One: How does FOMO impact on consumer’s attitudes and purchase intentions?

Objective 1: To develop the Tendency towards the Fear of Missing Out (T-FOMO) scale (Gap 1)

Objective 2: To develop a theoretically driven framework to measure FOMO in a marketing context (Gap 2)

Research Question Two: What other variables (including FOMO) impact on the effectiveness of different scarcity messages on limited edition aspirational luxury products?

Objective 3: To validate desire for uniqueness and T-FOMO as correlated by separate and distinct constructs (Gap 3)

Objective 4: To examine how traits such as T-FOMO and desire for uniqueness influence the effectiveness of scarcity messages (Gap 2, 4)

Objective 5: To examine the effectiveness of different types of scarcity messages on limited edition products across different product categories within a luxury branding context (Gap 4)

Objective 6: To examine the mediating role of attitudes on the relationship between traits and behaviour (Gap 5)

Objective 7: To examine the moderating effects of inferences of manipulative intent and consumer susceptibility to interpersonal influence on the relationship between traits (T-FOMO and Desire for Uniqueness) on attitudes and purchase intentions (Gap 5)

3.3 THEORETICAL FOUNDATIONS

The research model is underpinned by two main theories namely the drive-reduction theory and the social cognition theory.

3.3.1 Drive-Reduction Theory

Drive-reduction theory by Hull (1943) emphasizes the need for humans to maintain homeostasis or a sense of equilibrium. For example, when a particular individual experiences a lack of a homeostatic need (e.g. food), a negative drive state (hunger) is developed and will continue to grow unless it is reduced by appropriate behaviour (eating) (Anagnostaras and Sage 2010). The attainment of drive reduction also influences learning as drive reduction reinforces the link between drive and behaviour (Hull 1943).

Based on the theory, individuals are motivated to reduce negative states to maintain homeostasis or their sense of equilibrium. These negative states manifest in the form of unpleasant emotions such as fear and anxiety. Williams (2012,6) describes fear as ‘a drive state that motivates individuals to adopt recommendations expected to alleviate the unpleasant state.’ In the same vein, the theory of cognitive dissonance by Festinger (1957) proposes that individuals seek consistency amongst their existing beliefs, ideas or values; when this consistency is shaken, it leads to dissonance. Similar to the negative state of fear of anxiety,

dissonance produces a state discomfort and an individual will be pressured to either reduce or seek to eliminate the dissonance completely.

3.3.2 Social Cognition Theory

'Most of us care about what other people think of us. All of us care about understanding other people' (Fiske and Taylor 2013, 1). In general, the study of social cognition involves understanding how people perceive and interpret the world around them. More specifically, it looks at how individuals evaluate other people which in turn influences how they evaluate themselves (Fiske and Taylor 2013). As individuals try to make sense of each other, it influences their behaviour and interactions with the people and the environment around them (Frith and Frith 2007). In addition, Fiske and Taylor (2013), drawing from Lewin (1951) psychological field theory describes how a person exists in a psychological field that is made up of opposing forces that contribute to how a person who eventually act in a particular situation. Applying this theory in relation to a consumer's consumption behaviour, environmental influences such as what someone else says or what the consumer reads can impact on their decision to buy a particular product.

Social cognition research provides a theoretical framework in understanding how individual-difference or specific traits have the ability to influence how and to what degree an individual experiences fear when presented with a fear inducing stimulus (Witte and Morrison 2000). According to the social cognition perspective, specific traits can influence how individuals interpret the world around them (Witte and Morrison 2000).

Mowen, Harris, and Bone (2004) suggest that different traits influence different types of fear appeals. For example, individuals with certain traits may be more responsive to fear appeals regarding body image versus drink-driving. This is because the nature of the threat may influence different aspects of their personality trait (Mowen, Harris, and Bone 2004). In addition, Witte and Morrison (2000) found that individuals who possess high levels of trait anxiety are more likely to perceive threats from fear inducing appeals as more significant and are likely to see them as more relevant. Conversely, those with low levels of trait anxiety were more likely to perceive these threats as irrelevant and of little significance.

3.4 SECONDARY THEORIES

The secondary theories help to explain specific relationships within the research model. Each of these theories will be discussed concurrently with various hypothesized relationships within the model. They are as follows:

- Theory of Social Comparison Processes (Festinger 1954) (H₁)
- Uniqueness Theory (Snyder and Fromkin 1980) (H₁)
- Protection Motivation Theory (Rogers 1975) (H₃, H₅)
- Theory of Regret Intensity (Beike, Markman, and Karadogan 2009) (H₅)
- Theory of Planned Behaviour (Ajzen 1991) (H₆)
- Cognitive Response Theory (A. G. Greenwald 1968) (H₇, H₈)
- Persuasion Knowledge Model (Friestad and Wright 1994) (H₉, H₁₀)
- Reactance Theory (Brehm 1989) (H₉, H₁₀)
- Field Theory (Lewin 1951) (H₉, H₁₀, H₁₁, H₁₂, H₁₃, H₁₄)

3.5 HYPOTHESES DEVELOPMENT

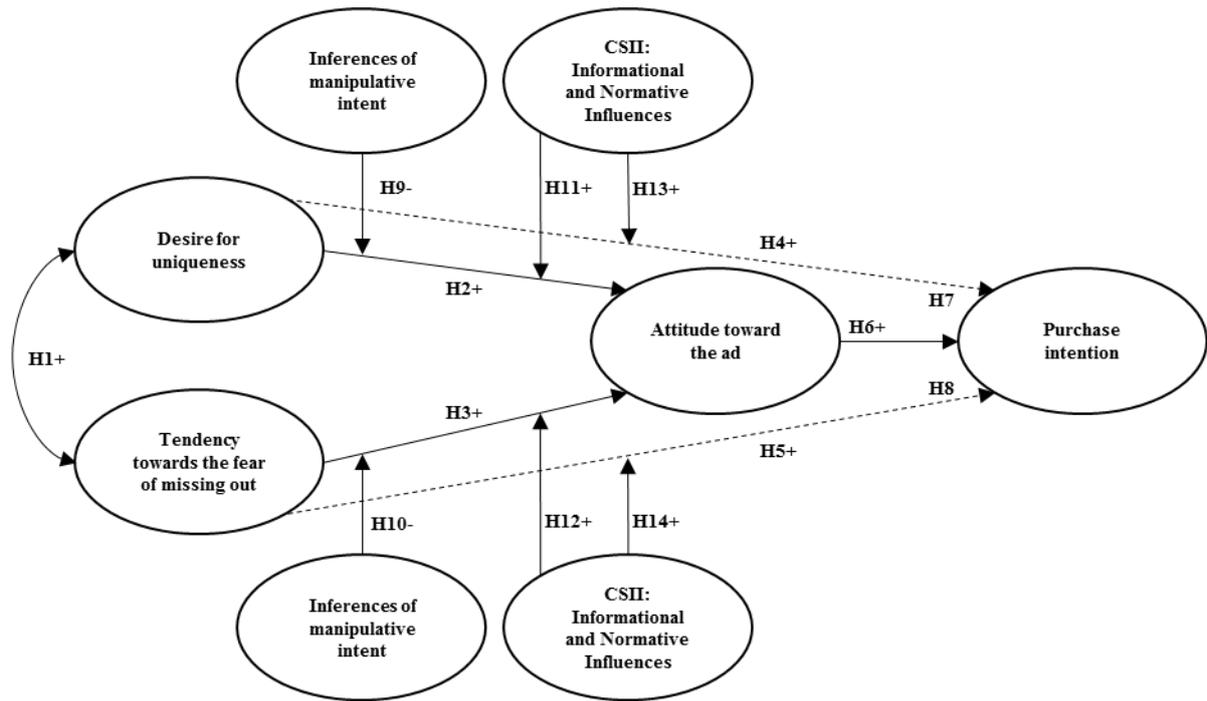


Figure 3-1: Research Model

Figure 3-1 depicts the research model illustrating the various hypothesized relationships. The following sections will discuss each hypothesis in detail, with justifications from both theory as well as relevant literature.

3.6 VALIDATING THE RELATIONSHIP BETWEEN DESIRE FOR UNIQUENESS AND TENDENCY TOWARDS THE FEAR OF MISSING OUT

As discussed in chapter two (literature review), FOMO and desire for uniqueness are described as two distinct traits but share similarities in relation to their conceptual definition and how they are operationalized.

Desire for uniqueness and FOMO are alike in two ways. Firstly, they are both subject to the effects of interpersonal influences. More specifically, both are traits influenced by a certain degree of social comparison. The desire for uniqueness trait as explained through the uniqueness theory is influenced by an individual’s need to maintain a sense of distinctiveness from that of others (Snyder and Fromkin 1980). Similarly, literature indicates that FOMO tendencies are evoked in response to an envy-related anxiety (Reagle 2015), caused by being

deprived of what someone else has or is in possession of (JWT Intelligence 2012). This underpinned by theory of social comparison processes. It postulates that humans possess an innate drive for self-evaluation, which is reliant on comparisons with others (Festinger 1954). Furthermore, Asch (1952) suggests that all judgements are made in reference to other people. Wood and Hayes (2012) affirm this assumption but proposing that most if not all consumer decisions are influenced by other people. More specifically, an individual's behaviour and beliefs are guided through either conforming to or directly conflicting with a particular group's norm (Wood and Hayes 2012).

Secondly, both traits drive behaviour because of the need to alleviate a negative emotional state. As highlighted in the FOMO behavioural model (chapter two), when individuals are presented with attractive opportunities, they undergo a state of negative tension either due to having missed out on the opportunity already or are in the midst of contemplating whether to go ahead with the opportunity. Based on the drive-reduction theory (Hull 1943), individuals are motivated to reduce negative states to maintain homeostasis or their sense of equilibrium. Hence, individuals are motivated to reduce the negative tension they are experiencing when FOMO is triggered by acting on the opportunity quickly. Similarly, Dittmar (1992) describes that desires to build and exhibit a distinctive identity are powerful emotions that drive many aspects of human behaviour including consumption. Individuals are motivated to pursue unique products so as to avoid or alleviate the unpleasant state of being labelled as 'common' (Snyder 1992; Tian, Bearden, and Hunter 2001).

Based on the preceding discussion, the following hypothesis is postulated:

H1: Desire for uniqueness and tendency towards the fear of missing out are distinct but positively correlated constructs

3.7 MATCHING EFFECTS OF SPECIFIC TRAITS TO ADVERTISING MESSAGES

Advertising messages are more effective when they are matched with a specific trait. For example, Wheeler, Petty, and Bizer (2005) found that the message was more effective when the message matched the participants personalities (e.g. introverts 'you won't have to deal with crowds,' and extroverts 'you'll be the life of the party') compared to when they received a message that was not aligned with their personalities (an introvert receiving the message for

the extrovert) (Wheeler, DeMarree, and Petty 2008). In addition, the study also found that when the primed trait such as introversion or extraversion, the individuals' attitudes are more affected by the quality of argument. Consumers who exhibit impulsive trait were also found to be more susceptible to marketing cues such as point-of-purchase displays which appeal to their desire to impulse buy (Youn and Faber 2000).

These matching effects are supported by the social cognition theory. According to the social cognition perspective, specific traits can influence how individuals interpret the world around them (K Witte and Morrison 2000). The theory suggests that individuals are found to be more responsive to information that is relevant to one's self (Bargh 1982; Gray et al. 2004). Moreover, individuals have the tendency to seek out information that is self-relevant (Fong and Markus 1982), are able to recall self-relevant information more effectively (Markus et al. 1982), and are more motivated to process self-relevant information (Allison, Worth, and King 1990; Erber and Fiske 1984). In other words, an advertising message is likely to be more effective if it appeals to an individual's trait.

Furthermore, individual differences such as personality traits have been found to have a significant direct and indirect effect on attitudes and behaviour (Black, Organ, and Morton 2010). The relationship between traits and attitudes have been extensively explored in a wide variety of contexts such as consumer's response to domestic and multinational products (Kolar and Zabkar 2014), perceived deception (Riquelme and Roman 2014), information acquisition (Schaninger and Sciglimpaglia 1981), luxury brand perceptions (Tak and Pareek 2016), and important marketing and advertising metrics such as customer satisfaction (Mooradian and Olver 1997; Matzler et al. 2005), ad-evoked feelings (Mooradian 1996) and advertising response to fear appeals (Mowen, Harris, and Bone 2004).

In particular, this study focuses on the matching effects of the desire for uniqueness and FOMO trait on scarcity messages. Consumer traits such as need for uniqueness, were found to influence consumer attitudes and purchase intention towards scarcity appeals (Roy and Sharma 2015). This desire or need for uniqueness can be satisfied through the purchasing of luxury brands which offer scarcity value (Park, Rabolt, and Jeon 2008). Studies have shown that people that are high in the need for uniqueness will tend to prefer products that help them to differentiate themselves from others (Roy and Sharma 2015; Tian, Bearden, and Hunter 2001; Wu et al. 2012).

Based on the preceding discussion, the following hypotheses are postulated:

H2: A higher desire for uniqueness will lead to more favourable attitude toward the advertisement

H4: A higher desire for uniqueness will lead to a higher purchase intention

Similarly, individuals who possess the FOMO trait are likely to favour products which are advertised as being scarce, because scarcity has the effect of enhancing the attractiveness of a particular opportunity. Additionally, in the context of FOMO, scarcity appeals can be viewed as an irrational fear appeal. This is because scarcity appeals have the ability to tap into an individual's irrational 'fear of missing out.' The persuasive effect of fear appeals can be explained through the Rogers (1975) protection motivation theory which describes how individuals are motivated to protect themselves from the negative consequences associated with fear appeal. For example, individuals may be motivated to quit smoking because of the detrimental effects on their health which is highlighted in a public service announcement they encounter. In a similar way, individuals who possess the FOMO trait are motivated to purchase scarce product to alleviate feelings of anxiety and fear of potentially missing out because of the limited availability of the advertised product.

In the same way, the drive-reduction theory also proposes that consumers are motivated to reduce negative states (e.g. feelings of anxiety and fear) so as to revert back to a state of equilibrium (Hull 1943). In addition, because of the subtle nature of the fear appeal, this motivation to purchase scarce products may actually happen on a subconscious level, and consumers may not actually be aware of how these scarcity appeals are affecting their behaviour. In this way, this also suggests that it has an effect of generating favourable ad attitudes when they see an advertisement using scarce cues because it appeals to them on a subconscious level.

Finally, the theory of regret intensity also offers additional support to the relationship between FOMO on consumers purchase intentions towards scarce products. This theory is underpinned by the lost opportunity principle which defined is as an undesired outcome that could have been prevented at the time of its occurrence (past opportunity), but however can no longer be rectified (low future opportunity) (Beike, Markman, and Karadogan 2009). Regret is intensified when individuals feel that they could have made better decisions when the opportunity first became available. In short, missing out on past opportunities which were once

available creates a sense of lost opportunity and further intensifies feelings of regret. Furthermore, if an individual experiences an undesired outcome after acting, regret is experienced immediately. However, if the individual experiences an undesired outcome because of failure to act, the feeling of regret has a more enduring effect (Beike, Markman, and Karadogan 2009; Gilovich and Medvec 1994). As discussed in Zeelenberg et al. (2002), people tend to regret undesired outcomes resulting from inactions as opposed to actions.

This concept of lost opportunities shares parallels conceptually with FOMO. To reiterate what was discussed in chapter two, when an opportunity is identified, it is instinctual for an individual to take action as not doing so enhances negative emotions such as anxiety and fear. As the theory proposes, this could be due to individuals' preference to take action when an opportunity represents itself as opposed to regretting not taking action at all.

Based on the preceding discussion, the following hypotheses are postulated:

H3: A higher tendency towards the fear of missing out will lead to a more favourable attitude toward the advertisement

H5: A higher tendency towards the fear of missing out will lead to a higher purchase intention

3.8 ATTITUDE AND BEHAVIOUR

Research on attitudes suggests that attitudes have a strong predictor on intentions (Fishbein and Ajzen 1975). This correlation between attitudes and intentions is vital in attitudinal research and has been confirmed and supporting in a variety of settings (Bagozzi 1981; Shimp and Kavas 1984). This is supported by the theory of planned behaviour which suggests that when consumer attitudes are positive, it translates to a positive behaviour (Ajzen 1991). Though there are some studies which offer empirical support in the context of scarcity appeals (e.g. Roy and Sharma 2015), research in this area is still limited and requires further investigation. However, a number of studies in both marketing and psychology literature have confirmed that a positive relationship will be observed between the two variables (Ajzen 1991; Cotte, Coulter, and Moore 2005; Mackenzie and Lutz 1989; Spears and Singh 2004).

Thus, based on the preceding discussion, the following hypothesis is postulated:

H6: A more favourable attitude toward the advertisement will lead to a higher purchase intention

3.9 MEDIATING EFFECTS OF ATTITUDES

The mediating role of attitude toward the advertisement on other attitudinal and behavioural responses has been explored extensively in advertising literature (MacKenzie, Lutz, Belch 1986; Mitchell and Olson 1981; Lutz, McKenzie, and Belch 1983; Shimp 1981; Holbrook and Batra 1987). More specifically, MacKenzie, Lutz, Belch (1986) explored the mediating effects of attitude toward the advertisement on brand attitudes and purchase intention. The study determined that a dual mediation hypothesis, in which attitude toward the advertisement influences brand attitudes and both directly and indirectly through brand cognition. Viewing it under a similar lens, traits are fundamental in determining an individual's cognition. As per Shiner and Caspi (2003, 2) which describe traits as 'people's tendencies to behave, think and feel in certain consistent ways.' This is supported by the cognitive response theory which suggests that cognitive responses (or thoughts) have an indirect influence on attitude change in persuasive communications (Greenwald 1968). Additionally, work done in the area of the social sciences have found evidence of the mediating role of attitudes on personality traits and behaviour (Kolar and Zabkar 2014; Lucidi et al. 2014; Ulleberg and Rundmo 2003).

Based on the preceding discussion, the following hypotheses are postulated:

H7: Attitude toward the advertisement will mediate the relationship between desire for uniqueness and purchase intention

H8: Attitude toward the advertisement will mediate the relationship between tendency towards the fear of missing out and purchase intention

3.10 MODERATING ROLE OF INFERENCES OF MANIPULATIVE INTENT AND CONSUMER SUSCEPTIBILITY TO INTERPERSONAL INFLUENCE

One of the key theories discussed in the earlier sections is the social cognition theory. To reiterate, the social cognition theory proposes that an individual's actions and behaviour is guided by how individuals perceive or makes sense of other people as well as how they perceive themselves (Fiske and Taylor 2013). Firstly, in relation to the role of inferences of manipulative intent (IMI), based on the social cognition perspective, when viewing an advertisement, the consumer will seek to understand or make sense what the intentions of the advertiser behind a

particular advertising message. Hence, if they perceive the advertiser is trying to manipulate them, it reduces the effectiveness of persuasion attempt. Secondly, in relation to the role of consumer susceptibility to interpersonal influence (CSII), based on the social cognition perspective, it describes how an individual's actions are influenced by their perception and understanding of other people. People who are high in CSII perceive other people's behaviour as a guide (normative influence) as well as an information source (informational influence) (Bearden, Netemeyer, and Teel 1989).

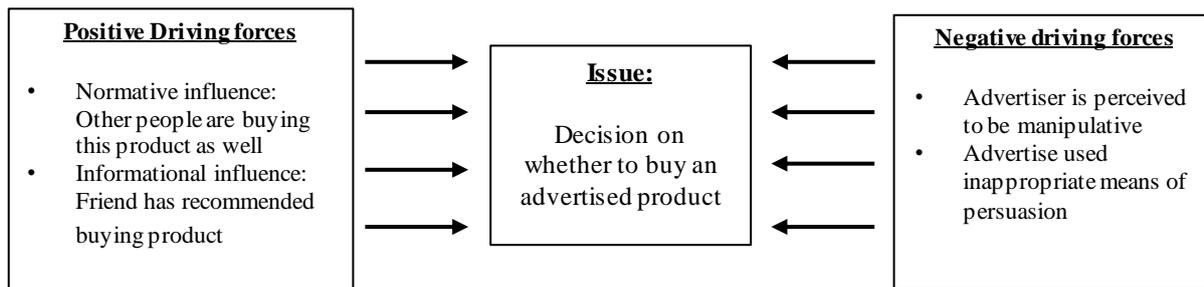


Figure 3-2: Application of Lewin's Field Theory in an Advertising Context (Lewin 1951)

Hence, CSII is likely to moderate or influence how consumers perceive their perceptions of a particular ad as well as their behaviour. In addition, this is supported by Lewin's field theory (Lewin 1951) which describes how opposing forces can be influence a consumer decision making. This is illustrated in Figure 3-2, which shows an example of consumer's pressures when deciding on whether to purchase a product based on subjectively perceived driving forces (IMI and CSII). The two moderators are discussed in more detail in the subsequent sections.

3.10.1 Inferences of Manipulative Intent as a Moderator

Past studies have identified the negative influence IMI has on attitude toward the advertisement (e.g. Campbell 1995). More precisely, when consumers perceive that the way the advertisement is try to persuade them is inappropriate, it will lead to unfavourable feelings toward the advertisement as well as the advertiser. Both the persuasion knowledge model (PKM) and the reactance theory provide an explanation for this behaviour.

Firstly, the PKM model posits that consumers develop knowledge about persuasion attempts over time and draw on this knowledge to identify and deal with attempts by other people to influence them (Friestad and Wright 1994). In advertising, persuasive messages can activate consumer's persuasion knowledge. When this occurs, consumers will treat these messages with greater suspicion and may infer that the marketer is being deceptive and manipulative (Campbell and Kirmani 2000; Campbell 1995). This will inadvertently cause them to resist the

persuasion attempt. Secondly, the reactance theory by Brehm (1989) posits that when people perceive that their freedom to choose is threatened, they undergo a negative state of 'reactance,' thus having a negative effect on their subsequent behaviour. In an advertising context, when viewing an advertisement, consumers may feel that the persuasive attempt is trying to inappropriately force them to make a choice. As a result, this will inhibit the persuasive attempt or message and lead to the consumer responding negatively towards the advertisement. For example, if an individual were about to buy something from a soft drink machine and there was a large, flashing arrow pointing towards a particular brand of soft drink (Coke). Most consumers would experience a sense of annoyance or distaste at this sight even if their intention was to buy the Coke in the first place (Brehm 1989). This example highlights how consumers are resistant to certain persuasion attempts because it causes them to feel that their freedom to choose is restricted. Empirical work done examining the influence of IMI found that when manipulative intent is not salient, it leads to greater levels of positive effect, strong brand connections and more positive attitudes (Wentzel, Tomczak, and Herrmann 2010).

Using scarcity appeals have been found to be an effective means to influence consumer behaviour. However, because these tactics have been used quite extensively in advertising, consumers are starting to become more familiar about these appeals. As a result, they start to develop knowledge about these types of persuasion tactics (Aguirre-Rodriguez 2013). Studies have found that activation of persuasion knowledge can diminish or eliminate the positive effect of scarcity appeals (Aguirre-Rodriguez 2013; Mukherjee and Lee 2016).

Thus, based on the preceding discussion, the following hypotheses are postulated:

H9: Inferences of manipulative intent will dilute the relationship between desire for uniqueness and attitude toward the advertisement

H10: Inferences of manipulative intent will dilute the relationship between the fear of missing out and attitude toward the advertisement

3.10.2 Consumer Susceptibility to Interpersonal Influence as a Moderator

As cited by Stafford (1966), interpersonal influence has a profound effect on the consumer decision making process. More importantly, studies have found that interpersonal influence has a significant impact on the development of the consumer's attitudes, values and norms (Bearden, Netemeyer, and Teel 1989; Clark and Goldsmith 2006; Murali, Laroche, and Pons

2005). Research has found that many purchasing decisions and brand preferences are influenced by the need to conform to those of relevant others. In particular, Bearden, Netemeyer, and Teel (1989) attributes this conformity to two types of social influence, namely normative and informational influence. Informational influence is the tendency for individuals to use other people's behaviour as an important point of reference and a valuable source of information, influencing their attitudes and behaviour. On the other hand, normative influence is when an individual's conformity is attributed to gaining rewards and avoiding punishment, as well as their desire to be associated and share similarities with relevant others (Bearden, Netemeyer, and Teel 1989; Lynn and Harris 1997).

As described in chapter two (literature review), individuals have an innate drive for uniqueness. However, many tend to achieve this level of distinction only through behaviours which are seen as socially acceptable (Lynn and Harris 1997; Snyder and Fromkin 1980). Hence, this suggests that people who perceive themselves as being unique still rely on normative and social influences to make their decisions so as not to risk social disapproval. Similarly, as highlighted by Przybylski et al. (2013), individuals who are prone to the effects of FOMO are likely to be those that suffer from low basic need satisfaction (need for belongingness), and thus use social media as means to gain social approval and acceptance. In the same vein, this suggests social influences are likely to play a significant role in their consumption decisions.

Based on the preceding discussion, the following hypotheses are postulated:

H11: (a) Normative influences will enhance the relationship between desire for uniqueness and attitude toward the advertisement; (b) Informational influences will enhance the relationship between desire for uniqueness and attitude toward the advertisement

H12: (a) Normative influences will enhance the relationship between FOMO and attitude toward the advertisement; (b) Informational influences will enhance the relationship between FOMO and attitude toward the advertisement

H13: (a) Normative influences will enhance the relationship between desire for uniqueness and purchase intention; (b) Informational influences will enhance the relationship between desire for uniqueness and purchase intention.

H14: (a) Normative influences will enhance the relationship between tendency towards the fear of missing out and purchase intention. **(b)** Informational influences will enhance the relationship between tendency towards the fear of missing out and purchase intention

3.11 CHAPTER SUMMARY

This chapter provides a detailed discussion of the relevant theories and literature which underpin the formation and development of the conceptual framework for this study. The hypotheses outlined in the chapter were designed based on the research questions and objectives underlined in chapter two. The following chapter discusses the methodological design of the current study which outlines the different methods and techniques used to operationalize the hypothesized relationships and discussed in this chapter.

4 RESEARCH METHODOLOGY

4.1 OVERVIEW

The chapter outlines the methodology undertaken for the main study. Please refer to chapter five for detailed discussion on the procedures used for scale development. This chapter will first briefly outline the purpose of the research objectives and design. The chapter continues to the section on pre-testing, which outlines the processes used to develop the stimulus. This includes a discussion on the choice of brand, product and message used. After this, the next section will discuss how the sample was chosen and the method of data collection. Next, the design of the survey instrument and the various scales adopted for the study are elaborated. Finally, analyses methods and statistical techniques for the main study are explored.

4.2 PURPOSE OF THE RESEARCH

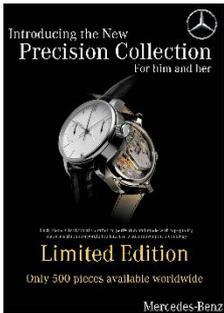
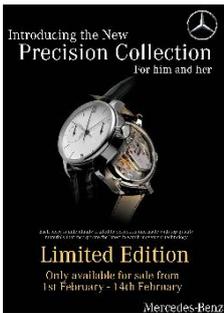
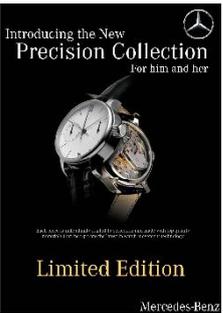
The main purpose of the study is to investigate a series of hypothesized relationships between various related constructs outlined in chapter three. Based on the conceptual framework discussed in chapter three, the primary purpose of the research is to examine the effects of T-FOMO and desire for uniqueness on different types of scarcity messages (limited quantity scarcity vs limited time scarcity) for limited edition luxury products. Other objectives involve validating any significant differences between two product categories (private vs public products) and examining the mediating effects of attitude toward the advertisement and the moderating effects of inferences of manipulative intent and consumer susceptibility to interpersonal influence. The scope of the study is delimited to aspirational luxury products who have implemented product extensions beyond their core competencies.

The following sections will outline the research design and how the research is carried out to fulfil the above objectives. The nature of the sample, the methods by which data will be collected as well as the identification of appropriate methods of analysis for treating the data collected will be explored thoroughly in the following sections.

4.3 RESEARCH DESIGN

As outlined in Table 4-1, the study employs a 2 (type of scarcity message) x 2 (type of product category) factorial experimental design. The methodology has been adopted and adapted from previous studies (e.g. Jang et al. 2015; Aggarwal, Sung Youl, and Jong Ho 2011). For the purposes of this study, the control groups are essentially used to reflect another treatment condition to evoke scarcity but does not explicitly state how it is scarce unlike the other 2 (limited quantity and limited time) This resulted in a total of 6 studies (four experimental groups and two control groups).

Table 4-1: Research Design

		Type of experimental condition		
		Limited quantity scarcity	Limited time scarcity	Control group
Product category	Public (watch)			
	Private (fragrance)			

4.4 PRE-TESTS

The following sections will examine a number of pre-test issues and components that are instrumental to the current research and methods. The procedures in determining the product choice and brand selection will be explored first, and are followed by preparation and pretesting of advertisements and final survey instrument.

4.5 STIMULUS CONTEXT – ASPIRATIONAL LUXURY

Despite the volatile nature of many global economies, sales of luxury brands have managed to exhibit resilience (Hassan, Husić-Mehmedović, and Duverger 2015). The matter of price is of little significance for consumers of luxury products especially when they are presented with the opportunity to own a product with inherent scarcity value (Hwang, Ko, and Megehee 2014). This perception of scarcity value and prestige is what drives consumers to pay exorbitant prices for luxury brands today. The use of luxury brands as a focus for this research is deemed suitable in eliciting FOMO as the attractiveness of the opportunity to own a limited edition is enhanced by the fact that it is a luxury brand. As discussed earlier, the scope of the study is limited to aspirational luxury brands who have implemented extensions beyond their core competencies.

One of the reasons why some luxury brands adopt category extensions is to seemingly democratize luxury and make it more affordable to more people. As such, they have started to use downward vertical extensions to introduce products lines such as watches, eyewear, bags, perfume etc. to the market at affordable prices (Kapferer and Laurent 2016). For example, luxury brands such as Louis Vuitton have included lifestyle products like watches and eyewear in their product line because they are less costly than handbags. Consumers are likely to buy them so that they are still part of the brand experience (Lamb 2011). Another example is the brand *Hermes*, whose lower-priced accessory items now comprise of 40 percent of its sales (Nuevo and Quelch 1998). This also has the effect of attracting new customers to the brand.

4.5.1 Choice of Brand

To determine the brand used for this particular study, the study adopts the criteria set out by Trocchia, Saine, and Lockett (2015) in determining what constitutes an aspirational brand. These criteria are:

- Individual possesses the desire to own or consume the brand
- Individual is unable to purchase such a brand based on his/her current socio-economic status
- Individual must perceive that they would be able to afford to buy the aspirational brand at some point in their life time

In addition, these luxury brands must have extended into products which are beyond its core competencies.

Table 1: Top 20 Luxury Versus Aspirational Brands

Brand	Frequency Of Luxury Brand Mentions	Percentage Of Mentions Among All Respondents	Frequency Of Aspirational Brand Mentions	Percentage Of Mentions Among All Respondents	Combined Frequency Of Luxury And Aspirational Mentions	X ² Sig.
Rolex**	186	41.15%	143	31.64%	329	.003
Mercedes**	178	39.38%	94	20.80%	272	.000
Gucci**	131	28.98%	63	13.94%	194	.000
Louis Vuitton**	131	28.98%	69	15.27%	200	.000
Coach**	87	19.25%	50	11.06%	137	.001
BMW	84	18.58%	81	17.92%	165	.796
Rolls Royce**	69	15.27%	23	5.09%	92	.000
Chanel	67	14.82%	55	12.17%	122	.243
Apple*	66	14.60%	118	26.11%	184	.000
Lexus**	66	14.60%	35	7.74%	101	.000
Tiffany	65	14.38%	55	12.17%	120	.327
Prada**	61	13.50%	31	6.86%	92	.001
Bentley	57	12.61%	40	8.85%	97	.068
Ferrari	54	11.95%	43	9.51%	97	.237
Armani	43	9.51%	42	9.29%	85	.909
Michael Kors	38	8.41%	33	7.30%	71	.536
Ralph Lauren**	38	8.41%	22	4.87%	60	.033
Cadillac**	36	7.96%	21	4.65%	57	.040
Porsche	31	6.86%	35	7.74%	66	.609
Dolce & Gabbana	27	5.97%	21	4.65%	48	.373
Lamborghini	24	5.31%	27	5.97%	51	.665
Cartier	18	3.98%	29	6.42%	47	.099
Audi*	17	3.76%	32	7.08%	49	.028
Range Rover*	7	1.55%	30	6.64%	37	.000

Notes: * Brands that are significantly more likely to be cited as aspirational brands rather than luxury brands at the .05 significance level. ** Brands that are significantly more likely to be cited as luxury than as aspirational at the .05 significance level.

Figure 4-1: Top 20 Luxury versus Aspirational Brands (Trocchia, Saine, and Lockett 2015)

Using a focus group consisting of academics and industry practitioners, the study examined the list of luxury brands depicted in Figure 4-1. Many of these luxury brands have also extended beyond products they were traditionally perceived to produce. For example, Gucci well-known for its high-end leather goods have successfully extended into product such as perfumes. Similarly, luxury brands such as BMW and Mercedes traditionally known as car manufacturers have extended into product categories such as watches. After a process of elimination, majority of participants of the focus group favoured Mercedes Benz as a brand which conformed to the criteria of an aspirational brand set out by (Trocchia, Saine, and Lockett 2015). In addition, Mercedes-Benz, a brand known best for its iconic luxury cars, established a ‘Mercedes-Benz Style’ division in 2010. This division was set up as part of the brand’s commitment to innovation. The division not only develops transport-related products such as luxury yachts, but also extends to furniture, lifestyle and industrial design orientated products (“Mercedes-Benz Style” 2016). Hence, based on the above discussion, Mercedes-Benz was chosen. Further, existing brands as opposed to fictitious brand were used to enable the generation of brand-related memories to test effects of brand breadth on perceived typicality (Boush and Loken 1991). The final versions of the six advertisements can be found Appendix A – F.

4.6 CHOICE OF PRODUCT CATEGORY

A pre-test was conducted using a focus group to determine a suitable product to represent public and private goods. Participants of the focus groups were exposed to a number of products ranging from cosmetics to electronic devices. They were then asked to complete a simple questionnaire asking them to rank each product in terms of the extent to which they would consume the product in a public or private setting. Based on a majority vote, most of the participants agreed that watches were perceived to be the most typically consumed in a public setting and perfumes were perceived to be most consumed in a private setting. This was also consistent with Jang et al. (2015), also found similar results in terms of the visibility of the products, where watches were found to be of higher visibility as compared to perfumes.

4.7 STIMULUS PREPARATION

A total of six advertisements were created using resources available on public internet websites. A professional graphic designer was used to create the stimulus. Real advertisements were consulted and used as a reference for the design of the stimulus. This was done so as to simulate what consumer would see actually see if they were exposed to a real advertisement. Various mock print advertisement designs were created and an expert panel was used to determine which designs were the most appropriate for use in the main study.

4.7.1 Developing the advertising message

To test the hypotheses empirically, the research required advertisements that are controlled from a number of variables. The advertisements were shown in the form of a print advertisement. Overall, there were two different types of advertisement created. Each advertisement was created to elicit a particular scarcity condition namely, a limited quantity scarcity (LQS) condition or a limited time scarcity (LTS) condition. Each of these scarcity conditions had two product categories making a total of four different executions. In addition, there was also one control execution created for each product category. Hence, a total six advertisements created for this study. The product used for each of the six advertisements was described as 'limited edition'.

Each of the advertisements was developed based on the message cues specific to each type of scarcity condition. The message cues used replicated work done by (Jang et al. 2015). Each advertisement was pre-tested to ensure that it elicited the intended scarcity condition. Previous studies using scarcity appeals also adopted similar approaches by used specific message cues to elicit perceptions of scarcity (e.g. Aggarwal, Sung Youl, and Jong Ho 2011; Gierl and Huettl

2010; Howard, Shu, and Kerin 2007; Roy and Sharma 2015). Moreover, research has found that many brands have implemented scarcity messages to further enhance the persuasive effect of their limited edition (LE) products (Balachander and Stock 2009; Gierl and Huettl 2010; Jang et al. 2015). These brands typically use a LQS or LTS message. The messages used to elicit the respective scarcity conditions are discussed below:

LQS messages communicate the limited number of products available for purchase. Consumers are informed that the supply of the available product is limited (Aggarwal, Jun, and Huh 2011; Jang et al. 2015; Howard, Shu, and Kerin 2007). Hence, the final wording used to manipulate the LQS condition is (after the stimulus pre-test discussed in the following section):

‘Only 500 pieces/bottles available worldwide.’

LTS messages persuade consumers to purchase as many products during a limited amount of time. A time limit explicitly restricts the consumer’s opportunity to purchase the product (Aggarwal, Jun, and Huh 2011; Howard, Shu, and Kerin 2007). Hence, the final wording used to manipulate the LTS condition is (after the stimulus pre-test discussed in the following section):

‘Only available for sale from 1st February – 14th February.’

4.7.2 Stimulus Pre-Test

To ensure that the images and message was relevant, an expert panel was used. The panel were first informed of the purposes of the study before the focus group commenced. Next, they were shown a number of mock print advertisements designed based on the six experimental conditions. Each member of the panel was required to assess the advertisements for ecological validity. Elements that were discussed included the graphics, font, layout and colours used for the advertisements. In addition to this, the panel were also asked to evaluate whether the phrasing and wording of the messages used represented the two different scarcity messages as well as whether they triggered an FOMO.

The panel each agreed that the messages used for the LQS and LTS elicited the intended scarcity condition. Also, to elicit the most favourable response, the optimum number of units for the LQS message and the duration for the LTS message were also discussed. Respondents generally agreed that for both for watches and perfumes, the quantities should be at least 500 – 1000 units and the duration should be at least 15 – 20 days.

There were also some design issues that needed to be addressed for ecological validity. The decision as to what changes need to be made was done by a majority vote after a discussion on the merits of each panel member's suggestions. After a consensus was made, several changes were made and are discussed below:

- Changed positioning of the advertising message so that it was more prominent.
- Graphics, font, layout and colours were updated for ecological validity.
- Graphics were updated so that the advertisements did not show any gender bias.
- Messages were rephrased to elicit the element of scarcity
- Quantity Amount for the Limited Quantity Scarcity message was updated to 500 units
- Duration Amount for the Limited Time Scarcity message was updated to 14 days

The final versions of the advertisements are shown in Appendix A – G.

4.8 DATA COLLECTION METHOD

The data used in the present study were provided by members of an online consumer panel, who were provided with incentives to complete the present study's survey. The pros and cons of using such an approach in obtaining the required data were examined before a decision was made to use this approach for the data collection. The main reasons which led to the selection of an online consumer panel method were for its anonymity, convenience, data quality and accuracy, as well as cost benefits that online consumer panels have over traditional approaches of data collection (Lim 2013).

Anonymity is one of the significant advantages of online surveys as it reduces social and interview biases. It is also less intrusive than traditional offline methods such as mall intercept methods where the interviewer has to approach and interact with the respondent on a one-on-one basis (Schillewaert and Meulemeester 2005). This sense of anonymity allows respondents to be more honest and open with their responses and eliminates any feelings of self-consciousness that they may experience when someone else is present while they are completing the survey (Buchanan 2000).

People are also more responsive and receptive to online surveys because it allows them to complete the survey at their own convenience and comfort. They are able to take as much time as they want to answer the question without being pressurized to fill out a survey quickly (e.g. when approached to complete a survey when they are shopping during a mall intercept). This

may cause the respondent to become annoyed and adversely affect their responses to the questions in the survey (Hogg 2003).

The quality and accuracy is also greatly enhanced when using online surveys compared to traditional offline methods. This is because online surveys facilitate the building of intelligence such as personalisation, question branching, skipping patterns, forced answer prompts and audio-visual material (Schillewaert and Meulemeester 2005). For example, with forced answer prompts, it eliminates the problem of missing data which is an issue that is commonly faced in traditional data collection approaches which can reduce the number of usable responses significantly (Duray et al. 2000; Kathuria 2000). Due to budget constraints, large samples were not obtainable and hence having complete data was seen to be an important factor when choosing the online consumer panel as a preferred choice for data collection for the present study. Further, the accuracy of online data is greatly increases due to few errors in data entry (such as human error) as responses do not need to be imputed manually (Schillewaert and Meulemeester 2005).

Finally, given the budget constraints, using an online data collection method was found to be the most cost effective way of obtaining data. McDonald and Adam (2003) found the cost of mail response research to be twice as much as online surveys. In addition, other studies reported financial savings of between 20 – 80 percent for using online surveys as compared to other data traditional collection methods such as pen and paper surveys (Granello and Wheaton 2004; Ilieva, Baron, and Healey 2002; Rhodes 2003).

4.8.1 Research Participants (Sample)

The study is focused on general consumers and there no intention to generalize point and interval estimates from the findings to any specific group of consumers (Goldsmith 2002). In addition to this, as this study is one of the pioneer studies examining FOMO in the area of consumer behaviour, use of a consumer panel is deemed to be a good starting point.

4.9 RESEARCH MODEL MEASURES

4.9.1 Desire for Uniqueness

Lynn and Harris (1997) developed a 4-item scale to measure an individual's self-attributed need for uniqueness scale (SANU). The scale was based on an earlier scale, the need for uniqueness scale (NFU) developed by Snyder and Fromkin (1977). One of the reasons why

Lynn and Harris (1997) developed the SANU scale because the NFU scale placed too much emphasis on public and socially risky displays of uniqueness. The NFU scale as described by the author fails to capture the more important indicators of uniqueness motives, and hence in certain studies (e.g. Tepper 1994) proved to be a poor predictor of some consumer behaviours. The revised scale demonstrated internally consistent and statistically related to several theoretically relevant consumer dispositions e.g. desire for scarce products, the desire for customized products, the preference for unique shopping venues, and the willingness to adopt innovative new products (Lynn and Harris 1997). In addition, it was found to be reliable ($\alpha = 0.80$). Wu et al. (2012) later revised the SANU scale and renamed it the Desire for Uniqueness (DFU). The items did not significantly defer and only one of items namely 'I have a need for uniqueness' was changed to 'I have a strong desire for uniqueness.' For the purposes of this study, the SANU scale will adopt the name 'Desire for Uniqueness' based on Wu et al. (2012) revised interpretation of the construct.

Hence, the items used in the present study were:

1. I prefer being different from other people
2. Being distinctive is important to me
3. I intentionally do things to make myself different from those around me
4. I have a strong desire for uniqueness

4.9.2 Tendency towards the Fear of Missing Out

The present study developed a 5-item scale to measure an individual's tendency towards the fear of missing out (T-FOMO). The scale was developed based on Przybylski et al. (2013) fear of missing out (FOMO) scale. One of the main flaws of the FOMO was that it was too context-specific to users experiencing FOMO in a social media context. Hence, use in a consumer behaviour setting may not be applicable. In addition, personality traits are generally more predictive of behaviours over multiple situations as opposed to single behaviours (Epstein 1979). These items had gone through rigorous purification and validity testing (described in chapter five). The final items used in the present study were:

1. I become anxious during a sale and tend to buy more than I actually need
2. I have the constant urge to check for the latest product deals on the internet for fear of missing out

3. I have the habit of accepting appointments even though my schedule is full for fear of missing out
4. I tend to panic buy during a sale for fear of missing out
5. I have the urge to buy during a sale even though there is nothing that I really want

4.9.2.1 Preview of Scale Development Process

The process to develop the T-FOMO scale encompasses follows the steps outlined by a combination of studies namely (Churchill Jr 1979; DeVellis 1991; DeVellis 2003; Li, Edwards, and Lee 2002; Nunnally 1978; Oh 2005; Wells, Leavitt, and McConville 1971). The process undertaken involved a total of 4 studies. Statistical techniques namely exploratory factor analysis (EFA) and confirmatory factor analysis (CFA) were used to purify and validate the scale items. Other statistical techniques were also consulted within each respective study during the scale development process. A detailed discussion of the scale development process is discussed in the following chapter.

4.9.3 Attitude toward the Advertisement

Teng, Laroche, and Zhu (2007) developed a 4-item scale measuring attitude toward the advertisement. The items were derived and adapted from (Gardner 1985; MacKenzie, Lutz, Belch 1986; Miniard, Bhatla, and Rose 1990; Zhang and Gelb 1996). The scale was found to be reliable across two studies ($\alpha = 0.79 - 0.85$). Further, this scale which was measured by means of a semantic differential scale was adopted in this case. The four items used to measure attitude towards the ad were:

Please rate your feelings towards the advertisement you have just seen:

1. Bad/Good
2. Unfavourable/Favourable
3. Uncreative/Creative
4. Unattractive/Attractive

Two additional items were also taken from Chattopadhyay and Nedungadi (1992) which were included to provide a more comprehensive view of the respondents feelings towards the particular advertisement. Their two attitude toward advertisement items used in the present study were:

5. Unlikeable/Likeable

6. Boring/Interesting

4.9.4 Purchase Intention

Past studies have indicated that purchase intention scales suffer from severe theoretical and empirical problems. It has long been known that the majority of purchasers are ‘non-intenders’ and that actual compliance with stated intention is low (Wright and MacRae 2007). Soderlund and Ohman (2003) suggested that intentions should be measured as expectations, plans and wants and developed a scale reflecting those attributes. This was reflected in Teng, Laroche, and Zhu (2007) 4-item scale measuring purchase intention, whose scale was derived from Mathur (1999) and Yi (1990) which shared similar notions with Soderlund and Ohman (2003). In particular, the final purchase intention scale derived by Teng, Laroche, and Zhu (2007) was found to be reliable ($\alpha = 0.78 - 0.86$). The final items used in the present study were:

1. I would intend to buy the (product shown in the ad)
2. I would consider buying the (product shown in the ad)
3. I would expect to buy the (product shown in the ad)
4. I would plan to buy the (product shown in the ad)

4.9.5 Inferences of Manipulative Intent

Campbell (1995) developed a 6-item scale measuring inferences of manipulative intent. The research found that inferences of manipulative intent was found to lower advertising persuasion as measured by ad attitudes, brand attitudes and purchase intentions. The scale was found to be reliable ($\alpha = 0.90 - 0.93$). The scale has also been successfully adopted in variety of consumer behaviour contexts such as guilt appeals (Cotte, Coulter, and Moore 2005), in-store arousal (Lunardo and Roux 2015), effectiveness of narrative ads (Wentzel, Tomczak, and Herrmann 2010). These studies also found the scale to be reliable ($\alpha = 0.89 - 0.92$). The items used in the present study were:

1. The way this ad tries to persuade people seems acceptable to me
2. The advertiser tried to manipulate the audience in ways I do not like
3. I was annoyed by this ad because the advertiser seemed to be trying to inappropriately manage or control the audience
4. I didn't mind this ad; the advertiser tried to be persuasive without being excessively manipulative
5. The ad was fair in what was said and shown

6. I think that this advertisement is unfair

4.9.6 Consumers Susceptibility to Interpersonal Influence

Bearden, Netemeyer, and Teel (1989) developed a two dimensional 12-item scale measuring consumer's susceptibility to interpersonal influence. The two dimensions are namely informational and normative interpersonal influence. The scale was found to be reliable ($\alpha = 0.82 - 0.88$) across both students and non-student respondents. In addition to this, Cheng et al. (2013) also successfully adopted the scale in determining its moderating effect within an impulsive purchasing study context, which was closely related to the present study's context. The items used in the present study were:

Normative

1. I rarely purchase the latest fashion styles until I am sure my friends approve of them
2. It is important that others like the products and brands I buy
3. When buying products, I generally purchase those brands that I think others will approve of
4. If other people can see me using a product, I often purchase the brand they expect me to buy
5. I like to know what brands and products make good impressions on others
6. I achieve a sense of belonging by purchasing the same products and brands that others purchase
7. If I want to be like someone, I often try to buy the same brands that they buy
8. I often identify with other people by purchasing the same products and brands they purchase

Informational

1. To make sure I buy the right product or brand, I often observe what others are buying and using
2. If I have little experience with a product, I often ask my friends about the product
3. I often consult other people to help choose the latest alternative available from a product class
4. I frequently gather information from friends or family about a product before I buy

Table 4-2 provides a summary of the study's constructs and shows the number of items that were used to measure each construct, the answer format that was used in each case and the source of the items.

Table 4-2: Overview of the Constructs

Construct	Items	Answer Format	Source of the items
T-FOMO	5	Likert-type scale	Developed in present study
DFU	4	Likert-type scale	Lynn and Harris (1997); Wu et al. (2012)
A _{ad}	6	Semantic Differential Scale	Chattopadhyay and Nedungadi (1992); Teng, Laroche, and Zhu (2007)
PI	4	Likert-type scale	Teng, Laroche, and Zhu (2007)
IMI	6	Likert-type scale	Campbell (1995)
CSII	12	Likert-type scale	Bearden, Netemeyer, and Teel (1989)

T-FOMO = Tendency towards the fear of missing out, DFU = Desire for uniqueness; A_{ad} = Attitude toward the advertisement, PI = Purchase intention, IMI = Inferences of manipulative intent, CSII = Consumer susceptibility to interpersonal influence

4.10 SURVEY INSTRUMENT

The survey instrument consisted of six sections. Respondents were first asked to fill in Section A – demographics. The demographics were used to filter the sample to ensure that a homogenous sample was used. This was followed by Sections B – D which consisted of the key independent variables and one of the moderators for the study. They were asked to complete a number of scales namely tendency towards the fear of missing out (T-FOMO), desire for uniqueness (DFU) and consumer susceptibility to interpersonal influence (CSII). Following this, respondents were commenced on Section E – where they were randomly shown one of the six advertisements. After which they were asked complete Section E. Depending on which advertisement the subjects were shown, the respective manipulation check question for the each of the two scarcity conditions were shown (respondents who were shown the control advertisement were exempted from the check). More specifically, the manipulation check was done using a 5 point one-item Likert-type scale. For check for the LTS condition was successful manipulated, the item used was:

‘There appears to be limited supplies of the product advertised.’

To check if the LTS condition was successfully manipulated, the item used was:

‘The product advertised appears to be available for a limited time only.’

Both items had end points of 1 = strongly disagree and 5 = strongly agree. Finally, respondents were then asked to complete sections G – I, which consisted of their emotional and behavioural responses towards the scarcity message and the product advertised. In this section, they were asked to complete another set of scales including inferences of manipulative intent (IMI), attitude toward the advertisement (A_{ad}) and purchase intention (PI).

Table 4-3: Survey Instrument Design

Part	Task
A	Complete question on respondent's demographic profile
B	Complete questions on T-FOMO
C	Complete questions on DFU
D	Complete questions on CSII
E	Respondent shown one of the six advertisements
F	Complete manipulation check question (except for those that were shown the control advertisements)
G	Complete questions on IMI
H	Complete questions on A _{ad}
I	Complete questions on PI

Table 4-3 depicts the overall survey instrument design. The survey was also pre-tested to ensure that there were no grammatical or question design issues. An example of the survey is depicted in Appendix G.

4.11 METHODS OF ANALYSIS

The research consisted of a variety of statistical analysis techniques used to test for the various hypotheses discussed in chapter three. Firstly, the data went through a process a screening for input accuracy, missing data and outliers to ensure that these issues did not affect the interpretation of the results in subsequent analyses. Next, the measurement properties of each of the constructs for the main model were examined using confirmatory factor analysis. Further, each of the constructs included an examination of the uni-dimensionality, reliability, convergent and discriminant validity of the constructs. Following this, structured equation modelling was used to examine the hypothesized relationships discussed in chapter three namely H₁ – H₆. Next, Mediation Analysis (MA) was used to test for any potential mediators in the overall model, namely H₇ – H₈. Finally, a Hierarchical Moderated Regression (HRM) was used to test whether any of the proposed moderators had an effect on the various relationships outlined in chapter three, namely H₉ – H₁₄. These methods are further discussed below.

4.11.1 Initial Examination of Data

Each of the 6 data sets collected for the respective experimental conditions discussed earlier were first screened for input accuracy, missing data and the presence of outliers. This process was done using the SPSS program (Version 22.0). A list-wise deletion of missing cases was

used and outliers were examined to ensure extreme value did not influence the results. The assumptions of normality, linearity and homoscedasticity were assessed by examining skewness and kurtosis values and scatter plot diagrams (Tabachnick and Fidell 1989). After the initial examination of the data using the above procedures, the descriptive statistics were also computed for the sample profile for each of the data sets.

4.11.2 Preparing Constructs for Model Testing

The analysis will consist of two major steps starting with first validating the measurements of each construct, and then, examining the hypothesized relationships. An appropriate examination and validation of the constructs measurement properties is crucial before estimating any structural model (Hair et al. 2010).

Confirmatory factor analysis procedures were therefore undertaken to gain an understanding of the constructs' measurement properties. This was done using the AMOS Program (Version 22.0). The validation of the construct measures was performed by the use of one-factor congeneric models developed within the AMOS Program.

A one-factor congeneric model is 'the simplest form of a measurement model and represents the regression of a set of observed indicator variables on a single latent variable' (Holmes-Smith and Rowe 1994, 6). The model provides a realistic interpretation of the data by considering the varying degrees to which each item contributes to the overall measure and is a quasi-test of validity.

Each of the constructs included an examination of the uni-dimensionality, reliability, convergent and discriminant validity of the constructs. Confirmatory factor analysis (CFA) and Fornell and Larcker (1981) composite reliability measure and average variance extracted (AVE) scores were used for this assessment. Based on Fornell and Larcker (1981) and Hair et al. (2010), construct reliability limits were set at ($\alpha > 0.70$), while an (AVE > 0.50) suggests the convergent validity can be assumed as more information compared to noise is present. Discriminant validity was determined by comparing the shared variances (squared correlations) of the various construct pairs with their respective AVE scores. As per Fornell and Larcker (1981), discriminant validity can be assumed if their shared variance was less than their AVE scores.

4.11.3 Structured Equation Modelling

After validating the measurements of each construct, the next step was to examine the hypothesized relationships in the overall model. This was done using structured equation modelling (SEM). The SEM approach procedure recommended by Gerbing and Anderson (1988) was followed in the present study, in which the measurement model is first estimated through confirmatory factor analysis before the structural relationships between the latent variables are estimated. The techniques of estimating the parameters and the criteria for the assessment of model fit would be elaborated in greater detail in the subsequent sections. A systematic and conforming approach of model testing and model modification or re-specification was undertaken to report the results of the analyses encompassed by this study.

4.11.4 Assessing Model Fit

Although the fit of such a model to observed data can be examined in a number of ways (Byrne, 1998), the assessment of model's fit would be determined by the χ^2 test and an array of measure indices that were recommended by the current literature (Bentler 1990; Byrne 2001; Kline 2005; Marsh, Balla, and McDonald 1988). The non-significance in the p -value of the χ^2 statistic will indicate that there is no significant difference between the model-implied variance/covariance matrix and the sample variance/covariance matrix, therefore suggesting a good model fit of the data (Byrne 2001; Cunningham 2007). However, some have speculated the adequacy of this statistic (Hu, Bentler, and Kano 1992). For example, the failure to obtain a non-significant chi-square may reflect a number of limitations such as a poorly specified model, the power of the test or a failure to satisfy assumptions underlying the statistical test (Marsh 1994). Furthermore, while the χ^2 test is used to assess the statistical fit, it is sensitive to sample size and deviations from normality (Kline 2005; MacCallum and Austin 2000).

In an effort to overcome those limitations, additional measures such as the practical indices (based on absolute fit indices and incremental fit indices) will also be used to assess the models (Hair et al. 1998; Hu and Bentler 1998). More specifically, absolute fit indices based on Root-Mean-Square Error of Approximation (RMSEA), Standardised Root-Mean-Square Residual (SRMR), Goodness-of-Fit Index (GFI) and Adjusted Goodness-of-Fit Index (AGFI) would be reported (Cunningham 2007; Schumacker and Lomax 2004). The incremental indices that compare the null model as the nested baseline model with the specified model for better model fit improvement would be reported with Tucker Lewis Index (TLI) and Comparative Fit Index (CFI) (Hair et al. 1998; Hu and Bentler 1998). Standardised residual covariance matrix and

modifications indices (MI) will also be assessed in the process of determining model fit (Cortina, Chen, and Dunlap 2001; Schumacker and Lomax 2004).

To consider the models as acceptable fit to the sample data, the following indices criteria were set out: RMSEA close < 0.07 represent a close or good fit (Hu and Bentler 1999; Steiger 2007), while values up to $.08$ indicate reasonable fit and values between $(0.08 - 0.10)$ indicate mediocre or acceptable fit (Brown 2003; MacCallum, Browne, and Sugawara 1996). (SRMR < 0.08) (Hu and Bentler 1999), and (GFI, AGFI, TLI and CFI > 0.95) as good fit and (GFI, AGFI, TLI and CFI > 0.90) as satisfactory fit (Cunningham 2007; Hair et al. 1998; Schumacker and Lomax 2004).

4.11.5 Moderation Analysis

A moderator has the potential ability to either strengthen or weaken the relationship between an independent/predictor and dependant/outcome variable (Baron and Kenny 1986). To test for moderation, a hierarchical moderated regression was used. The method involves a series of linear regressions performed in order to test for the statistical ‘interaction’ of a moderating variable.

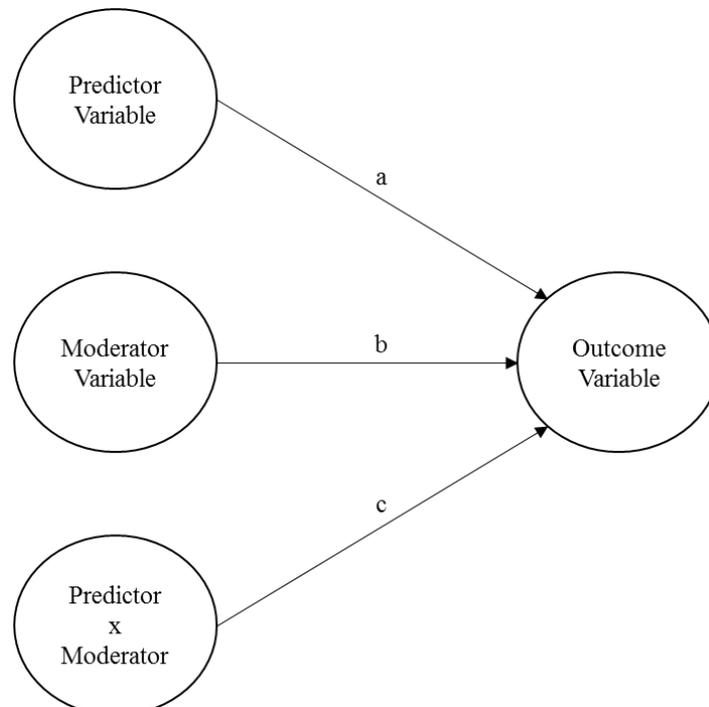


Figure 4-2: Moderation Model (Baron and Kenny 1986, 1179)

Based on the Figure 4-2, there are three pathways that lead into the outcome variable. Taking H₇ as an example, it is hypothesized that inferences of manipulative intent will moderate the

relationship between desire for uniqueness and attitude towards the ad. Hence the outcome variable in this example is attitude towards the ad. The process examines the impact of desire for uniqueness on attitude toward the advertisement (path a), the impact of inferences of manipulative intent on attitude toward the advertisement (path b) and ‘the interaction’ or product of these two (path c). The hypothesis is supported if the ‘interaction’ (path c) is significant (Baron and Kenny 1986).

4.11.6 Mediation Analysis

The mediation analysis consisted of a series of linear regression analyses to test for either a partial or full mediation using the 4 step analysis proposed by (Baron and Kenny 1986). This will determine the best predictor of a dependant variable from several independent variables.

Baron and Kenny’s four step approach is outlined below:

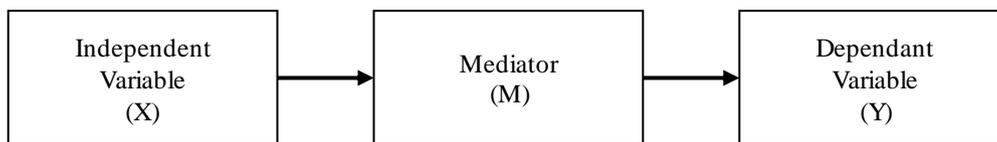


Figure 4-3: Mediation Process

- **Step 1:** Regression analysis with (X) and (Y)
- **Step 2:** Regression analysis with (X) and (M)
- **Step 3:** Regression analysis with (M) and (Y)
- **Step 4:** Multiple regression with both (X) and (M) on (Y)

In order to successfully ensure and interpret a mediating relationship, a number of conditions are to be met. First, the relationships in step 1 – step 3 should be significant for mediation to be possible. Second, some form of mediation is supported if the effect of (M) remains significant after controlling for (X). If (X) is still significant and (M) still significantly predicts (Y) the finding supports partial mediation. If (X) is no longer significant when (M) is controlled, the finding supports full mediation (Baron and Kenny 1986). In addition, to confirm the potential mediating effect (M), a Sobel test was conducted. If the test confirms the significant/non-significant results, the mediation will be accepted. The variables and their relationship are outlined in in Figure 4-3.

4.12 ETHICAL ISSUES

The research has applied for the Curtin University's Human Research Ethics and the committee has been identified the research as a low risk research. The approval ethics no. is 'SOM2014075.'

4.13 CHAPTER SUMMARY

This chapter describes the measures and methods that will be used to examine the relationships discussed in the chapter three. To answer the research questions and address the subsequent research objectives, the support and appropriateness of the measures and various methods are discussed in detailed. The analysis and results of the hypothesized relationships discussed in chapter three will be presented in chapter six. The following chapter describes the process and procedures of scale development for the T-FOMO scale.

5 SCALE DEVELOPMENT

5.1 OVERVIEW

The purpose of this chapter is to describe the processes undertaken to develop a single scale to measure FOMO, which is described as the Tendency towards the Fear of Missing Out (T-FOMO) scale. This scale will be adopted to test for the effects of T-FOMO as outlined in research model of this thesis (See Figure 3-1). A total for four studies were undertaken to generate, purify and validate the scale.

As seen in Table 5-1, the chapter is structured as follows. Study 1 will discuss the steps in the initial stages of scale development. This consists of outlining the methods for generating the scale items and accessing its dimensionality through an exploratory factor analysis (EFA). The EFA serves to purify the scale items to prepare it for subsequent analysis. This is followed by Study 2 which involves the further purification of the scale items from Study 1 via a confirmatory factor analysis (CFA). Study 3 is aimed at the validating the scale items through a series of tests. Finally, Study 4 will examine the generalizability of the scale in terms of its stability when used in a different study context and sample population. The final section of the chapter will discuss the implications of the scale.

Table 5-1: Overall Chapter Structure

Study	Description
1	Generation of scale items
2	Purification of scale items
3	Validation of the scale
4	Generalizability of scale
-	Implications of the scale

5.2 STUDY ONE – DEVELOPING THE SCALE ITEMS

5.2.1 Generate an item pool

When generating items for a new scale, items should be designed in a way that captures the conceptual and logical true variance presented in the construct and is considered an important first step in scale development (Eastman, Goldsmith, and Flynn 1999). Construct definition is seen as a common of weakness for some scale development and as such, it was important to undertake a rigorous approach to ascertain the conceptual definition used for developing the scale items. In addition, DeVellis (2003) suggests the need to explore the theory surrounding the concept to aid clarity in the scale development. Much of the required theory for this part of the process appears in the literature review chapter on FOMO and specific attention is also given to pioneering work of by Przybylski et al. (2013). These are discussed in the sections below.

5.2.2 Defining FOMO

To re-cap, this study defines FOMO as ‘an individual’s innate tendency to engage in behaviours that will alleviate the negative tension caused by the fear that one might miss out on potential opportunities.’ Additionally, based on a review of past studies (chapter two), this study posits that FOMO consists of 3 dimensions. The definitions are reiterated below:

Comparative FOMO Tendencies is defined as the innate tendency towards FOMO which is driven by the desire not be deprived of what someone else is experiencing or is in possession of.

Hedonistic FOMO Tendencies is defined as the constant state of tension driven by the fear of missing out.

Reactive FOMO Tendencies is defined as the regret experienced because of missed opportunities in the past which drives future behaviour.

5.2.3 Overall Framework for Designing Scale Items

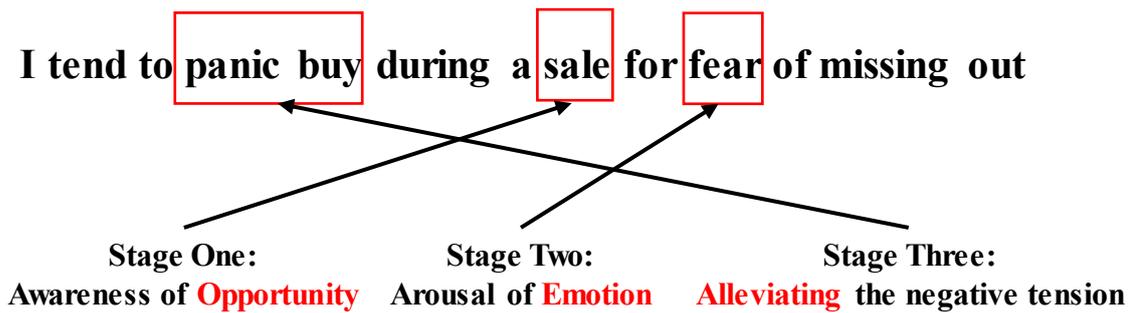


Figure 5-1: Application of FBM on Scale Item Development

As seen in Figure 5-1, the design and conceptualization of the scale items will be based on the **FOMO behavioural model (FBM)**. More specifically, the items for the proposed scale will be formulated based on the three stages outlined in the model and are discussed briefly below:

- **Stage One: Awareness of opportunities:** The awareness of opportunities is an important component of FOMO. FOMO individuals are drawn by ‘attractive opportunities’ they encounter. In a marketing context, this could come in the form of deals offered by the advertiser. However, it is important the consumer is informed of these opportunities. If an individual is not aware of the opportunity, FOMO will not be triggered.
- **Stage Two: Arousal of Emotion:** FOMO is always accompanied by the arousal of negative feelings such as anxiety and fear. These feelings are aroused by the realisation that one may potentially miss out/or have already missed out on a ‘rewarding opportunity’.
- **Stage Three: Alleviating the Negative Tension:** Following on from stage two of the FBM model, these negative feelings are what drive an individual to act on the opportunities discussed earlier. This is typified by the drive reduction theory by Hull (1943) which posited that individuals are motivated to reduce or alleviate negative drive states to revert back to their original state of equilibrium.

5.2.4 Theoretical Underpinnings

Due to the contemporary nature of the construct, current literature offers little in terms of conceptualizing the construct and as such, there is a need to establish a robust theoretical framework for the construct to be anchored on. This study uses three theories namely the drive-

reduction theory, self-determination theory and confirmation bias theory to form the theoretical framework for this scale development process.

Drive Reduction Theory: The drive-reduction theory forms the overarching theoretical framework in which the concept of FOMO is underpinned. According to this theory, deviances from homeostasis (an individual's tendency or need to maintain a sense of equilibrium) create physiological needs (Hull 1943). When these needs are not satisfied, a negative state of tension is created. Individuals must seek ways to reduce or alleviate the negative tension experienced to return to the state of homeostasis. In the same vein, FOMO cause an individual to deviate from their state of homeostasis, leaving them feeling anxious or distressed when a good opportunity presents itself. This will cause individuals to seek out ways to reduce or alleviate the negative tension they are experiencing. As discussed in the earlier chapters, these opportunities in a marketing context can be for example is presented in the form of promotional offers which contain messages such as 'buy now before stocks run out.' FOMO consumers who see these as attractive opportunities are likely to follow the course of action recommended by the advertiser so as relieve the negative tension they are experiencing.

Self-determination Theory: People are often motivated to behave or act based on external factors such as the promise of rewards or for the approval of others. In a similar vein, people are driven by intrinsic motivations such as interest, curiosity and value systems that are not necessarily externally rewarded or supported. Self-Determination Theory (SDT) suggests that people possess inherent psychological tendencies that form the basis for self-motivation and personality integration (Ryan and Deci 2000). In the same vein, individuals experiencing FOMO are motivated to act because of the an attractive opportunity which comes with the promise of a rewarding experience (Przybylski et al. 2013).

Confirmation Bias Theory: Many theories seeking to understand consumer decision-making processes tend to associate the purchase with a certain degree of cognitive effort and involvement. The consumer decision making model (CDM) by Engel, Kollat, and Blackwell (1968) describes five activities that consumers go through in a rational, sequential order following as seen in Figure 5-2.

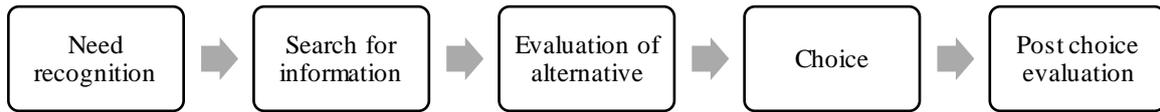


Figure 5-2: Consumer Decision-Making Model (Engel, Kollat, and Blackwell 1968)

However, in situations like unplanned purchasing, this sequential order is challenged. Unplanned purchasing is defined as ‘a buying action undertaken without a problem previously having been consciously recognized or a buying intention formed prior to entering the store’ (Engel, Kollat, and Blackwell 1968, 483). In other words, the realisation of the need is only apparent after it is triggered by particular stimuli. For example, a store only special deal which then creates that spur of the moment decision (Bayley and Nancarrow 1998). In these situations, these types of purchases are irrational because an individual is motivated to buy because of how they feel rather than what they think.

However, Malter (1996) explains that the emotional aspect of these type of purchases should not be confused with irrationality but rather that the decision is based on the degree of reasonability of the purchase. The idea of reasonability can be distorted by an individual’s emotional state. This can be further supported by the theory of confirmation bias where individuals tend to seek or interpret information in a way that supports their existing beliefs (Nickerson 1998). In this scenario, a consumer who has made an unplanned purchase may rationalize the purchase because the ‘need’ to have the product.

In the same vein, FOMO acts on the same premise as behaviours are dictated but how the individual feels as opposed to objective reasoning.

5.2.5 Overview on Scale Development Process

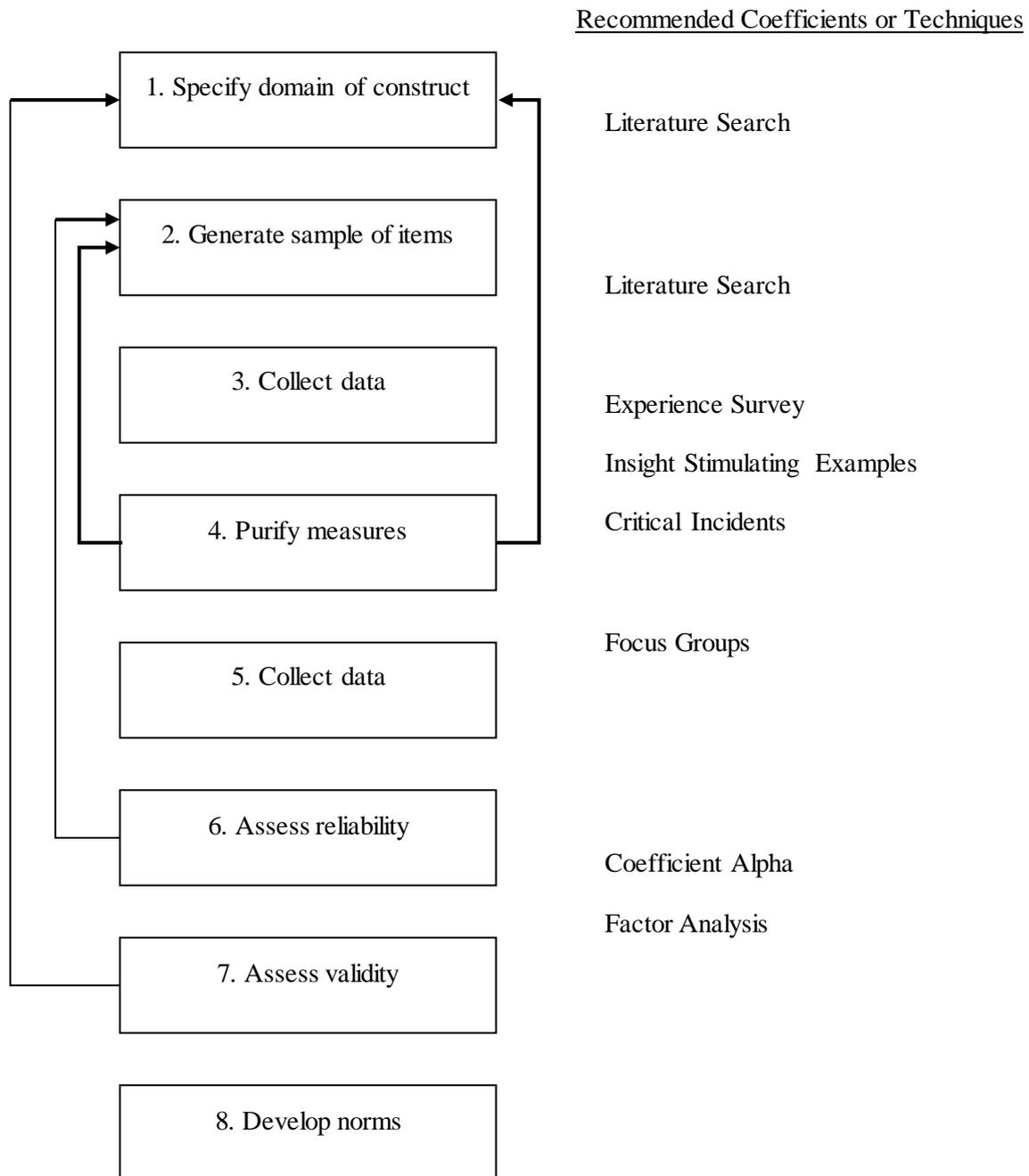


Figure 5-3: Suggested Procedure for Developing Better Measures (Churchill Jr 1979)

The processes of scale development undertaken based on a review of a number of key studies, books and journals. The following studies were identified as being important for the development of the current scale (Churchill Jr 1979; DeVellis 1991; DeVellis 2003; Nunnally 1978; Oh 2005; Wells, Leavitt, and McConville 1971). Churchill Jr (1979) procedure for scale development was found to be most suitable and was therefore adapted and adopted for the

purpose of this study. In order to better understand the techniques and procedures outlined by Churchill (1979), Figure 5-3 illustrates the processes involved.

Using the preceding explanations of FOMO, the study (as per Li, Edwards, and Lee 2002) uses three main methods to generate a set of potential scale items: literature reviews (Churchill Jr 1979), thesaurus searches (Wells, Leavitt, and McConville 1971), and experience surveys (Chen and Wells 1999; Churchill Jr 1979).

5.2.6 Literature Reviews

Purpose of the literature review involves an analysis of past studies as well as the theories. This will allow for a more accurate conceptualization of FOMO, its limitations, and potential usefulness and applications in a broader research context. A robust literature review should also seek to learn from the errors as well as successes of past attempts at measuring FOMO so that the development of the current scale is sound (Netemeyer, Bearden, and Sharma 2003).

A comprehensive review of past studies on FOMO was used to help generate the scale items. Out of the studies reviewed, to the best of the author's knowledge, only one study has successfully developed a measurement instrument for FOMO. However, study was limited to a social sciences context (Przybylski et al. 2013). Furthermore, the measurement scale was based predominantly on missed experiences in a social context. As a result, the scale may have issues especially when applied within a marketing context. Hence, other studies and articles obtained from marketing industry based publications (JWT Intelligence 2011; JWT Intelligence 2012; Remy, Catena, and Durand-Servoingt 2015) were consulted to gain marketing perspective to the generation of the scale items.

5.2.7 Social Media Monitoring Approach

Already have big time #FOMO that I can't be there tomorrow night 🤔 You guys are gonna have a sublimely awesome blast! [REDACTED]

Do you ever watch people walking into the movie theater and have instant #fomo

When all your friends are on an island for spring break and you're stuck at home. [REDACTED]

Back home and having major #fomo over not having purchased this dress. Thoughts??? Do I need it? I think I might 🤔

Figure 5-4: Examples of FOMO used in Social Media

Once a sound definition was established after a review of current literature and popular press, the study integrates a Social Media Monitoring (SMM) approach as part of the process to generate the initial items for the scale. SMM approach taps into social networking platforms such as *Facebook*, *Twitter* and blogs by generating spontaneous opinions about brands (Branthwaite and Patterson 2011). The process involved searching key words related to FOMO and observing what the general perceptions of what FOMO was being discussed on these platforms. Figure 5-4 depicts some of the search findings.

WHAT I NEED FROM YOU?

I believe most of you have filled out questionnaires at one point in your life. The questions you were asked come from a scale and each scale has different items. For example:

The scale for 'impulse buying tendency' has items such as:

1. When I go shopping, I buy things I had no intention to purchase
2. It is fun to buy spontaneously
3. Generally speaking, I would consider myself to be an impulsive shopper.

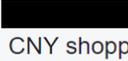
Thus, I would need your input to come out with items which best describe FOMO based on what you have read above.

1. Talk about past experiences you may have had which relate to the above phenomena 'FOMO'
2. Describe yourself in a situation whereby you have purchased a product or participate in an activity you did not originally plan for (Which relates to 'FOMO')
3. Ideas on how I can tweak the definition of 'FOMO'
4. Or simply give me some input on what you think about what I am trying to do

There are no right or wrong answers and this is simply a forum for everyone involved to share the thoughts and ideas.

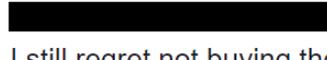
Figure 5-5: Example of Facebook Group Post to Generate Discussion on FOMO

Posts were also made on these various social media platforms to encourage discussion about FOMO. For example, Figure 5-5 depicts an example of what some of the posts would entail. The process aimed to ascertain based on the responses, the different situations in which FOMO is evoked. This included how people felt, thought and behaved during those situations. A variety of situations were discussed with three recurring themes which reflected the three dimensions described earlier.



 IMO. FOMO could be highly influenced by peer pressure. For e.g. CNY shopping friends, as you are all shopping in a group, sometimes when you are deciding whether or not to buy this particular item, peer pressure comes in to influence your decision (saying u look good in that tee, it's really cheap, suits you well) Such factors seems to contribute to my tendency to be FOMO-ed because their comments influence me to a certain extend that I too agree I might not find such a similar design of tee/wallet from other stores and since usually my CNY shopping are quite last minute, i would just whack only. Truth is, some items I've bought, I did not really wore or use them in the end (Perhaps once only and it's during CNY period in this case)

February 25, 2014 at 11:55pm · Unlike ·  1

Figure 5-6: Example from SMM Approach – Peer Pressure



2/21, 10:48pm

I still regret not buying the dress. But at the time, I was thinking, its so pricey ill only wear it once and where?!?!
 im single i dont date so its a waste

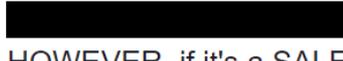
but i SHOULDVE BOUGHT THAT DRESS it still HAUNTS ME

HAUNTS ME

yes i think time is a factor. when there is a ticking clock you need to make a decision NOW

you know, and you fear that it will get sold out, SOME OTHER GIRL WILL BUY IT

Figure 5-7: Example from SMM Approach – Regret, Competitive Orientation



2/21, 10:47pm

HOWEVER, if it's a SALE that's a different scenario. I know that there is a limited time scenario, and other girls may buy it, and my size might run out, so that's when I may get panicky

The more you work in fashion, the less fazed you are

it's a job for me haha

Figure 5-8: Example from SMM Approach – Limited Time Scenario



 Like the Hello Kitty Mcds incident in Sg? The more I feel I can't get it, the more I want it!!!!

February 21, 2014 at 10:30pm · Like

Figure 5-9: Example from SMM Approach - Emotions

Firstly, their comparative FOMO tendencies were highlighted as some respondents related to FOMO especially when they are shopping as a group. It highlighted how the purchase decisions are influenced by what they friend say or do (See Figure 5-6). Moreover, they are likely to experience FOMO for a particular product especially if they fear that someone else will buy it (See Figure 5-7 and Figure 5-8). Furthermore, when relating to FOMO, people related it to the effects of scarcity. For example, one respondent was reminded of the *Hello Kitty* incident in Singapore (“Toy Riot in Singapore Burger Joint” 2000) discussed earlier which saw how scarcity effects impacted on FOMO and brought about a competitive drive in the consumer (See Figure 5-9). Secondly, the hedonistic tendencies were highlighted when they described related to FOMO to emotions that experienced such as ‘panicky’ and ‘fear’ (See Figure 5-7 and Figure 5-8). Thirdly, reactive tendencies were highlighted when they related FOMO to past regrets ‘but I should’ve bought that dress, it still haunts me’ (See Figure 5-7).

5.2.8 Thesaurus Search

A thesaurus search was conducted to identify potential items to be used for the scale. Based on the definitional components that make up FOMO, the thesaurus search involved looking for synonyms related to feelings of anxiety and fear. This resulted in terms such as concern, distress, panic, unease, worry which were identified as potential items for the scale. Also, the search also involved looking for synonyms related to ‘opportunity’, however only the terms chance and favourable circumstance were deemed suitable as many of the other results did not encapsulate the intended meaning for opportunity.

5.2.9 Experience Surveys

Experience surveys were conducted using an expert panel (consisting of 15 academics and practitioners) to examine the wording of the items and the appropriateness of adjectives used to describe FOMO situations obtained from the literature review, social media monitoring (SMM) approach and thesaurus search. Also, considerations for the items were based on clarity, conciseness, ease of understanding, and also a discussion on other situations that describe FOMO. In addition, the panel was also consulted to ascertain the dimensionality of the scale. Outcomes of the discussion coincided with what was proposed in the earlier sections, where majority of the panel members were able to identify with the 3 dimensions of FOMO. Based on the feedback from the expert panel through a systematic process of elimination, 5 items were left corresponding to each dimension of FOMO. The items and their corresponding dimension are as follows:

Comparative FOMO Dimension

- I have the habit of accepting appointments even though my schedule is full for fear of missing out
- I find it hard to say 'No' to my friends because I do not like the feeling of missing out
- I always take part in social activities even though I may not want to for fear of missing out
- I always follow the latest fashion and product trends for fear of missing out
- I have the urge to join long queues even though I sometimes I do not know what it is for

Hedonistic FOMO Dimension

- I tend to panic buy during a sale for fear of missing out
- I feel uneasy whenever there is a sale happening and I do not take part in it
- I have the urge to buy during a sale even though there is nothing that I really want
- I become anxious during a sale and tend to buy more than I actually need
- I tend to panic buy when I am on a trip overseas especially when I know I will not be returning any time soon

Reactive FOMO Dimension

- It bothers me when I think about the times when I missed out on a great deal.
- It upsets me when I miss out on a good deal
- It bothers me when I miss out on a good deal
- I sometimes find it hard to make purchase decisions for fear that there is a better deal out there
- I have the constant urge to check for the latest product deals on the internet for fear of missing out

5.2.10 Determine Format of Measurement

The next stage required the use of a survey to finalise the initial pool of items. A five-point Likert style scale used following the format used by Przybylski et al. (2013) FOMO scale. The scale was anchored with: 1 = 'Not at all true of me', 2 = 'Slightly true of me,' 3 = 'Moderately true of me', 4 = 'Very true of me', and 5 = 'Extremely true of me'. Respondents were asked to rate how each statement related to their different situations they encounter in their everyday

life. The specific wording preceding the scale items is ‘Below is a list of statements about different situations you encounter in your everyday life. Please indicate how closely each of the following statements describes you.’

5.2.11 Survey and Sample used for EFA

Previous review of literature suggested that there would be three factors derived from the pool of items. Hence, the 15 remaining items were put through a process of purification with Exploratory Factor Analysis (EFA). A survey was developed containing the remaining 15 items left after review by the expert panel. At this point, a stimulus was not deemed necessary for the purposes of the study. Use of a stimulus would only be relevant for study 3, to test for predictive validity. Further, a consumer panel was used consisting of respondents who resided in Australia. Using a sample which made of general consumers was to ensure there was sufficient variation in demographics.

5.2.12 Evaluate the Items using EFA

EFA is a common first step in scale development and item refinement (Desselle 2005; DeVellis 1991; Sweeney, Hausknecht, and Soutar 2000), and this procedure was undertaken via a PROMAX rotation to assess the dimensionality of the scale. In order to refine the EFA, Cronbach’s α was examined and items with squared multiple correlations of 0.30 and corrected item-to-total correlations of 0.50 were removed (DeVellis 1991).

Table 5-2: Scale Development – Exploratory Factor Analysis

Item Description	Factor 1 (Loadings)	Factor 2 (Loadings)
I have the urge to join long queues even though I sometimes I do not know what it is for	.92	
I have the habit of accepting appointments even though my schedule is full for fear of missing out	.85	
I always follow the latest fashion and product trends for fear of missing out	.84	
I tend to panic buy during a sale for fear of missing out	.81	
I always take part in social activities even though I may not want to for fear of missing out	.80	
I tend to panic buy when I am on a trip overseas especially when I know I will not be returning any time soon	.79	
I feel uneasy whenever there is a sale happening and I do not take part in it	.78	
I become anxious during a sale and tend to buy more than I actually need	.75	
I have the urge to buy during a sale even though there is nothing that I really want	.75	
I have the constant urge to check for the latest product deals on the internet for fear of missing out	.70	
I find it hard to say 'No' to my friends because I do not like the feeling of missing out	.69	
It upsets me when I miss out on a good deal		.98
It bothers me when I miss out on a good deal		.92
It bothers me when I think about the times when I missed out on a great deal.		.75
	Eigen Value	7.90
	Variance explained (%)	56.46
	α	.94
	KMO	.92
	χ^2	1402.38
	df	91
	Sig.	.000

Extraction Method: Principle Component Analysis, Rotation Method: Varimax rotation

α = Cronbach Alpha, KMO = Kaiser-Meyer-Olkin, IMI = Inferences of Manipulative Intent, CSII = Consumer Susceptibility to Interpersonal Influence

At the end of the processes, a total of 14 items remained with only 1 item 'I sometimes find it hard to make purchase decisions for fear that there is a better deal out there' being removed due to cross-loadings. In total, 2 factors were extracted. This was an interesting result as initial literature review indicated that at least 3 factors should have been observed. Detailed results are shown in Table 5-2.

Table 5-2 From this point, step 2 of the scale development can begin. This includes the collection of new data sets for validation of the uni-dimensionality of the item sets.

5.3 STUDY TWO – PURIFICATION OF SCALE ITEMS

5.3.1 Purpose

The purpose of study 2 is to test the uni-dimensionality of the individual factors that were established in study 1 using confirmatory factor analysis (CFA) and to purify the scale further (if necessary) by removing items that are weak or do not meet the fit criteria. Uni-dimensionality is often tested using CFA (Pedhazur and Schmelkin 1991), which is considered a superior technique to EFA for this task by some studies (e.g. O’Leary-Kelly and Vokurka 1998). Li, Edwards, and Lee (2002) discuss the importance of uni-dimensionality of scales, as composite scores tend to be calculated on the basis of the respondents’ scores on all the items of a scale as an unweighted sum (Hattie 1985). By comparing the remaining items with the working definition of the construct, content validity could also be undertaken.

5.3.2 Survey and Sample Characteristics

A survey was developed containing the remaining 14 items left after purification in Study 1. A set of demographic questions were also included in the survey. Similar to study 1, the sample was also obtained using a consumer panel. The survey was administered via an online consumer panel consisting of 164 valid respondents. The demographics and characteristics of the respondents were representative of a general consumer population. The sample consisted of males (43.9%) and females (56.1%) females. Most respondents were well educated with (35.4%) having completed at least a secondary school, college/tafe (31.1%), bachelor degree (22.0%), postgraduate degree (9.8%) and others (1.8%).

5.3.3 Results

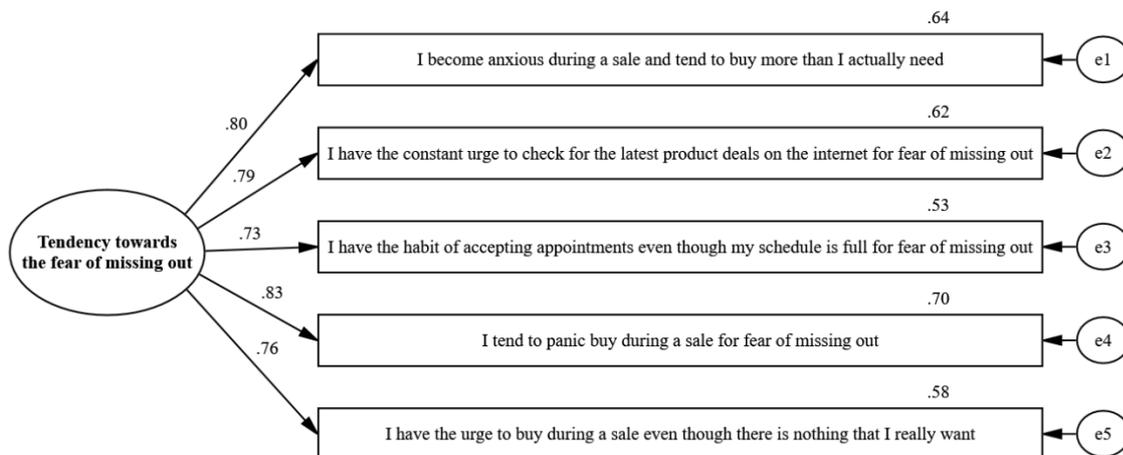


Figure 5-10: Purification of Scale Items – Confirmatory Factor Analysis for the T-FOMO scale

CFA was conducted on the single-construct measurement model for T-FOMO consisting of the 14 items left after the EFA. Each factor's model's fit was assessed by examining a number of goodness-of-fit indices to see whether they were appropriate for subsequent analysis. For factor 1, the initial 11-item model has an unacceptable fit ($\chi^2 = 172.71$, $df = 44$, $p\text{-value} = .00$, $RMSEA = .13$, $SRMR = .05$, $GFI = .95$, $AGFI = .78$, $CFI = .90$, $TLI = .87$). Hence, the modification indices were consulted for possible solutions (Cortina, Chen, and Dunlap 2001; Garver and Mentzer 1999; Schumacker and Lomax 2004). Based on a systemic process of elimination, a total of 6 items were removed due to cross loadings. After these items were eliminated, the goodness-of-fit indices for the model were deemed appropriate and are as follows. ($\chi^2 = 6.81$, $df = 5$, $p\text{-value} = .24$, $RMSEA = .04$, $SRMR = .02$, $GFI = .98$, $AGFI = .95$, $CFI = .99$, $TLI = .99$).

For factor 2, the initial 3-item model did not produce an acceptable fit. The modification indices were then consulted for possible solutions (Cortina, Chen, and Dunlap 2001; Garver and Mentzer 1999; Schumacker and Lomax 2004), however, the model still did not produce an acceptable fit. As such, factor 2 was removed thus resulting in T-FOMO scale becoming a uni-dimensional.

Although this finding did not conform to initial expectations, it confirmed Przybylski et al. (2013) FOMO scale which was uni-dimensional as well. Shorter scales, often discussed as containing three to eight items, are recommended by researchers (Burisch 1997; Gerbing and Anderson 1988; Mowen 2000; Mowen 2004) and this result falls within these boundaries.

In summary, results of the CFA revealed a 5-item T-FOMO scale. This is depicted in Figure 5-10. The items also continue to suit the overall definition of the construct that the scale is intending to measure, indicating content/face validity.

5.4 STUDY THREE – VALIDATION TESTING

5.4.1 Purpose

Establishing trait/construct validity is the key goal for Study 3 (e.g. Peter 1981). More specifically, convergent, discriminant and criterion (predictive) validity is examined. Nomological validity can also be suggested for the described validity tests.

Criterion validity determines ‘the ability of the scale to predict something that should theoretically be related or ability to predict’ (Oh 2005, 301). In the earlier sections of this chapter, it discusses how the presence of opportunities can elicit an emotive behavioural response. This is central to how FOMO is characterised. In chapter two, it discusses how scarcity can enhance the attractiveness of the opportunity. As such, existing scales namely the attitude toward the advertisement, attitude toward the product and purchase intention were included in this study to establish criterion (predictive) validity (the three measures will be used in the context of a limited edition product (‘limited edition’ is a common tactic used by advertisers to imply quantity scarcity). Thus, if the T-FOMO scale is valid, it will lead to a positive relationship between these 3 measures.

In line with Churchill Jr (1979) belief that a fundamental principle in science is that a particular construct or trait should be measured against different methods and trait; inclusion of a number of established scales were used to test for convergent and discriminant validity. For convergent validity, the current FOMO scale was used to test against the new T-FOMO scale.

For discriminant validity, the CSSC (Consumer spending self-control) scale was used. CSSC is defined as ‘the ability to monitor and regulate one’s spending-related thoughts and decisions in accordance with self-imposed standards’ (Haws, Bearden, and Nenkov 2012, 696). In marketing literature, consumers have the tendency to seek out immediate gratification (Tunney and Shanks 2002). In many situations, the appeal of an immediate reward is hard to resist and overcome e.g. fear of missing out on a limited only sale. In this instance, a rational perspective looks at the immediate reward as obtaining a product at a discount price. However, this could be at the expense of buying something that is completely unnecessary, where the money could

be spent on something more practical. The issue here is that many consumers lack self-control, ‘ability to override or change one's inner responses, as well as to interrupt undesired behavioural tendencies and refrain from acting on them’ (Hofmann et al. 2014, 265). Individuals who have more self-control are likely to consider the attractiveness of these opportunities and are less likely to be influenced by emotion. In addition to this, some individuals are more prone to take up opportunities as compared to others. Based on what was discussed, it can be seen that T-FOMO and CSSC share similar properties but are conceptually distinct from each other. Hence, CSSC proves to be a useful construct to test for discriminant validity.

5.4.2 Survey and Sample Characteristics

A survey was developed containing the remaining 5 items left after purification in Study 2. The new survey also included the discussed measures for the respective validity tests discussed in the earlier section. These instruments appear as 5 point Likert-style scales. Each scale that was used to conduct the validity tests achieved a Cronbach's $\alpha \geq 0.80$ in previous studies. Further a stimulus was developed to elicit scarcity cues for the new survey. A fictitious product advertisement was designed to elicit the discussed scarcity condition. A set of demographic questions were also included in the survey.

The survey was administered via an online consumer panel consisting of 261 valid respondents. The demographics and characteristics of the respondents were representative of a general consumer population. The sample consisted of males (45.6%) and females (54.4%) females. Most respondents were well educated with (29.1%) having completed at least a secondary school, college/tafe (36.0%), bachelor degree (23.8%), postgraduate degree (8.8%) and others (2.3%).

5.4.3 Results – Criterion and Nomological Validity

5.4.3.1 Mean Score Test

Under the conditions outlined, purchase intention towards the scarce product recorded positive Cronbach alpha scores ($\alpha = .96$). The criterion (predictive) validity of the scale is supported as those experiencing higher T-FOMO were found to have higher purchase intentions towards scarce products (Mean = 2.55, SD = .99) (as compared to those experiencing lower T-FOMO (Mean = 1.88, SD = .95) ($t = 5.56, p = .00$).

5.4.3.2 Pearson Correlation Matrix Test

Table 5-3: Pearson Correlation Test – Nomological Validity

	T-FOMO	A_{ad}	A_{br}	PI
T-FOMO	1	.12 ^(*)	.14 ^(*)	.36 ^(**)
A_{ad}	.12 ^(*)	1	.83 ^(**)	.42 ^(**)
A_{br}	.14 ^(*)	.83 ^(**)	1	.47 ^(**)
PI	.36 ^(**)	.42 ^(**)	.47 ^(**)	1

*p < 0.05, **p < 0.01, ***p < 0.001
T-FOMO = Tendency towards the fear of missing out, A_{ad} = Attitude toward the advertisement, A_{br} = Attitude toward the brand, PI = Purchase intention

A Pearson correlation test shows the proposed T-FOMO scale to be significantly correlated towards attitude toward the advertisement, attitude towards the branded product and purchase intention. As discussed, correlations of behavioural or attitudinal reactions to the proposed scales are used in past studies to indicate validity (Netemeyer, Bearden, and Sharma 2003; Shimp and Sharma 1987). Nomological validity is thus indicated by these results as the items from the T-FOMO scale behaved as expected with respect to another item (attitude toward the advertisement, attitude toward the branded product and purchase intention) to which they are theoretically related (Cadogan, Diamantopoulos, and de Mortanges 1999; Churchill 1995). However, further research is needed before nomological validity can be fully established. At this stage, and with the support of the previous results, the scale continues to show positive results towards validation. Results are depicted in Table 5-3.

5.4.4 Results – Convergent and Discriminant Validity

5.4.4.1 Pearson Correlation Matrix Test

Table 5-4: Pearson Correlation Matrix Test – Convergent and Discriminant Validity

	T-FOMO	FOMO	CSSC
T-FOMO	1	.67 ^(**)	-.12 ^(*)
FOMO	.67 ^(**)	1	-.06
CSSC	-.12 ^(*)	-.06	1

*p < 0.05, **p < 0.01, ***p < 0.001
T-FOMO = Tendency towards the fear of missing out, FOMO = Fear of missing out, CSSC = consumer spending self-control

As seen in Table 5-4, a Pearson Correlation Matrix (PCM) test was conducted following the procedure suggested by Churchill (1979) and Eastman, Goldsmith, and Flynn (1999). First, as required for an acceptable PCM, the coefficients indicating convergent validity should reveal significant and higher correlation coefficients with measures of other scales to which it is expected to be related. The correlation of the proposed scale with the FOMO scale ($r = 0.667$, $p < .01$) is significant and high enough to show convergent validity. Discriminant validity is

supported when there is low or moderately correlation among measures that are designed to measure conceptually different but related constructs. As predicted, the developing T-FOMO scale correlated with consumer spending self-control (CSSC = $-.12^*$, $p < .05$) demonstrating a negative correlation coefficient. Results are depicted in Table 5-4.

From the studies conducted, it can be seen that the T-FOMO scale performs successfully in the predictive, nomological, convergent and discriminant validity tests.

5.5 STUDY FOUR – GENERALIZABILITY

5.5.1 Purpose

A test for generalisability and further validation of the scale is the key purpose of this study. A CFA was conducted on the single-construct measurement model for T-FOMO consisting of the 5 prior validated items. A variation to the sample population compared to the previous studies were used (US consumers instead of Australian consumers) to assist in establishing generalizability. Successful adoption of the scale in both academic and managerial scenarios requires the scale to remain functional under varying conditions. CFA is also ideal for the final verification of the uni-dimensionality of a scale (Gerbing and Anderson 1988; Li, Edwards, and Lee 2002).

5.5.2 Survey and Sample Characteristics

A survey was developed containing the resulting 5 items after validation in Study 1 – 3. A set of demographic questions were also included in the survey. Instead of an Australian consumer panel, a US consumer panel was used. The survey was administered via an online consumer panel consisting of 353 valid respondents. Further, participants of the survey also came from a multitude of occupational sectors and are as follows: students (7.9%), engineering (18.7%), business (48.2%), education (12.5%), medical (7.1%), science (2.0%), retired (5.9%) and others (24.4%). Overall, it represented a diverse sample that contributed well to a replicative study.

5.5.3 Results

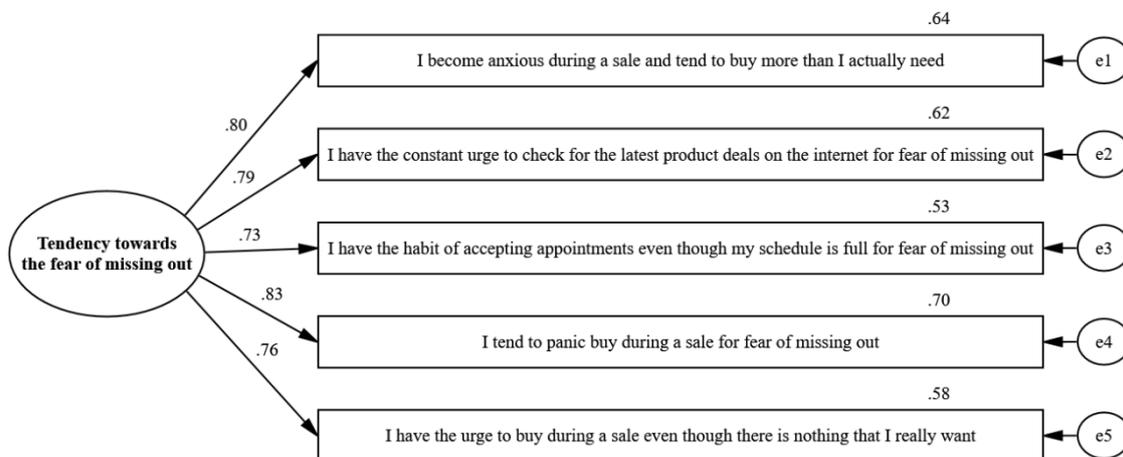


Figure 5-11: Generalizability Test – Confirmatory Factor Analysis for the T-FOMO scale

To test the robustness of the scale, confirmatory factor analysis was estimated for the T-FOMO scale with the new sample set. Results indicated that the scale was found to have an acceptable fit ($\chi^2 = 10.63$, $df = 5$, $p\text{-value} = .60$, $RMSEA = .05$, $SRMR = .02$, $GFI = .99$, $AGFI = .96$, $CFI = .99$, $TLI = .99$). This is depicted in Figure 5-11.

5.6 IMPLICATIONS OF THE SCALE

5.6.1 Theoretical and Methodological Implications

The present study examines and re-evaluates the fear of missing out (FOMO) construct. The outcome of the study reveals that a new 5-item uni-dimensional Tendency towards the Fear of Missing Out (T-FOMO) scale. Psychometrically, the scale exhibits internal consistency and remains consistent across different population samples. Further, the scale has undergone and successfully passed all the reliability and validity tests conducted in studies 1 – 4. With the new T-FOMO scale, researchers will be able to incorporate it as an independent construct in a variety of advertising and marketing contexts, particularly testing its effects on scarcity messages such as supply-related scarcity messages (e.g. limited edition) or demand-related scarcity messages (e.g. ‘while stocks last’). Further, it will also be useful in testing how FOMO consumers react to sales promotion messages which aim to stimulate immediate purchases. Researchers can also employ the scale as a means to discover other facilitating conditions that can appeal to the FOMO consumer.

Due to the contemporary nature of FOMO, both academic theory and insights gathered from popular press and industry publications have helped contribute to the conceptual soundness of

the measurement, an element which many existing scales have not incorporated fully – many of which have relied solely on scholarly or academic sources. In addition, using the social media monitoring (SMM) approach in generating the scale items has been useful in the initial stages of scale development – but still relatively underused in current scale development papers in literature. Further in terms of methodological significance, the research indicates successful procedures for future extensions and adaptations of the scale.

The T-FOMO scale builds on Przybylski et al. (2013) existing FOMO scale by developing a scale which is more applicable for use in a marketing context. More specifically, the items in the scale encompasses a variety of items can be applied in both online and offline consumption experiences.

5.6.2 Managerial Implications

Based on study 3, namely the predictive validation tests, the study found that individuals who possessed the FOMO trait favoured products that are scarce. Obviously, replication of the results in future studies is important to confirm this. However, preliminary results from this study provide a good step in the right direction. Hence, for managers utilizing scarcity messages in their advertising, the scale can be useful in acting as a manipulation check for determining whether the scarcity cue has an effect on purchase behaviour as FOMO consumers are likely to be more susceptible these scarcity messages.

The scale can also be used as a self-evaluation tool for consumers and a useful measure for public policy advocates as a way to identify consumers prone to the persuasive effects of advertising and finding ways to educate these consumers to make better purchase decisions.

5.7 CHAPTER SUMMARY

This chapter has explained the processes undertaken to develop the Tendency towards the Fear of Missing Out (T-FOMO) scale. The outcome of the scale revealed that T-FOMO was a uni-dimensional scale which was contradictory to the proposed 3 dimensions discussed in chapter two (literature review). The body of the chapter demonstrate that the rigorous scale development processes used, which follows the guidelines set out by earlier studies. A total of four studies were conducted namely (1) Generation of Scale Items (EFA), (2) Purification of Scale Items (CFA), (3) Validation of Scale, (4) Generalizability to produce the 5-item uni-dimensional T-FOMO scale.

To further validate and increase generalisability of the T-FOMO scale, it was tested in a theoretically-driven research model using different product categories. These results are discussed in following chapter. Additionally, the chapter will also discuss the results for hypothesis testing.

6 ANALYSIS AND DISCUSSION

6.1 INTRODUCTION

This chapter is divided into six ‘studies’ which corresponds to the six experimental conditions described in chapter four (research methodology). To reiterate, the study employs a 2 (limited-quantity scarcity vs limited-time scarcity) x 2 (public product vs private product) factorial experimental design which include 2 control conditions. The main purpose of each study is to examine how individuals who possess traits (T-FOMO and Desire for Uniqueness) respond to scarcity messages in terms of their attitudes and behaviour. In addition, the research examines effects of the moderators, namely, inferences of manipulative intent and consumer susceptibility to interpersonal influence, and the potential mediating effect of attitude toward the advertisement on the relationships described in chapter three (theoretical framework and hypotheses development). Finally, the research aims to identify any differences between manipulation of the two scarcity conditions and the two product categories used across the six studies. An overview of the research design employed for the study is depicted in Table 6-1.

Table 6-1: Research Design of Study

		Type of experimental condition		
		Limited quantity scarcity	Limited time scarcity	Control group
Product category	Public (watch)	Study one	Study two	Study three
	Private (fragrance)	Study four	Study five	Study six

6.2 INITIAL SCREENING OF DATA

The data collected was initially screened for input accuracy and to check for any missing data. The data screening revealed that 180 responses were found to be incomplete (respondents did not complete the survey). Following this, the data was examined for any univariate outliers. This was done through the computation of the frequency distribution of z-scores for each item. Cases with standardised scores ($z\text{-score} > 3.29$) or ($z\text{-score} < -3.29$) were seen as potential univariate outliers (Tabachnick and Fidell 2001). A total of 53 responses were removed as they did not conform to this criterion.

In multivariate analysis, multivariate normality is an important assumption for use in structured equation modelling (which was used in the present study). In most cases, multivariate normality can be determined through an examination of the univariate distributions. Although preliminary analysis identified some skewness and kurtosis in the data, these cases were not severe. Further, a minimum sample size of ($n > 153$) across the six data sets was felt to be sufficiently large to reduce the detrimental effects of non-normality. According to the central limit theorem, in large samples ($n > 30$ or 40), the sampling distribution tends to be normal, regardless of the shape of the data (Elliott and Woodward 2007; Field 2009; Ghasemi and Zahediasl 2012). Based on the preceding discussion, the data was deemed to be normally distributed. Furthermore, transformation of the data (e.g. using square root, log and inverse transformation methods) could bring about interpretation difficulties in subsequent analysis (Osborne 2002).

6.3 OVERALL PROFILE OF RESPONDENTS

Out of a total 1169 responses collected, 936 were found to be useable across the six data sets. Descriptive analysis using SPSS 22.0 examined the pooled total sample of the 936 respondents, followed by the individual data set collected for each of the six studies. A summary of the gender, age, education status and income levels are depicted in Table 6-2.

Table 6-2: Demographic Profile of Respondents

Sample characteristic	Percentage (%)						
	Total pool sample (N=936)	LQS (Public) (N=153)	LTS (Public) (N=160)	CTRL (Public) (N=156)	LQS (Public) (N=153)	LTS (Public) (N=161)	CTRL (Public) (N=153)
Gender							
Male	45.1	46.4	43.1	53.2	42.5	44.7	40.5
Female	54.9	53.6	56.9	46.8	57.5	55.3	59.5
Age							
18 – 34 years	24.6	23.6	25.7	21.1	23.6	29.8	23.5
35 – 54 years	34.8	34	38.2	32.7	33.3	28.5	42.5
55 years and above	40.6	42.5	36.3	46.2	43.1	41.6	34.0
Education Status							
Secondary School	33.1	36.6	29.4	32.1	37.3	36.0	27.5
College/TAFE	32.7	27.5	31.3	30.8	34.6	29.8	42.5
Bachelor Degree	22.1	24.8	23.8	23.7	17.6	21.7	20.9
Postgraduate Degree	10.4	9.2	14.4	10.9	9.8	10.6	7.2
Others	1.7	2.0	1.3	2.6	0.7	1.9	2.0
Annual Income (dollars)							
Less than \$45,000	46.7	47.0	46.9	50.0	47.1	45.9	43.2
\$45,001 – \$75,000	25.4	20.3	20.7	23.7	30.1	29.8	27.4
More than \$75,001	19.1	21.6	24.4	19.9	13.0	17.4	18.3
Not Applicable (N/A)	8.9	11.1	8.1	6.4	9.8	6.8	11.1
Majority of respondents that indicated N/A for income were either homemakers or retirees.							

6.4 MANIPULATION CHECK

An independent-sample t-test was conducted to compare the manipulation checks means for each scarcity condition for private and public product conditions.

Firstly, for the advertisement that used the Limited Quantity Scarcity (LQS) message, respondents who were exposed to both public ($M = 4.09$, $SD = .08$) and private ($M = 4.07$, $SD = .08$) perceived that the advertised product was of limited quantities. Also, there was no significant difference in the scores for both public and private conditions $t(304) = .17$, $p > .05$.

Secondly, for the advertisement that used the Limited Time Scarcity (LTS) message, respondents who were exposed to both public ($M = 3.99$, $SD = .08$) and private ($M = 4.01$, $SD = .08$) perceived that the advertised product was of limited quantities. Also, there was no significant difference in the scores for both public and private conditions $t(319) = .17$, $p > .05$.

The overall results indicated no significant differences for both conditions across the two product categories, hence the manipulation was deemed successful.

6.5 STUDY ONE – LIMITED QUANTITY SCARCITY (PUBLIC)

6.5.1 Measurement Properties of the Constructs

The test for the psychometric soundness of the four constructs namely 1) Desire for Uniqueness, 2) Tendency towards the Fear of Missing Out, 3) Attitude toward the advertisement and 4) Purchase Intention used for this research, four single-construct measurement models were estimated. A series of confirmatory factor analysis (CFA) were conducted and respecified, if theoretically sound, for each of the four single-construct measurement models before a full measurement model was tested. The goodness-of-fit indices were examined for each of the four constructs to determine if re-specification was necessary. If an adequate fit was not achieved, the modification indices were consulted to identify any problematic items. These items were found and removed in a reiterative fashion. The results obtained are discussed in the subsequent paragraphs, beginning with the desire for uniqueness construct.

6.5.1.1 *Desire for Uniqueness*

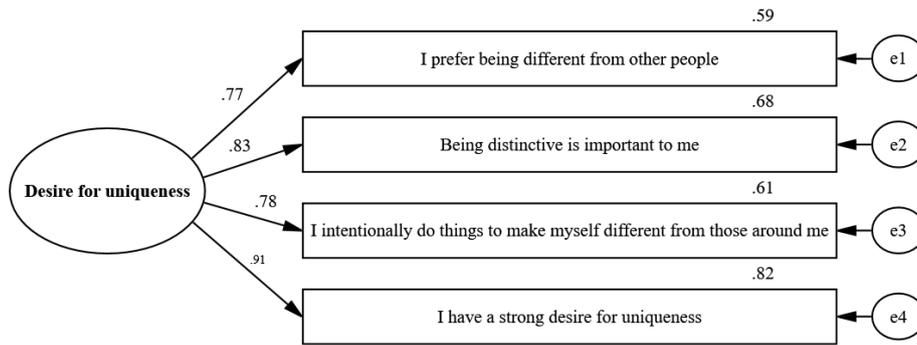


Figure 6-1: Study One – CFA for Desire for Uniqueness Construct

The four items that are shown in Figure 6-1 were used to measure the desire for uniqueness construct. Results of the CFA suggested that the four items should be retained as the model showed an acceptable fit ($\chi^2 = 3.03$, $df = 2$, $p\text{-value} = .22$, $RMSEA = .06$, $SRMR = .02$, $GFI = .99$, $AGFI = .95$, $CFI = .99$, $TLI = .99$). Consequently, the items for the desire for uniqueness construct were retained for subsequent analysis.

6.5.1.2 Tendency towards the Fear of Missing Out

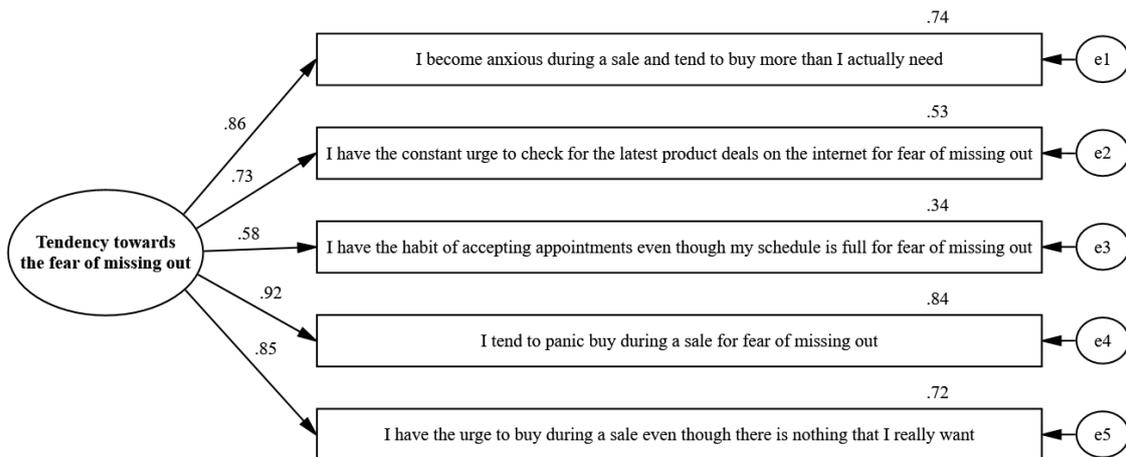


Figure 6-2: Study One – CFA for Tendency towards the Fear of Missing Out Construct

The five items that are shown in Figure 6-2 were used to measure the tendency towards the fear of missing out construct. Results of the CFA suggested that the four items should be retained as the model showed an acceptable fit ($\chi^2 = 7.97$, $df = 5$, $p\text{-value} = .16$, $RMSEA = .06$, $SRMR = .03$, $GFI = .98$, $AGFI = .94$, $CFI = .99$, $TLI = .99$). Consequently, the items for the tendency towards the fear of missing out construct were retained for subsequent analysis.

6.5.1.3 Attitude toward the Advertisement

The attitude toward the advertisement construct was measured by six items. Results of the CFA indicated that the six items were a poor fit ($\chi^2 = 41.31$, $df = 9$, $p\text{-value} = .00$, $RMSEA = .15$, $SRMR = .03$, $GFI = .91$, $AGFI = .81$, $CFI = .96$, $TLI = .93$). Hence, the modification indices were consulted for possible solutions (Cortina, Chen, and Dunlap 2001; Garver and Mentzer 1999; Schumacker and Lomax 2004). One item namely ‘Bad/Good’, was removed due to cross-loadings.

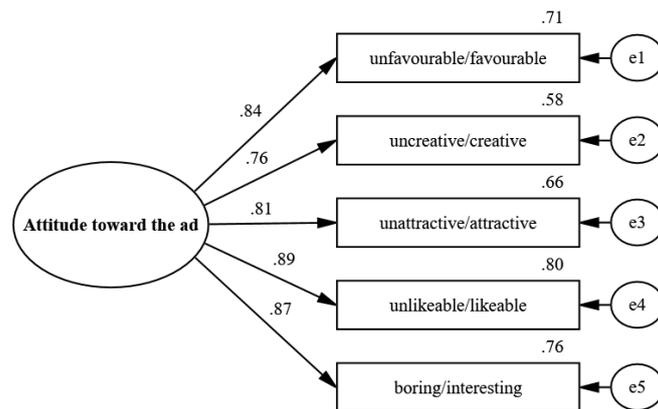


Figure 6-3: Study One – CFA for Attitude toward the Ad

As shown in Figure 6-3, the modified construct with five items showed an acceptable fit ($\chi^2 = 17.30$, $df = 5$, $p\text{-value} = 0.004$, $RMSEA = .13$, $SRMR = .02$, $GFI = .96$, $AGFI = .89$, $CFI = .98$, $TLI = .96$). Although the $RMSEA$ and $p\text{-value}$ of the χ^2 statistic did not quite conform to the acceptable level of fit (Byrne 2001; Cunningham 2007), the other fit indices such as the GFI , $AGFI$, CFI , and TLI indicated a reasonable model fit (Cunningham 2007; Hair et al. 1998; Schumacker and Lomax 2004). This is further supported by a cross-reference to the ($SRMR < .08$), which is another indication of good model fit (Hu and Bentler 1999). Hence, at this stage, no further refinements were made and the items for the revised attitude towards the ad construct were retained for subsequent analysis.

6.5.1.4 Purchase Intention

The purchase intention construct was measured by four items. Results of the CFA indicated that the four items were a poor fit ($\chi^2 = 43.29$, $df = 2$, $p\text{-value} = .00$, $RMSEA = .37$, $SRMR = .03$, $GFI = .90$, $AGFI = .52$, $CFI = .94$, $TLI = .82$). Hence, the modification indices were consulted for possible solutions (Cortina, Chen, and Dunlap 2001; Garver and Mentzer 1999; Schumacker and Lomax 2004). One item namely 'I would consider buying the (product shown in the advertisement)' was removed due to cross-loadings.

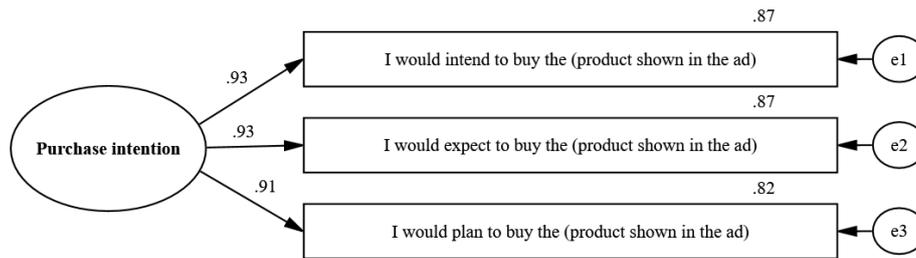


Figure 6-4: Study One – CFA for Purchase Intention

As shown in Figure 6-4, the modified construct with three items showed an acceptable fit ($\chi^2 = 1.96$, $df = 1$, $p\text{-value} = .16$, $RMSEA = .08$, $SRMR = .01$, $GFI = .99$, $AGFI = .95$, $CFI = .99$, $TLI = .99$). Consequently, the items for the revised purchase intention construct were retained for subsequent analysis.

An overview of the measurement properties of the 4 constructs are shown in Table 6-3.

Table 6-3: Study One – Overview of Measurement Properties of Constructs

Construct/Items	Estimate	χ^2	df	P-value	RMSEA	SRMR	GFI	AGFI	CFI	TLI
Desire for uniqueness		3.03	2	.22	.06	.02	.99	.95	.99	.99
dfu1: I prefer being different from other people	.77									
dfu2: Being distinctive is important to me	.83									
dfu3: I intentionally do things to make myself different from those around me	.78									
dfu4: I have a strong desire for uniqueness	.91									
Tendency towards the fear of missing out		7.97	5	.16	.06	.03	.98	.94	.99	.99
tfomo1: I become anxious during a sale and tend to buy more than I actually need	.86									
tfomo2: I have the constant urge to check for the latest product deals on the internet for fear of missing out	.73									
tfomo3: I have the habit of accepting appointments even though my schedule is full for fear of missing out	.58									
tfomo4: I tend to panic buy during a sale for fear of missing out	.92									
tfomo5: I have the urge to buy during a sale even though there is nothing that I really want	.85									
Attitude toward the advertisement		17.30	1	.004	0.13	0.02	0.96	0.89	0.98	0.96
aad1: Bad/good	Removed									
aad2: Unfavourable/favourable	.84									
aad3: Uncreative/creative	.76									
aad4: Unattractive/attractive	.81									
aad5: Unlikeable/likeable	.89									
aad6: Boring/interesting	.87									
Purchase intention		1.95	1	.16	.08	.01	.99	.95	.99	.99
pi1: I would intend to buy the (product shown in the advertisement)	.93									
pi2: I would consider buying the (product shown in the advertisement)	Removed									
pi3: I would expect to buy the (product shown in the advertisement)	.93									
pi4: I would plan to buy the (product shown in the advertisement)	.91									

χ^2 = Chi-square, df = Degrees of freedom, RMSEA = Root mean square error of approximation, SRMR = Standardised root mean square residual, GFI = Goodness of fit index, AGFI = Adjusted goodness of fit index, CFI = Comparative fit index, TLI = Tucker-lewis index

6.5.2 Convergent and Discriminant Validity of the Constructs

Table 6-4: Study One – Convergent and Discriminant Validity of Constructs

Construct	CR	AVE Score	Squared Correlations			
			DFU	T-FOMO	A _{ad}	PI
DFU	.89	.67	.82			
T-FOMO	.92	.70	-.05	.84		
A _{ad}	.95	.85	.39	.46	.92	
PI	.89	.63	.39	.26	.59	.80

CR = Composite reliability, AVE = Average variance extracted, DFU = Desire for uniqueness, T-FOMO = Tendency towards the fear of missing out, A_{ad} = Attitude toward the advertisement, PI = Purchase intention

Before the measurement model was estimated, the constructs were examined for their convergent and discriminant validity.

Convergent validity is established as evidenced by the average variance extracted of each construct is ($AVE > .50$). Moreover, each construct showed strong internal consistency as seen by the composite reliability ($CR > .70$). Finally, each construct's explained variance estimate on the diagonal is greater than the corresponding inter-factor squared correlation estimates below the diagonal. This suggests that discriminant validity is achieved and that each variable was distinct from the other (Hair et al. 2010). The results are depicted in Table 6-4.

6.5.3 Estimating the Measurement Model

The measurement model should be assessed before the structural model is estimated (Gerbing and Anderson 1988). The measurement model was estimated by allowing all of the structural constructs to correlate with all of the other constructs. The CFA indicated that the model was a poor fit ($\chi^2 = 170.70$, $df = 113$, $p\text{-value} = .00$, $RMSEA = .06$, $SRMR = .05$, $GFI = .89$, $AGFI = .85$, $CFI = .97$, $TLI = .96$). Hence, the modification indices were consulted for possible solutions (Cortina, Chen, and Dunlap 2001; Garver and Mentzer 1999; Schumacker and Lomax 2004). Two items namely 'I tend to panic buy during a sale for fear of missing out', and 'Unlikeable/Likeable' were removed in an iterative fashion due to cross-loadings.

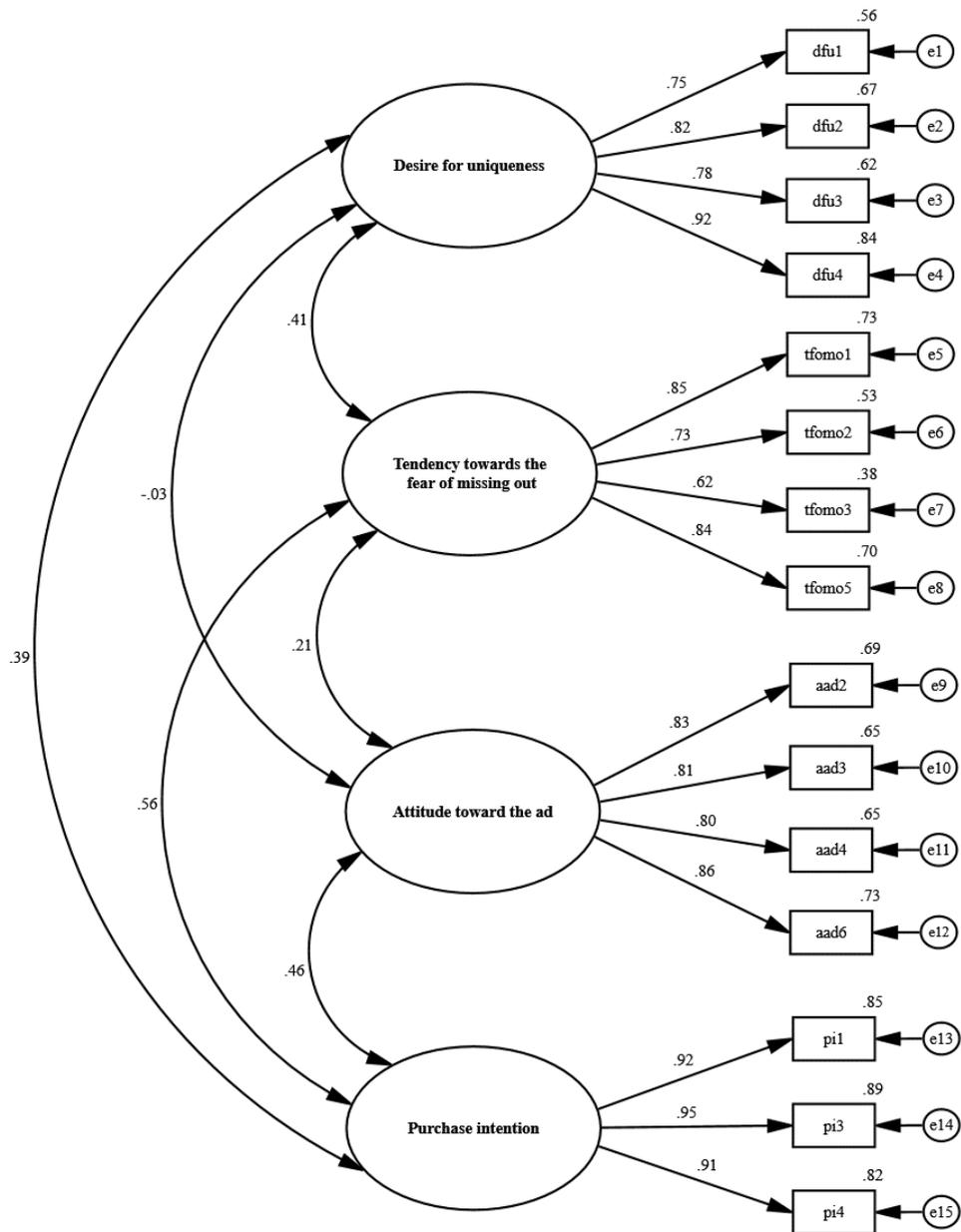


Figure 6-5: Study One – Measurement Model

As shown in Figure 6-5, the modified measurement model showed an acceptable fit ($\chi^2 = 99.27$, $df = 1$, $p\text{-value} = .12$, $RMSEA = .03$, $SRMR = .05$, $GFI = .92$, $AGFI = .89$, $CFI = .99$, $TLI = .99$). Consequently, the revised constructs were retained for subsequent analysis.

6.5.4 The Structural Model

After the measurement model was shown to have a good fit, the hypothesized pathways were evaluated using SEM analyses. In order to provide support for the study's theoretical model, path analysis was conducted to examine the relationships between the constructs (Kline 2005).

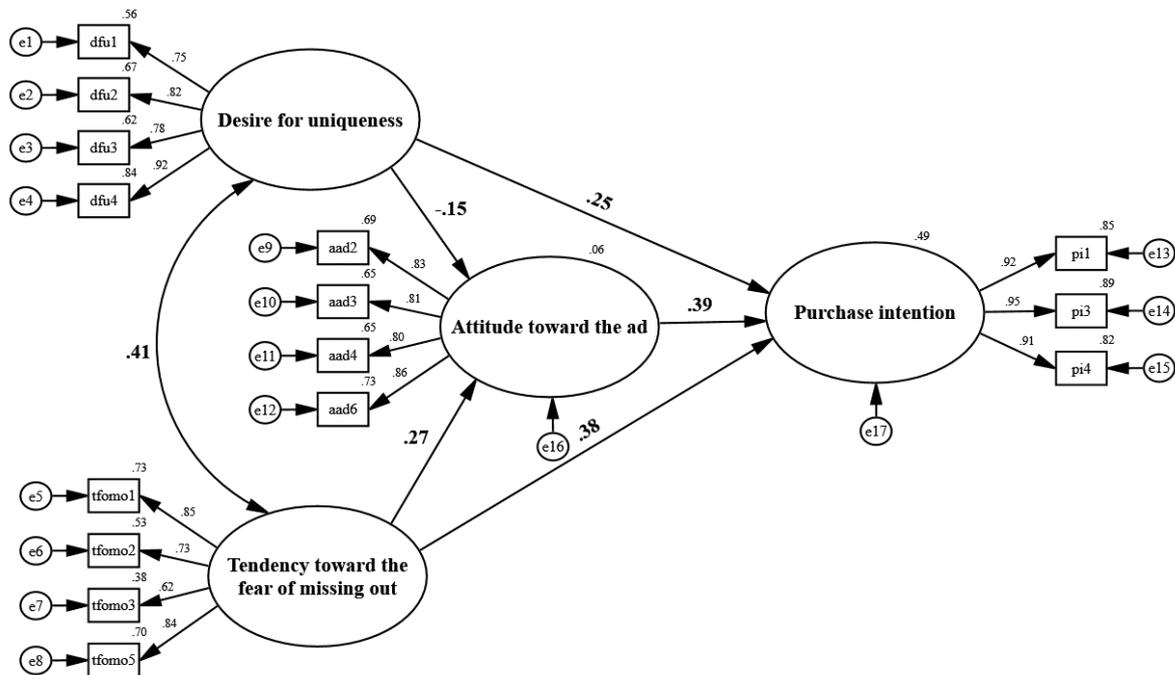


Figure 6-6: Study One – Structural Model

The structural model's fit was assessed by examining a number of goodness-of-fit indices to see whether the model was appropriate to test the various hypotheses outlined in chapter three. In this case, the goodness-of-fit indices suggested the model was a reasonably good fit ($\chi^2 = 99.27$, $df = 84$, $p\text{-value} = .12$, $RMSEA = .03$, $SRMR = .05$, $GFI = .92$, $AGFI = .89$, $CFI = .99$, $TLI = .99$) and that the relationships in the estimated model should be examined. The structural model with standardised parameter estimates is presented in Figure 6-6.

Following the fit assessment of the structural model, the correlation (for H₁) and the standardised regression coefficients of the relevant paths of the structural model were examined and the results are discussed in the following section.

6.5.5 Path Analysis Results for H₁ – H₆

Table 6-5: Study One – Structural Model’s Standardized Path Coefficients

	Relationships	β	Conclusion
H ₁	DFU ↔ T-FOMO	.41 ^(***)	Accept
H ₂	DFU → A _{ad}	-.15	Reject
H ₃	T-FOMO → A _{ad}	.27 ^(**)	Accept
H ₄	DFU → PI	.25 ^(**)	Accept
H ₅	T-FOMO → PI	.39 ^(***)	Accept
H ₆	A _{ad} → PI	.38 ^(***)	Accept

*p < 0.05, **p < 0.01, ***p < 0.001

β = Standardised beta, DFU = Desire for uniqueness, T-FOMO = Tendency towards the fear of missing out, A_{ad} = Attitude toward the advertisement, PI = Purchase intention

Table 6-5 shows paths coefficients for H₁ – H₆ based on the model. The results confirm a number of the proposed relationships discussed in chapter three (theoretical framework and hypotheses development). The key results are discussed in the following Table 6-6.

Table 6-6: Study One – Summary and Discussion of Key Results for H₁ – H₆

Hypotheses	Results	Discussion
Results for H₁:	There is a positive and significant correlation between desire for uniqueness and T-FOMO, thus H ₁ is accepted.	H₁ proposes that <i>desire for uniqueness and T-FOMO are distinct but positively correlated constructs.</i> The analyses from the structural model showed a significant correlation of .41 (p < .0001) between desire for uniqueness and the fear of missing out. Discriminant validity reported in Table 6-4 also suggested the two constructs to be distinct and independent. This finding provides theoretical confirmation in relation to the drive-reduction theory (Hull 1943) and the social comparison theory (Festinger 1957).
Results for H₃:	A positive and significant relationship was found between T-FOMO and attitude toward the advertisement, hence H ₃ was accepted.	H₃ proposes that <i>a higher tendency towards the fear of missing out will lead to a more favourable attitude toward the advertisement</i> H₅ proposes that <i>a higher tendency towards the fear of missing out will lead to a higher purchase intention</i>
Results for H₅:	A positive and significant relationship was found between T-FOMO and purchase intention, hence H ₅ was accepted.	Results indicate that FOMO individuals favour advertisements which promote products which are scarce. In addition, results also indicate that the scarcity message was able to generate positive purchase intentions towards the advertised product. These findings provide theoretical support in relation to the social cognition theory (K Witte and Morrison 2000), protection motivation theory (Rogers 1975), drive-reduction theory (Hull 1943) and theory of regret intensity (Beike, Markman, and Karadogan 2009). Furthermore, as previously discussed in chapter two

and three, scarcity has the effect of enhancing the attractiveness of the opportunity, which in turn impacts on their attitudes and behaviour.

Results for H₄: A positive and significant relationship was found between desire for uniqueness and purchase intention, hence H₄ was accepted.

H₄ proposes that *a higher desire for uniqueness will lead to a higher purchase intention*

Results indicate that the scarcity message was able to generate positive purchase intentions for individuals who desire uniqueness. This finding provides theoretical support for the social cognition theory (K Witte and Morrison 2000). The result is also consistent with earlier studies (e.g. Roy and Sharma 2015) which found that consumer traits such as need for uniqueness were found to positively influence consumer attitudes and purchase intentions. Moreover, studies have shown that individuals who desired uniqueness preferred scarce products as owning such products helped to differentiate themselves from others (Roy and Sharma 2015; Tian, Bearden, and Hunter 2001; Wu et al. 2012).

Results for H₆: A positive and significant relationship was found between attitude toward the advertisement and purchase intention, hence H₆ was accepted.

H₆ proposes that *a more favourable attitude toward the advertisement will lead to a higher purchase intention*

Results indicated that individuals who favoured the advertisement also had positive intentions towards the advertised product. This finding is consistent with earlier studies (e.g. Ajzen 1991; Cotte and Ritchie 2005; Mackenzie and Lutz 1989; Spears and Singh 2004) which have reported the significant and positive relationship between attitude toward the advertisement and purchase intention.

6.5.6 Mediation Analysis H₇ – H₈

Mediation H₇: DFU → A_{ad} → PI

Baron and Kenny's (1986) four step method for mediation analysis was performed. Results from the regression analysis revealed that step 2: (DFU → A_{ad}) was non-significant ($\beta = -.03$, $p = .74$). Although results from the regression analysis for step 1: (DFU → PI), ($\beta = .34$, $p = .00$) and step 3: (A_{ad} → PI), ($\beta = .43$, $p = .00$) were significant, there was insufficient evidence to suggest that A_{ad} acted as mediator for the relationship between DFU and PI. Therefore, H₇ is rejected.

Mediation H₈: T-FOMO → A_{ad} → PI

Table 6-7: Study One – Results for Mediation Analysis H₈

Steps	IV	DV	Unstd. β	S.E.	Std. β	t-Value	Sig.	Adjusted R ²
1	T-FOMO	PI	.68	.09	.51	7.31	.000 ^(***)	.26
2	T-FOMO	A _{ad}	.22	.09	.19	2.34	.021 ^(*)	.03
3	A _{ad}	PI	.48	.08	.43	5.85	.000 ^(***)	.18
4	T-FOMO	PI	.59	.09	.45	6.80	.000 ^(***)	.37
	A _{ad}		.39	.07	.35	5.28	.000 ^(***)	

Sobel Test: Test Statistic = 4.17; $p = .000$ ^(***)
^{*} $p < 0.05$, ^{**} $p < 0.01$, ^{***} $p < 0.001$
 DV = Dependant variable, IV = Independent variable, Unstd. β = Unstandardized Beta, S.E. = Standardized error, Std. β = Standardized Beta, T-FOMO = Tendency towards the fear of missing out, A_{ad} = Attitude toward the advertisement, PI = Purchase intention

Baron and Kenny's (1986) four step method for mediation analysis was performed. As shown in Table 6-7, the regression analysis from step 1 to step 3 shows a significant relationship, this suggests mediation is present. Multiple regression analysis for step 4 suggests the relationship between T-FOMO and PI is partially mediated by A_{ad}. Following this, a Sobel test was conducted to confirm this relationship. Results from the Sobel test confirmed that the relationship between T-FOMO and PI was partially mediated by A_{ad}. Therefore, H₈ is accepted.

The key results for the mediation analysis are discussed in Table 6-8.

Table 6-8: Study One – Summary and Discussion of Key Results for H₇ – H₈

Hypotheses results	Discussion
Results for H₈: The relationship between T-FOMO and purchase intention is partially mediated by attitude toward the advertisement	<p>H₈ proposes that <i>attitude toward the advertisement will mediate the relationship between T-FOMO and purchase intention.</i></p> <p>The result indicates that attitude toward the advertisement could directly and indirectly evoke purchase intentions. Hence, creating a likeable advertisement is important in this situation. This finding is consistent with earlier studies which examined the mediating effects of attitudes on traits and behaviour (Kolar and Zabkar 2014; Lucidi et al. 2014; Ulleberg and Rundmo 2003).</p>

6.5.7 Moderation Analysis for H₉ – H₁₄

In order to test for moderating role of inferences of manipulative intent and consumer susceptibility to interpersonal influence, an exploratory factor analysis (EFA) was first conducted on the two constructs to examine the psychometric soundness as well as the dimensionality of the constructs. Items with standardised factor loadings (> 0.5) and cross loadings were removed in an iterative fashion (Nunnally 1978).

Table 6-9: Study One – EFA Results for Moderators

Construct	No. of items	Factor Loadings	α	Eigen Value	Variance explained (%)	KMO
IMI	3	.89-.94	.91	2.52	84.05	.74
CSII (Normative)	8	.57-.90	.95	6.49	57.01	.90
CSII (Informational)	3	.80-.88	.89	1.67	15.18	

Extraction Method: Principle Component Analysis, Rotation Method: Varimax rotation
 α = Cronbach Alpha, KMO = Kaiser-Meyer-Olkin, IMI = Inferences of Manipulative Intent, CSII = Consumer Susceptibility to Interpersonal Influence

Results of the EFA showed that the IMI construct and the original 6-item scale was reduced to 3 items due to cross-loadings. In addition, the CSII construct and the original 12-item scale was reduced to 11 items due to cross-loadings. Moreover, the process led to the extraction of two corresponding factors namely ‘normative’ and ‘informational’ influences which was consistent with Bearden, Netemeyer, and Teel (1989). Both factors also achieved a reliability of ($\alpha > 0.7$) (Nunnally 1978) respectively. The final results are shown in Table 6-9.

Hierarchical moderated regression was used to test the moderating role of inferences of manipulative intent and consumer susceptibility to interpersonal influence on the various relationships outlined in chapter three (theoretical framework and hypotheses development). This method is employed to detect if the addition of the moderator-independent variable interaction term to the relationship between the independent and the dependant variable will result in a significant R^2 change. The full result of the analysis is depicted in Appendix H: Study One. The key results are discussed in Table 6-10.

Table 6-10: Study One – Summary and Discussion of Key Results for H₉ – H₁₄

Hypotheses	Results	Discussion
H₁₁	Normative influence was found to enhance the relationship between desire for uniqueness and attitude toward the advertisement. However, results showed that informational influence did not moderate the relationship between desire for uniqueness and attitude toward the advertisement. Hence H ₁₁ was partially supported.	H ₁₁ proposes that (a) <i>Normative influences will enhance the relationship between desire for uniqueness and attitude toward the advertisement</i> ; (b) <i>Informational influences will enhance the relationship between desire for uniqueness and attitude toward the advertisement</i>
H₁₃	Both normative influence and informational influence were found to enhance the relationship between desire for uniqueness and purchase intention. Hence, H ₁₃ was supported.	H ₁₃ proposes that (a) <i>Normative influences will enhance the relationship between desire for uniqueness and purchase intention</i> ; (b) <i>Informational influences will enhance the relationship between desire for uniqueness and purchase intention</i> The results indicated that individuals who desire uniqueness rely on social influences in their formation of attitudes and purchase intention towards scarce products. This finding is supported by earlier studies (e.g. Lynn and Harris 1997; Snyder and Fromkin 1980) which suggest that though these individuals desire uniqueness, expression of this uniqueness is done in socially acceptable ways to prevent social disapproval.

6.5.8 Summary of Overall Findings

Table 6-11 summarizes the overall findings for Study One.

Table 6-11: Study One – Summary of Results

Hypotheses		Conclusion
H₁	Desire for uniqueness and T-FOMO are distinct but positively correlated constructs	Accept
H₂	A higher desire for uniqueness will lead to more favourable attitude toward the advertisement	Reject
H₃	A higher T-FOMO will lead to a more favourable attitude toward the advertisement	Accept
H₄	A higher desire for uniqueness will lead to a higher purchase intention	Accept
H₅	A higher T-FOMO will lead to a higher purchase intention	Accept
H₆	A more favourable attitude toward the advertisement will lead to a higher purchase intention	Accept
H₇	Attitude toward the advertisement will mediate the relationship between desire for uniqueness and purchase intention	Reject
H₈	Attitude toward the advertisement will mediate the relationship between T-FOMO and purchase intention	Accept
H₉	Inferences of manipulative intent will dilute the relationship between desire for uniqueness and attitude toward the advertisement	Reject
H₁₀	Inferences of manipulative intent will dilute the relationship between T-FOMO and attitude toward the advertisement	Reject
H₁₁	(a) Normative influences will enhance the relationship between desire for uniqueness and attitude toward the advertisement; (b) Informational influences will enhance the relationship between desire for uniqueness and attitude toward the advertisement	Partially Supported
H₁₂	Normative influences will enhance the relationship between T-FOMO and attitude toward the advertisement; (b) Informational influences will enhance the relationship between T-FOMO and attitude toward the advertisement	Reject
H₁₃	a) Normative influences will enhance the relationship between desire for uniqueness and purchase intention; (b) Informational influences will enhance the relationship between desire for uniqueness and purchase intention.	Accepted
H₁₄	(a) Normative influences will enhance the relationship between T-FOMO and purchase intention. (b) Informational influences will enhance the relationship between T-FOMO and purchase intention	Reject

6.6 STUDY TWO – LIMITED TIME SCARCITY (PUBLIC)

6.6.1 Measurement Properties of the Constructs

Similar to the processes described in the preceding study, to test for the psychometric soundness of the four constructs namely 1) Desire for Uniqueness, 2) Tendency towards the Fear of Missing Out, 3) Attitude toward the advertisement and 4) Purchase Intention used for this research, four single-construct measurement models were estimated. A series of confirmatory factor analysis (CFA) were conducted and respecified, if theoretically sound, for each of the four single-construct measurement models before a full measurement model was tested. The goodness-of-fit indices were examined for each of the four constructs to determine if re-specification was necessary. If an adequate fit was not achieved, the modification indices were consulted to identify any problematic items. An overview of the measurement properties of the 4 constructs are shown in Table 6-12.

Table 6-12: Study Two – Overview of Measurement Properties of Constructs

Construct/Items	Estimate	χ^2	df	P-value	RMSEA	SRMR	GFI	AGFI	CFI	TLI
Desire for uniqueness		4.43	2	.11	.08	.03	.99	.93	.99	.97
dfu1: I prefer being different from other people	.63									
dfu2: Being distinctive is important to me	.76									
dfu3: I intentionally do things to make myself different from those around me	.72									
dfu4: I have a strong desire for uniqueness	.87									
Tendency towards the fear of missing out		2.50	2	.29	.04	.01	.99	.96	.99	.99
tfomo1: I become anxious during a sale and tend to buy more than I actually need	Removed									
tfomo2: I have the constant urge to check for the latest product deals on the internet for fear of missing out	.85									
tfomo3: I have the habit of accepting appointments even though my schedule is full for fear of missing out	.73									
tfomo4: I tend to panic buy during a sale for fear of missing out	.85									
tfomo5: I have the urge to buy during a sale even though there is nothing that I really want	.86									
Attitude toward the advertisement		2.64	2	.27	.04	.01	.99	.96	.99	.99
aad1: Bad/good	.93									
aad2: Unfavourable/favourable	.88									
aad3: Uncreative/creative	.76									
aad4: Unattractive/attractive	Removed									
aad5: Unlikeable/likeable	.79									
aad6: Boring/interesting	Removed									
Purchase intention		1.20	1	.27	.03	.01	.99	.97	1.00	.99
pi1: I would intend to buy the (product shown in the advertisement)	.95									
pi2: I would consider buying the (product shown in the advertisement)	Removed									
pi3: I would expect to buy the (product shown in the advertisement)	.91									
pi4: I would plan to buy the (product shown in the advertisement)	.95									

χ^2 = Chi-square, df = Degrees of freedom, RMSEA = Root mean square error of approximation, SRMR = Standardised root mean square residual, GFI = Goodness of fit index, AGFI = Adjusted goodness of fit index, CFI = Comparative fit index, TLI = Tucker-lewis index

6.6.2 Convergent and Discriminant Validity of the Constructs Used

Table 6-13: Study Two – Convergent and Discriminant Validity of Constructs

Construct	CR	AVE Score	Squared Correlations			
			DFU	T-FOMO	A _{ad}	PI
DFU	.84	.56	.75			
T-FOMO	.91	.71	-.03	.84		
A _{ad}	.96	.88	.31	.36	.94	
PI	.90	.68	.42	.21	.63	.83

CR = Composite reliability, AVE = Average variance extracted, DFU = Desire for uniqueness, T-FOMO = Tendency towards the fear of missing out, A_{ad} = Attitude toward the advertisement, PI = Purchase intention

Before the measurement model was estimated, the constructs were examined for their convergent and discriminant validity.

Convergent validity is established as evidenced by the average variance extracted of each construct is ($AVE > .50$). Moreover, each construct showed strong internal consistency as seen by the composite reliability ($CR > .70$). Finally, each construct's explained variance estimate on the diagonal is greater than the corresponding inter-factor squared correlation estimates below the diagonal. This suggests that discriminant validity is achieved and that each variable was distinct from the other (Hair et al. 2010). The results are depicted in Table 6-13.

6.6.3 Estimating the Measurement Model

The measurement model should be assessed before the structural model is estimated (Gerbing and Anderson 1988). The measurement model was estimated by allowing all of the structural constructs to correlate with all of the other constructs. The CFA indicated that the model was a poor fit ($\chi^2 = 157.10$, $df = 84$, $p\text{-value} = .00$, $RMSEA = .07$, $SRMR = .07$, $GFI = .89$, $AGFI = .84$, $CFI = .96$, $TLI = .95$). Hence, the modification indices were consulted for possible solutions (Cortina, Chen, and Dunlap 2001; Garver and Mentzer 1999; Schumacker and Lomax 2004). Two items namely 'I intentionally do things to make myself different from those around me', and 'Unlikeable/Likeable' were removed in an iterative fashion due to cross-loadings. After which, the modified measurement model showed an acceptable fit ($\chi^2 = 97.61$, $df = 59$, $p\text{-value} = .001$, $RMSEA = .06$, $SRMR = .05$, $GFI = .92$, $AGFI = .87$, $CFI = .97$, $TLI = .97$). Consequently, the revised model was retained for subsequent analysis.

6.6.4 The Structural Model

After the measurement model was shown to have a good fit, the hypothesized pathways were evaluated using SEM analyses. In order to provide support for the study's theoretical model, path analysis was conducted to examine the relationships between the constructs (Kline 2005).

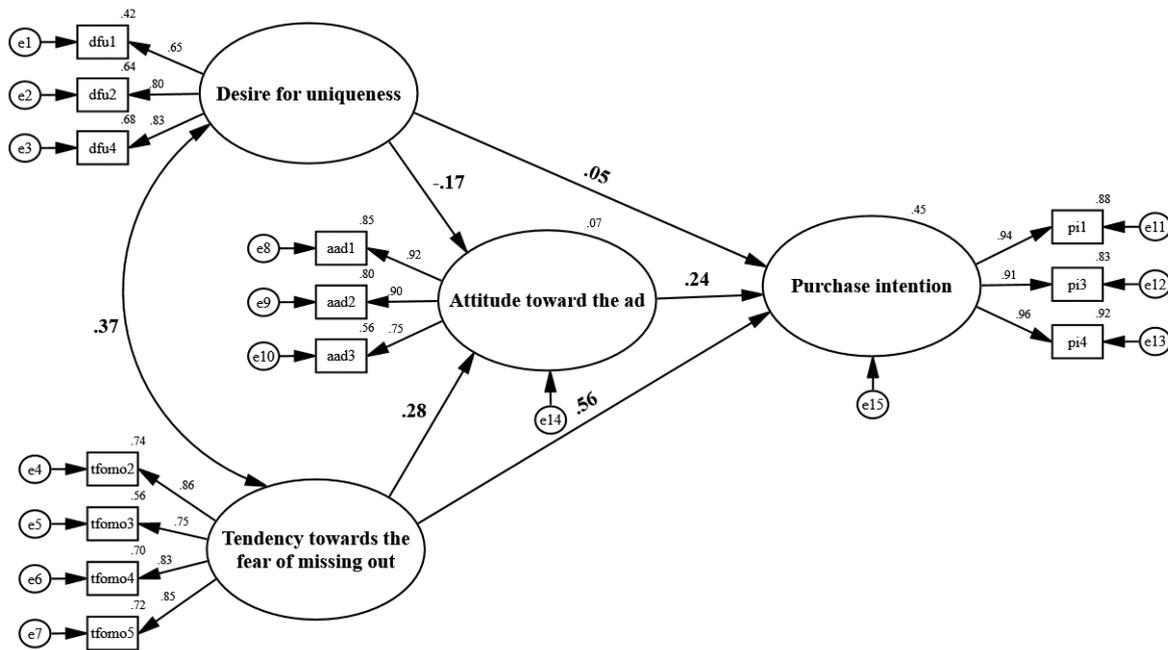


Figure 6-7: Study Two – Structural Model

The structural model's fit was assessed by examining a number of goodness-of-fit indices to see whether the model was appropriate to test the various hypotheses outlined in chapter three. In this case, the goodness-of-fit indices suggested the model was a reasonably good fit ($\chi^2 = 97.61$, $df = 59$, $p\text{-value} = .001$, $RMSEA = .06$, $SRMR = .05$, $GFI = .92$, $AGFI = .87$, $CFI = .97$, $NFI = .94$, $TLI = .97$) and that the relationships in the estimated model should be examined. The structural model with standardised parameter estimates is presented in Figure 6-7.

Following the fit assessment of the structural model, the correlation (for H_1) and the standardised regression coefficients of the relevant paths of the structural model were examined and the results are discussed in the following section.

6.6.5 Path Analysis Results for H₁ – H₆

Table 6-14: Study Two – Structural Model’s Standardized Path Coefficients

	Relationships	β	Conclusion
H ₁	DFU ↔ T-FOMO	.37 ^(***)	Accept
H ₂	DFU → A _{ad}	-.17	Reject
H ₃	T-FOMO → A _{ad}	.28 ^(*)	Accept
H ₄	DFU → PI	.05	Reject
H ₅	T-FOMO → PI	.56 ^(***)	Accept
H ₆	A _{ad} → PI	.24 ^(***)	Accept

*p < 0.05, **p < 0.01, ***p < 0.001

β = Standardised beta, DFU = Desire for uniqueness, T-FOMO = Tendency towards the fear of missing out, A_{ad} = Attitude toward the advertisement, PI = Purchase intention

Table 6-14 shows paths coefficients for H₁ – H₆ based on the model. The results confirm a number of the proposed relationships discussed in chapter three (theoretical framework and hypotheses development). The key results are discussed in the following Table 6-15.

Table 6-15: Study Two – Summary and Discussion of Key Results for H₁ - H₆

Hypotheses results	Discussion
<p>Results for H₁: There is a positive and significant correlation between desire for uniqueness and T-FOMO, thus H₁ is accepted.</p>	<p>H₁ proposes that <i>desire for uniqueness and T-FOMO are distinct but positively correlated constructs</i>.</p> <p>The analyses from the structural model showed a significant correlation of .37 (p < .0001) between desire for uniqueness and the fear of missing out. Discriminant validity reported in Table 6-13 also suggested the two constructs to be distinct and independent. This finding provides theoretical confirmation in relation to the drive-reduction theory (Hull 1943) and the social comparison theory (Festinger 1957).</p>

Results for H₃: A positive and significant relationship was found between T-FOMO and attitude toward the advertisement, hence H₃ was accepted.

Results for H₅: A positive and significant relationship was found between T-FOMO and purchase intention, hence H₅ was accepted.

Results for H₆: A positive and significant relationship was found between attitude toward the advertisement and purchase intention, hence H₆ was accepted.

H₃ proposes that *a higher T-FOMO will lead to a more favourable attitude toward the advertisement*

H₅ proposes that *a higher T-FOMO will lead to a higher purchase intention*

Results indicate that FOMO individuals favour advertisements which promote products which are scarce. In addition, results also indicate that the scarcity message was able to generate positive purchase intentions towards the advertised product. These findings provides theoretical support in relation to the social cognition theory (Witte and Morrison 2000), protection motivation theory (Rogers 1975), drive-reduction theory (Hull 1943) and theory of regret intensity (Beike, Markman, and Karadogan 2009). Furthermore, as previously discussed in chapter two and three, scarcity has the effect of enhancing the attractiveness of the opportunity, which in turn impacts on their attitudes and behaviour.

H₆ proposes that *a more favourable attitude toward the advertisement will lead to a higher purchase intention*

Results indicated that individuals who favoured the advertisement also had positive intentions towards the advertised product. This finding is consistent with earlier studies (e.g. Ajzen 1991; Cotte and Ritchie 2005; Mackenzie and Lutz 1989; Spears and Singh 2004) which have reported the significant and positive relationship between attitude toward the advertisement and purchase intention.

6.6.6 Mediation Analysis H₇ – H₈

Mediation H₇: DFU → A_{ad} → PI

Baron and Kenny’s (1986) four step method for mediation analysis was performed. Results from the regression analysis revealed that step 2: (DFU → A_{ad}) was non-significant ($\beta = -.54$, $p = .59$). Although results from the regression analysis for step 1: (DFU → PI), ($\beta = .188$, $p = .02$) and step 3: (A_{ad} → PI), ($\beta = .34$, $p = .00$) were significant, there was insufficient evidence to suggest that A_{ad} acted as mediator for the relationship between DFU and PI. Therefore, H₇ is rejected.

Mediation H₈: T-FOMO → A_{ad} → PI

Table 6-16: Study Two – Results for Mediation Analysis H₈

Steps	IV	DV	Unstd. β	S.E.	Std. β	t-Value	Sig.	Adjusted R ²
1	T-FOMO	PI	.76	.082	.59	9.27	.000(***)	.35
2	T-FOMO	A _{ad}	.20	.081	.19	2.46	.015(*)	.03
3	A _{ad}	PI	.42	.092	.34	4.61	.000(***)	.11
4	T-FOMO	PI	.70	.080	.55	8.75	.000(***)	.40
	A _{ad}		.293	.077	.239	3.816	.000(***)	

Sobel Test: Test Statistic = 3.49; $p = .000$ (***)
 * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$
 DV = Dependant variable, IV = Independent variable, Unstd. β = Unstandardized beta, S.E. = Standardized error, Std. β = Standardized beta, T-FOMO = Tendency towards the fear of missing out, A_{ad} = Attitude toward the advertisement, PI = Purchase intention

Baron and Kenny’s (1986) four step method for mediation analysis was performed. As shown in Table 6-16, the regression analysis from step 1 to step 3 shows a significant relationship, this suggests mediation is present. Multiple regression analysis for step 4 suggests the relationship between T-FOMO and PI is partially mediated by A_{ad}. Following this, a Sobel test was conducted to confirm this relationship. Results from the Sobel test confirmed that the relationship between T-FOMO and PI was partially mediated by A_{ad}. Therefore, H₈ is accepted.

The key results for the mediation analysis are discussed below in

Table 6-17.

Table 6-17: Study Two – Summary and Discussion of Key Results for H₇ – H₈

Hypotheses	Results	Discussion
Results for H₈:	The relationship between T-FOMO and purchase intention is partially mediated by attitude toward the advertisement	H ₈ proposes that <i>attitude toward the advertisement will mediate the relationship between T-FOMO and purchase intention.</i> The result indicates that attitude toward the advertisement could directly and indirectly evoke purchase intentions. Hence, creating a likeable advertisement is important in this situation for FOMO individuals. This finding is consistent with earlier studies which examined the mediating effects of attitudes on traits and behaviour (Kolar and Zabkar 2014; Lucidi et al. 2014; Ulleberg and Rundmo 2003).

6.6.7 Moderation Analysis for H₉ – H₁₄

In order to test for moderating role of inferences of manipulative intent and consumer susceptibility to interpersonal influence, an exploratory factor analysis (EFA) was first conducted on the two constructs to examine the psychometric soundness as well as the dimensionality of the constructs. Items with standardised factor loadings (> 0.5) and cross loadings were removed in an iterative fashion (Nunnally 1978).

Table 6-18: Study Two – EFA Results for Moderators

Construct	No. of items	Factor Loadings	α	Eigen Value	Variance explained (%)	KMO
IMI	3	.77-.87	.88	2.44	81.24	.72
CSII (Normative)	8	.57-.90	.94	6.49	59.01	.90
CSII (Informational)	3	.80-.88	.83	1.67	15.18	

Extraction Method: Principle Component Analysis, Rotation Method: Varimax rotation
 α = Cronbach Alpha, KMO = Kaiser-Meyer-Olkin, IMI = Inferences of Manipulative Intent, CSII = Consumer Susceptibility to Interpersonal Influence

Results of the EFA showed that the IMI construct and the original 6-item scale was reduced to 3 items due to cross-loadings. In addition, the CSII construct and the original 12-item scale was reduced to 11 items due to cross-loadings. Moreover, the process led to the extraction of two corresponding factors namely ‘normative’ and ‘informational’ influences which was consistent with Bearden, Netemeyer, and Teel (1989). Both factors also achieved a reliability of ($\alpha > 0.7$) (Nunnally 1978) respectively. In order to test for moderating role of inferences of manipulative intent and consumer susceptibility to interpersonal influence, an exploratory

factor analysis (EFA) was first conducted on the two constructs to examine the psychometric soundness as well as the dimensionality of the constructs. Items with standardised factor loadings (> 0.5) and cross loadings were removed in an iterative fashion (Nunnally 1978).

Table 6-18.

Hierarchical moderated regression was used to test the moderating role of inferences of manipulative intent and consumer susceptibility to interpersonal influence on the various relationships outlined in chapter three (theoretical framework and hypotheses development). This method is employed to detect if the addition of the moderator-independent variable interaction term to the relationship between the independent and the dependant variable will result in a significant R^2 change. The full result of the analysis is depicted in Appendix H: Study Two. The key results are discussed in

Table 6-19.

Table 6-19: Study Two - Summary and Discussion of Key Results for H₉ – H₁₄

Hypotheses	results	Discussion
Results for H₉: Inferences of manipulative intent was found to dilute the relationship between desire for uniqueness and attitude toward the advertisement. Hence, H ₉ was accepted.	of H ₉ proposes that <i>inferences of manipulative intent will dilute the relationship between desire for uniqueness and attitude toward the advertisement</i>	The results indicate that individuals saw the advertisement as manipulative and which reduced their favourable attitudes towards the advertisement. This finding provides theoretical confirmation for the persuasion knowledge model (PKM) (Friestad and Wright 1994) and the reactance theory (Brehm 1989). Furthermore, the findings were consistent with earlier findings which found that due to the wide use of scarcity messages in the marketplace, individuals have developed knowledge about such tactics which has reduces the effect of the scarcity message (Aguirre-Rodriguez 2013; Mukherjee and Lee 2016).
Results for H₁₃: Informational influence was found to enhance the relationship between desire for uniqueness and purchase intention. However, results showed that normative influence did not moderate the relationship between desire for uniqueness and purchase intention. Hence, H ₁₃ was partially supported.	H ₁₃ proposes that (a) <i>Normative influences will enhance the relationship between desire for uniqueness and purchase intention</i> ; (b) <i>Informational influences will enhance the relationship between desire for uniqueness and purchase intention</i>	The results indicated that individuals who desire uniqueness rely on social influences in their formation of attitudes and purchase intention towards scarce products. This finding is supported by earlier studies (e.g. Lynn and Harris 1997; Snyder and Fromkin 1980) which suggest that though these individuals desire uniqueness, expression of this uniqueness is done in socially acceptable ways to prevent social disapproval.

6.6.8 Summary of Overall Findings

Table 6-20 summarizes the overall findings for Study Two.

Table 6-20: Study Two – Summary of Results

Hypotheses		Conclusion
H₁	Desire for uniqueness and T-FOMO are distinct but positively correlated constructs	Accept
H₂	A higher desire for uniqueness will lead to more favourable attitude toward the advertisement	Reject
H₃	A higher T-FOMO will lead to a more favourable attitude toward the advertisement	Accept
H₄	A higher desire for uniqueness will lead to a higher purchase intention	Reject
H₅	A higher T-FOMO will lead to a higher purchase intention	Accept
H₆	A more favourable attitude toward the advertisement will lead to a higher purchase intention	Accept
H₇	Attitude toward the advertisement will mediate the relationship between desire for uniqueness and purchase intention	Reject
H₈	Attitude toward the advertisement will mediate the relationship between T-FOMO and purchase intention	Accept
H₉	Inferences of manipulative intent will dilute the relationship between desire for uniqueness and attitude toward the advertisement	Accept
H₁₀	Inferences of manipulative intent will dilute the relationship between T-FOMO and attitude toward the advertisement	Reject
H₁₁	(a) Normative influences will enhance the relationship between desire for uniqueness and attitude toward the advertisement; (b) Informational influences will enhance the relationship between desire for uniqueness and attitude toward the advertisement	Reject
H₁₂	Normative influences will enhance the relationship between T-FOMO and attitude toward the advertisement; (b) Informational influences will enhance the relationship between T-FOMO and attitude toward the advertisement	Reject
H₁₃	a) Normative influences will enhance the relationship between desire for uniqueness and purchase intention; (b) Informational influences will enhance the relationship between desire for uniqueness and purchase intention.	Partially Supported
H₁₄	(a) Normative influences will enhance the relationship between T-FOMO and purchase intention. (b) Informational influences will enhance the relationship between T-FOMO and purchase intention	Reject

6.7 STUDY THREE – CONTROL GROUP (PUBLIC)

6.7.1 Measurement Properties of the Constructs

Similar to the processes described in the preceding study, to test for the psychometric soundness of the four constructs namely 1) Desire for Uniqueness, 2) Tendency towards the Fear of Missing Out, 3) Attitude toward the advertisement and 4) Purchase Intention used for this research, four single-construct measurement models were estimated. A series of confirmatory factor analysis (CFA) were conducted and respecified, if theoretically sound, for each of the four single-construct measurement models before a full measurement model was tested. The goodness-of-fit indices were examined for each of the four constructs to determine if re-specification was necessary. If an adequate fit was not achieved, the modification indices were consulted to identify any problematic items. An overview of the measurement properties of the 4 constructs are shown in Table 6-21.

Table 6-21: Study Three – Overview of Measurement Properties of Constructs

Construct/Items	Estimate	χ^2	df	P-value	RMSEA	SRMR	GFI	AGFI	CFI	TLI
Desire for uniqueness		1.31	1	.25	.04	.01	.99	.97	.99	.99
dfu1: I prefer being different from other people	.71									
dfu2: Being distinctive is important to me	.85									
dfu3: I intentionally do things to make myself different from those around me	Removed									
dfu4: I have a strong desire for uniqueness	.79									
Tendency towards the fear of missing out		2.16	2	.34	.02	.02	.99	.97	.99	.99
tfomo1: I become anxious during a sale and tend to buy more than I actually need	.80									
tfomo2: I have the constant urge to check for the latest product deals on the internet for fear of missing out	Removed									
tfomo3: I have the habit of accepting appointments even though my schedule is full for fear of missing out	.60									
tfomo4: I tend to panic buy during a sale for fear of missing out	.94									
tfomo5: I have the urge to buy during a sale even though there is nothing that I really want	.78									
Attitude toward the advertisement		4.19	2	.12	.08	.02	.99	.93	.99	.98
aad1: Bad/good	Removed									
aad2: Unfavourable/favourable	.79									
aad3: Uncreative/creative	.80									
aad4: Unattractive/attractive	Removed									
aad5: Unlikeable/likeable	.86									
aad6: Boring/interesting	.86									
Purchase intention		2.47	2	.29	.04	.004	.99	.96	.99	.99
pi1: I would intend to buy the (product shown in the advertisement)	.97									
pi2: I would consider buying the (product shown in the advertisement)	.92									
pi3: I would expect to buy the (product shown in the advertisement)	.95									
pi4: I would plan to buy the (product shown in the advertisement)	.95									

χ^2 = Chi-square, df = Degrees of freedom, RMSEA = Root mean square error of approximation, SRMR = Standardised root mean square residual, GFI = Goodness of fit index, AGFI = Adjusted goodness of fit index, CFI = Comparative fit index, TLI = Tucker-lewis index

6.7.2 Convergent and Discriminant Validity of the Constructs

Table 6-22: Study Three – Convergent and Discriminant Validity of Constructs

Construct	CR	AVE Score	Squared Correlations			
			DFU	T-FOMO	A _{ad}	PI
DFU	.83	.62	.79			
T-FOMO	.90	.68	.19	.83		
A _{ad}	.97	.90	.07	.41	.95	
PI	.87	.63	.26	.04	.37	.79

CR = Composite reliability, AVE = Average variance extracted, DFU = Desire for uniqueness, T-FOMO = Tendency towards the fear of missing out, A_{ad} = Attitude toward the advertisement, PI = Purchase intention

Before the measurement model was estimated, the constructs were examined for their convergent and discriminant validity.

Convergent validity is established as evidenced by the average variance extracted of each construct is ($AVE > .50$). Moreover, each construct showed strong internal consistency as seen by the composite reliability ($CR > .70$). Finally, each construct's explained variance estimate on the diagonal is greater than the corresponding inter-factor squared correlation estimates below the diagonal. This suggests that discriminant validity is achieved and that each variable was distinct from the other (Hair et al. 2010). The results are depicted in Table 6-22.

6.7.3 Estimating the Measurement Model

The measurement model should be assessed before the structural model is estimated (Gerbing and Anderson 1988). The measurement model was estimated by allowing all of the structural constructs to correlate with all of the other constructs. The CFA indicated that the model was a poor fit ($\chi^2 = 170.70$, $df = 113$, $p\text{-value} = .00$, $RMSEA = .06$, $SRMR = .05$, $GFI = .89$, $AGFI = .85$, $CFI = .97$, $TLI = .96$). Hence, the modification indices were consulted for possible solutions (Cortina, Chen, and Dunlap 2001; Garver and Mentzer 1999; Schumacker and Lomax 2004). Two items namely 'I tend to panic buy during a sale for fear of missing out,' and 'Unlikeable/Likeable' were removed in an iterative fashion due to cross-loadings.

6.7.4 The Structural Model

After the measurement model was shown to have a good fit, the hypothesized pathways were evaluated using SEM analyses. In order to provide support for the study's theoretical model, path analysis was conducted to examine the relationships between the constructs (Kline 2005).

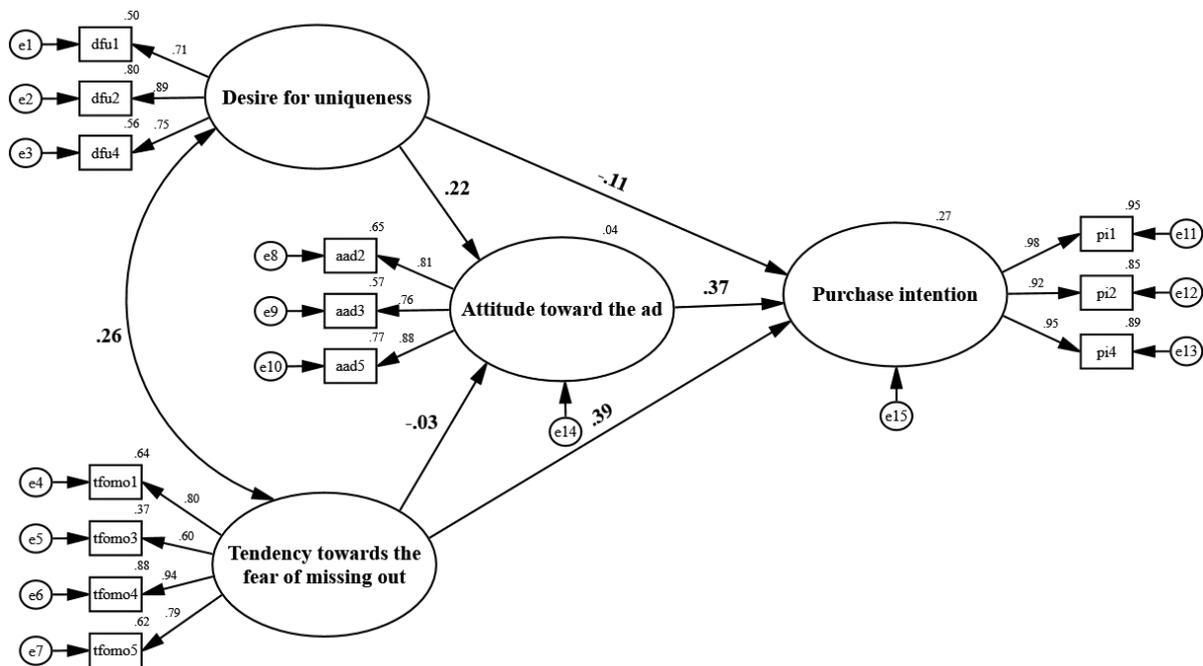


Figure 6-8: Study Three – Structural Model

The structural model's fit was assessed by examining a number of goodness-of-fit indices to see whether the model was appropriate to test the various hypotheses outlined in chapter three. In this case, the goodness-of-fit indices suggested the model was a reasonably good fit ($\chi^2 = 68.18$, $df = 59$, $p\text{-value} = .19$, $RMSEA = .03$, $SRMR = .05$, $GFI = .94$, $AGFI = .91$, $CFI = .99$, $TLI = .99$) and that the relationships in the estimated model should be examined. The structural model with standardised parameter estimates is presented in Figure 6-8.

Following the fit assessment of the structural model, the correlation (for H_1) and the standardised regression coefficients of the relevant paths of the structural model were examined and the results are discussed in the following section.

6.7.5 Path Analysis Results for H₁ – H₆

Table 6-23: Study Three – Structural Model’s Standardized Path Coefficients

	Relationships	β	Conclusion
H ₁	DFU ↔ T-FOMO	.26 ^(*)	Accept
H ₂	DFU → A _{ad}	.22 ^(*)	Accept
H ₃	T-FOMO → A _{ad}	-.03	Reject
H ₄	DFU → PI	-.11	Reject
H ₅	T-FOMO → PI	.39 ^(***)	Accept
H ₆	A _{ad} → PI	.39 ^(***)	Accept

*p < 0.05, **p < 0.01, ***p < 0.001

β = Standardised beta, DFU = Desire for uniqueness, T-FOMO = Tendency towards the fear of missing out, A_{ad} = Attitude toward the advertisement, PI = Purchase intention

Table 6-23 shows paths coefficients for H₁ – H₆ based on the model. The results confirm a number of the proposed relationships discussed in chapter three (theoretical framework and hypotheses development). The key results are discussed in the following Table 6-24.

Table 6-24: Study Three – Summary and Discussion of Key Results for H₁ - H₆

Hypotheses results	Discussion
<p>Results for H₁: There is a positive and significant correlation between desire for uniqueness and T-FOMO, thus H₁ is accepted.</p>	<p>H₁ proposes that <i>desire for uniqueness and T-FOMO are distinct but positively correlated constructs</i>.</p> <p>The analyses from the structural model showed a significant correlation of .26 (p < .05) between desire for uniqueness and the fear of missing out. Discriminant validity reported in Table 6-22 also suggested the two constructs to be distinct and independent. This finding provides theoretical confirmation in relation to the drive-reduction theory (Hull 1943) and the social comparison theory (Festinger 1957).</p>

Results for H₂: A positive and significant relationship was found between desire for uniqueness and attitude toward the advertisement, hence H₂ was accepted.

H₂ proposes that a higher desire for uniqueness will lead to a more favourable attitude toward the advertisement

Results indicate that the scarcity message was able to generate favourable attitudes towards the advertisement for individuals who desire uniqueness. This result provides theoretical support for the social cognition theory (K Witte and Morrison 2000). This finding is also consistent with earlier studies (e.g. (Roy and Sharma 2015) which found that consumer traits such as need for uniqueness were found to positively influence consumer attitudes and purchase intentions. Moreover, studies have shown that individuals who desired uniqueness preferred scarce products as owning such products helped to differentiate themselves from others (Roy and Sharma 2015; Tian, Bearden, and Hunter 2001; Wu et al. 2012).

Results for H₅: A positive and significant relationship was found between T-FOMO and purchase intention, hence H₅ was accepted.

H₅ proposes that a higher T-FOMO will lead to a higher purchase intention

Results indicate that the scarcity message was able to generate positive purchase intentions towards the advertised product for FOMO consumers. This finding provides theoretical support in relation to the social cognition theory (K Witte and Morrison 2000), protection motivation theory (Rogers 1975), drive-reduction theory (Hull 1943) and theory of regret intensity (Beike, Markman, and Karadogan 2009). Furthermore, as previously discussed in chapter two and three, scarcity has the effect of enhancing the attractiveness of the opportunity, which in turn impacts on their attitudes and behaviour.

Results for H₆: A positive and significant relationship was found between attitude toward the advertisement and purchase intention, hence H₆ was accepted.

H₆ proposes that a more favourable attitude toward the advertisement will lead to a higher purchase intention

Results indicated that individuals who favoured the advertisement also had positive intentions towards the advertised product. This finding is consistent with earlier studies (e.g. Ajzen 1991; Cotte and Ritchie 2005; Mackenzie and Lutz 1989; Spears and Singh 2004) which have reported the significant and positive relationship between attitude toward the advertisement and purchase intention.

6.7.6 Mediation Analysis H₇ – H₈

Mediation H₇: DFU → A_{ad} → PI

Baron and Kenny's (1986) four step method for mediation analysis was performed. Results from the regression analysis revealed that both step 1: (DFU → PI), ($\beta = .59, p = .56$) and step 2: (DFU → A_{ad}), ($\beta = .12, p = .13$) were non-significant. Although regression analysis for step 3: (A_{ad} → PI) was significant ($\beta = .34, p = .00$), there was insufficient evidence to suggest that A_{ad} acted as mediator for DFU and PI. Therefore, H₇ is rejected.

Mediation H₈: T-FOMO → A_{ad} → PI

Baron and Kenny's (1986) four step method for mediation analysis was performed. Results from the regression analysis revealed that step 2: (T-FOMO → A_{ad}) was non-significant ($\beta = -.01, p = .90$). Although results from the regression analysis for step 1: (T-FOMO → PI), ($\beta = .35, p = .00$) and step 3: (A_{ad} → PI), ($\beta = .34, p = .00$) were significant, there was insufficient evidence to suggest that A_{ad} acted as mediator for relationship between T-FOMO and PI. Therefore, H₈ is rejected.

Results of the mediation analysis indicated that attitude toward the advertisement was not a significant mediator on the relationship between desire for uniqueness and purchase intention, and the relationship between T-FOMO and purchase intention.

6.7.7 Moderation Analysis for H₉ – H₁₄

In order to test for moderating role of inferences of manipulative intent and consumer susceptibility to interpersonal influence, an exploratory factor analysis (EFA) was first conducted on the two constructs to examine the psychometric soundness as well as the dimensionality of the constructs. Items with standardised factor loadings (> 0.5) and cross loadings were removed in an iterative fashion (Nunnally 1978).

Table 6-25: Study Three – EFA Results for Moderators

Construct	No. of items	Factor Loadings	α	Eigen Value	Variance explained (%)	KMO
IMI	3	.85-.87	.82	2.22	74.08	.72
CSII (Normative)	8	.62-.87	.94	7.12	59.32	.90
CSII (Informational)	3	.86-.90	.90	1.82	15.20	

Extraction Method: Principle Component Analysis, Rotation Method: Varimax rotation
 α = Cronbach Alpha, KMO = Kaiser-Meyer-Olkin, IMI = Inferences of Manipulative Intent, CSII = Consumer Susceptibility to Interpersonal Influence

Results of the EFA showed that the IMI construct and the original 6-item scale was reduced to 3 items due to cross-loadings. In addition, the CSII construct and the original 12-item scale was reduced to 11 items due to cross-loadings. Moreover, the process led to the extraction of two corresponding factors namely ‘normative’ and ‘informational’ influences which was consistent with Bearden, Netemeyer, and Teel (1989). Both factors also achieved a reliability of ($\alpha > 0.7$) (Nunnally 1978) respectively. In order to test for moderating role of inferences of manipulative intent and consumer susceptibility to interpersonal influence, an exploratory factor analysis (EFA) was first conducted on the two constructs to examine the psychometric soundness as well as the dimensionality of the constructs. Items with standardised factor loadings (> 0.5) and cross loadings were removed in an iterative fashion (Nunnally 1978).

Table 6-25.

Hierarchical moderated regression was used to test the moderating role of inferences of manipulative intent and consumer susceptibility to interpersonal influence on the various relationships outlined in chapter three (theoretical framework and hypotheses development). This method is employed to detect if the addition of the moderator-independent variable interaction term to the relationship between the independent and the dependant variable will result in a significant R^2 change. The full result of the analysis is depicted in Appendix H: Study Three.

Results of the moderation analysis indicated that neither inferences of manipulative intent nor consumer susceptibility to interpersonal influence was a significant moderator for any of the proposed relationships.

6.7.8 Summary of Overall Findings

Table 6-26 summarizes the overall findings for Study Three.

Table 6-26: Study Three – Summary of Results

Hypotheses		Conclusion
H₁	Desire for uniqueness and T-FOMO are distinct but positively correlated constructs	Accept
H₂	A higher desire for uniqueness will lead to more favourable attitude toward the advertisement	Accept
H₃	A higher T-FOMO will lead to a more favourable attitude toward the advertisement	Reject
H₄	A higher desire for uniqueness will lead to a higher purchase intention	Reject
H₅	A higher T-FOMO will lead to a higher purchase intention	Accept
H₆	A more favourable attitude toward the advertisement will lead to a higher purchase intention	Accept
H₇	Attitude toward the advertisement will mediate the relationship between desire for uniqueness and purchase intention	Reject
H₈	Attitude toward the advertisement will mediate the relationship between T-FOMO and purchase intention	Reject
H₉	Inferences of manipulative intent will dilute the relationship between desire for uniqueness and attitude toward the advertisement	Reject
H₁₀	Inferences of manipulative intent will dilute the relationship between T-FOMO and attitude toward the advertisement	Reject
H₁₁	(a) Normative influences will enhance the relationship between desire for uniqueness and attitude toward the advertisement; (b) Informational influences will enhance the relationship between desire for uniqueness and attitude toward the advertisement	Reject
H₁₂	Normative influences will enhance the relationship between T-FOMO and attitude toward the advertisement; (b) Informational influences will enhance the relationship between T-FOMO and attitude toward the advertisement	Reject
H₁₃	a) Normative influences will enhance the relationship between desire for uniqueness and purchase intention; (b) Informational influences will enhance the relationship between desire for uniqueness and purchase intention.	Reject
H₁₄	(a) Normative influences will enhance the relationship between T-FOMO and purchase intention. (b) Informational influences will enhance the relationship between T-FOMO and purchase intention	Reject

6.8 STUDY FOUR – LIMITED QUANTITY SCARCITY (PRIVATE)

6.8.1 Measurement Properties of the Constructs

Similar to the processes described in the preceding study, to test for the psychometric soundness of the four constructs namely 1) Desire for Uniqueness, 2) Tendency towards the Fear of Missing Out, 3) Attitude toward the advertisement and 4) Purchase Intention used for this research, four single-construct measurement models were estimated. A series of confirmatory factor analysis (CFA) were conducted and respecified, if theoretically sound, for each of the four single-construct measurement models before a full measurement model was tested. The goodness-of-fit indices were examined for each of the four constructs to determine if re-specification was necessary. If an adequate fit was not achieved, the modification indices were consulted to identify any problematic items. An overview of the measurement properties of the 4 constructs are shown in Table 6-27.

Table 6-27: Study Four – Overview of Measurement Properties of Constructs

Construct/Items	Estimate	χ^2	df	P-value	RMSEA	SRMR	GFI	AGFI	CFI	TLI
Desire for uniqueness		2.16	1	.14	.08	.02	.99	.94	.99	.98
dfu1: I prefer being different from other people	.58									
dfu2: Being distinctive is important to me	Removed									
dfu3: I intentionally do things to make myself different from those around me	.89									
dfu4: I have a strong desire for uniqueness	.92									
Tendency towards the fear of missing out		2.45	2	.29	.03	.01	.99	.96	.99	.99
tfomo1: I become anxious during a sale and tend to buy more than I actually need	.87									
tfomo2: I have the constant urge to check for the latest product deals on the internet for fear of missing out	.65									
tfomo3: I have the habit of accepting appointments even though my schedule is full for fear of missing out	Removed									
tfomo4: I tend to panic buy during a sale for fear of missing out	.87									
tfomo5: I have the urge to buy during a sale even though there is nothing that I really want	.87									
Attitude toward the advertisement		11.13	5	.05	.09	.03	.97	.91	.99	.97
aad1: Bad/good	.72									
aad2: Unfavourable/favourable	Removed									
aad3: Uncreative/creative	.75									
aad4: Unattractive/attractive	.83									
aad5: Unlikeable/likeable	.89									
aad6: Boring/interesting	.82									
Purchase intention		3.59	1	.06	.13	.01	.99	.91	.99	.98
pi1: I would intend to buy the (product shown in the advertisement)	.95									
pi2: I would consider buying the (product shown in the advertisement)	.91									
pi3: I would expect to buy the (product shown in the advertisement)	.89									
pi4: I would plan to buy the (product shown in the advertisement)	Removed									

χ^2 = Chi-square, *df* = Degrees of freedom, RMSEA = Root mean square error of approximation, SRMR = Standardised root mean square residual, GFI = Goodness of fit index, AGFI = Adjusted goodness of fit index, CFI = Comparative fit index, TLI = Tucker-lewis index

6.8.2 Convergent and Discriminant Validity of the Constructs

Table 6-28: Study Four – Convergent and Discriminant Validity of Constructs

Construct	CR	AVE Score	Squared Correlations			
			DFU	T-FOMO	A _{ad}	PI
DFU	.85	.66	.81			
T-FOMO	.90	.65	.00	.80		
A _{ad}	.94	.84	.18	.43	.92	
PI	.89	.68	.34	.09	.40	.82

CR = Composite reliability, AVE = Average variance extracted, DFU = Desire for uniqueness, T-FOMO = Tendency towards the fear of missing out, A_{ad} = Attitude toward the advertisement, PI = Purchase intention

Before the measurement model was estimated, the constructs were examined for their convergent and discriminant validity.

Convergent validity is established as evidenced by the average variance extracted of each construct is ($AVE > .50$). Moreover, each construct showed strong internal consistency as seen by the composite reliability ($CR > .70$). Finally, each construct's explained variance estimate on the diagonal is greater than the corresponding inter-factor squared correlation estimates below the diagonal. This suggests that discriminant validity is achieved and that each variable was distinct from the other (Hair et al. 2010). The results are depicted in Table 6-28.

6.8.3 Estimating the Measurement Model

The measurement model should be assessed before the structural model is estimated (Gerbing and Anderson 1988). The measurement model was estimated by allowing all of the structural constructs to correlate with all of the other constructs. The CFA indicated that the model was a poor fit ($\chi^2 = 109.80$, $df = 84$, $p\text{-value} = .03$, $RMSEA = .04$, $SRMR = .06$, $GFI = .92$, $AGFI = .88$, $CFI = .98$, $TLI = .98$). Hence, the modification indices were consulted for possible solutions (Cortina, Chen, and Dunlap 2001; Garver and Mentzer 1999; Schumacker and Lomax 2004). One item namely 'Boring/Interesting' was removed in an iterative fashion due to cross-loadings. After which, the modified measurement model had an acceptable fit ($\chi^2 = 84.38$, $df = 71$, $p\text{-value} = .13$, $RMSEA = .03$, $SRMR = .05$, $GFI = .93$, $AGFI = .90$, $CFI = .99$, $TLI = .99$). Consequently, the revised model was retained for subsequent analysis.

6.8.4 The Structural Model

After the measurement model was shown to have a good fit, the hypothesized pathways were evaluated using SEM analyses. In order to provide support for the study's theoretical model, path analysis was conducted to examine the relationships between the constructs (Kline 2005).

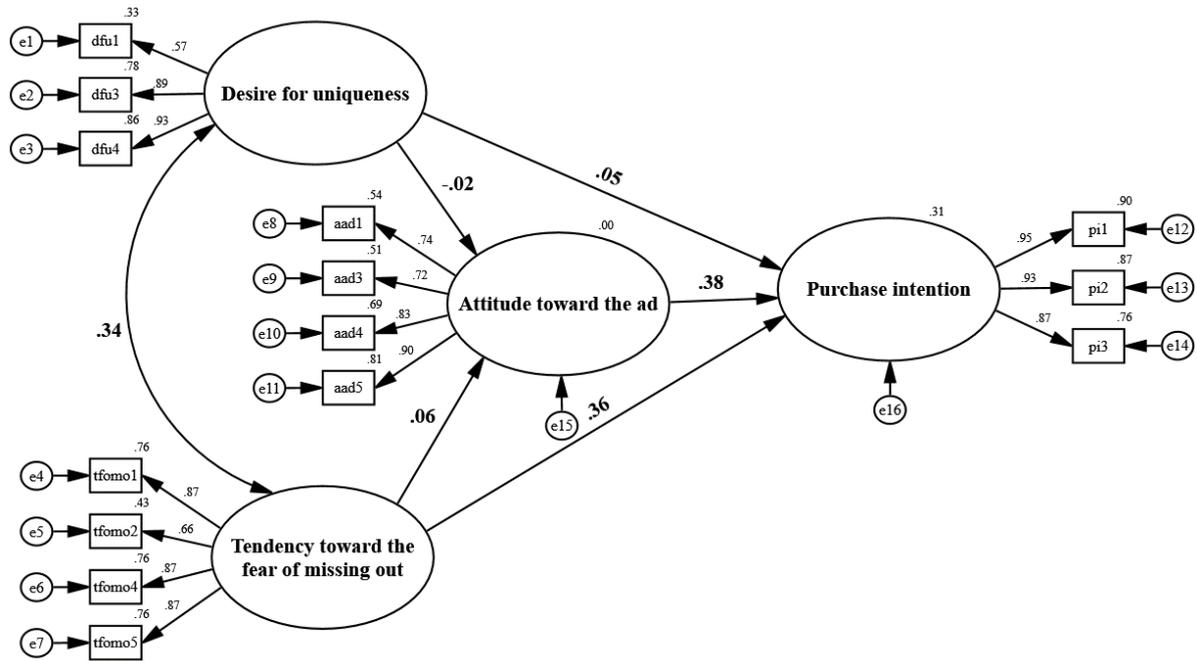


Figure 6-9: Study Four – Structural Model

The structural model's fit was assessed by examining a number of goodness-of-fit indices to see whether the model is an appropriate one of the obtain data. In this case, the goodness-of-fit indices suggested the model was a reasonably good fit ($\chi^2 = 84.38$, $df = 71$, $p\text{-value} = .13$, $RMSEA = .03$, $SRMR = .05$, $GFI = .93$, $AGFI = .90$, $CFI = .99$, $TLI = .99$) and that the relationships in the estimated model should be examined. The structural model with standardised parameter estimates is presented in Figure 6-9.

Following the fit assessment of the structural model, the correlation (for H₁) and the standardised regression coefficients of the relevant paths of the structural model were examined and the results are discussed in the following section.

6.8.5 Path Analysis Results for H₁ – H₆

Table 6-29: Study Four – Structural Model’s Standardized Path Coefficients

	Relationships	β	Conclusion
H ₁	DFU ↔ T-FOMO	.34 ^(***)	Accept
H ₂	DFU → A _{ad}	-0.02	Reject
H ₃	T-FOMO → A _{ad}	.07	Reject
H ₄	DFU → PI	.05	Reject
H ₅	T-FOMO → PI	.36 ^(***)	Accept
H ₆	A _{ad} → PI	.38 ^(***)	Accept

*p < 0.05, **p < 0.01, ***p < 0.001

β = Standardised beta, DFU = Desire for uniqueness, T-FOMO = Tendency towards the fear of missing out, A_{ad} = Attitude toward the advertisement, PI = Purchase intention

Table 6-29 shows paths coefficients for H₁ – H₆ based on the model. The results confirm a number of the proposed relationships discussed in chapter three (theoretical framework and hypotheses development). The key results are discussed in the following Table 6-30.

Table 6-30: Study Four – Summary and Discussion of Key Results for H₁ - H₆

Hypotheses results	Discussion
Results for H₁: There is a positive and significant correlation between desire for uniqueness and T-FOMO, thus H ₁ is accepted.	H₁ proposes that <i>desire for uniqueness and T-FOMO are distinct but positively correlated constructs</i> . The analyses from the structural model showed a significant correlation of .34 (p < .0001) between desire for uniqueness and the fear of missing out. Discriminant validity reported in Table 6-13 also suggested the two constructs to be distinct and independent. This finding provides theoretical confirmation in relation to the drive-reduction theory (Hull 1943) and the social comparison theory (Festinger 1957).
Results for H₅: A positive and significant relationship was found between T-FOMO and purchase intention, hence H ₅ was accepted.	H₅ proposes that <i>a higher T-FOMO will lead to a higher purchase intention</i> Results indicate that the scarcity message was able to generate positive purchase intentions towards the advertised product for FOMO consumers. This finding provides theoretical support in relation to the social cognition theory (K Witte and Morrison 2000), protection motivation theory (Rogers 1975), drive-reduction theory (Hull 1943) and theory of regret intensity (Beike, Markman, and Karadogan 2009). Furthermore, as previously discussed in chapter two and three, scarcity has the effect of enhancing the attractiveness of the opportunity, which in turn impacts on their attitudes and behaviour.

Results for H₆: A positive and significant relationship was found between attitude toward the advertisement and purchase intention, hence H₆ was accepted.

H₆ proposes that *a more favourable attitude toward the advertisement will lead to a higher purchase intention*

Results indicated that individuals who favoured the advertisement also had positive intentions towards the advertised product. This finding is consistent with earlier studies (e.g. Ajzen 1991; Cotte and Ritchie 2005; Mackenzie and Lutz 1989; Spears and Singh 2004) which have reported the significant and positive relationship between attitude toward the advertisement and purchase intention.

6.8.6 Mediation Analysis H₇ – H₈

Mediation H₇: DFU → A_{ad} → PI

Baron and Kenny's (1986) four step method for mediation analysis was performed. Results from the regression analysis revealed that both step 1: (DFU → PI), ($\beta = .12, p = .14$) and step 2: (DFU → A_{ad}), ($\beta = -.025, p = .761$) were non-significant. Although regression analysis for step 3: (A_{ad} → PI) was significant ($\beta = .380, p = .000$), there was insufficient evidence to suggest that A_{ad} acted as mediator for DFU and PI. Therefore, H₇ is rejected.

Mediation H₈: T-FOMO → A_{ad} → PI

Baron and Kenny's (1986) four step method for mediation analysis was performed. Results from the regression analysis revealed that step 2: (T-FOMO → A_{ad}) was non-significant ($\beta = .08, p = .30$). Although results from the regression analysis for step 1: (T-FOMO → PI), ($\beta = .387, p = .000$) and step 3: (A_{ad} → PI), ($\beta = .38, p = .00$) were significant, there was insufficient evidence to suggest that A_{ad} acted as mediator for relationship between T-FOMO and PI. Therefore, H₈ is rejected.

Results of the mediation analysis indicated that attitude toward the advertisement was not a significant mediator on the relationship between desire for uniqueness and purchase intention, and the relationship between T-FOMO and purchase intention.

6.8.7 Moderation Analysis for H₉ – H₁₄

In order to test for moderating role of inferences of manipulative intent and consumer susceptibility to interpersonal influence, an exploratory factor analysis (EFA) was first conducted on the two constructs to examine the psychometric soundness as well as the dimensionality of the constructs. Items with standardised factor loadings (> 0.5) and cross loadings were removed in an iterative fashion (Nunnally 1978).

Table 6-31: Study Four – EFA Results for Moderators

Construct	No. of items	Factor Loadings	α	Eigen Value	Variance explained (%)	KMO
IMI	.78-.89	.80	2.16	72.14	.78-.89	.68
CSII (Normative)	.60-.89	.94	6.31	57.32	.60-.89	.87
CSII (Informational)	.85-.93	.90	1.95	17.69	.85-.93	

Extraction Method: Principle Component Analysis, Rotation Method: Varimax rotation
 α = Cronbach Alpha, KMO = Kaiser-Meyer-Olkin, IMI = Inferences of Manipulative Intent, CSII = Consumer Susceptibility to Interpersonal Influence

Results of the EFA showed that the IMI construct and the original 6-item scale was reduced to 3 items due to cross-loadings. In addition, the CSII construct and the original 12-item scale was reduced to 11 items due to cross-loadings. Moreover, the process led to the extraction of two corresponding factors namely ‘normative’ and ‘informational’ influences which was consistent with Bearden, Netemeyer, and Teel (1989). Both factors also achieved a reliability of ($\alpha > 0.7$) (Nunnally 1978) respectively. In order to test for moderating role of inferences of manipulative intent and consumer susceptibility to interpersonal influence, an exploratory factor analysis (EFA) was first conducted on the two constructs to examine the psychometric soundness as well as the dimensionality of the constructs. Items with standardised factor loadings (> 0.5) and cross loadings were removed in an iterative fashion (Nunnally 1978).

Table 6-31.

Hierarchical moderated regression was used to test the moderating role of inferences of manipulative intent and consumer susceptibility to interpersonal influence on the various relationships outlined in chapter three (theoretical framework and hypotheses development). This method is employed to detect if the addition of the moderator-independent variable interaction term to the relationship between the independent and the dependant variable will result in a significant R² change. The full result of the analysis is depicted in Appendix H: Study Four. The key results are discussed in Table 6-32.

Table 6-32: Study Four - Summary and Discussion of Key Results for H₉ – H₁₄

Hypotheses results	Discussion
<p>Results for H₁₂: Normative influence was found to enhance the relationship between T-FOMO and attitude toward the advertisement. However, results showed that informational influence did not moderate the relationship between T-FOMO and attitude toward the advertisement. Hence H₁₂ was partially accepted.</p>	<p>H₁₂ proposes that (a) <i>Normative influences will enhance the relationship between T-FOMO and attitude toward the advertisement</i>; (b) <i>Informational influences will enhance the relationship between T-FOMO and attitude toward the advertisement</i></p>
<p>Results for H₁₄: Both normative influence and informational influence were found to enhance the relationship between T-FOMO and purchase intention. Hence, H₁₄ was accepted.</p>	<p>H₁₄ proposes that (a) <i>Normative influences will enhance the relationship between T-FOMO and purchase intention</i>. (b) <i>Informational influences will enhance the relationship between T-FOMO and purchase intention</i></p> <p>The result indicated that FOMO consumers rely on social influences in their formation of attitudes and purchase intentions towards scarce products. This finding is supported by Przybylski et al. (2013) which found that individuals with low basic psychological need relatedness (connectedness to others) are likely demonstrate higher FOMO tendencies.</p>

6.8.8 Summary of Overall Findings

Table 6-33 summarizes the overall findings for Study Four.

Table 6-33: Study Four – Summary of Results

Hypotheses Results		Conclusion
H₁	Desire for uniqueness and T-FOMO are distinct but positively correlated constructs	Accept
H₂	A higher desire for uniqueness will lead to more favourable attitude toward the advertisement	Reject
H₃	A higher T-FOMO will lead to a more favourable attitude toward the advertisement	Reject
H₄	A higher desire for uniqueness will lead to a higher purchase intention	Reject
H₅	A higher T-FOMO will lead to a higher purchase intention	Accept
H₆	A more favourable attitude toward the advertisement will lead to a higher purchase intention	Accept
H₇	Attitude toward the advertisement will mediate the relationship between desire for uniqueness and purchase intention	Reject
H₈	Attitude toward the advertisement will mediate the relationship between T-FOMO and purchase intention	Reject
H₉	Inferences of manipulative intent will dilute the relationship between desire for uniqueness and attitude toward the advertisement	Reject
H₁₀	Inferences of manipulative intent will dilute the relationship between T-FOMO and attitude toward the advertisement	Reject
H₁₁	(a) Normative influences will enhance the relationship between desire for uniqueness and attitude toward the advertisement; (b) Informational influences will enhance the relationship between desire for uniqueness and attitude toward the advertisement	Reject
H₁₂	Normative influences will enhance the relationship between T-FOMO and attitude toward the advertisement; (b) Informational influences will enhance the relationship between T-FOMO and attitude toward the advertisement	Partially Supported
H₁₃	a) Normative influences will enhance the relationship between desire for uniqueness and purchase intention; (b) Informational influences will enhance the relationship between desire for uniqueness and purchase intention.	Reject
H₁₄	(a) Normative influences will enhance the relationship between T-FOMO and purchase intention. (b) Informational influences will enhance the relationship between T-FOMO and purchase intention	Accept

6.9 STUDY FIVE – LIMITED TIME SCARCITY (PRIVATE)

6.9.1 Measurement Properties of the Constructs

Similar to the processes described in the preceding study, to test for the psychometric soundness of the four constructs namely 1) Desire for Uniqueness, 2) Tendency towards the Fear of Missing Out, 3) Attitude toward the advertisement and 4) Purchase Intention used for this research, four single-construct measurement models were estimated. A series of confirmatory factor analysis (CFA) were conducted and respecified, if theoretically sound, for each of the four single-construct measurement models before a full measurement model was tested. The goodness-of-fit indices were examined for each of the four constructs to determine if re-specification was necessary. If an adequate fit was not achieved, the modification indices were consulted to identify any problematic items. An overview of the measurement properties of the 4 constructs are shown in Table 6-34.

Table 6-34: Study Five – Overview of Measurement Properties of Constructs

Construct/Items	Estimate	χ^2	df	P-value	RMSEA	SRMR	GFI	AGFI	CFI	TLI
Desire for uniqueness		.36	1	.55	.01	.01	.99	.99	1.00	1.00
dfu1: I prefer being different from other people	.67									
dfu2: Being distinctive is important to me	Removed									
dfu3: I intentionally do things to make myself different from those around me	.80									
dfu4: I have a strong desire for uniqueness	.94									
Tendency towards the fear of missing out		5.93	5	.31	.03	0.02	.99	.96	0.99	0.99
tfomo1: I become anxious during a sale and tend to buy more than I actually need	.86									
tfomo2: I have the constant urge to check for the latest product deals on the internet for fear of missing out	.82									
tfomo3: I have the habit of accepting appointments even though my schedule is full for fear of missing out	.64									
tfomo4: I tend to panic buy during a sale for fear of missing out	.89									
tfomo5: I have the urge to buy during a sale even though there is nothing that I really want	.76									
Attitude toward the advertisement		10.88	5	.05	.08	.02	.98	.93	0.99	.98
aad1: Bad/good	.85									
aad2: Unfavourable/favourable	Removed									
aad3: Uncreative/creative	.83									
aad4: Unattractive/attractive	.90									
aad5: Unlikeable/likeable	.89									
aad6: Boring/interesting	.88									
Purchase intention		1.99	1	.16	.08	.01	.99	.95	.99	.99
pi1: I would intend to buy the (product shown in the advertisement)	.95									
pi2: I would consider buying the (product shown in the advertisement)	Removed									
pi3: I would expect to buy the (product shown in the advertisement)	.96									
pi4: I would plan to buy the (product shown in the advertisement)	.95									

χ^2 = Chi-square, *df* = Degrees of freedom, RMSEA = Root mean square error of approximation, SRMR = Standardised root mean square residual, GFI = Goodness of fit index, AGFI = Adjusted goodness of fit index, CFI = Comparative fit index, TLI = Tucker-lewis index

6.9.2 Convergent and Discriminant Validity of the Constructs

Table 6-35: Study Five – Convergent and Discriminant Validity of Constructs

Construct	CR	AVE Score	Squared Correlations			
			DFU	T-FOMO	A _{ad}	PI
DFU	.85	.66	.81			
T-FOMO	.94	.76	.30	.87		
A _{ad}	.97	.91	.40	.55	.95	
PI	.90	.64	.38	.14	.55	.80

CR = Composite reliability, AVE = Average variance extracted, DFU = Desire for uniqueness, T-FOMO = Tendency towards the fear of missing out, A_{ad} = Attitude toward the advertisement, PI = Purchase intention

Before the measurement model was estimated, the constructs were examined for their convergent and discriminant validity.

Convergent validity is established as evidenced by the average variance extracted of each construct is ($AVE > .50$). Moreover, each construct showed strong internal consistency as seen by the composite reliability ($CR > .70$). Finally, each construct's explained variance estimate on the diagonal is greater than the corresponding inter-factor squared correlation estimates below the diagonal. This suggests that discriminant validity is achieved and that each variable was distinct from the other (Hair et al. 2010). The results are depicted in Table 6-35.

6.9.3 Estimating the Measurement Model

The measurement model should be assessed before the structural model is estimated (Gerbing and Anderson 1988). The measurement model was estimated by allowing all of the structural constructs to correlate with all of the other constructs. The CFA indicated that the model was a poor fit ($\chi^2 = 162.99$, $df = 98$, $p\text{-value} = .00$, $RMSEA = .06$, $SRMR = .05$, $GFI = .89$, $AGFI = .85$, $CFI = .97$, $TLI = .96$). Hence, the modification indices were consulted for possible solutions (Cortina, Chen, and Dunlap 2001; Garver and Mentzer 1999; Schumacker and Lomax 2004). Three items namely 'I would expect to buy the (product shown in the advertisement)', 'Bad/Good' and 'I have the habit of accepting appointments even though my schedule is full for fear of missing out' were removed in an iterative fashion due to cross-loadings. After which, the modified measurement model had an acceptable fit ($\chi^2 = 69.69$, $df = 59$, $p\text{-value} = .16$, $RMSEA = .03$, $SRMR = .04$, $GFI = .94$, $AGFI = .91$, $CFI = .99$, $TLI = .99$). Consequently, the revised model was retained for subsequent analysis.

6.9.4 The Structural Model

After the measurement model was shown to have a good fit, the hypothesized pathways were evaluated using SEM analyses. In order to provide support for the study's theoretical model, path analysis was conducted to examine the relationships between the constructs (Kline 2005).

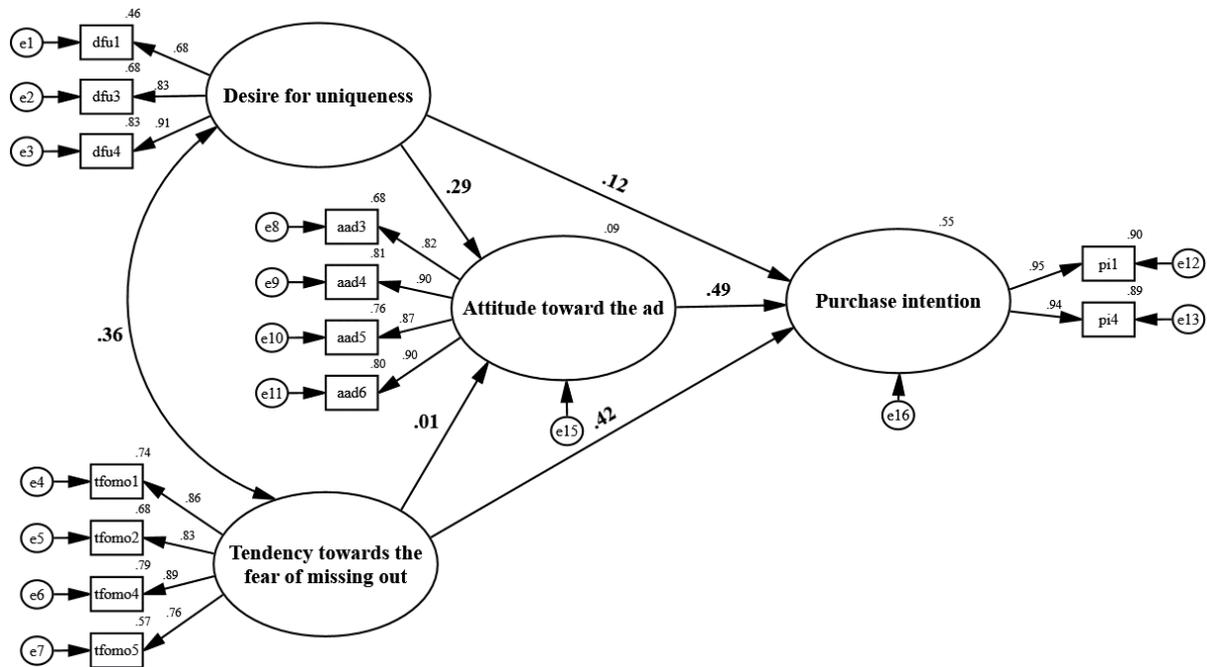


Figure 6-10: Study Five – Structural Model

The structural model's fit was assessed by examining a number of goodness-of-fit indices to see whether the model is an appropriate one of the obtain data. In this case, the goodness-of-fit indices suggested the model was a reasonably good fit ($\chi^2 = 69.69$, $df = 59$, $p\text{-value} = .16$, $RMSEA = .03$, $SRMR = .04$, $GFI = .94$, $AGFI = .91$, $CFI = .99$, $TLI = .99$) and that the relationships in the estimated model should be examined. The structural model with standardised parameter estimates is presented in Figure 6-10.

Following the fit assessment of the structural model, the correlation (for H_1) and the standardised regression coefficients of the relevant paths of the structural model were examined and the results are discussed in the following section.

6.9.5 Path Analysis Results for H₁ – H₆

Table 6-36: Study Five – Structural Model’s Standardized Path Coefficients

	Relationships	β	Conclusion
H ₁	DFU ↔ T-FOMO	.36 ^(***)	Accept
H ₂	DFU → A _{ad}	.29 ^(**)	Accept
H ₃	T-FOMO → A _{ad}	.007	Reject
H ₄	DFU → PI	.12	Reject
H ₅	T-FOMO → PI	.42 ^(***)	Accept
H ₆	A _{ad} → PI	.49 ^(***)	Accept

*p < 0.05, **p < 0.01, ***p < 0.001

β = Standardised beta, DFU = Desire for uniqueness, T-FOMO = Tendency towards the fear of missing out, A_{ad} = Attitude toward the advertisement, PI = Purchase intention

Table 6-36 shows paths coefficients for H₁ – H₆ based on the model. The results confirm a number of the proposed relationships discussed in chapter three (theoretical framework and hypotheses development). The key results are discussed in the following Table 6-37.

Table 6-37: Study Five – Summary and Discussion of Key Results for H₁ - H₆

Hypotheses results	Discussion
<p>Results for H₁: There is a positive and significant correlation between desire for uniqueness and T-FOMO, thus H₁ is accepted.</p>	<p>H₁ proposes that <i>desire for uniqueness and T-FOMO are distinct but positively correlated constructs</i>.</p> <p>The analyses from the structural model showed a significant correlation of .36 (p < .0001) between desire for uniqueness and the fear of missing out. Discriminant validity reported in Table 6-35 also suggested the two constructs to be distinct and independent. This finding provides theoretical confirmation in relation to the drive-reduction theory (Hull 1943) and the social comparison theory (Festinger 1957).</p>

Results for H₂: A positive and significant relationship was found between desire for uniqueness and attitude toward the advertisement, hence H₂ was accepted.

H₂ proposes that a higher desire for uniqueness will lead to a more favourable attitude toward the advertisement

Results indicate that the scarcity message was able to generate favourable attitudes towards the advertisement for individuals who desire uniqueness. This result provides theoretical support for the social cognition theory (K Witte and Morrison 2000). The result is also consistent with earlier studies (e.g. (Roy and Sharma 2015) which found that consumer traits such as need for uniqueness were found to positively influence consumer attitudes and purchase intentions. Moreover, studies have shown that individuals who desired uniqueness preferred scarce products as owning such products helped to differentiate themselves from others (Roy and Sharma 2015; Tian, Bearden, and Hunter 2001; Wu et al. 2012).

Results for H₅: A positive and significant relationship was found between T-FOMO and purchase intention, hence H₅ was accepted.

H₅ proposes that a higher T-FOMO will lead to a higher purchase intention

Results indicate that the scarcity message was able to generate positive purchase intentions towards the advertised product for FOMO consumers. This finding provides theoretical support in relation to the social cognition theory (K Witte and Morrison 2000), protection motivation theory (Rogers 1975), drive-reduction theory (Hull 1943) and theory of regret intensity (Beike, Markman, and Karadogan 2009). Furthermore, as previously discussed in chapter two and three, scarcity has the effect of enhancing the attractiveness of the opportunity, which in turn impacts on their attitudes and behaviour.

Results for H₆: A positive and significant relationship was found between attitude toward the advertisement and purchase intention, hence H₆ was accepted.

H₆ proposes that a more favourable attitude toward the advertisement will lead to a higher purchase intention

Results indicated that individuals who favoured the advertisement also had positive intentions towards the advertised product. This finding is consistent with earlier studies (e.g. Ajzen 1991; Cotte and Ritchie 2005; Mackenzie and Lutz 1989; Spears and Singh 2004) which have reported the significant and positive relationship between attitude toward the advertisement and purchase intention.

6.9.6 Mediation Analysis H₇ – H₈

Mediation H₇: DFU → A_{ad} → PI

Table 6-38: Study Five – Results for Mediation Analysis H₇

Steps	IV	DV	Unstd. β	S.E.	Std. β	t-Value	Sig.	Adjusted R ²
1	DFU	PI	.44	.088	.37	5.00	.000 ^(***)	.13
2	DFU	A _{ad}	.28	.084	.25	3.29	.001 ^(**)	.06
3	A _{ad}	PI	.49	.061	.54	7.99	.000 ^(***)	.28
4	DFU	PI	.30	.080	.25	3.74	.000 ^(***)	.34
	A _{ad}		.52	.073	.47	7.09	.000 ^(***)	

Sobel Test: Test Statistic = 3.29; p = .000^(***)
^{*}p < 0.05, ^{**}p < 0.01, ^{***}p < 0.001
 DV = Dependant variable, IV = Independent variable, Unstd. β = Unstandardized Beta, S.E. = Standardized error, Std. β = Standardized Beta, DFU = Desire for uniqueness, A_{ad} = Attitude toward the advertisement, PI = Purchase intention

Baron and Kenny's (1986) four step method for mediation analysis was performed. As shown in Table 6-38, the regression analysis from step 1 to step 3 shows a significant relationship, this suggests mediation is present. Multiple regression analysis for step 4 suggests the relationship between DFU and PI is partially mediated by A_{ad}. Following this, a Sobel test was conducted to confirm this relationship. Results from the Sobel test confirmed that the relationship between DFU and PI was partially mediated by A_{ad}. Therefore, H₇ is accepted.

Mediation H₈: T-FOMO → A_{ad} → PI

Baron and Kenny's (1986) four step method for mediation analysis was performed. Results from the regression analysis revealed that step 2: (T-FOMO → A_{ad}) was non-significant (β = .12, p = .15). Although results from the regression analysis for step 1: (T-FOMO → PI), (β = .48, p = .00) and step 3: (A_{ad} → PI), (β = .54, p = .00) were significant, there was insufficient evidence to suggest that A_{ad} acted as mediator for relationship between T-FOMO and PI. Therefore, H₈ is rejected.

The key results for the mediation analysis are discussed in the following

Table 6-39.

Table 6-39: Study Five – Summary and Discussion of Key Results for H₇ – H₈

Hypotheses	Results	Discussion
	<p>Results for H₇: The relationship between desire for uniqueness and purchase intention is partially mediated by attitude toward the advertisement</p>	<p>H₇ proposes that <i>attitude toward the advertisement will mediate the relationship between desire for uniqueness and purchase intention</i></p> <p>The result indicates that attitude toward the advertisement could directly and indirectly evoke purchase intentions. Hence, creating a likeable advertisement is important in this situation for individuals who desire uniqueness. This finding is consistent with earlier studies which examined the mediating effects of attitudes on traits and behaviour (Kolar and Zabkar 2014; Lucidi et al. 2014; Ulleberg and Rundmo 2003).</p>

6.9.7 Moderation Analysis for H₉ – H₁₄

In order to test for moderating role of inferences of manipulative intent and consumer susceptibility to interpersonal influence, an exploratory factor analysis (EFA) was first conducted on the two constructs to examine the psychometric soundness as well as the dimensionality of the constructs. Items with standardised factor loadings (> 0.5) and cross loadings were removed in an iterative fashion (Nunnally 1978).

Table 6-40: Study Five – EFA Results for Moderators

Construct	No. of items	Factor Loadings	α	Eigen Value	Variance explained (%)	KMO
IMI	.84-.88	.82	2.22	73.83	.84-.88	.71
CSII (Normative)	.59-.92	.95	6.94	63.12	.59-.92	.92
CSII (Informational)	.81-.90	.87	1.53	13.93	.81-.90	

Extraction Method: Principle Component Analysis, Rotation Method: Varimax rotation
 α = Cronbach Alpha, KMO = Kaiser-Meyer-Olkin, IMI = Inferences of Manipulative Intent, CSII = Consumer Susceptibility to Interpersonal Influence

Results of the EFA showed that the IMI construct and the original 6-item scale was reduced to 3 items due to cross-loadings. In addition, the CSII construct and the original 12-item scale was reduced to 11 items due to cross-loadings. Moreover, the process led to the extraction of two corresponding factors namely ‘normative’ and ‘informational’ influences which was consistent with Bearden, Netemeyer, and Teel (1989). Both factors also achieved a reliability of ($\alpha > 0.7$) (Nunnally 1978) respectively. In order to test for moderating role of inferences of manipulative intent and consumer susceptibility to interpersonal influence, an exploratory

factor analysis (EFA) was first conducted on the two constructs to examine the psychometric soundness as well as the dimensionality of the constructs. Items with standardised factor loadings (> 0.5) and cross loadings were removed in an iterative fashion (Nunnally 1978).

Table 6-40.

Hierarchical moderated regression was used to test the moderating role of inferences of manipulative intent and consumer susceptibility to interpersonal influence on the various relationships outlined in chapter three (theoretical framework and hypotheses development). This method is employed to detect if the addition of the moderator-independent variable interaction term to the relationship between the independent and the dependant variable will result in a significant R^2 change. The full result of the analysis is depicted in Appendix H: Study Five.

Results of the moderation analysis indicated that neither inferences of manipulative intent nor consumer susceptibility to interpersonal influence was a significant moderator for any of the proposed relationships.

6.9.8 Summary of Overall Findings

Table 6-41 summarizes the overall findings for Study Five.

Table 6-41: Study Five – Summary of Results

Hypotheses		Conclusion
H₁	Desire for uniqueness and T-FOMO are distinct but positively correlated constructs	Accept
H₂	A higher desire for uniqueness will lead to more favourable attitude toward the advertisement	Accept
H₃	A higher T-FOMO will lead to a more favourable attitude toward the advertisement	Reject
H₄	A higher desire for uniqueness will lead to a higher purchase intention	Reject
H₅	A higher T-FOMO will lead to a higher purchase intention	Accept
H₆	A more favourable attitude toward the advertisement will lead to a higher purchase intention	Accept
H₇	Attitude toward the advertisement will mediate the relationship between desire for uniqueness and purchase intention	Accept
H₈	Attitude toward the advertisement will mediate the relationship between T-FOMO and purchase intention	Reject
H₉	Inferences of manipulative intent will dilute the relationship between desire for uniqueness and attitude toward the advertisement	Reject
H₁₀	Inferences of manipulative intent will dilute the relationship between T-FOMO and attitude toward the advertisement	Reject
H₁₁	(a) Normative influences will enhance the relationship between desire for uniqueness and attitude toward the advertisement; (b) Informational influences will enhance the relationship between desire for uniqueness and attitude toward the advertisement	Reject
H₁₂	Normative influences will enhance the relationship between T-FOMO and attitude toward the advertisement; (b) Informational influences will enhance the relationship between T-FOMO and attitude toward the advertisement	Reject
H₁₃	a) Normative influences will enhance the relationship between desire for uniqueness and purchase intention; (b) Informational influences will enhance the relationship between desire for uniqueness and purchase intention.	Reject
H₁₄	(a) Normative influences will enhance the relationship between T-FOMO and purchase intention. (b) Informational influences will enhance the relationship between T-FOMO and purchase intention	Reject

6.10 STUDY SIX – CONTROL GROUP (PRIVATE)

6.10.1 Measurement Properties of the Constructs

Similar to the processes described in the preceding study, to test for the psychometric soundness of the four constructs namely 1) Desire for Uniqueness, 2) Tendency towards the Fear of Missing Out, 3) Attitude toward the advertisement and 4) Purchase Intention used for this research, four single-construct measurement models were estimated. A series of confirmatory factor analysis (CFA) were conducted and respecified, if theoretically sound, for each of the four single-construct measurement models before a full measurement model was tested. The goodness-of-fit indices were examined for each of the four constructs to determine if re-specification was necessary. If an adequate fit was not achieved, the modification indices were consulted to identify any problematic items. An overview of the measurement properties of the 4 constructs are shown in Table 6-42.

Table 6-42: Study Six – Overview of Measurement Properties of Latent Variables

Construct/Items	Estimate	χ^2	df	P-value	RMSEA	SRMR	GFI	AGFI	CFI	TLI
Desire for uniqueness		1.01	1	.32	.01	.01	.99	.97	1.00	1.00
dfu1: I prefer being different from other people	Removed									
dfu2: Being distinctive is important to me	.75									
dfu3: I intentionally do things to make myself different from those around me	.84									
dfu4: I have a strong desire for uniqueness	.86									
Tendency towards the fear of missing out		8.53	5	.13	.06	.02	.98	.93	.99	.99
tfomo1: I become anxious during a sale and tend to buy more than I actually need	.75									
tfomo2: I have the constant urge to check for the latest product deals on the internet for fear of missing out	.83									
tfomo3: I have the habit of accepting appointments even though my schedule is full for fear of missing out	.79									
tfomo4: I tend to panic buy during a sale for fear of missing out	.86									
tfomo5: I have the urge to buy during a sale even though there is nothing that I really want	.84									
Attitude toward the advertisement		3.79	2	.15	.07	.01	.99	.94	.99	.99
aad1: Bad/good	Removed									
aad2: Unfavourable/favourable	.80									
aad3: Uncreative/creative	.93									
aad4: Unattractive/attractive	.91									
aad5: Unlikeable/likeable	Removed									
aad6: Boring/interesting	.92									
Purchase intention		1.61	1	.21	.06	.01	.99	.96	.99	.99
pi1: I would intend to buy the (product shown in the advertisement)	.95									
pi2: I would consider buying the (product shown in the advertisement)	Removed									
pi3: I would expect to buy the (product shown in the advertisement)	.96									
pi4: I would plan to buy the (product shown in the advertisement)	.94									

χ^2 = Chi-square, df = Degrees of freedom, RMSEA = Root mean square error of approximation, SRMR = Standardised root mean square residual, GFI = Goodness of fit index, AGFI = Adjusted goodness of fit index, CFI = Comparative fit index, TLI = Tucker-lewis index

6.10.2 Convergent and Discriminant Validity of the Constructs

Table 6-43: Study Six – Convergent and Discriminant Validity of Constructs

Construct	CR	AVE Score	Squared Correlations			
			DFU	T-FOMO	A _{ad}	PI
DFU	.86	.67	.82			
T-FOMO	.94	.80	.30	.89		
A _{ad}	.96	.90	.37	.46	.95	
PI	.91	.66	.24	.22	.55	.81

CR = Composite reliability, AVE = Average variance extracted, DFU = Desire for uniqueness, T-FOMO = Tendency towards the fear of missing out, A_{ad} = Attitude toward the advertisement, PI = Purchase intention

Before the measurement model was estimated, the constructs were examined for their convergent and discriminant validity.

Convergent validity is established as evidenced by the average variance extracted of each construct is ($AVE > .50$). Moreover, each construct showed strong internal consistency as seen by the composite reliability ($CR > .70$). Finally, each construct's explained variance estimate on the diagonal is greater than the corresponding inter-factor squared correlation estimates below the diagonal. This suggests that discriminant validity is achieved and that each variable was distinct from the other (Hair et al. 2010). The results are depicted in Table 6-43.

6.10.3 Estimating the Measurement Model

The measurement model should be assessed before the structural model is estimated (Gerbing and Anderson 1988). The measurement model was estimated by allowing all of the structural constructs to correlate with all of the other constructs. The CFA indicated that the model was a poor fit ($\chi^2 = 104.81$, $df = 84$, $p\text{-value} = .06$, $RMSEA = .04$, $SRMR = .04$, $GFI = .92$, $AGFI = .88$, $CFI = .99$, $TLI = .99$). Hence, the modification indices were consulted for possible solutions (Cortina, Chen, and Dunlap 2001; Garver and Mentzer 1999; Schumacker and Lomax 2004). One item namely 'Boring/Interesting' was removed in an iterative fashion due to cross-loadings. After which, the modified measurement model had an acceptable fit ($\chi^2 = 78.93$, $df = 71$, $p\text{-value} = .24$, $RMSEA = .03$, $SRMR = .04$, $GFI = .93$, $AGFI = .90$, $CFI = .99$, $TLI = .99$). Consequently, the revised model was retained for subsequent analysis.

6.10.4 The Structural Model

After the measurement model was shown to have a good fit, the hypothesized pathways were evaluated using SEM analyses. In order to provide support for the study's theoretical model, path analysis was conducted to examine the relationships between the constructs (Kline 2005).

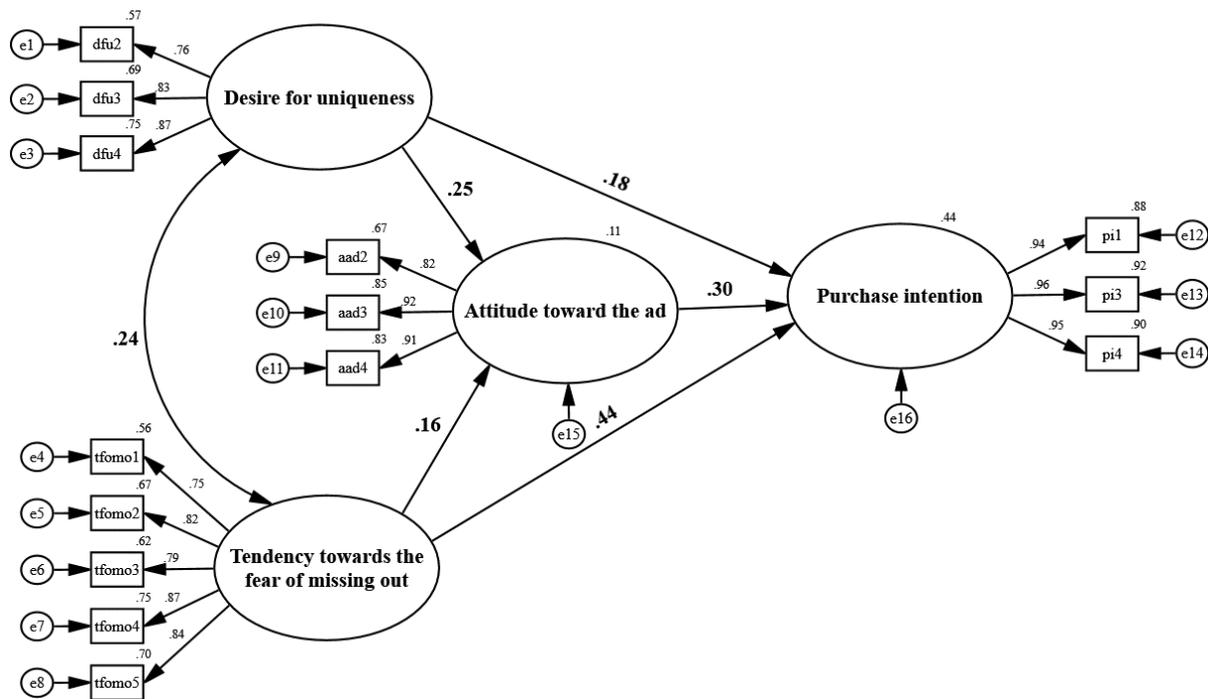


Figure 6-11: Study Six – Structural Model

The structural model's fit was assessed by examining a number of goodness-of-fit indices to see whether the model is an appropriate one of the obtain data. In this case, the goodness-of-fit indices suggested the model was a reasonably good fit ($\chi^2 = 78.93$, $df = 71$, $p\text{-value} = .24$, $RMSEA = .03$, $SRMR = .04$, $GFI = .93$, $AGFI = .90$, $CFI = .99$, $TLI = .99$) and that the relationships in the estimated model should be examined. The structural model with standardised parameter estimates is presented in Figure 6-11.

Following the fit assessment of the structural model, the correlation (for H₁) and the standardised regression coefficients of the relevant paths of the structural model were examined and the results are discussed in the following section.

6.10.5 Path Analysis Results for H₁ – H₆

Table 6-44: Study Six – Structural Model’s Standardized Path Coefficients

	Relationships	β	Conclusion
H ₁	DFU ↔ T-FOMO	.24 ^(*)	Accept
H ₂	DFU → A _{ad}	.25 ^(**)	Accept
H ₃	T-FOMO → A _{ad}	.16	Reject
H ₄	DFU → PI	.18 ^(*)	Accept
H ₅	T-FOMO → PI	.43 ^(***)	Accept
H ₆	A _{ad} → PI	.30 ^(***)	Accept

*p < 0.05, **p < 0.01, ***p < 0.001

β = Standardised beta, DFU = Desire for uniqueness, T-FOMO = Tendency towards the fear of missing out, A_{ad} = Attitude toward the advertisement, PI = Purchase intention

Table 6-44 shows paths coefficients for H₁ – H₆ based on the model. The results confirm a number of the proposed relationships discussed in chapter three (theoretical framework and hypotheses development). The key results are discussed in the following Table 6-45.

Table 6-45: Study Six – Summary and Discussion of Key Results for H₁ – H₆

Hypotheses	Results	Discussion
H₁	There is a positive and significant correlation between desire for uniqueness and T-FOMO, thus H ₁ is accepted.	H ₁ proposes that <i>desire for uniqueness and T-FOMO are distinct but positively correlated constructs</i> . The analyses from the structural model showed a significant correlation of .24 (p < .05) between desire for uniqueness and the fear of missing out. Discriminant validity reported in Table 6-35 also suggested the two constructs to be distinct and independent. This finding provides theoretical confirmation in relation to the drive-reduction theory (Hull 1943) and the social comparison theory (Festinger 1957).

Results for H₂: A positive and significant relationship was found between desire for uniqueness and attitude toward the advertisement, hence H₂ was accepted.

H₂ proposes that *a higher desire for uniqueness will lead to a more favourable attitude toward the advertisement*

Results for H₄: A positive and significant relationship was found between desire for uniqueness and purchase intention, hence H₄ was accepted.

H₄ proposes that *a higher desire for uniqueness will lead to a higher purchase intention*

Results indicate that the scarcity message was able to generate favourable attitudes towards the advertisement as well as positive purchase intentions for individuals who desire uniqueness. This result provides theoretical support for the social cognition theory (K Witte and Morrison 2000). The result is also consistent with earlier studies (e.g. Roy and Sharma 2015) which found that consumer traits such as need for uniqueness were found to positively influence consumer attitudes and purchase intentions. Moreover, studies have shown that individuals who desired uniqueness preferred scarce products as owning such products helped to differentiate themselves from others (Roy and Sharma 2015; Tian, Bearden, and Hunter 2001; Wu et al. 2012).

Results for H₅: A positive and significant relationship was found between T-FOMO and purchase intention, hence H₅ was accepted.

H₅ proposes that *a higher T-FOMO will lead to a higher purchase intention*

Results indicate that the scarcity message was able to generate positive purchase intentions towards the advertised product for FOMO consumers. This finding provides theoretical support in relation to the social cognition theory (K Witte and Morrison 2000), protection motivation theory (Rogers 1975), drive-reduction theory (Hull 1943) and theory of regret intensity (Beike, Markman, and Karadogan 2009). Furthermore, as previously discussed in chapter two and three, scarcity has the effect of enhancing the attractiveness of the opportunity, which in turn impacts on their attitudes and behaviour.

Results for H₆: A positive and significant relationship was found between attitude toward the advertisement and purchase intention, hence H₆ was accepted.

H₆ proposes that *a more favourable attitude toward the advertisement will lead to a higher purchase intention*

Results indicated that individuals who favoured the advertisement also had positive intentions towards the advertised product. This finding is consistent with earlier studies (e.g. Ajzen 1991; Cotte and Ritchie 2005; Mackenzie and Lutz 1989; Spears and Singh 2004) which have reported the significant and positive relationship between attitude toward the advertisement and purchase intention.

6.10.6 Mediation Analysis H₇ – H₈

Mediation H₇: DFU → A_{ad} → PI

Table 6-46: Study Six – Results for Mediation Analysis H₇

Steps	IV	DV	Unstd. β	S.E.	Std. β	t-Value	Sig.	Adjusted R ²
1	DFU	PI	.39	.088	.34	4.45	.000 ^(***)	.11
2	DFU	A _{ad}	.28	.084	.26	3.31	.001 ^(**)	.06
3	A _{ad}	PI	.46	.079	.43	5.87	.000 ^(***)	.18
4	DFU	PI	.28	.085	.25	3.33	.001 ^(**)	.23
	A _{ad}		.39	.079	.37	4.99	.000 ^(***)	

Sobel Test: Test Statistic = 2.76; p = .005^(**)
 *p < 0.05, **p < 0.01, ***p < 0.001
 DV = Dependant variable, IV = Independent variable, Unstd. β = Unstandardized Beta, S.E. = Standardized error, Std. β = Standardized Beta, DFU = Desire for uniqueness, A_{ad} = Attitude toward the advertisement, PI = Purchase intention

Baron and Kenny's (1986) four step method for mediation analysis was performed. As shown in Table 6-46, the regression analysis from step 1 to step 3 shows a significant relationship, this suggests mediation is present. Multiple regression analysis for step 4 suggests the relationship between DFU and PI is partially mediated by A_{ad}. Following this, a Sobel test was conducted to confirm this relationship. Results from the Sobel test confirmed that the relationship between DFU and PI was partially mediated by A_{ad}. Therefore, H₇ is accepted.

Mediation H₈: T-FOMO → A_{ad} → PI

Table 6-47: Study Six – Results for Mediation Analysis H₈

Steps	IV	DV	Unstd. β	S.E.	Std. β	t-Value	Sig.	Adjusted R ²
1	T-FOMO	PI	.65	.090	.51	7.20	.000 ^(***)	.25
2	T-FOMO	A _{ad}	.23	.096	.20	2.44	.016 ^(*)	.03
3	A _{ad}	PI	.46	.079	.43	5.87	.000 ^(***)	.18
4	T-FOMO	PI	.56	.085	.44	6.62	.000 ^(***)	.36
	A _{ad}		.37	.071	.35	5.23	.000 ^(***)	

Sobel Test: Test Statistic = 2.76; p = .005^(**)
 *p < 0.05, **p < 0.01, ***p < 0.001
 DV = Dependant variable, IV = Independent variable, Unstd. β = Unstandardized Beta, S.E. = Standardized error, Std. β = Standardized Beta, T-FOMO = Tendency towards the fear of missing out, A_{ad} = Attitude toward the advertisement, PI = Purchase intention

Baron and Kenny's (1986) four step method for mediation analysis was performed. As shown in Table 6-47, the regression analysis from step 1 to step 3 shows a significant relationship, this suggests mediation is present. Multiple regression analysis for step 4 suggests the relationship between T-FOMO and PI is partially mediated by A_{ad}. Following this, a Sobel test was conducted to confirm this relationship. Results from the Sobel test confirmed that the relationship between T-FOMO and PI was partially mediated by A_{ad}. Therefore, H₈ is accepted.

The key results for the mediation analysis are discussed below in Table 6-48.

Table 6-48: Study Six – Summary and Discussion of Key Results for H₇ – H₈

Hypotheses	Results	Discussion
Results for H₇: The relationship between desire for uniqueness and purchase intention is partially mediated by attitude toward the advertisement	H₇ proposes that <i>attitude toward the advertisement will mediate the relationship between desire for uniqueness and purchase intention</i>	
Results for H₈: The relationship between T-FOMO and purchase intention is partially mediated by attitude toward the advertisement	H₈ proposes that <i>attitude toward the advertisement will mediate the relationship between T-FOMO and purchase intention.</i>	The result indicates that attitude toward the advertisement could directly and indirectly evoke purchase intentions. Hence, creating a likeable advertisement is important in this situation for both FOMO consumers and individuals who desire uniqueness. This finding is consistent with earlier studies which examined the mediating effects of attitudes on traits and behaviour (Kolar and Zabkar 2014; Lucidi et al. 2014; Ulleberg and Rundmo 2003).

6.10.7 Moderation Analysis for H₉ – H₁₄

In order to test for moderating role of inferences of manipulative intent and consumer susceptibility to interpersonal influence, an exploratory factor analysis (EFA) was first conducted on the two constructs to examine the psychometric soundness as well as the dimensionality of the constructs. Items with standardised factor loadings (> 0.5) and cross loadings were removed in an iterative fashion (Nunnally 1978).

Table 6-49: Study Six – EFA Results for Moderators

Construct	No. of items	Factor Loadings	α	Eigen Value	Variance explained (%)	KMO
IMI	.84-.88	.82	2.22	73.83	.84-.88	.71
CSII (Normative)	.59-.92	.95	6.94	63.12	.59-.92	.92
CSII (Informational)	.81-.90	.87	1.53	13.93	.81-.90	

Extraction Method: Principle Component Analysis, Rotation Method: Varimax rotation
 α = Cronbach Alpha, KMO = Kaiser-Meyer-Olkin, IMI = Inferences of Manipulative Intent, CSII = Consumer Susceptibility to Interpersonal Influence

Results of the EFA showed that the IMI construct and the original 6-item scale was reduced to 3 items due to cross-loadings. In addition, the CSII construct and the original 12-item scale was reduced to 11 items due to cross-loadings. This process led to the extraction of two corresponding factors namely ‘normative’ and ‘informational’ influences as cited by Bearden, Netemeyer, and Teel (1989). The factors also achieved a reliability of ($\alpha > 0.7$) (Nunnally 1978) respectively. In order to test for moderating role of inferences of manipulative intent and consumer susceptibility to interpersonal influence, an exploratory factor analysis (EFA) was first conducted on the two constructs to examine the psychometric soundness as well as the dimensionality of the constructs. Items with standardised factor loadings (> 0.5) and cross loadings were removed in an iterative fashion (Nunnally 1978).

Table 6-49.

Hierarchical moderated regression was used to test the moderating role of inferences of manipulative intent and consumer susceptibility to interpersonal influence on the various relationships outlined in chapter three (theoretical framework and hypotheses development). This method is employed to detect if the addition of the moderator-independent variable interaction term to the relationship between the independent and the dependant variable will result in a significant R^2 change. The full result of the analysis is depicted in Appendix H: Study Six. The key results are discussed in

Table 6-50.

Table 6-50: Study Six - Summary and Discussion of Key Results for H₉ – H₁₄

Hypotheses results	Discussion
<p>Results for H₁₂: Normative influence was found to enhance the relationship between T-FOMO and attitude toward the advertisement. However, results showed that informational influence did not moderate the relationship between T-FOMO and attitude toward the advertisement. Hence H₁₂ was partially accepted.</p>	<p>H₁₂ proposes that (a) <i>Normative influences will enhance the relationship between T-FOMO and attitude toward the advertisement</i>; (b) <i>Informational influences will enhance the relationship between T-FOMO and attitude toward the advertisement</i></p> <p>The result indicated that FOMO consumers rely on social influences in their formation of attitudes and purchase intentions towards scarce products. This finding is supported by Przybylski et al. (2013) which found that individuals with low basic psychological need relatedness (connectedness to others) are likely demonstrate higher FOMO tendencies.</p>
<p>Results for H₁₃: Informational influence was found to enhance the relationship between desire for uniqueness and purchase intention. However, results showed that normative influence did not moderate the relationship between desire for uniqueness and purchase intention. Hence H₁₁ was partially accepted.</p>	<p>H₁₃ proposes that (a) <i>Normative influences will enhance the relationship between desire for uniqueness and purchase intention</i>; (b) <i>Informational influences will enhance the relationship between desire for uniqueness and purchase intention</i></p> <p>The results indicated that individuals who desire uniqueness rely on social influences in their formation of attitudes and purchase intention towards scarce products. This finding is supported by earlier studies (e.g. Lynn and Harris 1997; Snyder and Fromkin 1980) which suggest that though these individuals desire uniqueness, expression of this uniqueness is done in socially acceptable ways to prevent social disapproval.</p>

6.10.8 Summary of Overall Findings

Table 6-51 summarizes the overall findings for Study Six.

Table 6-51: Study Six – Summary of Results

Hypotheses		Conclusion
H₁	Desire for uniqueness and T-FOMO are distinct but positively correlated constructs	Accept
H₂	A higher desire for uniqueness will lead to more favourable attitude toward the advertisement	Accept
H₃	A higher T-FOMO will lead to a more favourable attitude toward the advertisement	Reject
H₄	A higher desire for uniqueness will lead to a higher purchase intention	Accept
H₅	A higher T-FOMO will lead to a higher purchase intention	Accept
H₆	A more favourable attitude toward the advertisement will lead to a higher purchase intention	Accept
H₇	Attitude toward the advertisement will mediate the relationship between desire for uniqueness and purchase intention	Accept
H₈	Attitude toward the advertisement will mediate the relationship between T-FOMO and purchase intention	Accept
H₉	Inferences of manipulative intent will dilute the relationship between desire for uniqueness and attitude toward the advertisement	Reject
H₁₀	Inferences of manipulative intent will dilute the relationship between T-FOMO and attitude toward the advertisement	Reject
H₁₁	(a) Normative influences will enhance the relationship between desire for uniqueness and attitude toward the advertisement; (b) Informational influences will enhance the relationship between desire for uniqueness and attitude toward the advertisement	Reject
H₁₂	Normative influences will enhance the relationship between T-FOMO and attitude toward the advertisement; (b) Informational influences will enhance the relationship between T-FOMO and attitude toward the advertisement	Partially Supported
H₁₃	a) Normative influences will enhance the relationship between desire for uniqueness and purchase intention; (b) Informational influences will enhance the relationship between desire for uniqueness and purchase intention.	Partially Supported
H₁₄	(a) Normative influences will enhance the relationship between T-FOMO and purchase intention. (b) Informational influences will enhance the relationship between T-FOMO and purchase intention	Reject

6.11 CHAPTER SUMMARY

Across the six studies, the results confirmed a number of the hypothesised relationships described in chapter three (theoretical framework and hypotheses development). In particular, the results confirmed that desire for uniqueness and T-FOMO are distinct and positively correlated products. Results across the six studies showed that desire for uniqueness and T-FOMO both differed in relation to how they influenced attitudes and behaviour. This finding suggests two distinct constructs that are empirically shown to be unique from one another. However, results from the SEM for each of the six studies reveals that across the six studies, desire for uniqueness and T-FOMO are positively correlated. The finding provides theoretical confirmation for the social comparison theory by Festinger (1957) and the drive-reduction theory by Hull (1943), which postulate that the two constructs are influenced by the innate need to compare oneself to that of others and the need to reduce the negative tensions that are evoked when the two traits are manifested or triggered through scarcity cues respectively.

Another result which is consistent across the six studies is the positive effect attitude toward the advertisement had on purchase intention. This finding shows consistency between existing studies, (e.g. Ajzen 1991; Cotte and Ritchie 2005; Mackenzie and Lutz 1989; Spears and Singh 2004) which observed the positive relationship between attitude toward the advertisement and purchase intention. In addition to this, the six studies demonstrate that T-FOMO has a direct and positive relationship with purchase intention. This is an interesting finding as it reveals that FOMO consumers are particularly prone to limited edition products with or without the presence of scarcity cues.

The findings in the previous discussion offer an overview of the results that are consistent across the six studies. The following chapter will address the remainder of the findings in detail. More specifically, the chapter will firstly compare the results pertaining to each type of scarcity condition. This is then followed by a comparison of the results pertaining to each product type. Subsequently, there will be a discussion on the theoretical, methodological and managerial contributions. The limitations and the future directions of the study are addressed at the end of the chapter.

7 CONCLUSION

7.1 OVERVIEW

This chapter will first review the research questions and objectives of the study and provide a brief overview of how these have been achieved. Next, it will provide a summary of the key results from chapter six (results and analysis). These will be discussed based on how each trait, desire for uniqueness and T-FOMO impact on the type of scarcity message and product category used. Following this, the chapter will highlight the key contributions of this study in terms of its theoretical, conceptual, methodological and managerial implications and significance. Finally, the limitations as well as the potential future research directions of this study will be discussed.

7.2 RESPONSE TO RESEARCH QUESTIONS AND OBJECTIVES

The study has two research questions with a number of accompanying objectives. The following provides a brief overview and summary of how these various objectives have been achieved.

Research Question One: How does FOMO impact on consumer's attitudes and purchase intentions?

Objective 1: To develop the Tendency towards the Fear of Missing Out (T-FOMO) scale (Gap 1)

Objective 2: To develop a theoretically driven framework to measure FOMO in a marketing context (Gap 2)

In response to objectives 1 and 2, this study has successfully developed and validated the tendency towards the fear of missing out (T-FOMO) scale presented in chapter five (scale development). The outcome of the scale development process was a uni-dimensional scale consisting 5-items measuring the T-FOMO trait. The scale was further validated in the main study of this thesis discussed in chapter six (analysis and discussion). In addition to this, through the use of the T-FOMO scale, FOMO was successfully adopted within a marketing context. More specifically, the results indicated that FOMO had a positive and significant influence on consumer's purchase intentions and attitudes.

Research Question Two: What other variables (including FOMO) impact on the effectiveness of different types of scarcity messages?

Objective 3: To validate T-FOMO and desire for uniqueness as correlated by separate and distinct constructs

Objective 4: To examine how traits such as T-FOMO and desire for uniqueness influence the effectiveness of scarcity messages

Objective 5: To examine the effectiveness of different types of scarcity messages on limited edition products across different product categories within a luxury branding context

Objective 6: To examine the mediating role of attitudes on the relationship between traits and behaviour

Objective 7: To examine the moderating effects of inferences of manipulative intent and consumer susceptibility to interpersonal influence on the relationship between traits (T-FOMO and Desire for Uniqueness) on attitudes and purchase intentions

In response to objective 3, the results confirmed that the desire for uniqueness and T-FOMO were positively correlated constructs as outlined in the SEM analyses across the six studies discussed in chapter six. However, these were distinct constructs as evidenced by the how they differ in terms of their influence on attitudes and purchase intentions, as outlined below in the response to objective 4.

In response to objective 4, this study explored the direct and indirect effects that the desire for uniqueness and T-FOMO had on consumer's attitudes and intentions towards scarce products. The findings have indicated that FOMO consumers were more susceptible to the effects of scarcity messages as compared to consumers who desire uniqueness. These results were discussed in detail in chapter six (analysis and discussion), of which the implications will be discussed in the following sections of this chapter.

In response to objective 5, the study observed differences between using a limited quantity scarcity message versus a limited time scarcity message across two different product categories, namely public and private products. These differences are also elaborated further in the following sections of this chapter.

Finally, in response to objectives 6 and 7, the study had successfully tested for the mediating effects of attitude toward the advertisement and the moderating role of inferences of manipulative intent. One of the major outcomes of the study was understanding the dominant effects of emotions which influenced FOMO consumers. This was supported by the findings which showed that inferences of manipulative intent did not play any role in diluting the effects of T-FOMO on purchase intentions. This was in contradiction to studies which showed that scarcity messages would evoke some manipulative intent in consumers (Aggarwal, Jun, and Huh 2011).

7.3 INFLUENCE OF SCARCITY MESSAGES ON INDIVIDUALS WITH DESIRE FOR UNIQUENESS TRAIT

Table 7-1: Overall Results for Individuals Who Desire Uniqueness

Hypotheses	LQS (Public)	LTS (Public)	Control (Public)	LQS (Private)	LTS (Private)	Control (Private)
H₂ : A higher desire for uniqueness will lead to more favourable attitude toward the advertisement	Reject	Reject	Accept	Reject	Accept	Accept
H₄ : A higher desire for uniqueness will lead to a higher purchase intention	Accept	Reject	Reject	Reject	Reject	Accept
H₇ : Attitude toward the advertisement will mediate the relationship between desire for uniqueness and purchase intention	Reject	Reject	Reject	Reject	Accept	Accept
H₉ : Inferences of manipulative intent will dilute the relationship between desire for uniqueness and attitude toward the advertisement	Reject	Accept	Reject	Reject	Reject	Reject
H₁₁ : (a) Normative influences will enhance the relationship between desire for uniqueness and attitude toward the advertisement; (b) Informational influences will enhance the relationship between desire for uniqueness and attitude toward the advertisement	Partially Supported (Normative)	Reject	Reject	Reject	Reject	Reject
H₁₃ : (a) Normative influences will enhance the relationship between desire for uniqueness and purchase intention; (b) Informational influences will enhance the relationship between desire for uniqueness and purchase intention	Accept	Partially Supported (Informational)	Reject	Reject	Reject	Partially Supported (Informational)

LQS = Limited time scarcity, LTS = Limited quantity scarcity

7.3.1 Public Goods

7.3.1.1 *Effectiveness of Explicitly Expressed LQS Messages*

For public products, the results reveals that only the advertisement that used the LQS message is effective in generating positive purchase intentions towards the advertised LE product for individuals who desire uniqueness (H₄). This finding suggests that using an explicitly expressed LQS message is effective in influencing purchase decisions as compared to relying on the implicit scarcity of just promoting the product as ‘limited edition’.

Moreover, though the advertisement that used the LQS message was found to significantly influence purchase intentions, it was ineffective in generating favourable attitudes towards the advertisement (H₂). This contradicts earlier studies, which found that positive attitudes were pre-requisites to positive purchase intentions (e.g. Ajzen 1991; Cotte and Ritchie 2005; Mackenzie and Lutz 1989; Spears and Singh 2004). This finding suggests that favourable prior attitudes are not necessary in generating positive purchase intentions in this situation. Hence, it is not necessary for advertisers to create likeable ads to influence purchase intentions.

A possible reason for this **result is that individuals who desire uniqueness will respond by default, or are conditioned to have positive intentions towards the scarce products**. As cited by Jang et al. (2015), this finding is supported by the heuristic decision rule, where scarcity cues act as a mental shortcut for individuals when making purchase decision. Moreover, the presence of scarcity hampers an individual to think rationally. Hence, in this situation, an individual’s behaviour is influenced by feelings rather than what logic.

In the same vein, this preceding result shares similarities conceptually to that of unplanned purchases. Unplanned purchases occur when exposure to a particular stimulus elicits a reactive buying behaviour (Engel, Kollat, and Blackwell 1968). For example, a consumer’s decision to buy a particular product is only prompted when they encounter a ‘store only’ deal (Bayley and Nancarrow 1998). Many consumers today are susceptible to these ‘spur of the moment’ purchases, and presence of scarcity messages, in particular explicitly communicated LQS messages, can evoke this kind of reactive buying behaviour.

7.3.1.2 *Inferences of Manipulative Intent for LTS Messages*

Next, for public products, compared with the advertisement that used a LQS message, results reveal that the advertisement that used the LTS to promote the LE product was perceived as manipulative (H₉). One possible reason why consumers saw the LQS message as being

manipulative is because by nature, luxury branded goods are already perceived to be exclusive and limited (Kapferer and Laurent 2016). Hence, it is likely that the consumer generally accepts these types of messages. On the other hand, LTS messages may not be as accepted by the consumer because of how the way they are being employed in the marketplace today.

The LTS messages are aimed at maximizing products sales during the promotional period. These types of messages encourage consumers to purchase as many products within the given time-frame. LTS messages are generally associated with advertising non-conspicuous products. This is because these type of products are low involvement and people do not buy these types of products to signal their uniqueness, status or wealth (Jang et al. 2015).

For LTS messages, regardless of the number of interested buyers of the advertised product, the customer is able to obtain as much of the advertised product as they desire as long as it's done within the designated time period. In this sense, it reduces the perceived exclusiveness of the product (Aggarwal, Jun, and Huh 2011). Hence, using an LTS message to promote a luxury branded product may have the effect of diminishing its perceived value. As mentioned above, this is because LTS messages are better suited to promote non-conspicuous products (Gierl and Huettl 2010; Jang et al. 2015). Therefore, due to the extensive use of limited-time offers as a persuasive tactic (Aggarwal and Vaidyanathan 2003; Aggarwal, Jun, and Huh 2011; Inman, Peter, and Raghurir 1997) for non-conspicuous products, over time consumers are conditioned to viewed products advertised using time scarcity as means to generate sales.

This is theoretically supported by the Persuasion Knowledge Model (PKM) (Friestad and Wright 1994), where consumers develop knowledge regarding such tactics over time as they are repeatedly exposed to these scarcity messages employed by advertisers. Additionally, as cited by Brannon and Brock (2001), offers with time restrictions can cause potential buyers to place extra scrutiny on the particular offer and the advertisement in general.

Hence, in general, **caution must be exercised when employing a LQS message in an advertisement to promote public LE products.**

7.3.1.3 Importance of Social Influences on Purchase Decisions towards LE products

Finally, for public products, the results revealed that social influences significantly enhanced the relationship between desire for uniqueness and purchase intention for both advertisements that used scarcity messages to promote the LE product (H_{11} and H_{13}). This finding suggests that

individuals who desire uniqueness rely on their social cues to make decisions when it comes to purchasing LE products. Although this contradicts the conceptual definition of desire for uniqueness, this is consistent with studies which posit that these individuals strive to achieve a certain level of distinction between self to others in ways that are socially acceptable as they do want to risk alienating themselves (Lynn and Harris 1997; Snyder and Fromkin 1980). Hence, one possible reason for this result is that social influences play a role to the extent to which the purchase of the advertised LE product is acceptable to the people around them.

Additionally, due to the high visibility of public products, social influences will generally play a significant role in consumer's purchase decisions. This is supported by research on the impact of reference group influence on consumer behaviour (Bearden and Etzel 1982; Escalas and Bettman 2003; Wei and Yu 2012). An individual's consumption is influenced people whom they are in regular contact with (e.g. friends, family, co-workers) (Schiffman et al. 2013). In particular, the visibility of the purchase can affect reference group influence on purchase decisions (Bearden and Etzel 1982; Brinberg and Plimpton 1986). As cited by Brinberg and Plimpton (1986), public luxury products were found to be more susceptible to group influence. This suggests that individuals are likely to be reliant on social influences if the product is consumed in a public setting (Bearden and Etzel 1982).

Therefore, in general, when implementing scarcity messages, appealing to individuals who desire uniqueness should be done in ways that focus on a theme which signals social acceptance.

7.3.2 Private goods

7.3.2.1 Effectiveness of Explicitly LTS Messages

For private goods, the results reveal that attitude toward the advertisement partially mediated the relationship between desire for uniqueness and purchase intention for advertisement which used the LTS message (H7). Hence, purchase intention is positively influenced with or without favourable attitudes towards the advertisement. This finding indicates that designing a likeable advertisement is equally as important as using a LTS message to promote the LE product.

In general, these results are contradictory to earlier studies, which have investigated the effects of LTS messages on the consumption of luxury brands. As discussed earlier, these studies found that LTS messages having a dampening effect on the 'exclusiveness' of the advertised product. The value of products advertised using time scarcity was diminished as it was

perceived to be easily obtainable by anyone as long as they purchase it within the designated time frame (Aggarwal, Jun, and Huh 2011; Jang et al. 2015).

As cited by Truong and McColl (2011), a possible reason for this result was that not every consumer who purchased luxury brands practices conspicuous consumption. Rather, these consumers sought more inconspicuous benefits such as quality of luxury branded products (Franck Vigneron and Johnson 1999; Frank Vigneron and Johnson 2004; Truong and McColl 2011), or personal pleasure (Silverstein and Fiske 2003; Truong and McColl 2011). Hence, the prospect of other people acquiring the product was not a factor in their decision-making.

Another reason may be the nature of the product used. For this study, perfumes were used to represent privately consumed luxury good. Perfumes are perishable products and their lifespan is determined by how often the consumer uses the product. Hence, consumers may be motivated to purchase multiple units of the advertised LE perfume because firstly, they have favourable attitudes towards it. Secondly, they are buying the product because of its intrinsic benefits (e.g. quality). Thirdly, they are able to buy as many of the advertised product as long as they do it within a certain time frame. Lastly, they are likely to buy more units of the product because of its perishability and they want to 'stock up' while they can during the designated time frame.

In general, the results indicate that using LTS messages are well suited for the promotion of private LE products, in particular for perfumes.

7.4 INFLUENCE OF SCARCITY MESSAGES ON TENDENCY TOWARDS THE FEAR OF MISSING OUT TRAIT

Table 7-2: Overall Results for the FOMO consumer

Hypotheses	LQS (Public)	LTS (Public)	Control (Public)	LQS (Private)	LTS (Private)	Control (Private)
H ₃ : A higher tendency towards the fear of missing out will lead to a more favourable attitude toward the advertisement	Accept	Accept	Reject	Reject	Reject	Reject
H ₆ : A higher tendency towards the fear of missing out will lead to a higher purchase intention	Accept	Accept	Accept	Accept	Accept	Accept
H ₈ : Attitude toward the advertisement will mediate the relationship between tendency towards the fear of missing out and purchase intention	Accept	Accept	Reject	Reject	Reject	Accept
H ₁₀ : Inferences of manipulative intent will dilute the relationship between the tendency towards the fear of missing out and attitude toward the advertisement	Reject	Reject	Reject	Reject	Reject	Reject
H ₁₂ : (a) Normative influences will enhance the relationship between tendency towards the fear of missing out and attitude toward the advertisement; (b) Informational influences will enhance the relationship between tendency towards the fear of missing out and attitude toward the advertisement	Reject	Reject	Reject	Partially Supported (Normative)	Reject	Partially Supported (Normative)
H ₁₄ : (a) Normative influences will enhance the relationship between tendency towards the fear of missing out and purchase intention. (b) Informational influences will enhance the relationship between tendency towards the fear of missing out and purchase intention	Reject	Reject	Reject	Accept	Reject	Reject

LQS = Limited time scarcity, LTS = Limited quantity scarcity

7.4.1 Public goods

7.4.1.1 Effectiveness of Scarcity Messages for FOMO consumers

For public goods, results indicate that the advertisements using scarcity messages to promote the LE product are found to be effective in generating both favourable attitudes towards the advertisement, as well as positive purchase intentions towards the advertised LE product (H₃ and H₆). More specifically, this finding suggests that the presence of scarcity messages has a positive impact on how FOMO consumers viewed both the advertisement as well as the advertised LE product.

As highlighted in the earlier sections, a possible reason for finding is that **scarcity has the effect of enhancing the attractiveness of the purchase opportunity**. In this sense, it also has the effective of enhancing the perceived value of the advertised LE product. Based on the FOMO behavioural model (See Figure 2-10), the first stage of the model is the ‘awareness of opportunities’. FOMO consumers are defined by their evolutionary opportunistic nature. Hence, as the opportunities become more attractive, it is likely to have the effect of generating more favourable attitudes and purchase intentions.

Additionally, results show that attitude toward the advertisement is partially mediated the relationship between T-FOMO and purchase intention. This result suggests **developing likeable advertisements is equally as important as using scarcity messages to influence purchase intention towards the LE product**.

7.4.1.2 Overriding Effects of Emotions on FOMO consumers

For public products, results demonstrate that inferences of manipulative intent did not dilute the relationship between T-FOMO and attitude toward the advertisement for any of the experimental conditions (H_{10}). This was contradictory to earlier studies which suggested that due to the extensive use of scarcity messages, individuals were generally more cautious when processing such advertisements (Aguirre-Rodriguez 2013; Mukherjee and Lee 2016). This is also supported by the Persuasion Knowledge Model (PKM) (Friestad and Wright 1994) and the reactance theory (Brehm 1989) where individuals acquired knowledge about the advertisers tactics as they were repeatedly exposed to it over time (Friestad and Wright 1994), and as a result build resistance against such tactics (Brehm 1989). Hence, as per the preceding discussion, it is an interesting finding as not even one of the advertisements was perceived to be manipulative by the consumer.

A possible reason for this is that the **presence of scarcity messages has the effect of increasing the intensity of the negative feelings experienced**. To reiterate, the second stage of the FOMO Behavioural Model (See Figure 2-10), is ‘arousal of emotions’. For FOMO consumers, encountering a product advertised as ‘limited edition’ already implies the limited availability of the product. Moreover, when the advertiser explicitly states this limited availability of the advertised LE product through scarcity messages like a LTS or LQS, it is likely to cause FOMO consumers to feel even more anxious about potentially ‘missing out’ on the opportunity if they do not act quickly. This suggests that the presence of scarcity message hampers the ability of such individuals to process the message effectively. Hence, though the

individual may infer that the message is manipulative, this is negated by the emotions experienced.

Additionally, as discussed in chapter two (literature review), this finding can be explained through similar behavioural characteristics to that of impulsive consumers. Empirical research on impulsive buying suggest that when individuals encounter 'point of sale displays' or 'in store only deals,' they succumb to such tactics because of the overwhelming desire to act on impulse (O'Guinn and Faber 1989; Sharma, Gandharva, and Kumar 2015). Engaging in such impulsive purchases are also found to be pleasurable, and have the effect of reducing stress (O'Guinn and Faber 1989; Sharma, Gandharva, and Kumar 2015).

In the same vein, when the FOMO consumer eventually seizes the opportunity to buy the scarce product, it provides a temporary relief for the negative state they are experiencing (until the next opportunity comes along – as these individuals are by nature conditioned to anticipate the next opportunity that comes their way).

Many articles have likened FOMO to an addiction. One article describes how, for a period of time, FOMO drove them to attend social events every night, because of the irrational fear that if that did not attend one of these events, they might miss out on something important (Fitzgerald 2015).

7.4.2 Private goods

7.4.2.1 Effectiveness of the Advertisement

For private goods, the results suggest that the advertisements using scarcity messages to promote the LE product are found to be effective in generating positive purchase intentions towards the advertised LE product for FOMO consumers (H₈). However, results also indicate that both the LTS and LQS message are ineffective in generating favourable attitudes towards the advertisement. Again, this finding is contradictory to earlier studies which found that positive attitudes are pre-requisites to positive purchase intentions (e.g. Ajzen 1991; Cotte and Ritchie 2005; Mackenzie and Lutz 1989; Spears and Singh 2004). One possible reason, as discussed earlier, is that the negative emotions (e.g. anxiety and fear) experienced when an opportunity present itself (limited edition product), is further intensified when the opportunity becomes more attractive (use of an explicitly expressed scarcity message).

This finding suggests that it is **not necessary to spend too much effort into developing a likeable ad, as the use of scarcity cues is enough to elicit positive purchase intentions (from FOMO consumers?)**.

7.4.2.2 Social Influences and Effectiveness of LQS Messages

For private goods, results suggest that social influences significantly enhanced the relationship between desire for uniqueness and purchase intention for FOMO consumers who were exposed to the LQS advertisement promoting the LE product, but not the LTS advertisement (H₁₂ and H₁₄).

A possible reason for this may be the product used. For this study, perfumes were used to represent privately consumed luxury goods. Although perfumes are typically seen to be a private good, their effects are evident in a public setting. Scents can serve as means to define a person's image and can also play a significant role in the introduction of a person (DeLong and Bye 1990). This suggests that social influences will play a significant role in the choice of perfume used. In addition, perfumes are seen as perishable and the resale value, even for one that is a luxury brand, is low, which makes choosing the right perfume even more significant because of the monetary sacrifice involved.

As cited by (Aggarwal, Jun, and Huh 2011), LTS messages differed from LQS messages due to the amount of perceived effort or risk involved with obtaining the product. For products advertised using a LTS message, consumers perceived that the product was obtainable as long as they purchased within the allocated time frame. Though there is a risk of not being able to obtain the product, the sense of urgency is not as apparent. On other hand, products advertised using a LQS message created a sense of uncertainty for the consumer. It evoked a competitive mindset as they were under the impression that if they do not act quickly, someone else would buy the product before them, causing them to miss out (e.g. each time a unit of the advertised product is purchase, there is one less unit available for purchase). Hence, the consumer would need to make the extra effort to buy the product early so as not to miss out.

Thus, because of the nature of the product, coupled with the perceived risk and effort involved, **social influences are likely to play a significant role in FOMO consumers' purchase decision on privately consumed LE products which are advertised using a LQS message.**

7.5 CONTRIBUTIONS AND IMPLICATIONS OF THE STUDY

The results from the study provide a number of theoretical, conceptual, methodological and managerial contributions to enhance the understanding of FOMO within a marketing context. These are discussed in detail in the following sections.

7.6 THEORETICAL AND CONCEPTUAL CONTRIBUTIONS

One of the key contributions of the study was to expand both theoretical and conceptual knowledge pertaining to the fear of missing out (FOMO). **This study conceptualises T-FOMO as general personality trait that varies across different individuals, more specifically in relation to their consumption behaviour.** Through the extensive review of past and current definitions of FOMO, the study has identified three key components of FOMO, namely: ‘awareness of opportunities’, ‘arousal of emotion’ and ‘alleviating the negative tension’. These three components follow a sequential order or process, which demonstrates how FOMO is manifested within an individual. As described in chapter two (literature review), this is known as the FOMO Behavioural Model. The model is representative of an individual’s primordial instincts towards opportunistic behaviour to ensure survival, where ‘survival’ in today’s context is more about improving one’s well-being. Additionally, it is a fundamental part of the conceptualization and the development of a measurement instrument for the FOMO consumer. **The FOMO model extends the conceptual understanding of FOMO, and provides insight into how it functions as a trait. More importantly, it extends the current body of knowledge on consumer traits, which aids in advancing the understanding of consumer behaviour in marketing and consumer psychology.**

Apart from the use of academic literature, **this study draws insights gathered from popular press and industry publications to develop a more holistic interpretation of FOMO.** These insights were key to the development of T-FOMO scale. Paying attention to sources such as popular press is useful in understanding new phenomena and emerging trends (Corley and Gioia 2011). Hence, this approach undertaken during the scale development process, as well as the development of theoretical and conceptual understanding of FOMO, provides a useful framework for future researchers to adopt when developing new scales.

While there are other studies that attempted to conceptualise and operationalize FOMO, these have been done within the social sciences discipline (e.g. Elhai et al. 2016; Hetz, Dawson, and

Cullen 2015; Przybylski et al. 2013). The application of these studies is limited to FOMO and its effects within a social media context. **This study provides the first step to understand how FOMO can be incorporated within a consumer behaviour setting using a product and brand context.** Further, the T-FOMO scale was found to be generalizable across a wide population of consumers, as evidenced by the sample population of general consumers used in chapter four (research methodology).

This study successfully **tested a theoretical-driven framework to measure how FOMO can be operationalized in a marketing context**, more specifically how it applies to luxury brands using scarcity appeals to promote their products. Additionally, this study builds on the existing FOMO scale (Przybylski et al. 2013), by developing the T-FOMO scale which is more relevant and suitable for use in a marketing context. More specifically, the items in the scale encompasses a variety of items which can be generalized to both online and offline consumption experiences.

Traditionally, luxury brands have been defined by their exclusive and inaccessible nature (Dubois and Paternault 1995; Kastanakis and Balabanis 2012). However, this perception of luxury brands has evolved over time. Luxury brands have started to introduce a number of brand and line extensions at cheaper price points known as ‘masstige luxuries’ (Silverstein and Fiske 2003; Kastanakis and Balabanis 2012). This ‘democratization’ of luxury or making luxury brands ‘more accessible to the masses’ has become one of the key strategies of growth of many luxury brands today (Catry 2003; Kapferer and Valette-Florence 2016; Okonkwo 2009; Kastanakis and Balabanis 2012). This study expands current knowledge of this area in relation to how traits, such as desire for uniqueness and T-FOMO, impact on the attitudes and purchase behaviour.

The results from this study identify the distinct but significantly correlated relationship between desire for uniqueness and tendency towards the fear of missing out constructs.

To the best of the author’s knowledge, there are no studies that have yet to explore the relationship between these two constructs. One primary reason is because of the contemporary nature of FOMO. The positive correlation between these constructs were demonstrated by the results of H₁ across the six studies, and supported by various theories (Festinger 1954; Hull 1943). However, they are distinct from each other, as evidenced by their differing effects on attitudes and intentions. Hence, future studies should further examine the relationship between the desire for uniqueness and T-FOMO constructs.

Current scales measuring an individual's need for uniqueness use items which emphasize public and socially risky displays of uniqueness (Tian, Bearden, and Hunter 2001; Snyder and Fromkin 1977). However, as cited by Snyder and Fromkin (1980), people preferred more socially conventional ways of being unique. In response to these issues, Lynn and Harris (1997) developed the Self-Attributed Need for Uniqueness (SANU) scale, which focused on measuring consumer dispositions rather than specific behaviours. However, while the scale offered promising results in understanding the role of uniqueness in consumer behaviour, it was still limited in its generalizability and required further investigation. Hence, the adaptation of the scale under the guise of 'desire for uniqueness', which was incorporated into the study's research model, provided further validation to Lynn and Harris (1997) SANU scale. The 'desire for uniqueness' construct was found to have a significant impact on consumer attitudes and purchase intentions.

7.7 METHODOLOGICAL CONTRIBUTIONS

The T-FOMO scale was developed in response to the lack of a measurement scale for FOMO, which accounted for more than just social influences of FOMO (Przybylski et al. 2013). In addition, there was a lack of scales on FOMO that was relevant to a marketing context. Hence, this study followed a rigorous scale development process, which was based on various studies identified as being integral to the development process (Churchill Jr 1979; DeVellis 1991; DeVellis 2003; Nunnally 1978; Oh 2005; Wells, Leavitt, and McConville 1971). The outcome of the scale development process was a uni-dimensional scale which was formulated based on an extensive review of past and current definitions of FOMO. In the main study, the scales were further validated across two product categories, which provided evidence for its generalizability and robustness. The development of the T-FOMO represents a good foundation for future studies to explore its impact on consumer behaviour. Further, in terms of methodological significance, the research indicates successful procedures for future extensions and adaptations of the scale.

According to Li, Edwards, and Lee (2002), researchers generally use three main methods to generate a set of potential scale items. They are namely literature reviews (Churchill Jr 1979), thesaurus searches (Wells, Leavitt, and McConville 1971), and experience surveys (Chen and Wells 1999; Churchill Jr 1979). In line with the contemporary nature of FOMO, this **study integrates a social media monitoring approach as part of the process to generate the initial items for the scale.** This process involved observing what people on social media were

discussing on FOMO by searching various terms such as ‘FOMO’ and ‘fear of missing out’ on various social media platforms such as Facebook and Twitter and identifying various situations in which FOMO was being evoked or discussed. Furthermore, posts were also made on these platforms to generate discussion about FOMO. This process was integral in the conceptualization of the tendency towards the fear of missing out (T-FOMO) construct as well as the development of the scale items. The use of such an approach in generating the scale items is still relatively underused in current scale development papers in literature. Future researchers should consider using this approach where relevant as firstly, the method is easy to employ and secondly, it serves as a good initial platform for deriving insights for item generation before proceeding to methods recommended by Li, Edwards, and Lee (2002).

7.8 MANAGERIAL IMPLICATIONS

7.8.1 Targeting the ‘Unique’ Individual

7.8.1.1 Communicating Information Based Scarcity

Catry (2003) described the use of scarcity messages as strategies that involved ‘information-based rarity’. Such strategies are heavily reliant on the manipulation of information communicated as compared to the actual physical supply limitations.

During the early years of luxury brands, this concept of scarcity was evident because of natural shortages that occurred due to production limitations. Luxury brands were able to capitalize on these natural shortages if they were able to manage their supplies effectively. For example, *Valmont* communicates the use of rare herbs to manufacture its high-end cosmetics to exploit this form of natural scarcity (“About Valmont” 2016; Catry 2003). However, embracing this form of scarcity can hinder sale ambitions, which is attributed to an emergence of an increased number of middle class consumers pursuing these luxury products (Catry 2003).

Though the use of natural rare components is still an important part of product design, luxury brands are shifting their focus on other aspects of the product that can define their exclusiveness. This includes focusing on attributes such as superior craftsmanship and expertise. More importantly, as cited by Catry (2003), luxury brands today rely on information cues to signal the perceived scarcity and exclusiveness of their brand. Some examples include using exclusive distribution strategies, using minimalistic advertising that relies mainly on word of mouth, and hosting rare exclusive member only events. Many of these strategies rely on implicit cues to communicate its perceived scarcity. However, based on the results, this

study proposes that there needs to be a balance between these implicit and explicit cues. More specifically, the findings have shown that the use of scarcity messages which are explicitly stated in the advertisement can have a significant influence on the attitudes and behaviour of individuals who desire uniqueness.

Hence, for luxury brand managers, rather than just focusing on implicit cues (such as through relying on the implied scarcity of just stating that the product is 'limited edition,' they should also focus on explicit cues through specifically stating either the limited availability of the product through explicitly expressed limited quantity scarcity messages or limited time scarcity messages on the advertisement itself. Specifics on when and how to do so are elaborated in the following sections.

7.8.1.2 Focus on Using Explicit LQS Scarcity Messages for Luxury Public Goods

Based on the results of this study, it is proposed that using scarcity cues **that explicitly communicate scarcity is more effective compared to those that need to be inferred by the consumer**. More specifically, luxury brand managers should consider focusing on the using LQS messages compared to other scarcity messages (e.g. LTS messages) to appeal to individuals who desire uniqueness. Purchasing products advertised with quantity restrictions makes the consumer feel 'special' when they possess such products (Aggarwal, Jun, and Huh 2011). This, in turn, has the effect of enhancing the perceived value of the advertised product (Bolton and Reed II 2004).

On the other hand, they should avoid using LTS messages, or take extra precautions when using time restrictions to promote to individuals who desire uniqueness. This is because results suggest that these individuals perceive this type of time based scarcity messages as being manipulative. For example, a large number of companies such as *Groupon* and *Scoopon* have used LTS messages, but the products return to sale shortly after using the same scarcity message. Therefore, this form of scarcity message can reduce credibility when overused. Additionally, the results also suggest that the likeability of the advertisement does not influence purchase intentions. For luxury brand managers, it would be more cost effective to **invest their resources into crafting the LQS message** to emphasize the exclusive nature of the product rather than investing too much on developing a likeable/favourable ad.



Figure 7-1: Louis Vuitton David Bowie Watch Advertisement (Nudd 2013)

Luxury brands often rely on highly creative messages in their advertising to communicate a sense of exclusivity (Catry 2003). To reinforce the sophisticated nature of the brand, they use complex visual elements in their advertising. These advertisements rely on implicit meanings which leaves the audience to decipher the intentions of the advertiser (Callow and Schiffman 2002) (e.g. Figure 7-1 depicts a watch advertisement by *Louis Vuitton*. The advertisement uses sophisticated imagery, which may make it difficult for the audience to interpret the message).



Figure 7-2: Louis Vuitton Ben Hill Watch Advertisement ('Louis Vuitton Watches' 2009)

It is recommended that brand managers use simple images which rely on explicit meaning (Callow and Schiffman 2002). This means that the advertisement should be simple so that it is easily understood by the audience (e.g. Figure 7-2 depicts another watch advertisement by Louis Vuitton. In this instance, it is easier for the audience to interpret the intended message of the advertisement as the advertiser has made the product its focal point).



Figure 7-3: Omega Speedmaster Moonwatch Numbered Edition
(Adams 2015)

Furthermore, this should be followed up with explicit messages or cues to communicate quantity scarcity. In their advertising message, they could use words to the effect of ‘only ‘X’ number of units made’. Also, at a product development stage, luxury brand managers can also create numbered editions of the product by physical engraving it on the product itself. For example, see Figure 7-3.

7.8.1.3 *Designing ads with a Focus of Social Acceptance for Public Products*



Figure 7-4: Dolce & Gabbana Advertisement (Barnett 2016)

Finally, when developing these advertisements, luxury brand managers should consider focusing on a theme that supports/enhances social acceptance. As discussed earlier, individuals who desire uniqueness are more likely to be susceptible to group influences for public luxury products. Hence in this situation, luxury brand managers should emphasize the theme of social acceptance and conformity when designing the advertisement. An example of such an advertisement is Figure 7-4.

7.8.1.4 *Using Time-based Scarcity to Promote Private Luxury Products*

In the marketplace today, there is a strong preference for luxury brand managers to favour employing a quantity scarcity cues to promote their products. Using quantity scarcity cues can strengthen the perception of uniqueness and status of the advertised luxury product (Aggarwal, Jun, and Huh 2011). For example, luxury watch brand *Jaeger-LeCoultre*, in conjunction with its 180th anniversary released a limited edition Master Grande Tradition Tourbillon Cylindrique à Quantième Perpétuel Jubilee timepiece. As a way to commemorate its anniversary, the watch brand only produced 180 pieces of the limited edition watch (King 2013).

However, the results of this study provide strong evidence that when marketing private luxury goods in particular, luxury brand managers should focus on using LTS messages rather than

LQS message. One reason is that for private luxury products, individuals who desire uniqueness may purchase such products because of the intrinsic benefits (e.g. quality) it offers compared to the its extrinsic benefits (e.g. to signal status).

Building on the preceding discussion, in this situation, consumers may be motivated to purchase multiple units of the product. Firstly, they have favourable attitudes towards the advertised product. Secondly, they are buying the product because of its intrinsic benefits (e.g. quality). Thirdly, they are able to buy as many of the advertised product as long as they do it within a certain time frame. Lastly, they are likely to buy more units of the product because of its perishability and they want to 'stock up' while they can during the designated time frame.

More specifically, luxury brand managers selling perfumes should be employing explicit LTS to promote their products. Perfumes are perceived to be a seasonal product as consumers tend to buy different scents to suit the different seasons. For example, colder temperatures in winter tend to suit fragrances with richer notes ('Guide To Autumn/Winter 2016's Luxury Fragrances' 2016). Hence, many consumers are conditioned to perceive the time exclusiveness of these perfumes which based on this study's results, have the effect of generating positive attitudes towards the advertisement. Additionally, because perfumes are seen to be perishable, using a time-based scarcity can encourage the consumer to buy multiple units of the product.



Figure 7-6: Kate Moss Summer Time Perfume Advertisement
 ('Kate Moss Perfume' 2009)

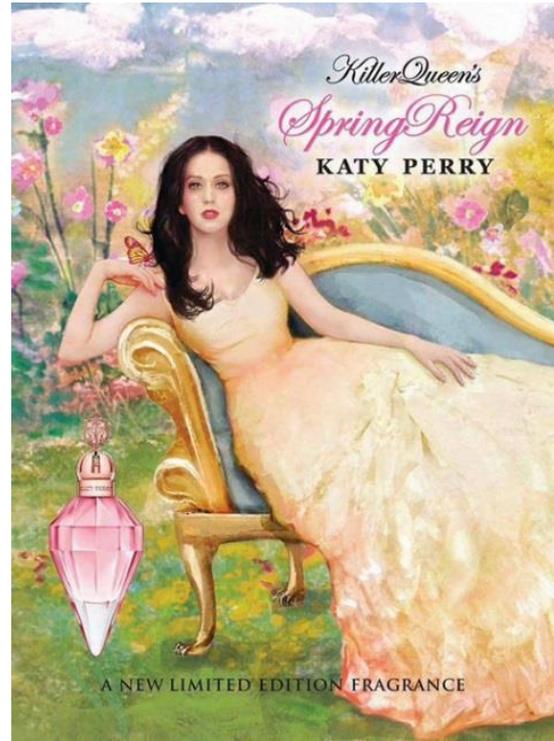


Figure 7-5: Katy Perry Spring Reign Perfume Advertisement
 (Petrovic 2015)

Currently, many luxury perfume brands have adopted seasonal strategies to brand and market their perfumes. See Figure 7-6 and Figure 7-5. Based on the preceding discussion, to further enhance the exclusiveness of the product, luxury brand managers may want to consider using messages to the effect of 'summer only limited edition range' or 'new limited edition fragrance only available this winter' to appeal to these group of consumers. They could also release **time exclusive products** to celebrate certain milestones of the brand such as anniversaries, or during special events such as Christmas or valentine days. Furthermore, **since private goods are purchased more for their intrinsic benefits, luxury brand managers should focus on communicating these intrinsic benefits.** Their advertising message should highlight attributes such as quality, superior craftsmanship, expertise etc. For perfumes in particular, they may want to consider designing unique bottles which may help enhance its value. Once a bottle of perfume is used, some consumers tend to keep their empty bottles especially if it has a unique design ("Antique Perfume Bottles" 2016).

7.8.2 Targeting the ‘FOMO’ Individual

7.8.2.1 *Scarcity Generates Positive Purchase Intentions in the FOMO consumer*

The overall findings indicate that the use of scarcity messages across both product categories was effective in generating favourable purchase intentions. Based on the FOMO behavioural model, this study proposes that explicit scarcity messages have the effect of enhancing the attractiveness of the opportunity (in this case the advertised luxury product). For luxury brand managers, this suggests that the use of scarcity messages is an effective persuasive communication tactic to appeal to FOMO consumers.

7.8.2.2 *Emphasis on the Limited Availability of the LE product*

For public goods, luxury brands managers **should emphasize on the limited availability of the advertised product. In doing so, it enhances the attractiveness of these opportunities.** In light of these implications, luxury brand managers should consider using innovative communication strategies to highlight both time and quantity scarcity cues to consumers. Furthermore, this also includes highlighting the benefits of obtaining the advertised product.

7.8.2.3 *Maximise Engagement with FOMO consumers using Multiple Touchpoints*

Firstly, as discussed in the FOMO behavioural model, individuals need to be informed about as well as be made aware of ‘potential opportunities’ before FOMO can take effect. Luxury brand managers need to extend their marketing reach through the use of online and offline platforms as well. As cited by Bell, (2016), luxury brand managers need to set up their communication strategies so that **it integrates across both in the digital space as well as through traditional media. This is to ensure that these mediums work together across all touch points in the consumer’s life.** In addition, brands need to devise strategies to break through the advertising clutter.



Figure 7-7: Net-a-Porter Digital Outdoor Advertising (Arthur 2014)

For example, as shown in Figure 7-7, *Net-a-Porter*, a luxury e-commerce site launched a digital outdoor campaign in London to show live-feeds of purchases happening globally on site in real-time through a digital advertising board (Arthur 2014). This showcased an innovative way on how luxury brands can integrate new and traditional media.



Figure 7-8: Burberry Snapchat Campaign (Strugatz 2015)

In a similar manner, *Burberry* partnered with *Snapchat*, an instant photo-messaging app to reveal its spring/summer 2016 advertisement campaign on the social media platform one day before its London Fashion Week launch (Kirkham 2015). This strategy was adopted after its previous snapchat campaign gathered almost 100 million impressions (Seb 2015). In 2015, while the global luxury brands grew by 1 percent, *Burberry's* revenue grew by 11 percent (Cheong 2016; Rigby 2015). In addition, in 2016, there are estimated over 40 million fans that follow it on social media which was a 30 percent increase from 2015 (Cheong 2016). As cited by Rigby (2015), its growth success was due to a digital-focused strategy which helped enhance the brand's overall performance.

7.8.2.4 *Creating a Sense of Urgency*

Following from previous examples discussed earlier, one of the reasons for the success of Net-a-porter outdoor digital campaign Figure 7-7 was that it was able to successfully create a sense of urgency and a call to action for potential consumers who were exposed to the live feed. Similarly, *Burberry's* Snapchat campaign was able to generate so much attention because they chose to release images of their 2016 spring/summer collection on the platform for only 24 hours (Kirkham 2015). The time-exclusive launch created a sense of urgency amongst its followers to be amongst the first to catch a glimpse of the collection.

The preceding example suggests that luxury brand managers can adopt a scarcity-driven strategy to successfully appeal to FOMO consumers. In addition, for public goods, luxury brands managers who want to appeal FOMO consumers should do so by investing resources into developing likeable advertisements. Results indicate that more favourable attitudes towards the advertisement is likely to evoke higher purchase intentions. Hence, when consumers like the advertisement, especially for products which they consume in the presence of others, it is likely to enhance the perceived attractiveness of opportunity of obtaining the scarce product, which inadvertently, creates positive purchase intentions.

7.8.2.5 *Marketing of Private Goods*

Luxury brand managers marketing private goods to FOMO consumers should focus on scarcity message rather than the advertisement itself. Results suggest that the advertisement did not have an effect on generating advertisement responses. Instead, the positive purchase intentions were derived more because of an emotional, reactive response towards the scarcity cue. Hence,

designing messages which can evoke emotions such as fear and anxiety through scarcity cues will be extremely effective in this kind of situations.

Further, when incorporating a limited quantity scarcity message for private products, luxury brands managers should focus on a theme of social acceptance. Results from the study suggested that social influences were found to significantly enhance the relationship between T-FOMO and purchase intentions for individuals who were exposed to the limited quantity scarcity message. Hence, this suggests that the use of opinion leaders to influence consumers should be used in conjunction with products which are marketed as only available in limited quantities.

7.9 LIMITATIONS AND FUTURE DIRECTIONS

This study has successfully developed the T-FOMO scale which was successfully implemented within a marketing context. Findings from the study provides insights for both researchers and practitioners in understanding how different scarcity appeals impact on FOMO, more specifically how time and quantity scarcity cues differ in terms of how they influence the attitudes and purchase intentions of FOMO consumers.

Due to the contemporary nature of FOMO, majority of current literature has been limited to exploring its effects within a social sciences context (Beyens, Frison, and Eggermont 2016; Elhai et al. 2016; Hetz, Dawson, and Cullen 2015; Lai et al. 2016; Przybylski et al. 2013). To the author's best knowledge, a comprehensive review of literature reveals that there are no academic studies which have explored FOMO within a marketing context. Most studies which empirically tested and explored FOMO within marketing has been limited to industry publications (JWT Intelligence 2011; JWT Intelligence 2012). The findings from this study offers preliminary steps into understanding the effects of FOMO in marketing, however, more research is required to expand the knowledge in this area. Though this study offers many interesting insights into the effects of FOMO on consumer behaviour, there are still some limitations that need to be addressed. For example, generalizability of the findings is an issue for most research. Hence, future studies need to be able to replicate similar findings so that generalizability can be established.

In addition, the study is limited to testing the effectiveness of scarcity message on FOMO consumers in a luxury brand industry. In particular, the study focused on the area known as

‘masstige luxuries’ which represent how many luxury brands have extended their product lines to make the brand more accessible to the everyday consumer. Future researchers should look at comparing how the differential effects of these ‘masstige luxuries’ products versus these luxury brands’ more traditional, high-end products. In addition, there are other contexts and other studies that future studies can explore, such as how FOMO can impact on the adoption of new technologies, financial investments, tourism and education just to name a few. This list suggests that there is still a lot of work that can be done to better understand how FOMO can be utilized and implemented.

Currently, the study only examines watches to represent public goods and perfumes to represent private goods. To generalize the findings of this study, future studies need to consider exploring the effects of FOMO on other products such as fashion items (e.g. handbags, jewellery, clothing) to represent public goods and beauty products (e.g. cosmetics, beauty creams) to represent private goods. In addition, the study focuses on luxury brands using the ‘limited edition’ label. Future studies should consider looking at scarcity effects without the limited edition label.

Additionally, the study has utilized the brand *Mercedes Benz* to represent an aspirational brand which has extended to ‘masstige luxuries’ products. The brand was selected after a focus group which saw *Mercedes Benz* as a brand in which most respondents aspired to own. Hence, the results may have been influenced by existing beliefs, attitudes and experiences about the brand. However, pre-tests suggested that *Mercedes Benz* was an appropriate brand to utilize for the purposes of this study. Future studies should consider utilizing other luxury brands or even fictitious brands to explore the differential effects it will have on scarcity messages for FOMO consumers.

As identified in the chapter two (literature review), characteristics of FOMO are similar to other traits such as buying impulsiveness and compulsive buying. Future studies should consider adopting these scales (or similar) to differentiate and understand how these traits influence consumer behaviour, especially in the area of persuasive communications.

The use of general consumers which included respondents ranging from 18 to 54 and over was deemed appropriate due to the experimental nature of the study, and it was also seen as a good starting point for measuring and testing the effects of FOMO. The sample used for the study did not specifically specify an age range of respondents and hence it did not allow for enough

data to be collected to compare whether FOMO was more dominant for younger consumers. However, studies have indicated that FOMO is very much closely related to a younger demographic. A study conducted by Eventbrite found that 69 percent of millennials experience FOMO because they were unable to participate in something that people within their social group were going to (Taylor 2014). Many articles have highlighted how millennials have been a key group of consumers who are influenced by FOMO (Loose 2016; Przybylski et al. 2013; Streep 2012; Taylor 2014), which may be attributed to how FOMO has been linked heavily with social media use (Przybylski et al. 2013). Hence, future studies may want to specifically focus on a younger demographic to understand if FOMO is more prevalent for this particular demographic of consumers.

Through a rigorous process of scale development, this current study developed a uni-dimensional unified measurement scale of FOMO in a marketing context, which was successfully implemented using a theoretically driven framework within a marketing context. However, literature review provides preliminary evidence which suggests that FOMO is made up of several dimensions. More specifically, the proposed dimensions include comparative, hedonistic and reactive dimensions. Future studies should consider exploring these dimensions in detail or may want to extend the current scale based on the dimensions described in this study.

The study's findings have also been limited to Australian consumers. Future researchers should consider looking at other consumers from different geographical regions. One such region is the Asia Pacific due to its size. *Bain & Company* estimates that 31 percent of global luxury sales in 2015 were made by Chinese consumers (Schultz 2016). This presents a good market for future researchers to apply this study's framework into understanding the prevalence of the FOMO in these markets as well as the effects of scarcity cues to promote luxury brands.

Currently, the study only uses SEM to draw conclusions based on hypotheses which are supported and unsupported. Future studies should consider incorporating a multi-group analysis so that comparisons can be made between the strength of the path coefficients across the various groups.

Finally, this study focused on comparing two types of scarcity, limited supply scarcity (based on limited quantities) versus limited time scarcity. However, literature has indicated there is another form of scarcity known as limited supply scarcity (based on excessive demand).

Though this form of scarcity was found to be an unpopular method to promote luxury brands because it signals ‘conformity to the masses’ (Gierl and Huetl 2010), future researchers may consider utilizing this form of scarcity cue in light of the changing demographics of consumers purchasing luxury brands today.

Luxury brands need to realize that the sustainability of their brands depends on their ability to attract the younger demographics (Shea 2013). In particular, the concept of limited supply scarcity (based on excessive demand) may be an approach worth exploring to target the younger demographic, in particular millennials. These millennials have grown up in a digital world and developed the need to stay connected to their friends and family via a multitude of platforms within social media (Pate and Adams 2013). Many of their purchases are influenced by what they encounter within these social media channels, in particular, what they witness their peers buy or say about certain brands or products (Pooja et al. 2012). Hence, signalling the popularity of a brand through an ‘excessive demand’ scarcity approach may be an interesting perspective that future researchers can explore.

REFERENCE LIST

- “About Valmont.” 2016. Accessed October 15. <http://www.valmontamerica.com/en/about-valmont/>.
- “Absolut Vodka: Chinese Limited Edition.” 2010. <https://adsofchina.wordpress.com/2010/08/21/absolut-vodka-chinese-limited-edition-absolut-72%E5%8F%98/>.
- Ackerman, David S, and Barbara L Gross. 2003. “So Many Choices, So Little Time: Measuring the Effects of Free Choice and Enjoyment on Perception of Free Time, Time Pressure and Time Deprivation.” *Advances in Consumer Research* 30 (1): 290–94.
- Adams, Ariel. 2015. “Omega Speedmaster Moonwatch Numbered Edition ‘First Omega In Space’ Watch Review.” <http://www.ablogtowatch.com/omega-speedmaster-moonwatch-numbered-edition-first-omega-space-watch-review/>.
- Aggarwal, Praveen, Sung Youl Jun, and Jong Ho Huh. 2011. “Scarcity Messages.” *Journal of Advertising* 40 (3): 19–30.
- Aggarwal, Praveen, and Rajiv Vaidyanathan. 2003. “Use It or Lose It: Purchase Acceleration Effects of Time-Limited Promotions.” *Journal of Consumer Behaviour* 2 (4): 393–403.
- Aguirre-Rodriguez, Alexandra. 2013. “The Effect of Consumer Persuasion Knowledge on Scarcity Appeal Persuasiveness.” *Journal of Advertising* 42 (4): 371–79.
- Ajzen, Icek. 1987. “Attitudes, Traits, and Actions: Dispositional Prediction of Behavior in Personality and Social Psychology.” *Advances in Experimental Social Psychology* 20: 1–63.
- . 1991. “The Theory of Planned Behavior.” *Organizational Behavior and Human Decision Processes* 50 (2): 179–211.
- Allen, James. 2013. “Ferrari to Cut Production of Road Cars to Protect Exclusivity of Brand.” <https://www.jamesallenonfl.com/2013/05/ferrari-to-cut-production-of-road-cars-to-protect-exclusivity-of-brand/>.

- Allen, Robert. 2016. "Global Digital Snapshot." <http://www.smartinsights.com/social-media-marketing/social-media-strategy/new-global-social-media-research/attachment/screenshot-2016-02-15-at-11-54-57/>.
- Allison, Scott T., Leila T. Worth, and Melissa C. King. 1990. "Group Decisions as Social Inference Heuristics." *Journal of Personality and Social Psychology* 58 (5): 801–11.
- "All-New Volvo XC90: 1,927 Limited First Edition Cars Available Only via Digital Commerce." 2014. <https://www.media.volvocars.com/global/en-gb/media/pressreleases/149590/all-new-volvo-xc90-1927-limited-first-edition-cars-available-only-via-digital-commerce>.
- Anagnostaras, S.G., and J.R. Sage. 2010. "Motivation." In *Encyclopedia of Behavioral Neuroscience*, 261–66.
- "Antique Perfume Bottles." 2016. Accessed October 30. <http://www.collectorsweekly.com/bottles/perfume>.
- Arthur, Rachel. 2014. "Net-A-Porter Showcases Real-Time Shopping Trends in Digital out-of-Home Campaign." <http://fashionandmash.com/2014/08/15/net-a-porter-showcase-real-time-shopper-trends-in-digital-out-of-home-campaign/>.
- Ashton, Michael C. 2013. "Individual Differences and Personality." In *Personality Traits and the Inventories That Measure Them*, 2nd ed., 27–55. San Diego, CA: Academic Press.
- Bagozzi, Richard P. 1981. "Attitudes, Intentions, and Behavior: A Test of Some Key Hypotheses." *Journal of Personality and Social Psychology* 41 (4): 607–27.
- Balachander, S., and A. Stock. 2009. "Limited Edition Products: When and When Not to Offer Them." *Marketing Science* 28 (2): 336–55. doi:10.1287/mksc.1080.0401.
- Balsa, Ana I, Michael T French, and Tracy L Regan. 2014. "Relative Deprivation and Risky Behaviors." *Journal of Human Resources* 49 (2): 446–71.
- Bargh, John a. 1982. "Attention and Automaticity in the Processing of Self-Relevant Information." *Journal of Personality and Social Psychology* 43 (3): 425–36.

- Barker, Eric. 2016. "This Is The Best Way to Overcome Fear of Missing Out."
- Barnett, Dustin. 2016. "Reference Groups." Accessed August 8. <https://dustinbarnett.wordpress.com/2015/05/24/reference-groups/>.
- Baron, Reuben M., and David A. Kenny. 1986. "The Moderator-Mediator Variable Distinction in Social Psychological Research: Conceptual, Strategic, and Statistical Considerations." *Journal of Personality and Social Psychology* 51 (6): 1173–82.
- Batra, Rajeev, and Michael L. Ray. 1986. "Affective Responses Mediating Acceptance of Advertising." *Journal of Consumer Research* 13 (2): 234–49.
- Baumeister, Roy F., and Mark R. Leary. 1995. "The Need to Belong for Interpersonal Attachment as a Fundamental Human Motivation." *Psychological Bulletin* 117 (3): 497–529.
- Bayley, Geoff, and Clive Nancarrow. 1998. "Impulse Purchasing: A Qualitative Exploration of the Phenomenon." *Qualitative Market Research: An International Journal* 1 (2): 99–114.
- Bearden, William O., and Michael J. Etzel. 1982. "Reference Group Influence on Product and Brand Purchase Decisions." *Journal of Consumer Research* 9 (2): 183–94.
- Bearden, William O., Richard G. Netemeyer, and Jesse E. Teel. 1989. "Measurement of Consumer Susceptibility to Interpersonal Influence." *Journal of Consumer Research* 15 (4): 473–81.
- Beike, Denise R, Keith D Markman, and Figen Karadogan. 2009. "What We Regret Most Are Lost Opportunities: A Theory of Regret Intensity." *Personality and Social Psychology Bulletin* 35 (3): 385–97.
- Bell, Simon. 2016. "Brands on the Street: How Outdoor Advertising Works for the Luxury Market." <https://www.marketingmag.com.au/hubs-c/brands-street-outdoor-advertising-works-luxury-market/>.
- Bennett, John W. 1969. *Northern Plainsmen: Adaptive Strategy and Agrarian Life*. Chicago: Aldine. <http://books.google.com/books?id=esDoWHI9bWUC&pgis=1>.

- Bennett, Roger, and Rita Kottasz. 2013. "Attractiveness of Limited Edition Artwork for First-Generation Newly Affluent Consumers." *International Journal of Arts Management* 15 (3): 21–38.
- Bentler, Peter M. 1990. "Comparative Fit Indexes in Structural Models." *Psychological Bulletin* 107 (2): 238–46.
- Beyens, Ine, Eline Frison, and Steven Eggermont. 2016. "'I Don't Want to Miss a Thing': Adolescents' Fear of Missing out and Its Relationship to Adolescents' Social Needs, Facebook Use, and Facebook Related Stress." *Computers in Human Behavior* 64: 1–8.
- Bian, Qin, and Sandra Forsythe. 2012. "Purchase Intention for Luxury Brands: A Cross Cultural Comparison." *Journal of Business Research* 65 (10): 1443–51.
- Biehal, Gabriel, Debra Stephens, and Eleonora Curlo. 1992. "Attitude toward the Ad and Brand Choice." *Journal of Advertising* 21 (3): 19–36.
- Black, Iain R, George C Organ, and Peta Morton. 2010. "The Effect of Personality on Response to Sexual Appeals." *European Journal of Marketing* 44 (9/10): 1453–77.
- Bolton, Lisa E., and Americus Reed II. 2004. "Sticky Priors: The Perseverance of Identity Effects on Judgment." *Journal of Marketing Research* 41 (4): 397–410.
- Booth, Norman, and Julie Ann Matic. 2011. "Mapping and Leveraging Influencers in Social Media to Shape Corporate Brand Perceptions." *Corporate Communications* 16 (3): 184–91.
- Bouchard, T J, and J C Loehlin. 2001. "Genes, Evolution, and Personality." *Behavior Genetics* 31 (3): 243–73.
- Bourne, F. S. 1957. "Group Influence in Marketing and Public Relations." In *Some Applications of Behavioural Science Research*, edited by Rensis Likert and S. P. Hayes Jr, 217–24. Paris: UNESCO.
- Boush, David M., and Barbara Loken. 1991. "A Process-Tracing Study of Brand Extension Evaluation." *Journal of Marketing Research* 28 (1): 16–28.

- Boyd, D. M., and N. B. Ellison. 2007. "Social Network Sites: Definition, History, and Scholarship." *Journal of Computer-Mediated Communication* 13 (1): 210–30.
- Boyle, Darren. 2015. "It's Whack Friday! Tempers Fray at Malls as Shoppers Come to Blows amid Thanksgiving Evening Sales." <http://www.dailymail.co.uk/news/article-3336067/It-s-WHACK-Friday-Tempers-fray-malls-shoppers-come-blows-amid-Thanksgiving-evening-sales-bonanza.html>.
- Bozzolo, Anita M, and Timothy C Brock. 1992. "Unavailability Effects on Message Processing: A Theoretical Analysis an Empirical Test." *Basic and Applied Social Psychology* 13 (1): 93–101.
- Brannon, Laura A., and Timothy C. Brock. 2001. "Limiting Time for Responding Enhances Behavior Corresponding to the Merits of Compliance Appeals: Refutations of Heuristic-Cue Theory in Service and Consumer Settings." *Journal of Consumer Psychology* 10 (3): 135–46.
- Branthwaite, Alan, and Simon Patterson. 2011. "The Power of Qualitative Research in the Era of Social Media." *Qualitative Market Research: An International Journal* 14 (4): 430–40.
- Brehm, Jack W. 1989. "Psychological Reactance: Theory and Applications." *Advances in Consumer Research* 16 (1): 72–75. doi:10.1007/BF00290976.
- Brennan, Linda, and Wayne Binney. 2010. "Fear, Guilt, and Shame Appeals in Social Marketing." *Journal of Business Research* 63 (2): 140–46.
- Brenner, Lyle, Yuval Rottenstreich, Sanjay Sood, and Baler Bilgin. 2007. "On the Psychology of Loss Aversion: Possession, Valence, and Reversals of the Endowment Effect." *Journal of Consumer Research* 34 (3): 369–76.
- Brinberg, David, and Linda Plimpton. 1986. "Self-Monitoring and Product Conspicuousness on Reference Group Influence." *Advances in Consumer Research* 13 (1): 297–300.
- Brock, Timothy C. 1968. "Implications of Commodity Theory for Value Change." In *Psychological Foundations of Attitudes*, edited by Anthony G. Greenwald, Timothy C. Brock, and Thomas M. Ostrom, 247–73. New York: Academic Press.
- Brown, Steven P, and Douglas M Stayman. 1992. "Antecedents and Consequences of Attitude

- Toward the Ad: A Meta-Analysis.” *Journal of Consumer Research* 19 (1): 34–51.
- Brown, Timothy A. 2003. “Confirmatory Factor Analysis of the Penn State Worry Questionnaire: Multiple Factors or Method Effects?” *Behaviour Research and Therapy* 41 (12): 1411–26.
- Buchanan, Tom. 2000. *Potential of the Internet for Personality Research. Psychological Experiments on the Internet*. San Diego, CA: Academic Press.
- Burisch, Matthew. 1997. “Test Length and Validity Revisited.” *European Journal of Personality* 11 (4): 303–15.
- Burke, Raymond R., Wayne S. DeSarbo, Richard L. Oliver, and Thomas S. Robertson. 1988. “Deception by Implication: An Experimental Investigation.” *Journal of Consumer Research* 14 (4): 483.
- Burnett, John J, and Robert E Wilkes. 1980. “Fear Appeals to Segments Only.” *Journal of Advertising Research* 20 (5): 21–24.
- Byrne, B. 2001. *Structural Equation Modeling with AMOS, Basic Concept, Applications and Programming*. Mahwah, New Jersey: Lawrence Erlbaum Associates Publishers.
- Callow, Michael, and Leon Schiffman. 2002. “Implicit Meaning in Visual Print Advertisements: A Cross-Cultural Examination of the Contextual Communication Effect.” *International Journal of Advertising* 21 (2): 259–77.
- Campbell, Margaret C., and Amna Kirmani. 2000. “Consumers’ Use of Persuasion Knowledge: The Effects of Accessibility and Cognitive Capacity on Perceptions of an Influence Agent.” *Journal of Consumer Research* 27 (1): 69–83.
- Campbell, Margaret C. 1995. “When Attention-Getting Advertising Tactics Elicit Consumer Inferences of Manipulative Intent: The Importance of Balancing Benefits and Investments.” *Journal of Consumer Psychology* 4 (3): 225–54.

- Carlson, Jay P, William O Bearden, and David M Hardesty. 2007. "Influences on What Consumers Know and What They Think They Know Regarding Marketer Pricing Tactics." *Psychology & Marketing* 24 (2): 117–42.
- Carsten, Paul, and John Ruwitch. 2015. "Alibaba, Tencent Spend Billions in Race to Be China's One-Stop Online Shop." <http://www.reuters.com/article/us-alibaba-group-tencent-idUSKBN0KT2EN20150120>.
- Catry, Bernard. 2003. "The Great Pretenders: The Magic of Luxury Goods." *Business Strategy Review* 14 (3): 10–17.
- Catton, William R., and Riley E. Dunlap. 1978. "Environmental Sociology: A New Paradigm." *The American Sociologist* 13 (1): 41–49.
- Chandon, Pierre, Vicki G Morwitz, and Werner J Reinartz. 2005. "Do Intentions Really Predict Behavior? Self-Generated Validity Effects in Survey Research." *Journal of Marketing* 69 (2): 1–14.
- Chandy, Rajesh K., Gerard J Tellis, Deborah J. MacInnis, and Pattana Thaivanich. 2001. "What to Say When: Advertising Appeals in Evolving Markets." *Journal of Marketing Research* 38 (4): 399–414.
- Chang, Chingching. 2007. "The Relative Effectiveness of Comparative and Noncomparative Advertising: Evidence for Gender Differences in Information-Processing Strategies." *Journal of Advertising* 36 (1): 21–35.
- Chapman, Patricia S., and Richard F. Beltramini. 2000. "Infomercials Revisited: Perspectives of Advertising Professionals." *Journal of Advertising Research* 40 (5): 24–31.
- Chattopadhyay, Amitava, and Prakash Nedungadi. 1992. "Does Attitude Toward the Ad Endure? The Moderating Effects of Attention and Delay." *Journal of Consumer Research* 19 (1): 26–33.
- Chaudhuri, Arjun. 1998. "Product Class Effects on Perceived Risk: The Role of Emotion." *International Journal of Research in Marketing* 15 (2): 157–68.

- Chen, Hsieh-Sheng, and Pi-Hui Tsai. 2010. "Study on Influences of Characteristic of Luxury Goods, Impulsive Characteristic and Vanity on Purchase Intention of Luxury Goods." *Marketing Review/Xing Xiao Ping Lun* 7 (4): 447–71.
- Chen, Qimei, and William D. Wells. 1999. "Attitude toward the Site." *Journal of Advertising Research* 39 (5): 27–37.
- Cheng, Yin-Hui, Shih-Chieh Chuang, Sui-Min Wang, and Shan-yun Kuo. 2013. "The Effect of Companion's Gender on Impulsive Purchasing: The Moderating Factor of Cohesiveness and Susceptibility to Interpersonal Influence." *Journal of Applied Social Psychology* 43 (1): 227–36.
- Cheong, Germaine. 2016. "How Luxury Brands Are Using Social Media to Woo a New Generation of Customers." <http://thepeakmagazine.com.sg/2016/09/how-luxury-brands-are-using-social-media-to-woo-a-new-generation-of-customers/>.
- Churchill Jr, Gilbert A. 1979. "A Paradigm for Developing Better Measures of Marketing Constructs." *Journal of Marketing Research* 16 (1): 64–73.
- Cialdini, Robert B. 2001. "Harnessing the Science of Persuasion." *Harvard Business Review* 79 (9): 72–81.
- . 2008. *Influence: Science and Practice*. 5th ed. Boston, MA: Pearson Education.
- Cialdini, Robert B., and Noah J. Goldstein. 2002. "The Science and Practice of Persuasion." *Cornell Hotel Quarterly* 43 (2): 40–50.
- Clark, Lucy. 2015. "#FOMO: Teen Anxiety, Depression, And Social Media Burnout." <http://www.huffingtonpost.com.au/2015/11/08/fomo-teen-anxiety-depression-and-social-media-burnout/>.
- Clark, Ronald A., and Ronald E. Goldsmith. 2006. "Interpersonal Influence and Consumer Innovativeness." *International Journal of Consumer Studies* 30 (1): 34–43.
- Corley, Kevin, and Dennis Gioia. 2011. "Building Theory about Theory Building: What Constitutes a Theoretical Contribution?" *Academy of Management Review* 36 (1): 12–32.
- Cortina, J. M., G. Chen, and W. P. Dunlap. 2001. "Testing Interaction Effects in LISREL:

- Examination and Illustration of Available Procedures.” *Organizational Research Methods* 4 (4): 324–60.
- Cotte, June, Robin a. Coulter, and Melissa Moore. 2005. “Enhancing or Disrupting Guilt: The Role of Ad Credibility and Perceived Manipulative Intent.” *Journal of Business Research* 58 (3): 361–68.
- Cotte, June, and Robin Ritchie. 2005. “Advertisers’ Theories of Consumers: Why Use Negative Emotions to Sell?” *Advances in Consumer Research* 32 (1): 24–31.
- Cunningham, E. 2007. *Structural Equation Modeling Using AMOS*. Victoria, Australia: Statsline.
- Darwin, Charles. 1871. *The Descent of Man, and Selection in Relation to Sex*. London: John Murray.
- Dawes, John. 2004. “Price Changes and Defection Levels in a Subscription-Type Market: Can an Estimation Model Really Predict Defection Levels?” *Journal of Services Marketing* 18 (1): 35–44.
- Deighton, J., F. Nicosia, and Y. Wind. 1983. “Exploration into the Time-Money Tradeoff: Concepts and an Application.” In *ESOMAR Conference on Strategic Planning*. Netherlands.
- Delong, Marilyn Revell, and Elizabeth Kersch Bye Bye. 1990. “Apparel for the Senses: The Use and Meaning of Fragrances.” *Journal of Popular Culture* 24 (3): 81–88.
- Desselle, Shane P. 2005. “Construction, Implementation, and Analysis of Summated Rating Attitude Scales.” *American Journal of Pharmaceutical Education* 69 (5): 1–11.
- Deutsch, M, and H B Gerard. 1955. “A Study of Normative and Informational Social Influences upon Individual Judgement.” *Journal of Abnormal Psychology* 51 (3): 629–36.

- DeVellis, Robert. F. 1991. *Scale Development: Theory and Applications*. 1st ed. Thousand Oaks, CA: Sage Publications.
- . 2003. *Scale Development: Theory and Application*. 2nd ed. Thousand Oaks, CA: Sage Publications.
- Dittmar, Helga, Rod Bond, Megan Hurst, and Tim Kasser. 2014. “The Relationship between Materialism and Personal Well-Being: A Meta-Analysis.” *Journal of Personality and Social Psychology* 107 (5): 879–924.
- Dittmar, Helgar. 1992. *The Social Psychology of Material Possessions: To Have Is to Be*. New York: St Martin’s Press.
- Domínguez-Rodrigo, Manuel. 2002. “Hunting and Scavenging by Early Humans: The State of the Debate.” *Journal of World Prehistory* 16 (1): 1–54.
- “Dont Miss out Prepurchase Tonight to Make Sure Youre at AAMI Park.” 2016. <https://socialfeed.info/dont-miss-out-prepurchase-tonight-to-make-sure-youre-at-aami-park-3723125>.
- Dubois, Bernard, and Claire Paternault. 1995. “Observations: Understanding the World of International Luxury Brands: the ‘Dream Formula’ (Special Issue: Research Input into Creative Process).” *Journal of Advertising Research* 35 (4): 69–77.
- Dunfee, S. L. 2014. “Share the Love at Starbucks.”
- Duray, Rebecca, Peter T. Ward, Glenn W. Milligan, and William L. Berry. 2000. “Approaches to Mass Customization: Configurations and Empirical Validation.” *Journal of Operations Management* 18 (6): 605–25.
- Eastman, Jacqueline K, Ronald E Goldsmith, and Leisa R Flynn. 1999. “Status Consumption in Consumer Behavior: Scale Development and Validation.” *Journal of Marketing Theory & Practice* 7 (3): 41–52.
- Eaves, L. J., Hans J. Eysenck, and N. G. Martin. 1989. *Genes, Culture and Personality: An Empirical Approach*. San Diego, CA: Academic Press.

- Eisenberger, Naomi I, and Matthew D Lieberman. 2004. "Why Rejection Hurts: A Common Neural Alarm System for Physical and Social Pain." *Trends in Cognitive Sciences* 8 (7): 294–300.
- Eisend, Martin. 2008. "Explaining The Impact Of Scarcity Appeals In Advertising: The Mediating Role of Perceptions of Susceptibility." *Journal of Advertising* 37 (3): 33–40.
- Elhai, Jon D., Jason C. Levine, Robert D. Dvorak, and Brian J. Hall. 2016. "Fear of Missing Out, Need for Touch, Anxiety and Depression Are Related to Problematic Smartphone Use." *Computers in Human Behavior* 63: 509–16.
- Elliott, Alan C., and Wayne A. Woodward. 2007. *Statistical Analysis Quick Reference Guidebook: With SPSS Example*. 1st ed. London: Sage Publications.
- Engel, James F., David T. Kollat, and Roger D. Blackwell. 1968. *Consumer Behaviour*. New York: Holt, Rinehart, and Winston.
- Epstein, Seymour. 1979. "The Stability of Behavior: On Predicting Most of the People Much of the Time." *Journal of Personality and Social Psychology* 37 (7): 1097–1126.
- Erber, Ralph, and Susan T. Fiske. 1984. "Outcome Dependency and Attention to Inconsistent Information." *Journal of Personality and Social Psychology* 47 (4): 709–26.
- Escalas, Jennifer Edson, and James R. Bettman. 2003. "You Are What They Eat: The Influence of Reference Groups on Consumers' Connections to Brands." *Journal of Consumer Psychology* 13 (3): 339–48. doi:10.1207/S15327663JCP1303_14.
- Festinger, Leon. 1954. "A Theory of Social Comparison Processes." *Human Relations* 7 (2): 117–40.
- . 1957. *A Theory of Cognitive Dissonance*. Stanford: Stanford University Press.
- Field, Andy. 2009. *Discovering Statistics Using SPSS*. 3rd ed. London: Sage Publications.
- Fishbein, M., and I. Ajzen. 1975. "Belief, Attitude, Intention and Behaviour: An Introduction to Theory and Research." Reading MA AddisonWesley.
- Fishbein, Martin, and Icek Ajzen. 1975. *Belief, Attitude, Intention, Behavior: An Introduction to Theory and Research*. Reading: Addison-Wesley.

- Fiske, Susan T., and Shelley E. Taylor. 2013. *Social Cognition: From Brains to Culture*. 2nd ed. California: Sage Publications.
- Fitzgerald, Kelly. 2015. "The Phenomenon of 'FOMO' and the Alcoholic." <https://www.addiction.com/expert-blogs/the-phenomenon-of-fomo-and-the-alcoholic/>.
- "FOMO." n.d. *Oxford Dictionary*. <https://en.oxforddictionaries.com/definition/FOMO>.
- FOMO, Johnny. 2013. "Urban Dictionary." <http://www.urbandictionary.com/define.php?term=fomo>.
- Fong, Geoffrey T., and Hazel Markus. 1982. "Self-Schemas and Judgments about Others." *Social Cognition* 1 (3): 191–204.
- Fornell, Claes, and DF Larcker. 1981. "Evaluating Structural Equation Models with Unobservable Variables and Measurement Error." *Journal of Marketing Research* 18 (3): 39–50.
- Franke, Nikolaus, and Martin Schreier. 2008. "Product Uniqueness as a Driver of Customer Utility in Mass Customization." *Marketing Letters* 19 (2): 1–15.
- Friestad, Marian, and Peter Wright. 1994. "The Persuasion Knowledge Model: How People Cope with Persuasion Attempts." *Journal of Consumer Research* 21 (1): 1–31.
- Frith, Chris D, and Uta Frith. 2007. "Social Cognition in Humans." *Current Biology* 17 (16): 724–32.
- Funder, David C. 2006. "Towards a Resolution of the Personality Triad: Persons, Situations, and Behaviors." *Journal of Research in Personality* 40 (1): 21–34.
- Funder, David C., and C. Randall Colvin. 1991. "Explorations in Behavioral Consistency: Properties of Persons, Situations, and Behaviors." *Journal of Personality and Social Psychology* 60 (5): 773–94.
- Furst, T, M Connors, C A Bisogni, J Sobal, and L W Falk. 1996. "Food Choice: A Conceptual Model of the Process." *Appetite* 26 (3): 247–65.
- Gardner, Meryl Paula. 1985. "Does Attitude Under Toward a the Brand Affect Evaluation Brand Set?" *Journal of Marketing Research* 22 (2): 192–98.

- Garver, MS, and JT Mentzer. 1999. "Logistics Research Methods: Employing Structural Equation Modeling to Test for Construct Validity." *Journal of Business Logistics* 20 (1): 33–57.
- Gelb, Betsy D, and Charles M Pickett. 1983. "Attitude-toward-the-Ad: Links to Humor and to Advertising Effectiveness." *Journal of Advertising* 12 (2): 34–42.
- Gerbing, David W, and James C Anderson. 1988. "An Updated Paradigm for Scale Development Incorporating Unidimensionality and Its Assessment." *Journal of Marketing Research* 25 (2): 186–92.
- Gerdtham, Ulf G., and Magnus Johannesson. 2001. "The Relationship between Happiness, Health, and Socio-Economic Factors: Results Based on Swedish Microdata." *Journal of Socio-Economics* 30 (6): 553–57.
- Ghasemi, Asghar, and Saleh Zahediasl. 2012. "Normality Tests for Statistical Analysis: A Guide for Non-Statisticians." *International Journal of Endocrinology and Metabolism* 10 (2): 486–89.
- Gierl, Heribert, and Verena Huettl. 2010. "Are Scarce Products Always More Attractive? The Interaction of Different Types of Scarcity Signals with Products' Suitability for Conspicuous Consumption." *International Journal of Research in Marketing* 27 (3): 225–35.
- Gilovich, Thomas, and Victoria Husted Medvec. 1994. "The Temporal Pattern to the Experience of Regret." *Journal of Personality and Social Psychology* 67 (3): 357–65.
- Goldberg, Lewis R. 1999. "A Broad-Bandwidth, Public Domain, Personality Inventory Measuring the Lower-Level Facets of Several Five-Factor Models." *Personality Psychology in Europe* 7 (1): 7–28.
- Goldsmith, Ronald E. 2002. "Some Personality Traits of Frequent Clothing Buyers." *Journal of Fashion Marketing and Management* 6 (3): 303–16.
- Granello, Darcy Haag, and Joe E Wheaton. 2004. "Online Data Collection: Strategies for Research." *Journal of Counseling & Development* 82 (4): 387–93.

- Gray, Heather M., Nalini Ambady, William T. Lowenthal, and Patricia Deldin. 2004. "P300 as an Index of Attention to Self-Relevant Stimuli." *Journal of Experimental Social Psychology* 40 (2): 216–24.
- Greenwald, A. G. 1968. "Cognitive Learning, Cognitive Response to Persuasion and Attitude Change." In *Psychological Foundations of Attitudes*, edited by A.G Greenwald, T. C. Brock, and T. M. Ostrom, 147–70. New York: Academic Press.
- "Guide To Autumn/Winter 2016's Luxury Fragrances." 2016. <http://www.luxuriousmagazine.com/2016/10/autumn-winter-2016-luxury-fragrances/>.
- Hair, Joseph F., William C. Black, Barry J. Babin, and Rolph E. Anderson. 2010. *Multivariate Data Analysis*. 7th ed. Upper Saddle River: Prentice Hall.
- Hair, Joseph F, Rolph E Anderson, Ronald L. Tatham, and William C. Black. 1998. *Multivariate Data Analysis*. 5th ed. New Jersey: Prentice Hall.
- Haley, Russell I., and Allan L. Baldinger. 2000. "The ARF Copy Research Validity Project." *Journal of Advertising Research* 40 (6): 114–35.
- Hartmann, Patrick, Vanessa Apaolaza, Clare D'souza, Jose M. Barrutia, and Carmen Echebarria. 2014. "Environmental Threat Appeals in Green Advertising: The Role of Fear Arousal and Coping Efficacy." *International Journal of Advertising* 33 (4): 741–65.
- Hassan, Salah, Melika Husić-Mehmedović, and Philippe Duverger. 2015. "Retaining the Allure of Luxury Brands during an Economic Downturn." *Journal of Fashion Marketing and Management* 19 (4): 416–29.
- Hattie, J. 1985. "Methodology Review: Assessing Unidimensionality of Tests and Ltenls." *Applied Psychological Measurement* 9 (2): 139–64.
- Haws, Kelly L., William O. Bearden, and Gergana Y. Nenkov. 2012. "Consumer Spending Self-Control Effectiveness and Outcome Elaboration Prompts." *Journal of the Academy of Marketing Science* 40 (5): 695–710.
- Heine, Klaus. 2011. "The Concept of Luxury Brands." *Luxury Brand Management*. http://www.conceptofluxury.com/concept/Heine_TheConceptofLuxuryBrands.pdf.

- Herman, Dan. 2000. "Introducing Short-Term Brands: A New Branding Tool for a New Consumer Reality." *Journal of Brand Management* 7 (5): 330–40.
- . 2011. "The Fear of Missing Out." <http://fomofearofmissingout.com/fomo>.
- Hetz, Patricia R., Christi L. Dawson, and Theresa A. Cullen. 2015. "Social Media Use and the Fear of Missing Out (FOMO) While Studying Abroad." *Journal of Research on Technology in Education* 47 (4): 259–72.
- Hofmann, Wilhelm, Maïke Luhmann, Rachel R. Fisher, Kathleen D. Vohs, and Roy F. Baumeister. 2014. "Yes, But Are They Happy? Effects of Trait Self-Control on Affective Well-Being and Life Satisfaction." *Journal of Personality* 82 (4): 265–77.
- Hogg, Allen. 2003. "Web Efforts to Energize Research." *Electric Perspectives* 28 (5): 81–83.
- Holbrook, Morris B., and Rajeev Batra. 1987. "Assessing Mediators to of the Role of Emotions Responses as Consumer Advertising." *Journal of Consumer Research* 14 (3): 404–20.
- Hollis, Nigel. 2005. "Ten Years of Learning on How Online Advertising Builds Brands." *Journal of Advertising Research*.
- Holmes-Smith, P., and K. J. Rowe. 1994. "Development and Use of Congeneric Measurement Models in School Effectiveness Research: Improving the Reliability and Validity of Composite and Latent Variables for Fitting Multilevel and Structural Equation Models." In *Paper Presented at the International Congress for School Effectiveness and Improvement, World Congress Centre, Melbourne, January 3-6, 1994*.
- Homans, George C. 1958. "Social Behavior as Exchange." *American Journal of Sociology* 63 (6): 597–606.
- Howard, Daniel J., Suzanne B. Shu, and Roger A. Kerin. 2007. "Reference Price and Scarcity Appeals and the Use of Multiple Influence Strategies in Retail Newspaper Advertising." *Social Influence* 2 (1): 18–28.
- Hu, L., P. Bentler, and Y. Kano. 1992. "Can Test Statistics in Covariance Structure Analysis Be Trusted?" *Psychological Bulletin* 112 (2): 351–62.
- Hu, L., and Peter M. Bentler. 1998. "Fit Indices in Covariance Structure Modeling: Sensitivity

- to Underparameterized Model Misspecification.” *Psychological Methods* 3 (4): 424–53.
- . 1999. “Cutoff Criteria for Fit Indexes in Covariance Structure Analysis: Conventional Criteria versus New Alternatives.” *Structural Equation Modeling: A Multidisciplinary Journal* 6 (1): 1–55.
- Huhmann, Bruce A, and Timothy P Brotherton. 1997. “A Content Analysis of Guilt Appeals in Popular Magazine Advertisements.” *Journal of Advertising* 26 (2): 35–46.
- Hull, C. Leonard. 1943. *Principles of Behaviour*. New York, London: D. Appleton-Century Company, Incorporated.
- Hunt, Shelby D. 1976. “Informational vs. Persuasive Advertising: An Appraisal.” *Journal of Advertising* 5 (3): 5–8.
- Hwang, Yookyung, Eunju Ko, and Carol M. Megehee. 2014. “When Higher Prices Increase Sales: How Chronic and Manipulated Desires for Conspicuousness and Rarity Moderate Price’s Impact on Choice of Luxury Brands.” *Journal of Business Research* 67 (9): 1912–20.
- Icek, Ajzen. 2005. *Attitudes, Personality and Behavior*. 2nd ed. Maidenhead, Berkshire, England: Open University Press.
- Ilieva, Janet, Steve Baron, and Nigel M. Healey. 2002. “Online Surveys in Marketing Research: Pros and Cons.” *International Journal of Market Research* 44 (3): 361–76.
- Inman, J. Jeffrey, Anil C. Peter, and Priya Raghurir. 1997. “Framing the Deal: The Role of Restrictions in Accentuating Deal Value.” *Journal of Consumer Research* 24 (1): 68–79.
- “Instant Success: First Edition of All-New Volvo XC90 Sold out in 47 Hours.” 2014.
- Izard, C. E. 1977. *Human Emotions*. New York: Plenum Press.
- Jaehwan, Kwon, and Dhananjay Nayakankuppam. 2015. “Strength without Elaboration: The Role of Implicit Self-Theories in Forming and Accessing Attitudes.” *Journal of Consumer Research* 42 (2): 316–39.

- Jamieson, Linda F, and Frank M Bass. 1989. "Adjusting Stated Intention Measures to Predict Trial Purchase of New Products: A Comparison of Models and Methods." *Journal of Marketing Research* 26 (3): 336–45.
- Jang, Wonseok Eric, Yong Jae Ko, Jon D. Morris, and Yonghwan Chang. 2015. "Scarcity Message Effects on Consumption Behaviour: Limited Edition Product Considerations." *Psychology & Marketing* 32 (10): 989–1001.
- Jessop, Donna C, and Jennifer Wade. 2008. "Fear Appeals and Binge Drinking: A Terror Management Theory Perspective." *British Journal of Health Psychology* 13 (4): 773–88.
- Joachimsthaler, Erich A., and John L Lastovicka. 1984. "Optimal Stimulation Level-Exploratory Behavior Models." *Journal of Consumer Research* 11 (3): 830–35.
- Jones, Courtney. 2016. "If You Don't Have FOMO You Don't Know What You're Missing Out On." <http://www.huffingtonpost.com.au/courtney-jones/if-you-dont-have-fomo-you-dont-know-what-youre-missing-out-on/>.
- Jung, Jae Min, and James J. Kellaris. 2004. "Cross-National Differences in Proneness to Scarcity Effects: The Moderating Roles of Familiarity, Uncertainty Avoidance, and Need for Cognitive Closure." *Psychology and Marketing* 21 (9): 739–53.
- Juster, F Thomas. 1966. "Consumer Buying Intentions and Purchase Probability: An Experiment in Survey Design." *Journal of the American Statistical Association* 61 (315): 658–96.
- JWT Intelligence. 2011. "Fear of Missing Out." <https://www.jwt.com/en/worldwide/news/fomojwtexploresfearofmissingoutphenomenon/>.
- . 2012. "FOMO: The Fear Of Missing Out (March 2012 Update)." <http://www.slideshare.net/jwtintelligence/the-fear-of-missing-out-fomo-march-2012-update>.
- Kahneman, Daniel, Jack L Knetsch, and Richard H Thaler. 1991. "Anomalies: The Endowment Effect, Loss Aversion, and Status Quo Bias." *Journal of Economic Perspectives* 5 (1): 193–206.

- Kalwani, M. U., and a. J. Silk. 1982. "On the Reliability and Predictive Validity of Purchase Intention Measures." *Marketing Science* 1 (3): 243–86.
- Kapferer, Jean-Noël, and Vincent Bastienm. 2012. *The Luxury Strategy - Break the Rules of Marketing to Build Luxury Brands*. 2nd ed. London: KoganPage.
- Kapferer, Jean-Noël, and Gilles Laurent. 2016. "Where Do Consumers Think Luxury Begins? A Study of Perceived Minimum Price for 21 Luxury Goods in 7 Countries." *Journal of Business Research* 69 (1): 332–40.
- Kapferer, Jean-Noël, and Pierre Valette-Florence. 2016. "Beyond Rarity: The Paths of Luxury Desire. How Luxury Brands Grow yet Remain Desirable." *Journal of Product & Brand Management* 25 (2): 120–33.
- Kastanakis, Minas N, and George Balabanis. 2012. "Between the Mass and the Class: Antecedents of the 'bandwagon' Luxury Consumption Behavior." *JOUR. Journal of Business Research* 65 (10): 1399–1407.
- "Kate Moss Proudly Presents Kate Summer Time Perfume." 2009. <http://stylefrizz.com/200902/kate-moss-proudly-presents-kate-summertime-perfume/>.
- Kathuria, Ravi. 2000. "Competitive Priorities and Managerial Performance: A Taxonomy of Small Manufacturers." *Journal of Operations Management* 18 (6): 627–41.
- Kemp, Simon. 1998. "Perceiving Luxury and Necessity." *Journal of Economic Psychology* 19 (5): 591–606.
- Kim, Jooyoung, Youngshim Baek, and Yang Ho Choi. 2012. "The Structural Effects of Metaphor-Elicited Cognitive and Affective Elaboration Levels on Attitude Toward the Ad." *Journal of Advertising* 41 (2): 77–96.
- King, Jen. 2013. "Jaeger-LeCoultre Fetes Anniversary with Venice Film Festival Partnership." <https://www.luxurydaily.com/jaeger-lecoultre-fetes-anniversary-with-venice-film-festival-partnership/>.
- Kirkham, James. 2015. "Why Burberry's Snapchat Testino Campaign Is the Best Piece of Marketing in 2015." http://www.campaignlive.co.uk/article/1369558/why-burberrys-snapchat-testino-campaign-best-piece-marketing-2015?src_site=marketingmagazine.

- Kline, R. 2005. 2005. *Principles and Practice of Structural Equation Modeling*. 2nd ed. New York: The Guildford Press.
- Kolar, Tomaž, and Vesna Zabkar. 2014. "The Effect of General Consumer Attitudes and Personality Traits on Attitudes towards Domestic and Multinational Products in the Balkan Region." *Journal for East European Management Studies* 19 (1): 58–80.
- Ku, Hsuan-Hsuan, Chien-Chih Kuo, Yi-Ting Yang, and Tzu-Shao Chung. 2013. "Decision-Contextual and Individual Influences on Scarcity Effects." *European Journal of Marketing* 47 (8): 1314–32.
- Kwon, Kyoung Nan, and Yoo Jin Kwon. 2013. "Heterogeneity of Deal Proneness: Value-Mining, Price-Mining, and Encounters." *Journal of Retailing and Consumer Services* 20 (2): 182–88.
- Lai, Carlo, Daniela Altavilla, Ambra Ronconi, and Paola Aceto. 2016. "Fear of Missing out (FOMO) Is Associated with Activation of the Right Middle Temporal Gyrus during Inclusion Social Cue." *Computers in Human Behavior* 61: 516–21.
- Lam, Kit-Chun Joanna, and Pak-Wai Liu. 2014. "Socio-Economic Inequalities in Happiness in China and U.S." *Social Indicators Research* 116 (2): 509–33.
- Lamb, Rachel. 2011. "How Far Is Too Far with Brand and Line Extensions?" *Luxury Daily*. <https://www.luxurydaily.com/how-far-is-too-far-with-brand-extensions/>.
- LaTour, Michael S., Robin L. Snipes, and Sara J. Bliss. 1996. "Don't Be Afraid to Use Fear Appeals: An Experimental Study." *Journal of Advertising Research* 36 (2): 59–67.
- Lewin, K. 1951. *Field Theory in Social Science: Selected Theoretical Papers*. Edited by D. Cartwright. New York: Harper & Brothers.
- Li, Hairong, Steven M Edwards, and Joo-Hyun Lee. 2002. "Measuring the Intrusiveness of Advertisements: Scale Development and Validation." *Journal of Advertising* 31 (2): 37–47.
- Lim, Christine. 2013. "Analysis of Time Pressure and Value Perception: An Exploratory Study of Consumer Travel Fair." *Journal of Travel & Tourism Marketing* 30 (5): 509–21.

- Lim, Kang Li. 2013. "Investment Intentions: A Consumer Behaviour Framework." The University of Western Australia. [http://research-repository.uwa.edu.au/en/publications/investment-intentions-a-consumer-behaviour-framework\(e7410b9e-46a6-46e9-8a4b-6d7f4721d8a5\).html?uwaCustom=thesis](http://research-repository.uwa.edu.au/en/publications/investment-intentions-a-consumer-behaviour-framework(e7410b9e-46a6-46e9-8a4b-6d7f4721d8a5).html?uwaCustom=thesis).
- Loose, Terence. 2016. "3 in 5 Millennials Say 'FOMO' Isn't an Excuse for Reckless Spending, Survey Finds." <https://www.gobankingrates.com/personal-finance/millennials-afraid-financial-strain-fomo-survey-finds/>.
- Lord, Kenneth R, Myung-Soo Lee, and Paul L Sauer. 1995. "The Combined Influence Hypothesis : Central and Peripheral Antecedents of Attitude toward the Ad." *Journal of Advertising* 24 (1): 73–85.
- "Louis Vuitton Watches F/W 09." 2009. <https://models.com/work/louis-vuitton-louis-vuitton-watches-fw-09>.
- Lu, Yifu, and Craig Davis. 2014. "Absolut Vodka's First Limited Edition For Chinese Consumers." *Journal of Case Studies* 32 (1): 109–18.
- Lucidi, Fabio, Luca Mallia, Lambros Lazuras, and Cristiano Violani. 2014. "Personality and Attitudes as Predictors of Risky Driving among Older Drivers." *Accident Analysis & Prevention* 72: 318–24.
- Lunardo, Renaud, and Dominique Roux. 2015. "In-Store Arousal and Consumers' Inferences of Manipulative Intent in the Store Environment." *European Journal of Marketing* 49 (5/6): 646–67.
- Luttmer, Erzo F. P. 2005. "Neighbors as Negatives: Relative Earnings and Well-Being." *Quarterly Journal of Economics* 120 (3): 963–1002.
- Lutz, R. J. 1985. "Affective and Cognitive Antecedents of Attitude Toward the Ad: A Conceptual Framework." In *Psychological Processes and Advertising Effects: Theory, Research and Application*, edited by L.F. Alwitt and A. A. Mitchell, 45–63. Hillsdale, NJ: Erlbaum.

- Lutz, Richard J., Scott B. McKenzie, and George E. Belch. 1983. "Attitude Toward the Ad As a Mediator of Advertising Effectiveness: Determinants and Consequences." *Advances in Consumer Research* 10: 532–39.
- Lwin, Michael, and Ian Phau. 2011. "An Exploratory Study of Reactive Guilt Appeals." In *20th Annual World Business Congress*, edited by E. Kaynak and T. Harcar, 304–9. Poznan, Poland: International Management Development Association.
- Lynn, Michael. 1991. "Scarcity Effects on Value: A Quantitative Review of the Commodity Theory Literature." *Psychology and Marketing* 8 (1): 43–57.
- Lynn, Michael, and Judy Harris. 1997. "Individual Differences in the Pursuit of Self-Uniqueness Through Consumption." *Journal of Applied Social Psychology* 27 (21): 1861–83.
- MacCallum, R. C., M. W. Browne, and H. M. Sugawara. 1996. "Power Analysis and Determination of Sample Size for Covariance Structure Modeling." *Psychological Methods* 1 (2): 130–49.
- MacCallum, R C, and J T Austin. 2000. "Applications of Structural Equation Modeling in Psychological Research." *Annual Review of Psychology* 51 (1): 201–26. doi:10.1146/annurev.psych.51.1.201.
- MacKenzie, Scott B., Lutz, Richard J., Belch, George E. 1986. "The Role of Attitude Toward the Ad as a Mediator of Advertising Effectiveness: A Test of Competing Explanations." *Journal of Marketing Research* 23 (2): 130–43.
- Mackenzie, Scott B, and Richard J Lutz. 1989. "An Empirical Examination of the Structural Antecedents of Attitude toward the Ad in an Advertising Pretesting Context." *Source: Journal of Marketing* 53(2): 48–65.
- Malter, Alan J. 1996. "An Introduction to Embodied Cognition: Implications for Consumer Research." *Advances in Consumer Research* 23: 272–276. <http://acrwebsite.org/volumes/7962/volumes/v23/NA-23>.

- Maren, Stephen. 2008. "Pavlovian Fear Conditioning as a Behavioral Assay for Hippocampus and Amygdala Function: Cautions and Caveats." *European Journal of Neuroscience* 28 (8): 1661–66.
- Markus, H, M Crane, S Bernstein, and M Siladi. 1982. "Self-Schemas and Gender." *Journal of Personality and Social Psychology* 42 (1): 38–50.
- Marsh, Herbert W. 1994. "Confirmatory Factor Analysis Models of Factorial Invariance: A Multifaceted Approach." *Structural Equation Modeling: A Multidisciplinary Journal* 1 (1): 5–34.
- Marsh, Herbert W., John R. Balla, and Roderick P. McDonald. 1988. "Goodness-of-Fit Indexes in Confirmatory Factor Analysis: The Effect of Sample Size." *Psychological Bulletin* 103 (3): 391.
- Maslow, A. H. 1943. "A Theory of Human Motivation." *Psychological Review* 50 (4): 370–96.
- Masset, Philippe, and Jean-Philippe Weisskopf. 2013. "Wine as an Alternative Asset Class." In *Wine Economics - Quantitative Studies and Empirical Applications*, edited by Eric Giraud-Heraud and Marie-Claude Pichery, 173–99. London: Palgrave Macmillan.
- Mathur, Anil. 1999. "Incorporating Choice into an Attitudinal Framework." *Journal of International Consumer Marketing* 10 (4): 93–110.
- Matzler, Kurt, Rita Faullant, Birgit Renzl, and Verena Leiter. 2005. "The Relationship between Personality Traits (Extraversion and Neuroticism), Emotions and Customer Self-Satisfaction." *Innovative Marketing* 1 (2): 32–39.
- McDonald, Heath, and Stewart Adam. 2003. "A Comparison of Online and Postal Data Collection Methods in Marketing Research." *Marketing Intelligence & Planning* 21 (2): 85–95.
- McGinnis, Patrick J. 2004. "Social Theory at HBS: McGinnis Two Fos." *The Harbus*. <http://www.harbus.org/2004/social-theory-at-hbs-2749/>.
- McNeil, D.W., A.M. Vargovich, B. J. Ries, and C. L. Turk. 2012. "Anxiety and Fear." In *Encyclopedia of Human Behavior*, 2nd ed., 161–68. San Diego: Academic Press.

- McNeil, John. 1974. "Federal Programs to Measure Consumer Purchase Expectations, 1946-1973: A Post-Mortem." *Journal of Consumer Research* 1 (3): 1–10.
- "Mercedes-Benz Style." 2016. Accessed September 2. <https://www.mercedes-benz.com/en/mercedes-benz/design/mercedes-benz-style/>.
- Miniard, Paul W., Sunil Bhatla, and Randall L. Rose. 1990. "On the Formation and Relationship of Ad and Brand Attitudes: An Experimental and Causal Analysis." *Journal of Marketing Research* 27 (3): 290–303.
- Mischel, W, and Y Shoda. 1995. "A Cognitive-Affective System Theory of Personality: Reconceptualizing Situations, Dispositions, Dynamics, and Invariance in Personality Structure." *Psychological Review* 102 (2): 246–68.
- Misslin, René. 2003. "The Defense System of Fear: Behavior and Neurocircuitry." *Neurophysiologie Clinique* 33 (2): 55–66.
- Mitchell, Andrew A., and Jerry C. Olson. 1981. "Are Product Attribute Beliefs the Only Mediator of Advertising Effects on Brand Attitude?" *Journal of Marketing Research* 18 (3): 318–32.
- Mooradian, T. A. 1996. "Personality and Ad-Evoked Feelings: The Case for Extraversion and Neuroticism." *Journal of the Academy of Marketing Science* 24 (2): 99–109.
- Mooradian, Todd A., and James M. Olver. 1997. "'I Can't Get No Satisfaction: The Impact of Personality and Emotion on Postpurchase Processes.'" *Psychology & Marketing* 14 (4): 379–93.
- Morris, Jon D., Chongmoo Woo, James A. Geason, and Jooyoung Kim. 2002. "The Power of Affect: Predicting Intention." *Journal of Advertising Research* 42 (3): 7–17.
- Morwitz, Vicki. 1997. "Why Consumers Don't Always Accurately Predict Their Own Future Behavior." *Marketing Letters* 8 (1): 57–70.
- Mourali, Mehdi, Michel Laroche, and Frank Pons. 2005. "Individualistic Orientation and Consumer Susceptibility to Interpersonal Influence." *Journal of Services Marketing* 19 (3): 164–73.

- Mowen, John C. 2000. *The 3M Model of Motivation and Personality: Theory and Empirical Applications to Consumer Behavior*. Boston, MA: Kluwer Academic.
- . 2004. “Exploring the Trait of Competitiveness and Its Consumer Behavior Consequences.” *Journal of Consumer Psychology* 14 (1): 52–63.
- Mowen, John C., Eric G. Harris, and Sterling A. Bone. 2004. “Personality Traits and Fear Response to Print Advertisements: Theory and an Empirical Study.” *Psychology and Marketing* 21 (11): 927–43.
- Mukherjee, Ashesh, and Seung Yun Lee. 2016. “Scarcity Appeals in Advertising: The Moderating Role of Expectation of Scarcity.” *Journal of Advertising* 45 (2): 256–68.
- Musil, Steven. 2010. “Amazon Sells out of Kindle.” <https://www.cnet.com/au/news/amazon-sells-out-of-kindle/>.
- Myers, Susan D., Sandipan Sen, and Aliosha Alexandrov. 2010. “The Moderating Effect of Personality Traits on Attitudes toward Advertisements: A Contingency Framework.” *Management & Marketing* 5 (3): 3–20.
- Navarro, Ivan. 2012. “Diane Von Fürstenberg for Diet Coke.” <http://www.thedieline.com/blog/2012/2/15/diane-von-furstenberg-for-diet-coke.html>.
- Netemeyer, Richard G., William O. Bearden, and Subhash Sharma. 2003. *Scaling Procedures: Issues and Applications*. Thousand Oaks: Sage Publications.
- Ng, Benjamin Wai-Ming. 2001. “The Hello Kitty Craze in Singapore: A Cultural and Comparative Analysis.” *Asian Profile* 29 (6): 1–23. [http://www.cuhk.edu.hk/jas/staff/benng/publications/Hello Kitty \(Asian Profile\).pdf](http://www.cuhk.edu.hk/jas/staff/benng/publications/Hello_Kitty_(Asian_Profile).pdf).
- Nickerson, Raymond S. 1998. “Confirmation Bias: A Ubiquitous Phenomenon in Many Guises.” *Review of General Psychology* 2 (2): 175–220.
- Nudd, Tim. 2013. “Ad of the Day: David Bowie Serenades Arizona Muse for Louis Vuitton.” <http://www.adweek.com/news/advertising-branding/ad-day-david-bowie-serenades-arizona-muse-louis-vuitton-153798>.

- Nueno, Jose Luis, and John a. Quelch. 1998. "The Mass Marketing of Luxury." *Business Horizons* 41 (6): 61–68.
- Nunnally, J. C. 1978. *Psychometric Theory*. 2nd ed. New York: McGraw-Hill.
- O'Guinn, Thomas C., and Ronald J. Faber. 1989. "Compulsive Buying: A Phenomenological Exploration." *Journal of Consumer Research* 16 (2): 147–57.
- O'Leary-Kelly, Scott W, and Robert J. Vokurka. 1998. "The Empirical Assessment of Construct Validity." *Journal of Operations Management* 16 (4): 387–405.
- Oh, Hyunjoo. 2005. "Measuring Affective Reactions to Print Apparel Advertisements: A Scale Development." *Journal of Fashion Marketing and Management* 9 (3): 283–305.
- Okonkwo, Uché. 2009. "The Luxury Brand Strategy Challenge." *Journal of Brand Management* 16 (5): 287–89.
- Olney, Thomas J., Morris B. Holbrook, and Rajeev Batra. 1991. "Consumer Responses to Advertising: The Effects of Ad Content, Emotions, and Attitude toward the Ad on Viewing Time." *Journal of Consumer Research* 17 (4): 440–53.
- "On a Hello Kitty Hunt." 2013. *Asiaone News*.
<http://news.asiaone.com/News/Latest%2BNews/Singapore/Story/A1Story20130701-433678.html>.
- Online, Oxford English Dictionary. 2010. "Oxford English Dictionary Online." *Oxford English Dictionary*. <http://dictionary.oed.com>.
- Orlovic, Mirela. 2002. *Strategies and Structure of the Luxury Clothing and Accessories Sector: A Critical Analysis Based on Porter's Five Forces Model*. Hamburg: Diplomatica Verlag GmbH.
- Orom, Heather, and Daniel Cervone. 2009. "Personality Dynamics, Meaning, and Idiosyncrasy: Identifying Cross-Situational Coherence by Assessing Personality Architecture." *Journal of Research in Personality* 43 (2): 228–40.
- Osborne, J. W. 2002. "Notes on the Use of Data Transformations." *Practical Assessment, Research and Evaluation* 8 (6): 1–8.

- Park, Hye-Jung, Nancy J. Rabolt, and Kyung Sook Jeon. 2008. "Purchasing Global Luxury Brands among Young Korean Consumers." *Journal of Fashion Marketing and Management* 12 (2): 244–59.
- Parker, Jeffrey R., and Donald R. Lehmann. 2011. "When Shelf-Based Scarcity Impacts Consumer Preferences." *Journal of Retailing* 87 (2): 142–55.
- Parks, Laura, and Russell P. Guay. 2009. "Personality, Values, and Motivation." *Personality and Individual Differences* 47 (7): 675–84.
- Pate, Sharon S, and Melinda Adams. 2013. "The Influence of Social Networking Sites on Buying Behaviors of Millennials." *Atlantic Marketing Journal* 2 (1): 92–109.
- "Pathos, Ethos And Logos." 2016. Accessed October 28. <http://www.proprofs.com/quiz-school/story.php?title=ntuymde3>.
- Pedhazur, E. J., and L. P. Schmelkin. 1991. *Measurement, Design, and Analysis: An Integrated Approach*. New York: Taylor & Francis Group.
- Peter, J. Paul. 1981. "Construct Validity: A Review of Basic Issues and Marketing Practices." *Journal of Marketing Research* 18 (2): 133–45.
- Peterson, Hayley. 2015. "This Is What It Looks like When a Company Sells \$14 Billion in Merchandise in a Single Day." <http://www.businessinsider.com/alibaba-singles-day-sales-2015-11?IR=T>.
- Petrovic, Sandra Raicevic. 2015. "Katy Perry Spring Reign." <http://www.fragrantica.com/news/Katy-Perry-Spring-Reign-6290.html>.
- Pooja, Mathur, E. Black, Jennifer, Cao Jiangmei, D. Berger, Paul, and D. Weinberg, Bruce. 2012. "The Impact of Social Media Usage on Consumer Buying Behavior." *Advances in Management* 5 (1): 14–22.
- "Post Your Purchase and Win a Cascio Gift Card." 2016. <http://www.interstatemusic.com/BoughtAtCascio.aspx>.

- Przybylski, Andrew K., Kou Murayama, Cody R. Dehaan, and Valerie Gladwell. 2013. "Motivational, Emotional, and Behavioral Correlates of Fear of Missing out." *Computers in Human Behavior* 29 (4): 1841–48.
- "Puma evoSPEED 1.3 PINK." 2015. <http://www.prodirectsoccer.com/responsive/puma/evospeed/puma-evospeed-pink-football-boots-rose-fluorescent-pink-black.aspx>.
- Reagle, Joseph. 2015. "Following the Joneses: FOMO and Conspicuous Sociality." *First Monday* 20 (10): 1–1.
- Redmond, William H. 2000. "Consumer Rationality and Consumer Sovereignty." *Review of Social Economy* 58 (2): 177–96.
- Remy, Nathalie, Marco Catena, and Benjamin Durand-Servoingt. 2015. "Digital inside: Get Wired for the Ultimate Luxury Experience." McKinsey & Company.
- "RetailMeNot Coupons, Discounts." 2016. <https://play.google.com/store/apps/details?id=com.whaleshark.retailmenot>.
- Rhodes, S D. 2003. "Collecting Behavioural Data Using the World Wide Web: Considerations for Researchers." *Journal of Epidemiology & Community Health* 57 (1): 68–73.
- Rigby, Chloe. 2015. "Burberry Digital Investment Pays off in Double-Digit Sales Growth." <http://internetretailing.net/2015/05/burberry-digital-investment-pays-off-in-double-digit-sales-growth/>.
- Riquelme, Isabel P., and Sergio Roman. 2014. "The Influence of Consumers' Cognitive and Psychographic Traits on Perceived Deception: A Comparison Between Online and Offline Retailing Contexts." *Journal of Business Ethics* 119 (3): 405–22.
- Robehmed, Natalie. 2013. "'Twerk' and 'Selfie' Added to Online Dictionary." *Forbes.com*.
- Roberts, Brent W. 2009. "Back to the Future: Personality and Assessment and Personality Development." *Journal of Research in Personality* 43 (2): 137–45.

- Rogers, Ronald W. 1975. "A Protection Motivation Theory of Fear Appeals and Attitude Change." *The Journal of Psychology* 91 (1): 93–114.
- Rook, Dennis W., and Robert J. Fisher. 1995. "Normative Influences on Impulsive Buying Behavior." *Journal of Consumer Research* 22 (3): 305.
- Roux, Caroline, Kelly Goldsmith, and Andrea Bonezzi. 2015. "On the Psychology of Scarcity: When Reminders of Resource Scarcity Promote Selfish (and Generous) Behavior." *Journal of Consumer Research* 42 (4): 615–31.
- Roy, Rajat, and Piyush Sharma. 2015. "Scarcity Appeal in Advertising: Exploring the Moderating Roles of Need for Uniqueness and Message Framing." *Journal of Advertising* 44 (4): 1–11.
- Ruvio, Ayalla, Aviv Shoham, and Maja Makovec Brenic. 2008. "Consumers' Need for Uniqueness: Short Form Scale Development and Cross Cultural Validation." *International Marketing Review* 25 (1): 33–53.
- Ruz, Camila. 2015. "Why Do People Act the Way They Do on Black Friday?" <http://www.bbc.com/news/magazine-34789019>.
- Ryan, R M, and E L Deci. 2000. "Self-Determination Theory and the Facilitation of Intrinsic Motivation, Social Development, and Well-Being." *The American Psychologist* 55 (1): 68–78.
- Sagarin, Brad J, Robert B Cialdini, William E Rice, and Sherman B Serna. 2002. "Dispelling the Illusion of Invulnerability: The Motivations and Mechanisms of Resistance to Persuasion." *Journal of Personality and Social Psychology* 83 (3): 526–41.
- Sanz, Anita. 2015. "What Is the Psychology behind FOMO." *Quora*. <https://www.quora.com/What-is-the-psychology-behind-FOMO>.
- Schaninger, Charles M., and Donald Sciglimpaglia. 1981. "The Influence of Cognitive Personality Traits and Demographics on Consumer Information Acquisition." *The Journal of Consumer Research* 8 (2): 208–16.
- Schiffer, M. B., and A. R. Miller. 1999. *The Material Life of Human Beings: Artifacts, Behavior, and Communication*. New York: Routledge.

- Schiffman, Leon G., Aron O’Cass, Angela Paladino, and Jamie Carlson. 2013. *Consumer Behaviour*. 6th ed. NSW: Pearson Education Australia.
- Schillewaert, Niels, and Pascale Meulemeester. 2005. “Comparing Response Distributions of Offline and Online Data Collection Methods.” *International Journal of Market Research* 47 (2): 163–78.
- Schindler, Robert M., Vishal Lala, and Colleen Corcoran. 2014. “Intergenerational Influence in Consumer Deal Proneness.” *Psychology and Marketing* 31 (5): 307–20.
- Schreckinger, Ben, Oliva Rassow, Jamie Ducharme, Olga Khvan, and Garrett Quinn. 2014. “The History of FOMO.” *Boston Magazine*. <http://www.bostonmagazine.com/news/article/2014/07/29/fomo-history/>.
- Schroeder, Scott. 2015. “Language: An Evolutionary Development for Human Survival.” <https://blogs.commonstons.georgetown.edu/cctp-748-spring2015/2015/01/26/language-an-evolutionary-development-for-human-survival/>.
- Schultz, Abby. 2016. “Luxury Spending to Pick Up Despite Global Gloom.” <http://www.barrons.com/articles/luxury-spending-to-pick-up-despite-global-gloom-1455859998>.
- Schumacker, R., and R. Lomax. 2004. *A Beginner’s Guide to Structural Equation Modeling*. 2nd ed. Mahwah, NJ: Lawrence Erlbaum Associates Publishers.
- Schwartz, Nick. 2015. “Black Friday Enthusiast Has Been Luxuriously Camping outside of Best Buy since Last Week.” <http://ftw.usatoday.com/2015/11/black-friday-sales-shopper-camping-outside-best-buy-setup>.
- Seb, Joseph. 2015. “Burberry’s Snapchat and Periscope Campaigns Deliver a Record 100m Impressions.” <http://www.thedrum.com/news/2015/07/16/burberry-s-snapchat-and-periscope-campaigns-deliver-record-100m-impressions>.
- Sharma, Kiran, Joshi Gandharva, and Shashi Shekhar Kumar. 2015. “An Investigative Study on the Impact of Affective and Cognitive States on Impulse Buying.” *Romanian Journal of Marketing* 1: 32–38.

- Shea, Erin. 2013. "Future of Fashion Brands Depends on Millennial Brand Affinity." <https://www.luxurydaily.com/millennials-are-a-crucial-target-for-luxury-fashion-marketers/>.
- Shen, Feng. 2013. "Information Congruity in Scarcity Appeal: A Structural Equation Modeling Study of Time-Limited Promotions." *Journal of Marketing Communications* 22 (2): 1–20.
- Sherman, Steven J, and Russell H Fazio. 1983. "Parallels between Attitudes and Traits as Predictors of Behavior." *Journal of Personality* 51 (3): 308–45.
- Sheth, Jagdish N., and Atul Parvatiyar. 1995. "Relationship Marketing in Consumer Markets: Antecedents and Consequences." *Journal of the Academy of Marketing Science* 23 (4): 255–71.
- Shimp, T. A. 1981. "Attitude toward the Ad as a Mediator of Consumer Brand Choice." *Journal of Advertising* 10 (2): 9–48.
- . 2010. *Advertising Promotion and Other Aspects of Integrated Marketing Communications*. 8th ed. Mason, Ohio: South-Western Cengage Learning.
- Shimp, T. A., and A. Kavas. 1984. "The Theory of Reasoned Action Applied to Coupon Usage." *Journal of Consumer Research* 11 (3): 795–809.
- Shiner, Rebecca, and Avshalom Caspi. 2003. "Personality Differences in Childhood and Adolescence: Measurement, Development, and Consequences." *Journal of Child Psychology and Psychiatry and Allied Disciplines* 44: 2–32.
- Silverstein, Michael J, and Neil Fiske. 2003. "Luxury for the Masses." *Harvard Business Review* 81 (4): 48–57.
- Sinclair, Mike. 2016. "Bentley Launches Australian Limited-Edition." <http://www.motoring.com.au/bentley-launches-australian-limited-edition-101740/>.
- Smelser, N. J., and P. B. Baltes. 2001. "Traditions:Social." *International Encyclopedia of the Social and Behavioral Sciences* 11 (1): 15829–33.

- Snipes, Robin L, Michael S Latour, and Sara J Bliss. 1999. "A Model of the Effects of Self-Efficacy on the Perceived Ethicality and Performance of Fear Appeals in Advertising." *Journal of Business Ethics* 19 (3): 273–85.
- Snyder, C.R. 1992. "Product Scarcity by Need for Uniqueness Interaction: A Consumer Catch-22 Carousel?" *Basic and Applied Social Psychology* 13 (1): 9–24.
- Snyder, C. R., and Howard L. Fromkin. 1977. "Abnormality as a Positive Characteristic: The Development and Validation of a Scale Measuring Need for Uniqueness." *Journal of Abnormal Psychology* 86 (5): 518–27.
- . 1980. "Theory of Uniqueness." In *Uniqueness*, 31–55. Boston, MA: Springer US.
- Soderlund, Magnus, and Niclas Ohman. 2003. "Behavioral Intentions in Satisfaction Research Revisited." *Journal of Consumer Satisfaction, Dissatisfaction and Complaining Behavior* 23 (16): 53–66.
- Spears, Nancy, and Surendra N. Singh. 2004. "Measuring Attitude toward the Brand and Purchase Intentions." *Journal of Current Issues & Research in Advertising* 26 (2): 53–66.
- Stafford, James E. 1966. "Effects of Group Influences on Consumer Brand Preferences." *Journal of Marketing Research* 3 (1): 68–75.
- Stafford, Maria Royne, and Ellen Day. 1995. "Retail Services Advertising: The Effects of Appeal, Medium, and Service." *Journal of Advertising* 24 (1): 57–71.
- Steenkamp, Jan-Benedict E.M., and Alberto Maydeu-Olivares. 2015. "Stability and Change in Consumer Traits: Evidence from a 12-Year Longitudinal Study, 2002–2013." *Journal of Marketing Research* 52 (3): 287–308.
- Steiger, James H. 2007. "Understanding the Limitations of Global Fit Assessment in Structural Equation Modeling." *Personality and Individual Differences* 42 (5): 893–98.
- Steimer, Thierry. 2002. "The Biology of Fear- and Anxiety-Related Behaviors." *Dialogues in Clinical Neuroscience* 4 (3): 231–49.

- Streep, Peg. 2012. "Millennial Generation FOMO." <https://www.psychologytoday.com/blog/tech-support/201211/millennial-generation-fomo>.
- Strugatz, Rachel. 2015. "Burberry, Mario Testino Tap Into Snapchat." <http://wwd.com/fashion-news/fashion-scoops/burberry-mario-testino-tap-into-snapchat-10266512/>.
- Sun, Gong, Steven D'Alessandro, and L. W. Johnson. 2016. "Exploring Luxury Value Perceptions in China: Direct and Indirect Effects." *International Journal of Market Research* 58 (5): 1–16.
- Sun, Tao, and Guohua Wu. 2011. "Trait Predictors of Online Impulsive Buying Tendency: A Hierarchical Approach." *The Journal of Marketing Theory and Practice* 19 (3): 337–46.
- Sutherland, Max, and A. K. Sylvester. 2000. *Advertising and the Mind of the Consumer - What Works, What Doesn't and Why*. 2nd ed. London: KoganPage.
- Sweeney, Jillian C, Douglas Hausknecht, and Geoffrey N Soutar. 2000. "Cognitive Dissonance after Purchase: A Multidimensional Scale." *Psychology & Marketing* 17 (5): 369–85.
- Tabachnick, B. G., and L. S. Fidell. 1989. *Using Multivariate Statistics*. New York: Harper and Row.
- Tabachnick, Barbara G., and Linda S. Fidell. 2001. *Using Multivariate Statistics*. 4th ed. Needham Heights, MA: Allyn and Bacon.
- Tak, Preeti, and Ashish Pareek. 2016. "Consumer Attitude Towards Luxury Brands: An Empirical Study." *IUP Journal of Brand Management* 13 (1): 7–19.
- Tan, Soo-Jiuan, and Seow Hwang Chua. 2004. "'While Stocks Last!' Impact of Framing on Consumers' Perception of Sales Promotions." *Journal of Consumer Marketing* 21 (5): 343–55.
- Taylor, Kate. 2014. "The 'FOMO Epidemic' and Why It Matters to Millennial-Hungry Businesses." <https://www.entrepreneur.com/article/237566>.

- Teng, Lefa, Michel Laroche, and Huihuang Zhu. 2007. "The Effects of Multiple-Ads and Multiple-Brands on Consumer Attitude and Purchase Behavior." *Journal of Consumer Marketing* 24 (1): 27–35.
- Tepper, Kelly. 1994. "Need for Uniqueness: An Individual Difference Factor Affecting Nonconformity in Consumer Response." In *AMA Winter Educators' Conference Proceedings*, 5:207–8.
- "The All-New Volvo XC90 - First Edition." 2014. <https://www.media.volvocars.com/global/en-gb/search/results?SearchType=0&SearchText=XC90%2Blimited%2Bedition&Status=-1&SearchByDate=0&SortBy=0>.
- Tian, Kelly Tepper, William O. Bearden, and Gary L. Hunter. 2001. "Consumers' Need for Uniqueness: Scale Development and Validation." *Journal of Consumer Research* 28 (1): 50–66.
- "Ticket Warning: £10 Tickets for Soundplate NYE in London Almost Sold Out!" 2015. <http://soundplate.com/ticket-warning-10-tickets-for-soundplate-nye-in-london-almost-sold-out/>.
- "Toy Riot in Singapore Burger Joint." 2000. <http://news.bbc.co.uk/2/hi/asia-pacific/603932.stm>.
- Trocchia, Philip J, Ruby Q Saine, and Michael G Lockett. 2015. "I've Wanted A BMW Since I Was A Kid: An Exploratory Analysis Of The Aspirational Brand." *Journal of Applied Business Research* 31 (1): 331–44.
- Truong, Yann, and Rod McColl. 2011. "Intrinsic Motivations, Self-Esteem, and Luxury Goods Consumption." *Journal of Retailing and Consumer Services* 18 (6): 555–61.
- Truong, Yann, Rod McColl, and Philip J Kitchen. 2009. "New Luxury Brand Positioning and the Emergence of Masstige Brands." *Journal of Brand Management* 16 (5): 375–82.
- Tunney, Richard J, and David R Shanks. 2002. "A Re-Examination of Melioration and Rational Choice." *Journal of Behavioral Decision Making* 311 (August): 291–311.

- Ulleberg, Pål, and Torbjørn Rundmo. 2003. "Personality, Attitudes and Risk Perception as Predictors of Risky Driving Behaviour among Young Drivers." *Safety Science* 41 (5): 427–43.
- Vallen, Beth, Lauren G. Block, and Eric Eisenstein. 2014. "How Missed Temporal Deadlines Influence Consumption Behavior." *Journal of Consumer Marketing* 31 (5): 360–70.
- van Herpen, Erica, Rik Pieters, and Marcel Zeelenberg. 2009. "When Demand Accelerates Demand: Trailing the Bandwagon." *Journal of Consumer Psychology* 19 (3): 302–12.
- Verhallen, Theo M M, and Henry S J Robben. 1994. "Scarcity and Preference: An Experiment on Unavailability and Product Evaluation." *Journal of Economic Psychology* 15 (2): 315–31.
- Verhoef, Peter C. 2003. "Understanding the Effect of Customer Relationship Management Efforts on Customer Retention and Customer Share Development." *Journal of Marketing* 67 (4): 30–45.
- "Vibe Music Festival." 2016. <http://vibemusicfest.com/early-bird-tickets-sold-fast/>.
- Vigneron, Franck, and L.W. Johnson. 1999. "A Review and a Conceptual Framework of Prestige-Seeking Consumer Behavior." *Academy of Marketing Science Review* 1 (1): 1–15.
- Vigneron, Frank, and Lester W. Johnson. 2004. "Measuring Perceptions of Brand Luxury." *Journal of Brand Management* 11 (6): 484–506.
- Vojvodic, Katija, and Matea Matic. 2013. "Challenges of E-Retailing: Impulsive Buying Behaviour." CHAP. In *Challenges for the Trade of Central and Southeast Europe*, 29:155-171 SE – 9. International Business and Management. Emerald Group Publishing Limited. doi:doi:10.1108/S1876-066X(2013)0000029013.
- Wang, Yue. 2015. "Alibaba Generated \$14.3 Billion In Singles Day Sales, Breaking Last Year's Record of \$9.3 Billion." <http://www.forbes.com/sites/ywang/2015/11/11/alibaba-generated-14-3-billion-in-singles-day-sales-breaking-last-years-record-of-9-3-billion/#7c0ba06b2dd9>.

- Wei, Yujie, and Chunling Yu. 2012. "How Do Reference Groups Influence Self-Brand Connections among Chinese Consumers?" *Journal of Advertising* 41 (2): 39–54.
- Wells, William D, Clark Leavitt, and Maureen McConville. 1971. "A Reaction Profile for TV Commercials." *Journal of Advertising Research* 11 (6): 11–17.
- Wentzel, Daniel, Torsten Tomczak, and Andreas Herrmann. 2010. "The Moderating Effect of Manipulative Intent and Cognitive Resources on the Evaluation of Narrative Ads." *Psychology & Marketing* 27 (5): 510–30.
- West, Stephen G. 1975. "Increasing the Attractiveness of College Cafeteria Food: A Reactance Theory Perspective." *Journal of Applied Psychology* 60 (5): 656–58.
- Wheeler, S. C., K. G. DeMarree, and Richard. E. Petty. 2008. "A Match Made in the Laboratory: Persuasion and Matches to Primed Traits and Stereotypes." *JOUR. Journal of Experimental Social Psychology* 44 (4): 1035–47.
- Wheeler, S C, R E Petty, and G Y Bizer. 2005. "Self-Schema Matching and Attitude Change: Situational and Dispositional Determinants of Message Elaboration." *Journal of Consumer Research* 31 (4): 787–97.
- Wiedmann, Klaus Peter, Nadine Hennigs, and Astrid Siebels. 2009. "Value-Based Segmentation of Luxury Consumption Behavior." *Psychology and Marketing* 26 (7): 625–51.
- Wilcox, Keith, Hyeong Min Kim, and Sankar Sen. 2009. "Why Do Consumers Buy Counterfeit Luxury Brands?" *Journal of Marketing Research* 46 (2): 247–59.
- Williams, Kaylene C. 2012. "Fear Appeal Theory." *Research in Business and Economics Journal*, 1–21.
- Winer, Russell S. 2001. "A Framework for Customer Relationship Management." *California Management Review* 43 (4): 89–105.
- Witte, K, and K Morrison. 2000. "Examining the Influence of Trait Anxiety/Repression-Sensitization on Individuals' Reactions to Fear Appeals." *Western Journal of Communication* 64 (1): 1–27.

- Witte, Kim, and Mike Allen. 2000. "A Meta-Analysis of Fear Appeals: Implications for Effective Public Health Campaigns." *Health Education & Behavior* 27 (5): 591–615.
- Wong, Grace. 2016. "Sneakerheads Line up for Days to Buy Limited-Edition Air Jordans -- That Cost \$650." <http://www.chicagotribune.com/business/ct-jordan-just-don-sneaker-0128-biz-20160127-story.html>.
- Wood, Wendy, and Alice H Eagly. 1981. "Stages in the Analysis of Persuasive Messages: The Role of Causal Attributions and Message Comprehension." *Journal of Personality and Social Psychology* 40 (2): 246–59.
- Wood, Wendy, and Timothy Hayes. 2012. "Social Influence on Consumer Decisions: Motives, Modes, and Consequences." *Journal of Consumer Psychology* 22 (3): 324–28.
- "Worldwide Retail Ecommerce Sales Will Reach \$1.915 Trillion This Year." 2016. Accessed October 15. <https://www.emarketer.com/Article/Worldwide-Retail-Ecommerce-Sales-Will-Reach-1915-Trillion-This-Year/1014369>.
- Wright, Malcolm, and Murray MacRae. 2007. "Bias and Variability in Purchase Intention Scales." *Journal of the Academy of Marketing Science* 35 (4): 617–24.
- Wu, Wann Yih, Hsiao Yun Lu, Ying Yin Wu, and Chen Su Fu. 2012. "The Effects of Product Scarcity and Consumers' Need for Uniqueness on Purchase Intention." *International Journal of Consumer Studies* 36 (3): 263–74.
- Yeoman, Ian, and Una McMahon-Beattie. 2006. "Luxury Markets and Premium Pricing." *Journal of Revenue and Pricing Management* 4 (4): 319–28.
- Yi, Youjae. 1990. "Cognitive and Affective Priming Effects of the Context for Print Advertisements." *Journal of Advertising* 19 (2): 40–48.
- Youn, Seounmi, and Ronald J. Faber. 2000. "Impulse Buying: Its Relation to Personality Traits and Cues." *Advances in Consumer Research* 27 (1): 179–85.
- Zeder, M. A., D. G. Bradley, E. Emshwiller, and B. D. Smith. 2006. *Documenting Domestication: New Genetic and Archaeological Paradigms*. Berkeley, CA: University of California Press.

Zeelenberg, Marcel, Kees van den Bos, Eric van Dijk, and Rik Pieters. 2002. "The Inaction Effect in the Psychology of Regret." *Journal of Personality and Social Psychology* 82 (3): 314–27.

Zhang, Yong, and Betsy D Gelb. 1996. "Matching Advertising Appeals to Culture: The Influence of Products' Use Conditions." *Journal of Advertising* 25 (3): 29–46.

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APPENDICES

APPENDIX A: LIMITED QUANTITY SCARCITY (PUBLIC) (STUDY ONE)



Introducing the NEW
Precision Collection
For him and her



Limited Edition
Only 500 pieces available worldwide

Mercedes-Benz

**APPENDIX B:
LIMITED TIME SCARCITY (PUBLIC)
(STUDY TWO)**



Introducing the NEW
Precision Collection
For him and her



Limited Edition
Only available for sale from
1st of February - 14th of February

Mercedes-Benz

APPENDIX C:
CONTROL GROUP (PUBLIC)
(STUDY THREE)



Introducing the NEW
Precision Collection
For him and her



Limited Edition

Mercedes-Benz

APPENDIX D:
LIMITED QUANTITY SCARCITY (PRIVATE)
(STUDY FOUR)



Introducing the NEW
Intense Collection
For him and her



Limited Edition

Only 500 bottles available worldwide

Mercedes-Benz

**APPENDIXE:
LIMITED TIME SCARCITY (PRIVATE)
(STUDY FIVE)**



*Introducing the NEW
Intense Collection
For him and her*



Limited Edition

Only available for sale from
1st of February - 14th of February

Mercedes-Benz

APPENDIX:
STIMULUS FOR CONTROL GROUP (PRIVATE)
(STUDY SIX)



Introducing the NEW
Intense Collection
For him and her



Limited Edition

Mercedes-Benz

APPENDIX G:

MAIN STUDY SURVEY INSTRUMENT

Cover Page

Study on the Conceptualization of FOMO (The Fear of Missing Out)

Dear Respondent,

The purpose of the study is to conceptualize FOMO (The Fear of Missing Out) and how it influences consumers' purchase decisions. The survey exercise is educational and not intended for market research purposes. Your participation in this study is voluntary so there are no consequences should you wish to withdraw from this study at any point.

The enclosed questionnaire should take about 10-15 minutes to complete. Only the research team will have access to your responses, which will remain confidential and private. Moreover, names, addresses and other personal / organizational details are not captured therefore your identity will remain anonymous.

Please answer all the questions in this survey form and give the response which most accurately reflects your views. There is no right or wrong answer. Please note that your answers will be treated with the strictest confidence.

The questionnaire has been reviewed and approved by the Curtin University Ethics Committee to meet Curtin University's ethical standards (Approval No. 2014075). If you require further assistance or information about the questionnaire or the research, please contact the researcher using the details below:

Wesley Lim
wesley.lim@curtin.edu.au

Alternatively, you may direct any enquiries regarding this study to The Secretary of Human Research Ethics Committee (HREC) using the contact details below:

The Secretary, HREC
Office of Research and Development
PO Box U1987, Perth, WA 6845
+61 8 9266 9223,
hrec@curtin.edu.au

Your kind cooperation is highly appreciated, thank you!

Next

Section A: Demographics

What is your gender?

- Male
 Female

What is your age group? (years)

- 17 and under
 18 - 24
 25 - 34
 35 - 44
 45 - 54
 55 and above

What is your highest degree or level of school you have completed? If currently enrolled, highest degree received

- High School
 College/TAFE
 Bachelor Degree
 Postgraduate Degree
 Others (please specify)

What is your annual income (dollars)

- \$20,000 and under
 \$20,001 - \$45,000
 \$45,001 - \$60,000
 \$60,001 - \$75,000
 \$75,001 - \$90,000
 More than \$90,000
 N/A (Not Applicable)

Which country were you **born** in?

- Australia China India Indonesia Ireland Italy Malaysia Netherlands
 New Zealand Phillipines Poland Singapore South Africa Sri Lanka Thailand Turkey
 United Kingdom United States of America Vietnam Wales Others (please specify)

Next

Section B: Tendency Towards the Fear Of Missing Out

Below is a list of statements about different situations you encounter in your everyday life. Please indicate how closely each of the following statements describes you.

	Not at all true of me	Slightly true of me	Moderately true of me	Very true of me	Extremely true of me
I become anxious during a sale and tend to buy more than I actually need	<input type="radio"/>				
I have the constant urge to check for the latest product deals on the internet for fear of missing out	<input type="radio"/>				
I have the habit of accepting appointments even though my schedule is full for fear of missing out	<input type="radio"/>				
	Not at all true of me	Slightly true of me	Moderately true of me	Very true of me	Extremely true of me
I tend to panic buy during a sale for fear of missing out	<input type="radio"/>				
I have the urge to buy during a sale even though there is nothing that I really want	<input type="radio"/>				

[Next](#)

Section C: Desire for Uniqueness

Below is a list of statements about being different. Please indicate how closely each of the following statements describes you.

	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
I prefer being different from other people	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Being distinctive is important	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I often intentionally do things to make myself different from those around me	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have a strong desire for uniqueness	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

[Next](#)

Section D: Consumer Susceptibility to Interpersonal Influence

Below is a list of statements about how other people influence your shopping choices. Please indicate how closely each of the following statements describes you.

	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
I rarely purchase the latest fashion styles until I am sure my friends approve of them	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
It is important that others like the products and brands I buy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
When buying products, I generally purchase those brands that I think others will approve of	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
If other people can see me using a product, I often purchase the brand they expect me to buy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
I like to know what brands and products make good impressions on others	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I achieve a sense of belonging by purchasing the same products and brands that others purchase	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
If I want to be like someone, I often try to buy the same brands that they buy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I often identify with other people by purchasing the same products and brands they purchase	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
To make sure I buy the right product or brand, I often observe what others are buying and using	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
If I have little experience with a product, I often ask my friends about the product	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I often consult other people to help choose the latest alternative available from a product class	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I frequently gather information from friends or family about a product before I buy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Next

Section E:

Stimulus

Respondent is exposed to 1 out of the 6 advertisements
(See Appendix A – F)

Section F:

Manipulation Check: Scarcity Condition

Respondent will only be exposed to manipulation check if they are exposed to either the limited quantity scarcity condition or the limited time scarcity condition

Manipulation Check: Limited Quantity Scarcity

Please rate the extent to which you agree to the following statement about the advertisement you have just seen					
	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
There appears to be limited supplies of the product advertised	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
					<input type="button" value="Next"/>

Manipulation Check: Limited Time Scarcity

Please rate the extent to which you agree to the following statement about the advertisement you have just seen					
	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
The product advertised appears to be available for a limited time only	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
					<input type="button" value="Next"/>

Section G: Inferences of Manipulative Intent

Please rate the extent to which you agree to the following statements about the **advertisement** you have just seen

	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
The way this ad tries to persuade people seems acceptable to me	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The advertiser tried to manipulate the audience in ways that I don't like	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I was annoyed by this ad because the advertiser seemed to be trying to inappropriately manage or control the consumer audience	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
I didn't mind this ad; the advertiser tried to be persuasive without being excessively manipulative	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
This ad was fair in what was said and shown	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I think that this advertisement is unfair	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

[Next](#)

Section H: Attitude toward the advertisement

Please rate your feelings towards the **advertisement** you have just seen

Bad	<input type="radio"/>	Good				
Unfavourable	<input type="radio"/>	Favourable				
Uncreative	<input type="radio"/>	Creative				
Unattractive	<input type="radio"/>	Attractive				
Unlikeable	<input type="radio"/>	Likeable				
Boring	<input type="radio"/>	Interesting				

[Next](#)

Section I: Purchase Intention

I would intend to buy the Mercedes-Benz branded lifestyle product shown in the advertisement				
Strongly disagree <input type="radio"/>	Disagree <input type="radio"/>	Neither agree nor disagree <input type="radio"/>	Agree <input type="radio"/>	Strongly agree <input type="radio"/>
I would consider buying the Mercedes-Benz branded lifestyle product shown in the advertisement				
Strongly disagree <input type="radio"/>	Disagree <input type="radio"/>	Neither agree nor disagree <input type="radio"/>	Agree <input type="radio"/>	Strongly agree <input type="radio"/>
I would expect to buy the Mercedes-Benz branded lifestyle product shown in the advertisement				
Strongly disagree <input type="radio"/>	Disagree <input type="radio"/>	Neither agree nor disagree <input type="radio"/>	Agree <input type="radio"/>	Strongly agree <input type="radio"/>
I would plan to buy Mercedes-Benz branded lifestyle product shown in the advertisement				
Strongly disagree <input type="radio"/>	Disagree <input type="radio"/>	Neither agree nor disagree <input type="radio"/>	Agree <input type="radio"/>	Strongly agree <input type="radio"/>
<input type="button" value="Next"/>				

APPENDIX H:
RESULTS FOR MODERATED ANALYSIS H₉ – H₁₄

Study One:

Hierarchical Moderated Regressions Results

Study One – Hierarchical Moderated Regression H₉

Independent variables	Adjusted R ²	F	df	Δ R ²	F change	df	β
DFU	-.01	.11	1	.001	.11	151	.20
DFU + IMI	.35	42.26	1	.36	84.35	150	-.40(***)
DFU + IMI + (DFU x IMI)	.35	28.55	1	.005	.08	149	-.30

*p < 0.05, **p < 0.01, ***p < 0.001

Dependant variable: Attitude toward the advertisement

df = Degrees of freedom, β = Standardised beta, DFU = Desire for uniqueness, IMI = Inferences of manipulative intent

Study One – Hierarchical Moderated Regression H₁₀

Independent variables	Adjusted R ²	F	df	Δ R ²	F change	df	β
T-FOMO	.03	5.478	1	.035	5.49	151	-.25(*)
T-FOMO + IMI	.37	44.61	1	.34	80.84	150	-.38(***)
T-FOMO + IMI + (TFOMO x IMI)	.37	29.83	1	.00	.54	149	-.74

*p < 0.05, **p < 0.01, ***p < 0.001

Dependant variable: Attitude toward the advertisement

df = Degrees of freedom, β = Standardised beta, T-FOMO = Tendency towards the fear of missing out, IMI = Inferences of manipulative intent

Study One – Hierarchical Moderated Regression H_{11a}

Independent variables	Adjusted R ²	F	df	Δ R ²	F change	df	β
DFU	-.01	.11	1	.00	.111	151	-.58
DFU + CSII-N	.04	4.14	1	8.16	8.16	150	-.81(***)
DFU + CSII-N + (DFU x CSII-N)	.09	6.43	1	10.50	10.50	149	1.31 (**)

*p < 0.05, **p < 0.01, ***p < 0.001

Dependant variable: Attitude toward the advertisement

df = Degrees of freedom, β = Standardised beta, DFU = Desire for uniqueness, CSII-N = Consumer susceptibility to interpersonal influence (normative)

Study One – Hierarchical moderated regression H_{11b}

Independent variables	Adjusted R ²	F	df	Δ R ²	F change	df	β
DFU	-.01	.111	1	.00	.74	151	-1.48
DFU + CSII-I	.03	3.20	1	.04	.01	150	-.27(**)
DFU + CSII-I + (DFU x CSII-I)	.03	2.59	1	.01	.24	149	1.17

*p < 0.05, **p < 0.01, ***p < 0.001

Dependant variable: Attitude toward the advertisement

df = Degrees of freedom, β = Standardised beta, DFU = Desire for uniqueness, CSII-I = consumer susceptibility to interpersonal influence (informational)

Study One – Hierarchical Moderated Regression H_{12a}

Independent variables	Adjusted R ²	F	df	Δ R ²	F change	df	β
T-FOMO	.03	5.48	1	.04	5.48	151	-0.13 (**)
T-FOMO + CSII-N	.04	4.06	1	.02	2.58	150	.07
T-FOMO + CSII-N + (DFU x CSII-N)	.03	2.80	1	.00	.31	149	.19

N)

*p < 0.05, **p < 0.01, ***p < 0.001

Dependant variable: Attitude toward the advertisement

df = Degrees of freedom, β = Standardised beta, T-FOMO = Tendency towards the fear of missing out, CSII-N = Consumer susceptibility to interpersonal influence (normative)

Study One – Hierarchical Moderated Regression H_{12b}

Independent variables	Adjusted R ²	F	df	Δ R ²	F change	df	β
T-FOMO	.03	5.48	1	.04	5.48	151	.13 (**)
T-FOMO + CSII-I	.04	4.31	1	.02	3.07	150	.14
T-FOMO + CSII-I + (T-FOMO x CSII-I)	.04	2.86	1	.00	.00	149	.02

*p < 0.05, **p < 0.01, ***p < 0.001

Dependant variable: Attitude toward the advertisement

df = Degrees of freedom, β = Standardised beta, T-FOMO = Tendency towards the fear of missing out, CSII-I = Consumer susceptibility to interpersonal influence (informational)

Study One – Hierarchical Moderated Regression H_{13a}

Independent variables	Adjusted R ²	F	df	Δ R ²	F change	df	β
DFU	.11	19.31	1	.11	19.31	151	-.14
DFU + CSII-N	.31	35.22	1	.21	45.45	150	-.26
DFU + CSII-N + (DFU x CSII-N)	.34	26.75	1	.03	7.00	149	.91 (**)

*p < 0.05, **p < 0.01, ***p < 0.001

Dependant variable: Purchase intention

df = Degrees of freedom, β = Standardised beta, DFU = Desire for uniqueness, CSII-N = Consumer susceptibility to interpersonal influence (normative)

Study One – Hierarchical Moderated Regression H_{13b}

Independent variables	Adjusted R ²	F	df	Δ R ²	F change	df	β
DFU	.11	19.31	1	.11	19.31	1	-.28
DFU + CSII-I	.12	11.70	1	.02	3.75	1	-1.57
DFU + CSII-I + (DFU x CSII-I)	.15	9.88	1	.03	5.52	1	2.35(*)

*p < 0.05, **p < 0.01, ***p < 0.001

Dependant variable: Purchase intention

df = Degrees of freedom, β = Standardised beta, DFU = Desire for uniqueness, CSII-I = Consumer susceptibility to interpersonal influence (informational)

Study One – Hierarchical Moderated Regression H_{14a}

Independent variables	Adjusted R ²	F	df	Δ R ²	F change	df	β
T-FOMO	.26	53.38	1	.26	53.38	151	.47 ^(***)
T-FOMO + CSII-N	.35	41.60	1	.10	22.29	150	.48 ^(***)
T-FOMO + CSII-N + (DFU x CSII-N)	.35	27.94	1	.00	.75	149	-.24

*p < 0.05, **p < 0.01, ***p < 0.001

Dependant variable: Purchase intention

df = Degrees of freedom, β = Standardised beta, T-FOMO = Tendency towards the fear of missing out, CSII-N = Consumer susceptibility to interpersonal influence (normative)

Study One – Hierarchical Moderated Regression H_{14b}

Independent variables	Adjusted R ²	F	df	Δ R ²	F change	df	β
T-FOMO	.26	53.38	1	.26	53.38	151	.45 ^(***)
T-FOMO + CSII-I	.26	27.41	1	.01	1.32	150	.06
T-FOMO + CSII-I + (T-FOMO x CSII-I)	.25	18.17	1	.00	.03	149	.05

*p < 0.05, **p < 0.01, ***p < 0.001

Dependant variable: Purchase intention

df = Degrees of freedom, β = Standardised beta, T-FOMO = Tendency towards the fear of missing out, CSII-I = Consumer susceptibility to interpersonal influence (informational)

Study Two:
Hierarchical Moderated Regressions Results

Study Two – Hierarchical Moderated Regression H₉

Independent variables	Adjusted R ²	F	df	Δ R ²	F change	df	β
DFU	-.01	.29	1	.00	.29	158	.46
DFU + IMI	.26	28.19	1	.26	55.99	157	-.04(***)
DFU + IMI + (DFU x IMI)	.28	21.23	1	.03	5.64	156	-.71(**)

*p < 0.05, **p < 0.01, ***p < 0.001

Dependant variable: Attitude toward the advertisement

df = Degrees of freedom, β = Standardised beta, DFU = Desire for uniqueness, IMI = Inferences of manipulative intent

Study Two – Hierarchical Moderated Regression H₁₀

Independent variables	Adjusted R ²	F	df	Δ R ²	F change	df	β
T-FOMO	.04	6.03	1	.04	6.03	158	.46
T-FOMO + IMI	.28	31.91	1	.25	55.69	157	-.37
T-FOMO + IMI + (TFOMO x IMI)	.28	21.58	1	.00	.94	156	-.32

*p < 0.05, **p < 0.01, ***p < 0.001

Dependant variable: Attitude toward the advertisement

df = Degrees of freedom, β = Standardised beta, T-FOMO = Tendency towards the fear of missing out, IMI = Inferences of manipulative intent

Study Two – Hierarchical Moderated Regression H_{11a}

Independent variables	Adjusted R ²	F	df	Δ R ²	F change	df	β
DFU	-.01	.29	1	.00	.29	158	-.06
DFU + CSII-N	.00	1.29	1	.01	2.30	157	.16
DFU + CSII-N + (DFU x CSII-N)	-.00	.86	1	.00	.01	156	-.04

*p < 0.05, **p < 0.01, ***p < 0.001

Dependant variable: Attitude toward the advertisement

df = Degrees of freedom, β = Standardised beta, DFU = Desire for uniqueness, CSII-N = Consumer susceptibility to interpersonal influence (normative)

Study Two – Hierarchical moderated regression H_{11b}

Independent variables	Adjusted R ²	F	df	Δ R ²	F change	df	β
DFU	-.01	.29	1	.00	.29	158	-.36
DFU + CSII-I	.05	4.90	1	.06	9.51	157	-.22
DFU + CSII-I + (DFU x CSII-I)	.06	4.32	1	.02	3.03	156	.59

*p < 0.05, **p < 0.01, ***p < 0.001

Dependant variable: Attitude toward the advertisement

df = Degrees of freedom, β = Standardised beta, DFU = Desire for uniqueness, CSII-I = consumer susceptibility to interpersonal influence (informational)

Study Two – Hierarchical Moderated Regression H_{12a}

Independent variables	Adjusted R ²	F	df	Δ R ²	F change	df	β
T-FOMO	.03	6.03	1	.04	6.03	158	.02
T-FOMO + CSII-N	.03	3.01	1	.00	.03	157	-.13
T-FOMO + CSII-N + (DFU x CSII-N)	.02	2.17	1	.00	.50	156	.27

N)

*p < 0.05, **p < 0.01, ***p < 0.001

Dependant variable: Attitude toward the advertisement

df = Degrees of freedom, β = Standardised beta, T-FOMO = Tendency towards the fear of missing out, CSII-N = Consumer susceptibility to interpersonal influence (normative)

Study Two – Hierarchical Moderated Regression H_{12b}

Independent variables	Adjusted R ²	F	df	Δ R ²	F change	df	β
T-FOMO	.03	6.03	1	.04	6.03	158	-.34
T-FOMO + CSII-I	.06	5.77	1	.03	5.34	157	-.05
T-FOMO + CSII-I + (T-FOMO x CSII-I)	.07	4.82	1	.02	2.80	156	.61

*p < 0.05, **p < 0.01, ***p < 0.001

Dependant variable: Attitude toward the advertisement

df = Degrees of freedom, β = Standardised beta, T-FOMO = Tendency towards the fear of missing out, CSII-I = Consumer susceptibility to interpersonal influence (informational)

Study Two – Hierarchical Moderated Regression H_{13a}

Independent variables	Adjusted R ²	F	df	Δ R ²	F change	df	β
DFU	.03	5.78	1	.04	5.78	158	-.07
DFU + CSII-N	.34	41.57	1	.31	74.66	157	.32
DFU + CSII-N + (DFU x CSII-N)	.34	27.90	1	.00	.71	156	.31

*p < 0.05, **p < 0.01, ***p < 0.001

Dependant variable: Purchase intention

df = Degrees of freedom, β = Standardised beta, DFU = Desire for uniqueness, CSII-N = Consumer susceptibility to interpersonal influence (normative)

Study Two – Hierarchical Moderated Regression H_{13b}

Independent variables	Adjusted R ²	F	df	Δ R ²	F change	df	β
DFU	.03	5.78	1	.04	5.78	158	-.20
DFU + CSII-I	.07	6.87	1	.05	7.72	157	-.35
DFU + CSII-I + (DFU x CSII-I)	.09	6.27	1	.03	4.73	156	.73(**)

*p < 0.05, **p < 0.01, ***p < 0.001

Dependant variable: Purchase intention

df = Degrees of freedom, β = Standardised beta, DFU = Desire for uniqueness, CSII-I = Consumer susceptibility to interpersonal influence (informational)

Study Two – Hierarchical Moderated Regression H_{14a}

Independent variables	Adjusted R ²	F	df	Δ R ²	F change	df	β
T-FOMO	.35	85.99	1	.35	85.99	158	.13 ^(***)
T-FOMO + CSII-N	.43	60.19	1	.08	22.63	157	.21 ^(***)
T-FOMO + CSII-N + (DFU x CSII-N)	.43	40.76	1	.01	1.51	156	.36

*p < 0.05, **p < 0.01, ***p < 0.001

Dependant variable: Purchase intention

df = Degrees of freedom, β = Standardised beta, T-FOMO = Tendency towards the fear of missing out, CSII-N = Consumer susceptibility to interpersonal influence (normative)

Study Two – Hierarchical Moderated Regression H_{14b}

Independent variables	Adjusted R ²	F	df	Δ R ²	F change	df	β
T-FOMO	.35	85.99	1	.35	85.99	158	.61
T-FOMO + CSII-I	.35	42.95	1	.00	.30	157	.05
T-FOMO + CSII-I + (T-FOMO x CSII-I)	.34	28.46	1	.00	.01	156	-.03

*p < 0.05, **p < 0.01, ***p < 0.001

Dependant variable: Purchase intention

df = Degrees of freedom, β = Standardised beta, T-FOMO = Tendency towards the fear of missing out, CSII-I = Consumer susceptibility to interpersonal influence (informational)

Study Three: Hierarchical Moderated Regressions Results

Study Three – Hierarchical Moderated Regression H₉

Independent variables	Adjusted R ²	F	df	Δ R ²	F change	df	β
DFU	.02	2.36	1	.02	2.36	154	.06
DFU + IMI	.27	29.86	1	.27	56.52	153	-.45(***)
DFU + IMI + (DFU x IMI)	.00	19.86	1	.00	.18	152	-.11

*p < 0.05, **p < 0.01, ***p < 0.001

Dependant variable: Attitude toward the advertisement

df = Degrees of freedom, β = Standardised beta, DFU = Desire for uniqueness, IMI = Inferences of manipulative intent

Study Three – Hierarchical Moderated Regression H₁₀

Independent variables	Adjusted R ²	F	df	Δ R ²	F change	df	β
T-FOMO	-.01	.02	1	.00	.02	154	-.31
T-FOMO + IMI	.28	30.41	1	.28	60.80	153	-.70(***)
T-FOMO + IMI + (TFOMO x IMI)	.28	20.84	1	.01	1.51	152	.30

*p < 0.05, **p < 0.01, ***p < 0.001

Dependant variable: Attitude toward the advertisement

df = Degrees of freedom, β = Standardised beta, T-FOMO = Tendency towards the fear of missing out, IMI = Inferences of manipulative intent

Study Three – Hierarchical Moderated Regression H_{11a}

Independent variables	Adjusted R ²	F	df	Δ R ²	F change	df	β
DFU	.01	2.36	1	.02	2.36	154	.13
DFU + CSII-N	.02	2.46	1	.02	2.54	153	.21
DFU + CSII-N + (DFU x CSII-N)	.01	1.65	1	.00	.05	152	-.10

*p < 0.05, **p < 0.01, ***p < 0.001

Dependant variable: Attitude toward the advertisement

df = Degrees of freedom, β = Standardised beta, DFU = Desire for uniqueness, CSII-N = Consumer susceptibility to interpersonal influence (normative)

Study Three – Hierarchical moderated regression H_{11b}

Independent variables	Adjusted R ²	F	df	Δ R ²	F change	df	β
DFU	.01	2.36	1	.02	2.36	154	.39
DFU + CSII-I	.02	2.94	1	.02	3.50	153	.66
DFU + CSII-I + (DFU x CSII-I)	.04	3.02	1	.02	3.09	152	-.65

*p < 0.05, **p < 0.01, ***p < 0.001

Dependant variable: Attitude toward the advertisement

df = Degrees of freedom, β = Standardised beta, DFU = Desire for uniqueness, CSII-I = consumer susceptibility to interpersonal influence (informational)

Study Three – Hierarchical Moderated Regression H_{12a}

Independent variables	Adjusted R ²	F	df	Δ R ²	F change	df	β
T-FOMO	-.01	.02	1	.00	.02	154	-.28
T-FOMO + CSII-N	.02	2.94	1	.04	5.87	153	.15(**)
T-FOMO + CSII-N + (DFU x CSII-N)	.02	2.05	1	.00	.29	152	.20

N)

*p < 0.05, **p < 0.01, ***p < 0.001

Dependant variable: Attitude toward the advertisement

df = Degrees of freedom, β = Standardised beta, T-FOMO = Tendency towards the fear of missing out, CSII-N = Consumer susceptibility to interpersonal influence (normative)

Study Three – Hierarchical Moderated Regression H_{12b}

Independent variables	Adjusted R ²	F	df	Δ R ²	F change	df	β
T-FOMO	-.01	.02	1	.00	.02	154	.16
T-FOMO + CSII-I	.03	2.98	1	.04	5.94	153	.36(**)
T-FOMO + CSII-I + (T-FOMO x CSII-I)	.02	2.23	1	.01	.74	152	-.37

CSII-I)

*p < 0.05, **p < 0.01, ***p < 0.001

Dependant variable: Attitude toward the advertisement

df = Degrees of freedom, β = Standardised beta, T-FOMO = Tendency towards the fear of missing out, CSII-I = Consumer susceptibility to interpersonal influence (informational)

Study Three – Hierarchical Moderated Regression H_{13a}

Independent variables	Adjusted R ²	F	df	Δ R ²	F change	df	β
DFU	.00	.34	1	.00	.34	154	-.23
DFU + CSII-N	.18	18.42	1	.19	36.42	153	.03(**)
DFU + CSII-N + (DFU x CSII-N)	.19	12.88	1	.01	1.64	152	.51

*p < 0.05, **p < 0.01, ***p < 0.001

Dependant variable: Purchase intention

df = Degrees of freedom, β = Standardised beta, DFU = Desire for uniqueness, CSII-N = Consumer susceptibility to interpersonal influence (normative)

Study Three – Hierarchical Moderated Regression H_{13b}

Independent variables	Adjusted R ²	F	df	Δ R ²	F change	df	β
DFU	.00	.34	1	.00	.34	154	-.11
DFU + CSII-I	.11	9.61	1	.11	18.84	153	.16(**)
DFU + CSII-I + (DFU x CSII-I)	.00	6.52	1	.00	.41	152	.23

*p < 0.05, **p < 0.01, ***p < 0.001

Dependant variable: Purchase intention

df = Degrees of freedom, β = Standardised beta, DFU = Desire for uniqueness, CSII-I = Consumer susceptibility to interpersonal influence (informational)

Study Three – Hierarchical Moderated Regression H_{14a}

Independent variables	Adjusted R ²	F	df	Δ R ²	F change	df	β
T-FOMO	.12	21.97	1	.13	21.97	154	-.10 ^(**)
T-FOMO + CSII-N	.20	19.87	1	.08	15.68	153	.19 ^(**)
T-FOMO + CSII-N + (DFU x CSII-N)	.20	13.72	1	.01	1.33	152	.38

*p < 0.05, **p < 0.01, ***p < 0.001

Dependant variable: Purchase intention

df = Degrees of freedom, β = Standardised beta, T-FOMO = Tendency towards the fear of missing out, CSII-N = Consumer susceptibility to interpersonal influence (normative)

Study Three – Hierarchical Moderated Regression H_{14b}

Independent variables	Adjusted R ²	F	df	Δ R ²	F change	df	β
T-FOMO	.12	21.97	1	.13	21.97	154	.53 ^(***)
T-FOMO + CSII-I	.15	14.83	1	.04	6.85	153	.36 ^(**)
T-FOMO + CSII-I + (T-FOMO x CSII-I)	.15	10.17	1	.01	.88	152	-.37

*p < 0.05, **p < 0.01, ***p < 0.001

Dependant variable: Purchase intention

df = Degrees of freedom, β = Standardised beta, T-FOMO = Tendency towards the fear of missing out, CSII-I = Consumer susceptibility to interpersonal influence (informational)

Study Four:
Hierarchical Moderated Regressions Results

Study Four – Hierarchical Moderated Regression H₉

Independent variables	Adjusted R ²	F	df	Δ R ²	F change	df	β
DFU	-.01	.09	1	.00	.09	151	-.04
DFU + IMI	.35	41.46	1	.36	82.78	150	-.57(**)
DFU + IMI + (DFU x IMI)	.34	27.47	1	.00	0.03	149	-.04

*p < 0.05, **p < 0.01, ***p < 0.001

Dependant variable: Attitude toward the advertisement

df = Degrees of freedom, β = Standardised beta, DFU = Desire for uniqueness, IMI = Inferences of manipulative intent

Study Four – Hierarchical Moderated Regression H₁₀

Independent variables	Adjusted R ²	F	df	Δ R ²	F change	df	β
T-FOMO	.00	1.07	1	.01	1.07	151	-.01
T-FOMO + IMI	.34	40.58	1	.34	79.54	150	-.54(**)
T-FOMO + IMI + (TFOMO x IMI)	.34	27.47	1	.01	1.15	149	-.09

*p < 0.05, **p < 0.01, ***p < 0.001

Dependant variable: Attitude toward the advertisement

df = Degrees of freedom, β = Standardised beta, T-FOMO = Tendency towards the fear of missing out, IMI = Inferences of manipulative intent

Study Four – Hierarchical Moderated Regression H_{11a}

Independent variables	Adjusted R ²	F	df	Δ R ²	F change	df	β
DFU	-.01	.09	1	.00	.09	151	-.38
DFU + CSII-N	.01	2.04	1	.03	3.99	150	-.33
DFU + CSII-N + (DFU x CSII-N)	.04	2.27	1	.02	2.68	149	.67

*p < 0.05, **p < 0.01, ***p < 0.001

Dependant variable: Attitude toward the advertisement

df = Degrees of freedom, β = Standardised beta, DFU = Desire for uniqueness, CSII-N = Consumer susceptibility to interpersonal influence (normative)

Study Four – Hierarchical moderated regression H_{11b}

Independent variables	Adjusted R ²	F	df	Δ R ²	F change	df	β
DFU	-.01	.09	1	.00	.093	151	.044
DFU + CSII-I	-.01	.23	1	.00	.368	150	.163
DFU + CSII-I + (DFU x CSII-I)	-.02	.22	1	.00	.218	149	-.165

*p < 0.05, **p < 0.01, ***p < 0.001

Dependant variable: Attitude toward the advertisement

df = Degrees of freedom, β = Standardised beta, DFU = Desire for uniqueness, CSII-I = consumer susceptibility to interpersonal influence (informational)

Study Four – Hierarchical Moderated Regression H_{12a}

Independent variables	Adjusted R ²	F	df	Δ R ²	F change	df	β
T-FOMO	.00	1.069	1	.01	1.07	151	-.77
T-FOMO + CSII-N	.01	1.652	1	.02	2.23	150	-.29
T-FOMO + CSII-N + (DFU x CSII-N)	.05	3.564	1	.05	7.25	149	1.11(**)

*p < 0.05, **p < 0.01, ***p < 0.001

Dependant variable: Attitude toward the advertisement

df = Degrees of freedom, β = Standardised beta, T-FOMO = Tendency towards the fear of missing out, CSII-N = Consumer susceptibility to interpersonal influence (normative)

Study Four – Hierarchical Moderated Regression H_{12b}

Independent variables	Adjusted R ²	F	df	Δ R ²	F change	df	β
T-FOMO	.00	1.07	1	.01	1.07	151	-.34
T-FOMO + CSII-I	-.01	.53	1	.00	.00	150	-.22
T-FOMO + CSII-I + (T-FOMO x CSII-I)	-.00	.83	1	.01	1.42	149	.56

*p < 0.05, **p < 0.01, ***p < 0.001

Dependant variable: Attitude toward the advertisement

df = Degrees of freedom, β = Standardised beta, T-FOMO = Tendency towards the fear of missing out, CSII-I = Consumer susceptibility to interpersonal influence (informational)

Study Four – Hierarchical Moderated Regression H_{13a}

Independent variables	Adjusted R ²	F	df	Δ R ²	F change	df	β
DFU	.01	2.15	1	.01	2.15	151	-.27
DFU + CSII-N	.28	30.30	1	.27	57.63	150	.17(**)
DFU + CSII-N + (DFU x CSII-N)	.28	21.05	1	.01	2.16	149	.51

*p < 0.05, **p < 0.01, ***p < 0.001

Dependant variable: Purchase intention

df = Degrees of freedom, β = Standardised beta, DFU = Desire for uniqueness, CSII-N = Consumer susceptibility to interpersonal influence (normative)

Study Four – Hierarchical Moderated Regression H_{13b}

Independent variables	Adjusted R ²	F	df	Δ R ²	F change	df	β
DFU	.01	2.15	1	.01	2.15	151	.20
DFU + CSII-I	.05	4.78	1	.05	7.32	150	.42(**)
DFU + CSII-I + (DFU x CSII-I)	.01	3.43	1	.01	.73	149	-.29

*p < 0.05, **p < 0.01, ***p < 0.001

Dependant variable: Purchase intention

df = Degrees of freedom, β = Standardised beta, DFU = Desire for uniqueness, CSII-I = Consumer susceptibility to interpersonal influence (informational)

Study Four – Hierarchical Moderated Regression H_{14a}

Independent variables	Adjusted R ²	F	df	Δ R ²	F change	df	β
T-FOMO	.14	26.53	1	.15	26.53	151	-.66 ^(***)
T-FOMO + CSII-N	.28	30.72	1	.14	29.84	150	.040 ^(***)
T-FOMO + CSII-N + (DFU x CSII-N)	.32	25.09	1	.05	10.10	149	1.10 ^(**)

*p < 0.05, **p < 0.01, ***p < 0.001

Dependant variable: Purchase intention

df = Degrees of freedom, β = Standardised beta, T-FOMO = Tendency towards the fear of missing out, CSII-N = Consumer susceptibility to interpersonal influence (normative)

Study Four – Hierarchical Moderated Regression H_{14b}

Independent variables	Adjusted R ²	F	df	Δ R ²	F change	df	β
T-FOMO	.14	26.53	1	.15	26.53	151	-.43 ^(***)
T-FOMO + CSII-I	.15	13.86	1	.01	1.16	150	-.32
T-FOMO + CSII-I + (T-FOMO x CSII-I)	.17	11.52	1	.03	5.92	149	1.04 ^(**)

*p < 0.05, **p < 0.01, ***p < 0.001

Dependant variable: Purchase intention

df = Degrees of freedom, β = Standardised beta, T-FOMO = Tendency towards the fear of missing out, CSII-I = Consumer susceptibility to interpersonal influence (informational)

Study Five:
Hierarchical Moderated Regressions Results

Study Five – Hierarchical Moderated Regression H₉

Independent variables	Adjusted R ²	F	df	Δ R ²	F change	df	β
DFU	.06	10.83	1	.06	10.83	159	.19 ^(**)
DFU + IMI	.40	53.97	1	.34	90.98	158	-.50 ^(***)
DFU + IMI + (DFU x IMI)	.40	35.91	1	.00	.27	157	-.14

*p < 0.05, **p < 0.01, ***p < 0.001

Dependant variable: Attitude toward the advertisement

df = Degrees of freedom, β = Standardised beta, DFU = Desire for uniqueness, IMI = Inferences of manipulative intent

Study Five – Hierarchical Moderated Regression H₁₀

Independent variables	Adjusted R ²	F	df	Δ R ²	F change	df	β
T-FOMO	.01	2.12	1	.01	2.12	159	.01
T-FOMO + IMI	.39	52.60	1	.39	101.73	158	-.63 ^(***)
T-FOMO + IMI + (TFOMO x IMI)	.39	34.84	1	.00	.00	157	-.01

*p < 0.05, **p < 0.01, ***p < 0.001

Dependant variable: Attitude toward the advertisement

df = Degrees of freedom, β = Standardised beta, T-FOMO = Tendency towards the fear of missing out, IMI = Inferences of manipulative intent

Study Five – Hierarchical Moderated Regression H_{11a}

Independent variables	Adjusted R ²	F	df	Δ R ²	F change	df	β
DFU	.06	10.83	1	.06	10.83	159	.34 ^(**)
DFU + CSII-N	.06	6.04	1	.01	1.23	158	.33
DFU + CSII-N + (DFU x CSII-N)	.06	4.21	1	.00	0.58	157	-0.29

*p < 0.05, **p < 0.01, ***p < 0.001

Dependant variable: Attitude toward the advertisement

df = Degrees of freedom, β = Standardised beta, DFU = Desire for uniqueness, CSII-N = Consumer susceptibility to interpersonal influence (normative)

Study Five – Hierarchical moderated regression H_{11b}

Independent variables	Adjusted R ²	F	df	Δ R ²	F change	df	β
DFU	.06	10.83	1	.06	10.83	159	.21 ^(**)
DFU + CSII-I	.07	6.80	1	.02	2.65	158	.10
DFU + CSII-I + (DFU x CSII-I)	.06	4.51	1	.00	.01	157	.04

*p < 0.05, **p < 0.01, ***p < 0.001

Dependant variable: Attitude toward the advertisement

df = Degrees of freedom, β = Standardised beta, DFU = Desire for uniqueness, CSII-I = consumer susceptibility to interpersonal influence (informational)

Study Five – Hierarchical Moderated Regression H_{12a}

Independent variables	Adjusted R ²	F	df	Δ R ²	F change	df	β
T-FOMO	.01	2.12	1	.01	2.12	159	.08
T-FOMO + CSII-N	.01	1.74	1	.01	1.36	158	.13
T-FOMO + CSII-N + (DFU x CSII-N)	.00	1.16	1	.00	.02	157	-.04

N)

*p < 0.05, **p < 0.01, ***p < 0.001

Dependant variable: Attitude toward the advertisement

df = Degrees of freedom, β = Standardised beta, T-FOMO = Tendency towards the fear of missing out, CSII-N = Consumer susceptibility to interpersonal influence (normative)

Study Five – Hierarchical Moderated Regression H_{12b}

Independent variables	Adjusted R ²	F	df	Δ R ²	F change	df	β
T-FOMO	.01	2.12	1	.01	2.12	159	.07
T-FOMO + CSII-I	.02	2.48	1	.02	2.82	158	.14
T-FOMO + CSII-I + (T-FOMO x CSII-I)	.01	1.64	1	.00	.00	157	-.00

CSII-I)

*p < 0.05, **p < 0.01, ***p < 0.001

Dependant variable: Attitude toward the advertisement

df = Degrees of freedom, β = Standardised beta, T-FOMO = Tendency towards the fear of missing out, CSII-I = Consumer susceptibility to interpersonal influence (informational)

Study Five – Hierarchical Moderated Regression H_{13a}

Independent variables	Adjusted R ²	F	df	Δ R ²	F change	df	β
DFU	.13	24.95	1	.14	24.95	159	.30 ^(***)
DFU + CSII-N	.27	29.78	1	.14	30.05	158	.43 ^(***)
DFU + CSII-N + (DFU x CSII-N)	.26	19.74	1	.00	.03	157	-.06

*p < 0.05, **p < 0.01, ***p < 0.001

Dependant variable: Purchase intention

df = Degrees of freedom, β = Standardised beta, DFU = Desire for uniqueness, CSII-N = Consumer susceptibility to interpersonal influence (normative)

Study Five – Hierarchical Moderated Regression H_{13b}

Independent variables	Adjusted R ²	F	df	Δ R ²	F change	df	β
DFU	.13	24.95	1	.14	24.95	159	.17 ^(***)
DFU + CSII-I	.17	17.78	1	.05	9.31	158	-.01 ^(**)
DFU + CSII-I + (DFU x CSII-I)	.17	12.19	1	.01	.99	157	.31

*p < 0.05, **p < 0.01, ***p < 0.001

Dependant variable: Purchase intention

df = Degrees of freedom, β = Standardised beta, DFU = Desire for uniqueness, CSII-I = Consumer susceptibility to interpersonal influence (informational)

Study Five – Hierarchical Moderated Regression H_{14a}

Independent variables	Adjusted R ²	F	df	Δ R ²	F change	df	β
T-FOMO	.22	46.54	1	.23	46.54	159	.27 ^(***)
T-FOMO + CSII-N	.26	9.73	1	.05	9.73	158	.21 ^(**)
T-FOMO + CSII-N + (DFU x CSII-N)	.26	.12	1	.00	.12	157	.09

*p < 0.05, **p < 0.01, ***p < 0.001

Dependant variable: Purchase intention

df = Degrees of freedom, β = Standardised beta, T-FOMO = Tendency towards the fear of missing out, CSII-N = Consumer susceptibility to interpersonal influence (normative)

Study Five – Hierarchical Moderated Regression H_{14b}

Independent variables	Adjusted R ²	F	df	Δ R ²	F change	df	β
T-FOMO	.22	46.54	1	.23	46.54	159	.39 ^(***)
T-FOMO + CSII-I	.23	25.07	1	.01	3.01	158	.11
T-FOMO + CSII-I + (T-FOMO x CSII-I)	.23	16.62	1	.00	.02	157	.05

*p < 0.05, **p < 0.01, ***p < 0.001

Dependant variable: Purchase intention

df = Degrees of freedom, β = Standardised beta, T-FOMO = Tendency towards the fear of missing out, CSII-I = Consumer susceptibility to interpersonal influence (informational)

Study Six:
Hierarchical Moderated Regressions Results

Study One – Hierarchical Moderated Regression H₉

Independent variables	Adjusted R ²	F	df	Δ R ²	F change	df	β
DFU	.06	10.92	1	.07	10.92	151	.014 ^(**)
DFU + IMI	.48	72.01	1	.42	124.19	150	-.72 ^(***)
DFU + IMI + (DFU x IMI)	.48	47.75	1	.00	.09	149	.06

*p < 0.05, **p < 0.01, ***p < 0.001

Dependant variable: Attitude toward the advertisement

df = Degrees of freedom, β = Standardised beta, DFU = Desire for uniqueness, IMI = Inferences of manipulative intent

Study One – Hierarchical Moderated Regression H₁₀

Independent variables	Adjusted R ²	F	df	Δ R ²	F change	df	β
T-FOMO	.03	5.94	1	.04	5.94	151	.08 ^(*)
T-FOMO + IMI	.48	71.24	1	.45	131.40	150	-.66 ^(***)
T-FOMO + IMI + (TFOMO x IMI)	.48	47.21	1	.00	.04	149	-.05

*p < 0.05, **p < 0.01, ***p < 0.001

Dependant variable: Attitude toward the advertisement

df = Degrees of freedom, β = Standardised beta, T-FOMO = Tendency towards the fear of missing out, IMI = Inferences of manipulative intent

Study One – Hierarchical Moderated Regression H_{11a}

Independent variables	Adjusted R ²	F	df	Δ R ²	F change	df	β
DFU	.06	10.92	1	.07	10.92	151	.15 ^(***)
DFU + CSII-N	.06	5.88	1	.01	.85	150	-.09
DFU + CSII-N + (DFU x CSII-N)	.06	4.04	1	.00	.41	149	.22

*p < 0.05, **p < 0.01, ***p < 0.001

Dependant variable: Attitude toward the advertisement

df = Degrees of freedom, β = Standardised beta, DFU = Desire for uniqueness, CSII-N = Consumer susceptibility to interpersonal influence (normative)

Study One – Hierarchical moderated regression H_{11b}

Independent variables	Adjusted R ²	F	df	Δ R ²	F change	df	β
DFU	.06	10.92	1	.07	10.92	151	.07 ^(**)
DFU + CSII-I	.07	7.12	1	.02	3.16	150	-.08
DFU + CSII-I + (DFU x CSII-I)	.08	5.08	1	.01	1.01	149	.31

*p < 0.05, **p < 0.01, ***p < 0.001

Dependant variable: Attitude toward the advertisement

df = Degrees of freedom, β = Standardised beta, DFU = Desire for uniqueness, CSII-I = consumer susceptibility to interpersonal influence (informational)

Study One – Hierarchical Moderated Regression H_{12a}

Independent variables	Adjusted R ²	F	df	Δ R ²	F change	df	β
T-FOMO	.03	5.94	1	.04	5.94	151	-.33 ^(*)
T-FOMO + CSII-N	.03	3.00	1	.00	.10	150	-.32
T-FOMO + CSII-N + (DFU x CSII-N)	.05	3.67	1	.03	4.85	149	.80 ^(*)

N)

*p < 0.05, **p < 0.01, ***p < 0.001

Dependant variable: Attitude toward the advertisement

df = Degrees of freedom, β = Standardised beta, T-FOMO = Tendency towards the fear of missing out, CSII-N = Consumer susceptibility to interpersonal influence (normative)

Study One – Hierarchical Moderated Regression H_{12b}

Independent variables	Adjusted R ²	F	df	Δ R ²	F change	df	β
T-FOMO	.03	5.94	1	.04	5.94	151	-.35 ^(*)
T-FOMO + CSII-I	.04	4.12	1	.01	2.24	150	-.15
T-FOMO + CSII-I + (T-FOMO x CSII-I)	.06	4.03	1	.02	3.70	149	.67

CSII-I)

*p < 0.05, **p < 0.01, ***p < 0.001

Dependant variable: Attitude toward the advertisement

df = Degrees of freedom, β = Standardised beta, T-FOMO = Tendency towards the fear of missing out, CSII-I = Consumer susceptibility to interpersonal influence (informational)

Study One – Hierarchical Moderated Regression H_{13a}

Independent variables	Adjusted R ²	F	df	Δ R ²	F change	df	β
DFU	.11	19.80	1	.12	19.80	151	.09 ^(***)
DFU + CSII-N	.27	29.20	1	.16	34.23	150	.18 ^(***)
DFU + CSII-N + (DFU x CSII-N)	.27	19.86	1	.01	1.14	149	.32

*p < 0.05, **p < 0.01, ***p < 0.001

Dependant variable: Purchase intention

df = Degrees of freedom, β = Standardised beta, DFU = Desire for uniqueness, CSII-N = Consumer susceptibility to interpersonal influence (normative)

Study One – Hierarchical Moderated Regression H_{13b}

Independent variables	Adjusted R ²	F	df	Δ R ²	F change	df	β
DFU	.11	19.80	1	.12	19.80	151	-.03 ^(***)
DFU + CSII-I	.15	14.79	1	.05	8.77	150	-.22 ^(**)
DFU + CSII-I + (DFU x CSII-I)	.17	11.63	1	.03	4.60	149	.62 ^(*)

*p < 0.05, **p < 0.01, ***p < 0.001

Dependant variable: Purchase intention

df = Degrees of freedom, β = Standardised beta, DFU = Desire for uniqueness, CSII-I = Consumer susceptibility to interpersonal influence (informational)

Study One – Hierarchical Moderated Regression H_{14a}

Independent variables	Adjusted R ²	F	df	Δ R ²	F change	df	β
T-FOMO	.25	51.63	1	.26	51.63	151	.33 ^(***)
T-FOMO + CSII-N	.29	32.05	1	.05	9.55	150	.27 ^(**)
T-FOMO + CSII-N + (DFU x CSII-N)	.29	21.28	1	.00	.00	149	.01

*p < 0.05, **p < 0.01, ***p < 0.001

Dependant variable: Purchase intention

df = Degrees of freedom, β = Standardised beta, T-FOMO = Tendency towards the fear of missing out, CSII-N = Consumer susceptibility to interpersonal influence (normative)

Study One – Hierarchical Moderated Regression H_{14b}

Independent variables	Adjusted R ²	F	df	Δ R ²	F change	df	β
T-FOMO	.25	51.63	1	.26	51.63	151	.46 ^(***)
T-FOMO + CSII-I	.25	26.81	1	.01	1.74	150	.11
T-FOMO + CSII-I + (T-FOMO x CSII-I)	.25	17.76	1	.00	.00	149	-.01

*p < 0.05, **p < 0.01, ***p < 0.001

Dependant variable: Purchase intention

df = Degrees of freedom, β = Standardised beta, T-FOMO = Tendency towards the fear of missing out, CSII-I = Consumer susceptibility to interpersonal influence (informational)