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# Why Recommend Cashless?

A Quant Study Exploring The Determinants of The Intention To  
Recommend Mobile Payment System

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# Abstract

<b>Title</b>	Why Recommend Cashless - A Quant Study Exploring The Determinants of The Intention To Recommend Mobile Payment System
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<b>Keywords</b>	Mobile payment system, word-of-mouth, recommendation intention, cashless payments, technology spread
<b>Thesis Purpose</b>	The purpose of this thesis is to explore antecedents of recommendation intention for the mobile payment system.
<b>Methodology</b>	This study employs a quantitative approach to data analysis. The research design was cross-sectional, thus allowing to make associations and patterns. Further, structural equation modeling is used to analyze the relationships between the antecedents and intention formation.
<b>Theoretical Perspective</b>	The thesis uses the theory of planned behavior as a guiding framework and employs the predictors of intention formation as mediating variables within each hypothesis.
<b>Empirical Data</b>	The empirical data was obtained from a web-based questionnaire consisting of 32 statements measuring the constructs and 2 questions regarding demographics. A total of 144 respondents filled the survey, but only 125 could be included in the analysis.
<b>Findings</b>	The findings conclude that the individual-related and technology-related antecedents; concern for others, self-enhancement, originality and service quality, all positively correlate with the intention to recommend the mobile payment system. However, the effect of mediators differs in each case. The strength of the relationships is moderate for all motivational factors.
<b>Managerial Implications</b>	The study provides great value for practitioners, managers, marketers and companies involved within the fintech industry. Key implications concern communication campaigns, inclusion of cause-related marketing, incentives and prompting feedback to propagate recommendation intention.

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# 1.Introduction

*This chapter introduces the topic for the thesis: mobile payment system and the intention to recommend, which serve as the basis for this research. It is followed by an overview of the contextual setting, mobile payments in Sweden and the significance of social influence, drawing upon the problematization. Moreover, the research purpose is presented which identifies the research gap. The chapter concludes with a presentation of the aim of this research and the overall structure that is followed.*

## 1.1 Background

Do you ever feel anxious while retrieving the right amount of cash, card and loyalty cards in the checkout line? Doesn't walking around without a chunky wallet seem liberating? Physical wallets can present numerous problems. A lost wallet can be troublesome, followed by the inconvenience of remembering what was held in it.

One way to minimize the hassle of carrying cash and hefty wallets is to replace them with cashless modes of payment, which include credit and debit cards, also referred to as plastic money (Kaseke, 2012). The primary function of plastic money is to replace cash when making payments for goods and services (Harsha, 2014). However, this mode of transaction does not entirely eliminate the hassle of replacing lost cards. To cater to this, another alternative seems to be more viable, such as the mobile payment system (MPS). MPS or m-payments are defined as any mode of payment which involves a mobile device in order to initiate, authorize and confirm a transaction (Au & Kauffman, 2008). It involves selling via wireless devices and is not bound by time or space (Au & Kauffman, 2008; Mallat, 2007). MPS enhances the security of payments due to the encryption and backup options offered. Managing payments and keeping track of expenses is also made much easier, with the option to search by name, type and other keywords.

This advent of digital payment solutions is not a new phenomenon. It came about more than ten years ago, aided by the growth of digitalization. Sweden was one of the first countries that started to adopt this new technology, along with Japan and South Korea (Balan & Ramasubbu, 2009). According to Fourtané (2020), Sweden is set to become the first cashless society of the world by the year 2023. The cashless options available include credit and debit cards as well as MPS. Mobile phones can be used to pay for groceries, order snacks from vending machines, and even make use of self-checkout lanes. There is a multitude of factors which have made cashless options, specifically cards, so commonplace and widespread within

Sweden. The convergence of these trends has enabled Sweden to move in the direction of becoming cashless.

First, Sweden is one of the most technologically advanced countries in the world (Fourtané, 2020). This is fueled by the culture of innovation coupled with the high quality of life that the people in Sweden lead. The conjoined effect of the two is paramount in paving the way for Sweden to become the first cashless society (Arvidsson, 2013; Fourtané, 2020). The country has been at the forefront of banking innovation since the 17th century (Nielsen, 2014). Cashless services offered, such as Swish and Klarna, also make it convenient for individuals to make payments to each other and on credit basis. Today, the whole Swedish population is under mobile coverage (Fourtané, 2020).

Second, cell phone technology is now at a mature stage in Sweden in terms of computation capabilities – such as NFC technology and graphical user interface (GUI) – which further aids the adoption of MPS and other cashless options. This maturity of mobile technologies provides safer and faster solutions (Nielsen, 2014). MPS incorporates these aspects in order to enable a high rate of adoption.

Finally, the government, legislation and banks have played a substantial role in encouraging this transition towards digital payment methods, which includes mobile payment options. Every bank offers internet and mobile banking. These banks are always looking for ways to increase the number of online financial transactions, which are also cheaper to process. MPS lets banks leverage their existing infrastructure to support a vast array of offerings (Balan & Ramasubbu, 2009). In addition to banks, the regulatory bodies and Swedish government also encourage citizens to become cashless. Government participation is key in making people trust these new deployments of technology, crossing over one of the major obstacles to technology acceptance. An example within Sweden is Swish, a mobile payment solution developed through the joint efforts of the banking system and Swedish government. It was created by the six largest banks in 2012 to help make electronic payments easier and faster (Fourtané, 2020).

The above-mentioned factors have aided in making Sweden move towards its goal of becoming cashless. However, technological and governmental factors alone are insufficient to provide a holistic picture of the diffusion of cashless payment methods. Another important source of technology spread is interpersonal channel communication, however, this form of communication is relevant for late adopters (Rogers, 1983). As early adopters are already venturesome, they do not require strong influence from their network to accept the innovation, however, they eventually become the source of interpersonal influence for the later adopting peers (Rogers, 1983). Thus, current users of technology play a crucial role in the innovation diffusion process. By influencing people in their network through word of mouth (WOM) or recommendations, current adopters can help speed up technology spread

(Rogers, 1983). According to Yuniarty, Ikhsan & Ohliati (2020), independent consumer reviews are said to be one of the most significant factors that can influence the marketing process. This opens up an interesting research direction from the adopters' perspective; what leads adopters to influence their peers in the first place?

## 1.2 Problematization

Over the past decade, the usage of digital solutions for business activities has increased. This owes to the recent technological advancements pertaining to the internet, social media networks, mobile phone advancements, etc. The number of people making purchases with mobile phones each day is also on a rise (Liébana-Cabanillas, García-Maroto, Muñoz-Leiva & Ramos-de-Luna, 2020). Advances in technology have paved the way for a broad range of new functionalities to be included in mobile devices. This provides support for several mobile financial services, such as bill payments, proximity payments at point of sale, account transfers, person-to-person transfers, and other features including location-based coupons, mobile marketing, ticketing, and discounts. Assuming that interconnected, standardized, and widely available features are key for mobile payment acceptance (Zhong, 2009), potential reinforcement of mobile payment adoption is expected (Oliveira, Thomas, Baptista & Campos, 2016). The perpetual proximity of mobile phone devices to users makes them viable for MPS, and eliminates the need for a physical wallet (Mallat, 2007). Thus, the true commercial value of smartphones is realized through MPS (O'Reilly, Duane & Andreev, 2012). According to Pham & Ho (2015), MPS allows consumers to eliminate the need to use and carry cash, while also offering speed, convenience and security (Teo, Tan, Ooi, Hew & Yew, 2015). Both the sellers and customers benefit from the considerable decrease in time as productivity gains become apparent (Oliveira et al. 2016). MPS is gaining traction in many markets (Merritt, 2011) as commercial entities are realizing its true potential (Duane, O'Reilly, & Andreev, 2011).

The above-mentioned technological trends justify why some countries are ahead in the race to become cashless. Technological advancements, high rate of mobile phone penetration and legislations enable the use of multiple cashless payment methods. However, cashless incorporates both plastic money and MPS. Although the former is a widely adopted mode of payment, the latter is available but not quite as widely adopted. As mentioned before, the opportunities are plenty with the wide availability of MPS, yet most of the transactions are carried out through plastic money (Riksbank, 2019). Debit or credit card use in Sweden is more prevalent than that of MPS and electronic transfers, where 60 percent of transactions are made through cards (Riksbank, 2019). This begs the question; what is contributing to the low rate of MPS usage despite the measures taken to fast-track its spread?

Research states that perceived risk of privacy and security are among the most prominent barriers to MPS adoption (Oliveira et al. 2016). Interestingly, research also concurs that these

apprehensions can be mitigated through WOM. Positive WOM increases consumers' purchase intentions for innovative offerings by reducing perceived risks (Dichter, 1966). It provides reassurance by decreasing uncertainties around new products and services usage (Lu, Yao & Yu, 2005). Social influence in the form of recommendations can then help build customers' trust and purchase intent (Lee, Noh & Kim, 2013). Given that customer recommendations have implications for practitioners, research in the area is growing.

In today's increasingly connected era, social influences play an integral role in the adoption and spread of digital technologies (Yuniarty, Ikhsan & Ohliati, 2020). Interpersonal influence is a social factor relating to customers' reliance on each other's opinions. It influences customer decision making significantly (D'Rozario & Choudhury, 2000). There are two dimensions of interpersonal influences: normative influences and informational influences (Bearden, Netemeyer & Teel, 1989). The former refers to the tendency to conform to the expectations of the society, and affects values, norms and attitudes (Burnkrant & Cousineau, 1975). The latter, informational influences, denotes the tendency to accept information from individuals who are knowledgeable (Bearden, Netemeyer & Teel, 1989). Both normative and informational influence may drive users' WOM behaviors (Chu & Kim, 2011). People who are subject to informational influence exhibit a higher need to acquire information and guidance from knowledgeable sources when contemplating multiple options, which facilitates their engagement in WOM (Chu & Kim, 2011). On the other hand, consumers who are susceptible to normative influences are more likely to comply with the expectations of their significant others and seek social approval by using products and services that their significant others view as acceptable. Consequently, they may actively seek opinions from other people in their social circle (Chu & Kim, 2011). Such behaviors are associated with the social influence of WOM, where individuals view people in their circle as credible sources of information.

Researchers have acknowledged social influence as an important driver for consumer behavior (Kaur, Dhir, Bodhi, Singh & Almotairi, 2020). Miltgen, Popovič & Oliveira (2013) concur that recommending a technology to others is part of the post-adoption behavior, which has been overlooked by researchers as an overwhelming emphasis is put on usage patterns. In addition to this, the influence of WOM is growing and many studies focus on the factors that influence customers' intention to write WOM (Fu, Ju & Hsu, 2015; Hennig-Thurau, Gwinner, Walsh & Gremler, 2004; Oliveira et al. 2016). King, Racherla & Bush (2014) suggest that it is known what drives customers to indulge in WOM, but only to some extent. The determinants of WOM intention are based on complex personal, social, technological and environmental factors. For instance, customers react to specific issues when they are writing a product review – it may be related to usage experience, business practices and post-purchase transaction services (Andreassen & Streukens 2009; Qu, Zhang, & Haizheng 2008). The

complexity of WOM intention poses an opportunity to understand and delineate the determinants that apply within the context of MPS.

Walker (2001) asserts that antecedents for WOM can be industry dependent. Previous studies around WOM have been within established industries, relating to platforms such as TripAdvisor (Nam, Baker, Ahmad & Goo, 2020), social commerce (Meilatinova, 2021), and social media (Alexandrov, Lilly & Babakus, 2013; Yap, Soetarto & Sweeney, 2013). The varying nature of industries implies that the antecedents for other industries may not be completely replicated within MPS, as it falls within the FinTech industry — a recent but developing area. Given that MPS applications are more sophisticated in comparison to TripAdvisor and social media platforms, the determinants of recommendation intention would differ among them (Oliviera et al. 2016). The latter forms exchanges based on fun and pleasure-seeking activities. On the other hand, conversing about money is considered a taboo (Alsemgeest, 2016), which implies differences in communication around MPS in relation to other digital solutions. Further, communication about MPS is linked with greater product involvement and technical know-how that may evoke notions of ‘geek’ and ‘nerd’ culture (McCain, Gentile & Campbell, 2015). Sundaram, Mitra & Webster (1998) find that product involvement and interest in the product are also important drivers of WOM. It is stated that individuals’ interest in the product and the excitement that follows behind after using the product serve as a motivation for positive WOM. This excitement also stems from product ownership (Sundaram, Mitra & Webster, 1998). In light of this, the authors believe it is interesting to observe recommendation intention for a technology uncommon in typical conversations.

The objectives of this study are threefold: first, to apply the theory of planned behavior (TPB) in measuring the recommendation intention of Swedish customers for MPS; second, to examine the extent of influence of attitude, subjective norm and perceived behavioral control on the antecedents of recommendation intention; and lastly, to derive theoretical and managerial implications for researchers and practitioners within the areas of FinTech and social influence.

### 1.3 Research Purpose

Despite the considerable volume of research conducted around recommendations, it is imperative to acknowledge that MPS recommendation remains an under-discovered area. Particularly, what drives people to articulate themselves through recommendation for digital payment methods remains relatively less explored. Therefore, the purpose of this study is to identify the key antecedents of recommendation intention for MPS, thus filling a gap in literature surrounding the matter. The study will focus on current MPS users’ perspective and determine what drives them to recommend it to potential users.

Although marketers view recommendations as a promotional tool to attract and retain customers (Bone, 1995), the insights gained from studies are limited to certain industries (Anderson, 1998). Considering the fact that previous studies on technology have focused on other areas and industries, this study looks at the intention to recommend it as a dependent variable within the context of MPS. Thus, this paper aims to study the determinants which lead current users to recommend MPS by applying findings from previous literature surrounding the antecedents of WOM communication. Partaking in positive WOM during today's increasingly digital era leads to recommendations (Yuniarty, Ikhsan & Ohliati, 2020). There exists an overlap between positive WOM and recommendations, where the latter is considered to be one form of positive WOM (Yuniarty, Ikhsan & Ohliati, 2020). Thus, the study will use the overlapping WOM antecedents as a basis for MPS recommendation by current adopters.

The construct of recommending MPS is of great importance to stakeholders such as issuers, acquirers, merchants, NFC device owners, and application developers (Oliveira et al. 2016). More and more individuals are now providing their opinions about products, services and technologies on various platforms, for example, social media websites. This circulation of knowledge and opinions has the tendency to influence the success or failure of a new technology, such as MPS. Through this, it is inferred that the wider adoption of MPS is not only based on individual significance, but also on social influence, which provides new routes for shaping behaviors and attitudes (Miltgen, Popovič & Oliveira, 2013).

Krishna and Shanmugam (2020) find that for technological innovation to be successful, companies must not only satisfy existing users to retain them but also take additional measures to attract new consumers of digital payments. This carries implications for service providers and marketers with respect to the spread of MPS. Delving deeper into the drivers of recommendation intention after the adoption stage can further the understanding of MPS spread. As a result, marketers or MPS providers can identify critical characteristics of their users, as well as their product or service, and use them to better align their marketing and communication strategy.

As Sweden is enroute to becoming the first cashless society (Fourtané, 2020), looking at potential social factors for the spread can provide a basis for other countries to follow suit. For the purpose of this study and research aim, the following research question is investigated through a quantitative approach.

*What drives current adopters to recommend mobile payment solutions in Sweden?*

## 1.4 Outline of The Thesis

This thesis consists of six chapters, each of which contributes to answering the posed research question. Chapter two entails the literature, theory and concepts related to the two main research streams; positive WOM intention and MPS, upon which the hypotheses will be developed. Chapter three begins with the broader view of the TPB and follows into the individual and technological antecedents of WOM. The effects of the phenomenon are explained coupled with the connection to recommend intention. Lastly, the chosen motivational factors with respective hypotheses are presented along with the logic behind the selection of these determinants. Furthermore, the fourth chapter describes in detail the methodology and includes the research and data collection design. In addition, the variable measurement is presented along with the chosen method for data analysis. The fifth chapter reflects upon the findings that are deduced from the empirical material combined with the chosen method of analysis, partial least squares structural equation modeling (PLS-SEM). The findings are followed by a discussion relating back to existing literature, in light of the new findings. Theoretical and managerial implications are also discussed along with the limitations and direction for future research. The study ends with a concluding chapter.

## 2. Literature Review

*This chapter will provide the reader with a comprehensible outlook of the two different research streams that this thesis intends to follow, namely mobile payment system and word-of-mouth communication. This chapter aims to cover existing research within technology acceptance, how it relates to mobile payment systems, and the role of social influence within acceptance. Moreover, existing literature on word-of-mouth communication and what leads people to engage in it is also covered. The hypotheses are drawn on the TPB which is also explained.*

### 2.1 The Role of Social Influence

A number of reasons have contributed to slower technology spread, including privacy and security concerns. In a society that values privacy and security, failure to meet them can act as a barrier to technology acceptance (Oliviera et al. 2016). A series of security breaches in the past have led consumers to becoming skeptical, however, these privacy concerns are attitudinal and thus prone to change (Johnson, Kiser, Washington, & Torres, 2018). The malleable nature of consumer opinions with respect to perceived privacy and perceived security can be influenced by one's social environment. External influence is established to have a significant impact on consumers' intentions (Liébana-Cabanillas, Sánchez-Fernández & Muñoz-Leiva, 2014). Consumers are motivated to decrease their uncertainty regarding a new technology by seeking information about it (Rogers, 1983). Adopting a new technology carries a certain level of uncertainty, which leads individuals to turn towards their social network in order to alleviate it (López-Nicolás, Molina-Castillo & Bouwman, 2008). Rahman, Noh & Kim (2021) find that WOM has a mediating impact on trust in service providers, mobile payment apps and on security risk. As more people use the system, the level of trust placed in it increases and the perception of security is enhanced (Rehncrona, 2018).

Several studies have determined the role of social influence in reducing perceived risk and positively impacting the adoption intention (Lu, Yao & Yu, 2005), perceived usefulness as well as perceived enjoyment (Koenig-Lewis, Marquet, Palmer & Zhao, 2015; Oliveira et al. 2016). Social influence is defined as the degree to which individuals believed that others thought they should use advanced mobile services, which can be external (media reports, expert opinions, etc.) or interpersonal (word of mouth) (López-Nicolás, Molina-Castillo & Bouwman, 2008). Lin (2015) finds that interactivity, sociability and positive influence results in increased technology adoption.

Venkatesh, Morris, Davis, & Davis (2003) define three constructs that are related to social influence; subjective norm, social factors, and image. Subjective norm is understood as an

individual's perception that "most people who are important to him think he should or should not perform the behavior in question," (Fishbein & Ajzen, 1975, p.302). On the other hand, social factors pertain to the person's "internalization of the reference group's subjective culture, and specific interpersonal agreement that the specific person has made with others, in specific social situations" (Thompson, Higgins & Howell, 1991, p.126). While considering a new technology, an adopter's culture or attitude towards accepting the new technology plays a significant role in the adoption intention (Parmentola, Simoni, Tutore, & Wallis, 2020). In contrast, image means "the degree to which use of an innovation is perceived to enhance one's image or status in one's social system" (Moore & Benbasat, 1991, p.195).

In today's digitized world, WOM or interpersonal social influence, is considered to be an influential source of information for consumers (Huete-Alcocer, 2017; Lee & Youn, 2009). Moreover, Parmentola et al. (2020) concur that having network members who have already adopted a certain technology may produce knowledge spillovers and positive externalities that influences further spread of technology and increases usage intention (Koenig-Lewis et al. 2015). However, the pressure to comply as a result of social influence gradually decreases with time as continued usage becomes an individual intention rather than social (Venkatesh et al. 2003). The impact of social influence on behavioral intention is stronger for potential adopters but decreases with current users (Yang et al. 2011). This implies that potential users of a technology may be influenced by current users through recommendations.

### *2.1.2 Mobile Payment Systems (MPS) and The Intention to Recommend*

Mobile Payment System (MPS) as a new technology is an emerging research area over the past decade, with literature spanning over its adoption, acceptance, satisfaction and usage (Krishna & Shanmugam, 2020; Oliviera et al. 2016; Yang et al. 2011). Attitude, app usefulness and subjective norm are among the factors that have the greatest impact on MPS acceptance and usage intention in Sweden (Ahrenstedt, Huang & Wollny, 2015). Although current research focuses on m-payment apps (Ahrenstedt, Huang & Wollny, 2015), some of which can also mimic credit cards, other payment methods like digital wallets are overlooked. Corporate giants like Apple and Google are breaking through the mobile payment market with their systems — Apple Pay and Google Pay. As iOS is the popular operating system within Sweden (Paymentwall, 2020), it is important to be included within the research. Moreover, the role of network effects or social influence is dominant in furthering the adoption of MPS within the country (Rehncrona, 2018). Interestingly, Oliveira et al. (2016) find that people with high intention to adopt MPS are most likely to recommend the technology to others, furthering the awareness in their network and supporting the spread of MPS. Oliviera et al. (2016) state that social influence has a positive impact on wider MPS adoption. Recommendations and opinions of influential people are key in spreading a technology designed for mobile devices (Liébaná-Cabanillas, Sánchez-Fernández &

Muñoz-Leiva, 2014; Oliviera et al. 2016). Existing users' propensity to recommend is influential within the case of new technologies (Miltgen Popović & Oliveira, 2013). These recommendations in today's digital era can stem from multiple sources, including WOM communication (Yuniarty, Ikhsan & Ohliati, 2020).

## 2.2 Word-of-Mouth Communication

Over the past decade, with the advent of social media, WOM communication has gained further traction in various contexts and industries (Cheung & Lee, 2012). There are numerous studies that investigate WOM communication given its high impact on customers' purchase decisions. Research suggests that WOM has a significant impact on shaping opinions, behaviors, perceptions and attitudes (Brown & Reingen, 1987; Chung, Han & Koo, 2015; Day, 1971; Dichter, 1966). Day (1971) even claims that WOM has a more significant impact on customers than other forms of marketing communication.

WOM is termed as a dominant force in the marketplace and the "ultimate test of the customer's relationship" (Bendapudi & Berry, 1997, p.30). The growing reliance on WOM is undeniable (Cazier, Shao & Louis, 2007; Koh, Kim, Butler & Bock, 2007), where 91 percent of individuals consult reviews, blogs and other forms of user-generated content prior to purchase, 84 percent state that they trust online reviews as much as recommendations from close friends and family, and 74 percent of potential consumers state that positive WOM makes them trust a business more (Brightlocal, 2016). The WOM produced through interaction can become a highly effective way to reach potential customers (Meilatinova, 2021). It is considered to be the widest and the most important channel for customers to distribute their knowledge as well as seek information (Özdemir, Tozlu, Sen, & Ateşoglu, 2016). According to Chang, Jeng & Hamid (2013), WOM communication is nine times more effective for rapid distribution of information than print or media communications. Murray (1991) provides an explanation for this by stating that personal sources are deemed more trustworthy. Moreover, because WOM is created and communicated by a more trustworthy source of information than the company-generated persuasive messages (Feick & Price, 1987), customers often place greater reliance on it (Chu & Kim, 2011). Positive WOM communication also aids in creating a favorable image toward the brand and the firm (Arndt, 1967), and in turn results in decreased expenditures for a firm's overall promotional expense (Sundaram, Mitra & Webster, 1998).

Given that WOM is essential and its relevance within businesses is on a rise (Nam et al. 2020), a critical question arises. What drives people in the first place to engage in WOM? While the concept of WOM has been studied for decades, the unit of analysis, in most studies, has been the individuals who are on the receiving end of this form of user-generated content (Arndt, 1967; Bone, 1995; Brown & Reingen, 1987; Engel, Blackwell, & Kegerreis, 1969; File, Judd, & Prince, 1992; Guo, Wang, Zhang, Lin, & Han, 2019; Herr, Kardes & Kim, 1991;

Murray, 1991; Reingen & Kernan, 1986; Richins, 1983; Vasan, 2020), where WOM demonstrates a strong influence and effectiveness on choice, selection, and the intention to buy. This study delves into an alternate perspective, examining what influences the creators of WOM and studying in more detail the supply side of WOM i.e. the sender of WOM communication (Anderson, 1998; Feick, Price & Higie, 1986; Feick & Price, 1987; File, Cermak & Prince, 1994; Gatignon & Robertson, 1985; Hennig-Thurau et al. 2004; King, Racherla & Bush, 2014; Richins, 1983) as a key player in the promotion of the offering. The consequences of WOM communication have been examined significantly relating to product evaluations (Bone, 1995; Herr, Kardes, and Kim 1991; Rurzynski & Bayer, 1977), individual's predisposition to purchase (Arndt, 1967), intention to spread WOM (Brown & Reingen, 1987; Reingen & Kernan 1986), and purchase intention (King, Racherla & Bush, 2014).

### *2.2.1 Why Do People Engage in WOM?*

Existing literature on the antecedents which affect writers and creators of WOM reveals that the intention to engage in WOM depends on the experience that the customer has had with the product or service. When customers intend to communicate positive WOM, they may share and recommend their experience with previously consumed products or services (Zhang, Hu, Guo, & Liu, 2017). WOM intention is not only focused on sharing information about the products or services, which is also offered by the website, but also to share recommendations (Meilatinova, 2021). Kim & Park (2013) define WOM intention as the likelihood of customers to exchange their experience about products or services with others. Building on the same fronts as Kim & Park (2013) and Zhang et al. (2017), in this study, WOM intention is defined as the likelihood of customers to share positive information about a product or service (M-payments in this case) and recommend those to potential users through personal communication.

Research on why people engage in positive WOM relate to self-involvement – efforts for gaining attention, seeking reassurance and showing connoisseurship; other-involvement – helping potential or existing users; product-involvement – relieving excitement caused by product usage; and message-involvement – arousing interest in intriguing and unique offerings (Dichter, 1966). It was the first seminal WOM study to be published and implies that the creation of WOM is contextual, depending on different factors that deem important to the sender.

Researchers have built on this initial study and identified additional factors that motivate participation in WOM: an inclination to help others, a want to provide feedback, a sense of public responsibility, authority, satisfaction/dissatisfaction, product involvement, self-esteem and efficacy (Gruen, Osmonbekov & Czaplewski, 2006; Huang, Lin & Lin, 2009), monetary rewards, an awareness of a convenient channel for addressing a product or service issue,

expression of emotions, and a desire for social interaction (Hennig-Thurau et al. 2004; Sundaram, Mitra & Webster, 1998). This further expansion of motivation behind WOM delineates the previously identified social factors in more depth. The findings are also echoed by other researchers who state that self-orientation (exemplified as self-expression, improving writing skills, enhancing product understanding, utilitarian motives and personal enjoyment) coupled with other-orientations (such as altruism, social affiliation and reciprocity) drive people to participate in WOM contribution (Mathwick & Mosteller, 2017; Peddibhotla & Subramani, 2007).

Another research has also outlined factors relating to social identity and self-enhancement (Angelis, Bonezzi, Peluso, Rucker & Costabile, 2011; Fiske, 2002; Hennig-Thurau et al. 2004), motivation - intrinsic or extrinsic, novelty seeking, and opinion leadership (Sun, Youn, Guohua & Kuntataporn, 2006), which serve as antecedents of individual level engagement in WOM (Okazaki, 2009). Nam et al. (2020) also contribute to the body of literature by outlining that people write positive WOM when they want to help others (altruism), belong to a specific community (attachment), and find engaging in WOM to be interesting (enjoyment). Certain personal characteristics such as age and intrinsic motivators also affect an individual's intention to write reviews (Nam et al. 2020). Another motive behind articulating an opinion online is individuation where unconscious thoughts become a part of the conscious activities (Ho & Dempsey, 2010). Interestingly, neuroticism is also factored in as a reason for why customers provide online reviews (Picazo-Vela, Chou, Melcher & Perason, 2010).

Through this, the authors have gauged a number of factors which lead people to engage in positive WOM and provide recommendations. However, the studies mentioned above are generic and do not relate directly to the area of MPS and Sweden. Based on the review of literature, the factors are categorized into three core themes for MPS: individual-related factors; technology-related factors and social factors. Existing bodies of literature have not yet analyzed these categories within MPS, which leads the authors to delve into the question, how do these three core categories impact the recommendation intention for MPS?

### 3. Theoretical Framework

*This chapter aims to provide the reader with a comprehensible outlook of the TPB and how that is applied within the context of MPS in Sweden. This chapter also covers the antecedents of positive WOM communication. Hypotheses are developed with the help of the theory and antecedents. A model is also created in order to lend a better and fuller understanding of the concepts covered.*

#### 3.1 Theory of Planned Behavior

The theory of planned behavior (TPB), developed by Ajzen (1991), serves as a guiding framework to predict and explain human behaviour. The reasons to employ this comprehensive theory for this research are twofold. First, it is assumed that individuals intend to behave in ways that allow them to achieve favorable outcomes and meet other individuals' expectations. In other words, in addition to doing what people want to do, they also consider the opinions of others within their circle. This implies that behaviors are not solely determined by personal factors but are also affected by the social surroundings. The approval of a specific behavior from an individual's significant other may strongly influence intention (Cheng, Lam & Hsu, 2006). In accordance with this, both attitude and social influence are included in this study to investigate the influence of each on the intention to engage in positive WOM communication. TPB is a theory rooted in human behavior and thus provides explanations for the influences on individuals' decisions (Ajzen, 1991). It exhibits a strong predictive utility for a wide array of behaviors. The accumulated evidence suggests that the theory is useful in explaining most social behaviors that apply to most people, including WOM communication (Cheng, Lam & Hsu, 2006). Therefore, it is believed that this theory is appropriate for measuring recommendation intention for MPS.

Second, although previous researchers have contended that attitude is a critical variable for WOM behavior, limited studies have examined the effect of attitude while simultaneously measuring the effects of subjective norm and perceived behavioral control. In an individualistic society such as Sweden (United Nation Development Project, 2015), the effect of personal attitude towards behavior may outweigh that of subjective norm. No attempt has been made to study recommendation intention for MPS with the use of TPB. Therefore, the conceptual framework for this study is developed on the basis of the TPB.

The TPB model assumes intention as a central factor, which captures the underlying motivational components behind a behavior. Intention signals an individual's willingness to try a behavior and the amount of effort s/he would exert to perform it. The strength between

the two (willingness and effort) determines the likelihood of engaging in that behavior, so long as the person has volitional control, i.e., the person can choose to perform the behavior at will (Ajzen, 1991). Based on the findings from literature, performing or intending to perform WOM communication is sometimes goal-oriented (seeking self-interest etc.) (Chueng & Lee, 2012). This implies that individuals understand the implications of performing WOM communication and thus have a choice to do or not to do it. Thus, WOM is a result of the individual's actions and can be treated as planned behavior (Fu, Ju & Hsu, 2015). Social media and the internet in general has increased the opportunities for individuals to perform WOM communication, thus if a person intends then s/he should succeed in doing so. The perception of this control, called perceived behavioral control, plays an integral role in TPB that can vary across situations and actions (Ajzen, 1991). This implies that the actual behavior is contingent on how confident a person is in his or her ability to perform behavior together with the behavioral intention. Therefore, a person who intends to recommend MPS to others through WOM and is confident in the ability to do so will most likely succeed in recommending it (Fu, Ju & Hsu, 2015). But what drives the person to form the intention in the first place?

According to the TPB, there are three independent predictors to intention formation: attitude, subjective norm and perceived behavioral control.

### *3.1.1 Attitude*

The first antecedent is the attitude towards the behavior, which accounts for the “the degree to which a person has a favorable or unfavorable evaluation or appraisal of the behavior in question” (Ajzen & Madden, 1991, p.188). An individual's attitude toward a behavior is determined by the subjective values associated with the outcome and the relative strength of the associations created (Fishbein, 1963; Fishbein, 1967; Fishbein & Ajzen, 1975). Fishbein & Ajzen (1975) concur that when an individual wants to perform an action, s/he wants to maximize the rewards associated with that action while minimizing the costs. Consumers may weigh the cost and benefit of each of their actions (Cheng, Lam & Hsu, 2006). Since attitude is viewed as an overall effect towards an act, it is reflective of the general positive and negative evaluations of the outcome. In other words, if an individual has a positive attitude towards a behavior, s/he is more likely to engage in the said behavior. On the other, a negative attitude towards an action results in less likelihood of engagement in the intended behavior. Previous literature has demonstrated the positive influence of attitude on behavioral intentions (Blodgett & Granbois, 1992; Conner & Sparks, 1996).

Within the context of MPS recommendation, it is the person's individual or personal beliefs regarding positive WOM communication. Customers' attitude towards WOM is a critical antecedent in intention formation. Attitude towards WOM can be defined as the overall positive or negative orientation towards perceiving any form of WOM communication and it

is not bound by satisfaction (Fu, Ju & Hsu, 2015). Attitude, at times, is related to subjective and/or moral norms. Prior to voicing their opinion, comments or recommendations, consumers are likely to be concerned about whether or not such behavior is deemed as appropriate. They may feel that they should disclose their opinion because airing one's discontent/content with the offerings is one's moral obligation which benefits the public (Cheung & Lee, 2012). Phau & Sari (2004) suggest consumers who have a more favorable attitude towards WOM communication are more likely to express their opinion, comments and recommendations. On the other hand, a consumer who has a negative attitude towards WOM communication would tend to not voice their opinion. Accordingly, Fu, Ju & Hsu (2015) establish that attitude towards WOM communication has a positive impact on WOM intention.

### *3.1.2 Subjective Norm*

Second antecedent is termed as subjective norm, which refers to the "perceived social pressure to perform or not to perform the behavior" (Ajzen & Madden, 1986, p.454). It is a form of social pressure relating to an individual's perceptions of whether an action or behavior is considered to be acceptable within the society (Fu, Ju & Hsu, 2015). In other words, it is the perceived opinions of others which tend to influence the way an individual views a situation (Cheng, Lam & Hsu, 2006). Here, the perception being considered belongs to people whose opinions are valued, such as significant others, parents, siblings, friends, relatives, subordinates, superiors, and colleagues (Hee, 2000). Subjective norm intends to measure social influence pertaining to an act (Fishbein & Ajzen, 1975) and the social pressure surrounding it. Leenders (2002) suggests that the frequency and intensity of communication between an individual and his or her significant others also determines the likelihood of the individual performing the specific action. This is because ideas and beliefs are adopted from the surroundings.

Subjective norm is created through the individual's normative beliefs and those of the people around (Ajzen & Fishbein, 1980), along with the extent to which an individual wants to comply with the expectations of others. That is, if recommending MPS is seen as a common and righteous behavior by the people around the actor, and the actor's motivation to comply with others is also high, then s/he may exhibit a higher propensity and stronger intention to recommend it. Since Sweden is considered to be a very individualistic society, it will be interesting to gauge the impact of subjective norm, if any. Studies have shown that consumers' actions are highly influenced by those around them (Bearden & Etzel, 1991; Conner & Sparks, 1996). Thus, if an action is socially acceptable, people may have a higher inclination to indulge themselves in the behavior.

Chu & Kim (2011) assert that an important driver of WOM behavior is normative interpersonal influence. Research suggests that people do not want to voice their opinion if it

causes nuisances (Richins, 1982). Subjective norms strongly influence the intention and attitude towards engaging in WOM communication (Fu, Ju & Hsu, 2015). Consumers who have had a favorable experience are likely to exhibit concern for others by helping them make the right decision. A consumer who believes voluntarily helping others with personal experience is appropriate will tend to have a more favorable attitude towards WOM communication (Fu, Ju & Hsu, 2015).

### *3.1.3 Perceived Behavioral Control*

The third antecedent, as mentioned, is the perceived behavioral control depicting the ease or difficulty with which a person can perform the behavior. In other words, it measures how well a person can perform the actions required to deal with the presented situation (Ajzen, 1991). It is reflective of an individual's perception of the factors that serve in facilitating or impeding the performance of an act. In other words, it is the individual's perception of internal and external constraints on behavior (Taylor & Todd, 1995). These include availability of time and resources, such as money and skills, as well as the person's self-confidence in his or her ability to perform the action (Taylor & Todd, 1995). Conner & Abraham (2001) also concur that a person's own behavior is greatly influenced by his or her confidence in the ability to engage in the intended behavior.

Ajzen (1991) adds that the more favorable the first two predictors, and the stronger the third one, the more confident we can be in predicting the intention to perform the behavior. If people believe they have limited control over performing an action due to lack of requisite resources, the intention to engage in it may be lowered even if they hold a favorable attitude and/or subjective norm surrounding the behavior (Cheng, Lam & Hsu, 2006). However, the relative importance of each construct can vary across different contexts and situations. Exploring perceived behavioral control, in this study, should allow for a more detailed account of how individuals perceive the limits surrounding their recommending behavior.

## **3.2 Application of the Theory**

The three identified predictors depend on the salient beliefs that individuals hold about the behavior — leading to intention formation and guiding action — categorized into behavioral beliefs (attitude towards behavior), normative beliefs (subjective norm) and control beliefs (perceived behavioral control) (Ajzen, 1991). The three mechanisms act together to form a person's intention. Through information processing, individuals make beliefs by associating objects with one another, which translates into attitude formation. For attitude towards behavior, people associate each belief about behavior with a certain outcome and tend to avoid behaviors with unfavourable consequences, and vice versa for those with favourable consequences. By this logic, if an individual holds a belief about recommending MPS in a

positive light, he or she has more chances in forming a favourable attitude towards it. However, TPB holds that the overall attitude towards behavior is a summation of the salient beliefs multiplied with their individual subjective evaluation (probabilities) of each belief's attribute (Ajzen, 1991). Similarly, the subjective norm is the sum of each normative belief multiplied by an individual's motivation to comply based on social expectations. However, positive attitudes may also be influenced by advice or recommendations from others, indicating a relationship between subjective norms and attitude, where an attitude change could arise due to persuasion attempts (Fu, Ju & Hsu, 2015). Ajzen (1991) suggests that the ultimate link between intention and action is perceived behavioral control, which consists of the opportunities and resources available to the individual that facilitate or inhibit behavior. It is calculated by summing the product of each control belief by the perceived power of the particular control factor (Ajzen, 1991; 2001).

The TPB gives us insight into attitude formation based on certain beliefs, however one shortcoming Ajzen (1991; 2001) notes is that the model overlooks personal or moral norms which may influence attitude. The addition of personal motivations or moral beliefs as the fourth antecedent to attitude formation forms the theoretical contribution in the literature surrounding MPS recommendation, based on the TPB.

TPB has been vastly studied and applied within the context of consumer purchase intention. However, its application outside of the consumer purchase journey has been limited. Following in the footsteps of Fu, Ju & Hsu (2015), this study aims to expand the current understanding of TPB and apply it within the context of the intention to recommend MPS. With the addition of personal and moral motivations — behavioral beliefs about concern for others and self-enhancement — the authors extend the original model and incorporate originality and service quality as additional constructs that could lead to the intention to recommend MPS within Sweden.

### 3.2 WOM Antecedents & Hypothesis Formulation

The aforementioned theoretical background lays the ground for a model with four hypotheses, supported by the TPB and previous literature on WOM. The relationships between these variables are illustrated below in the proposed model based on the TPB.

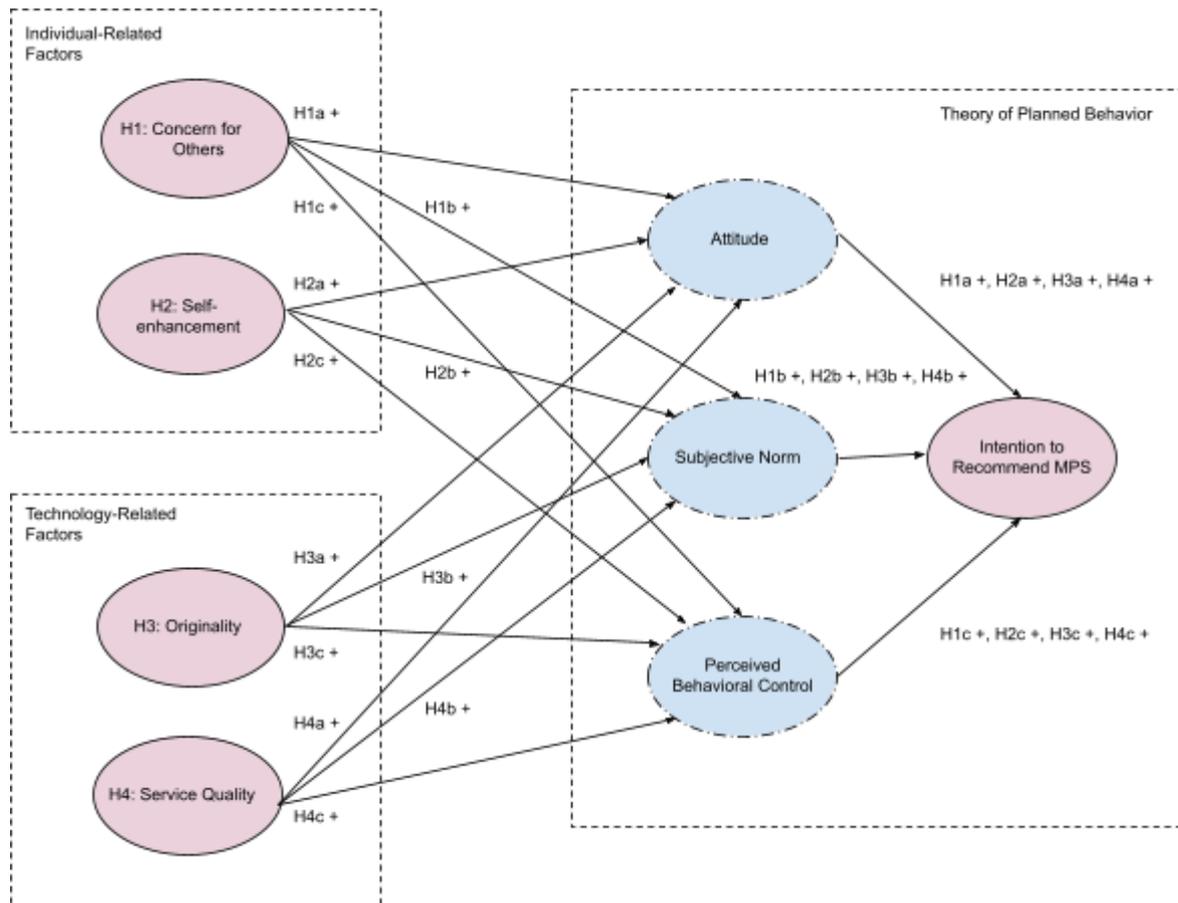


Figure 1: Theory of Planned Behavior Model

Intention to recommend MPS, as illustrated, is a function of three factors: (a) an individual's attitude toward performing the behavior; (b) a general subjective norm surrounding the performance of the behavior; and (c) the perceived control over the behavior. A number of researchers have challenged that these three variables alone are insufficient to lend an explanation in predictability patterns for behavioral intentions. It is argued that other variables and antecedents can further enhance the predictive utility of this model (Conner & Armitage, 1998; Norman, Conner, & Bell, 1999). The improvement is based on the notion that intention is mediated by the variables included in the TPB (Cheng, Lam & Hsu, 2006).

Deduced from the review of literature surrounding WOM communication and TPB, the authors develop a model of potential antecedents for the intention to recommend MPS, depicted in Figure 1. The figure summarizes the findings from previous literature and aids in hypotheses formulation. The antecedent variables stem from two themes and a theoretical perspective. These themes are categorized as individual-related factors, technology-related factors, and mediating factors from TPB. The focus of this research is on the intention to recommend MPS by existing users within Sweden, which has surfaced as a dependent variable within this context. In this section, the authors address key components of the

research model and the relationship between variables. Four factors from the literature are considered: concern for others, self-enhancement, originality and service quality.

### *3.2.1 Individual-Related Factors*

This section presents how the hypotheses are developed for individual-related factors; concern for others and self-enhancement.

#### *3.2.1.1 Concern for Others Motivation*

The first construct surrounding individual-related factors is concern for others. It has surfaced as one of recurring factors during the review of extant literature. It is claimed that people engage in WOM to help others as they feel a sense of responsibility towards them (Nam et al. 2020). This follows in line with what is suggested by Hennig-Thurau et al. (2004) who conceptualize concern for others in terms of helping other customers. In the literature, sharing information is viewed as a public good phenomenon (Cheung & Lee, 2012). Individuals feel that they have a moral obligation to serve and benefit others in a community, at the cost of self-interest, if necessary (Shechter & Freeman, 1994). Helping others is presented as a reason by multiple pieces of research for writers to share their thoughts about an offering (Dellarocas & Narayan, 2007; Batson, 1994; Cheung & Lee, 2012). The inclusion of moral obligation as an antecedent of WOM is a prominent theme across studies relating to WOM communication (Yap, Soetarto & Sweeney, 2013).

Yap, Soetarto & Sweeney (2013) state that WOM communication is recognized as helpful by individuals if it is functional and informative. It is a voluntary act which benefits other people without expecting something in return (Fu, Ju & Hsu, 2015). This relates to communicating genuine offers to help other customers make informed decisions. It results in a social benefit which occurs when customers engage in WOM messages for social integration purposes (Yap, Soetarto & Sweeney, 2013). Batson (1994) delves into why people act for the public good and identifies four underlying goals: self-benefit; increasing group welfare; one or more individuals' welfare; and upholding moral principles. Similarly, Cheung & Lee (2012) identify that consumers resort to posting reviews when they show a concern for other members of the society – a public good. The need to act for public good can be linked to empathetic emotion (Cheung & Lee, 2012), which facilitates the need to help others (Eisenberg & Miller, 1987). Individuals acting on such goals are willing to volunteer themselves to spread knowledge (Cheung & Lee, 2012) for the greater good. Thus, it is hypothesized that:

*H1: There is a positive relationship between concern for others motivation and intention to recommend MPS*

*H1a: There is a positive relationship between concern for others motivation and intention to recommend MPS via attitude*

*H1b: There is a positive relationship between concern for others motivation and intention to recommend MPS via subjective norm*

*H1c: There is a positive relationship between concern for others motivation and intention to recommend MPS via perceived behavioral control*

### 3.2.1.2 Self-Enhancement Motivation

The second factor is self-enhancement. This construct refers to serving the public good in order to benefit oneself (Cheung & Lee, 2012). Researchers in the areas of psychology, sociology, political science, humanities, and economics argue that all human actions are ultimately driven through self-interest. Therefore, one of the most prominent themes regarding the reason behind providing reviews and recommendations, unmasked through literature review, is self-enhancement or self-interest. Positive self-enhancement reflects a customer's need to voice his or her consumption experience in order to appear as intelligent shoppers (Yap, Soetarto & Sweeney, 2013). Hennig-Thurau et al. (2004) find that this aspect constitutes as the biggest motivation behind engaging in WOM communication, where the ultimate goal is to enhance one's own interest (Cheung & Lee, 2012) and image (Alexandrov, Lilly & Babakus, 2013). Positive WOM allows people to gain attention, show connoisseurship, voice their status, give the impression of attaining inside information and assert superiority over potential users (Engel, Blackwell & Miniard, 1993).

This overlaps with the concept of concern for others presented by Batson (1994). The two stances can co-exist as a motivation for taking part in WOM (Batson, 2010). Self enhancement is one form of self-interest and has egoistic connotations (Stern, 2000). People with self-enhancement as a goal desire positive recognition from others (Fu, Ju & Hsu, 2015). This is backed by the research conducted by Wojnicki & Godes (2008) who find that consumers' propensities to generate positive WOM are influenced by their motivation to self-enhance. This implies that customers seek experiences that bolster the self-concept and seek further opportunities to enhance their own idea of self-worth. Positive self-enhancement is commonly associated with a desired outcome where individuals want to present themselves as intelligent or mindful (Hennig-Thurau et al. 2004; Yap, Soetarto & Sweeney, 2013). Fu, Ju & Hsu (2015) posit that consumers with higher self-enhancement motivation are inclined to have a more favorable attitude toward posting WOM. Alexandrov, Lilly & Babakus (2013) include self-enhancement as an ultimate motive because it is connected to the ego, and people have strong drives to enhance and protect their egos (Alicke & Sedikides, 2009). Furthermore, Constant, Kiesler & Sproull (1994) present an individual's reputation as an important determinant of information sharing, stating that people share their product knowledge because

they aim to gain recognition informally and establish themselves as experts (Wasko & Faraj, 2000; 2005). In light of this, Cheung & Lee (2012) find that people articulate their opinions online to gain reputation.

Similarly, Lee, Noh & Kim (2013) iterate that self-presentation desires also have a positive impact on information-sharing intention. Users want to share information about their experience in order to express their identities. That is, the desire to project an enhanced image to the audience can motivate buying behavior for self-interest (Schau & Gilly, 2003). Users can influence others through their presentation of self (Lee, Noh & Kim, 2013). Self-presentation is thus a process where users try to present an image of themselves as it is perceived by others, which leads to engagement in WOM activities (Lee, Noh & Kim, 2013). After having had a positive experience with the product, users generate positive WOM in order to look good in the eyes of the recipient (Blazevic, Hammedi, Garnefeld, Rust, Keiningham, Andreassen, Donthu & Carl, 2013). Similarly, it can be inferred that if an existing MPS user wants to gain a reputation, then s/he has a higher tendency to spread WOM. This leads to the hypothesis:

*H2: There is a positive relationship between self-enhancement motivation and intention to recommend MPS*

*H2a: There is a positive relationship between self-enhancement motivation and intention to recommend MPS via attitude*

*H2b: There is a positive relationship between self-enhancement motivation and intention to recommend MPS via subjective norm*

*H2c: There is a positive relationship between self-enhancement motivation and intention to recommend MPS via perceived behavioral control*

### *3.2.2 Technology-Related Factors*

This section presents how the hypotheses are developed for technology-related factors; originality and service quality.

#### *3.2.2.1 Originality*

Within technology-related factors, originality is the first aspect considered here. Product or service originality also plays a part in WOM intention. In this study, originality is defined as the level of newness and uniqueness of the offering relative to the existing ones (Goldenberg, Mazursky & Solomon, 1999). It also relates to how fresh the idea is (Magnusson, Wästlund & Netz, 2016). A product or service is said to be original if it differs from existing offerings because it uses advanced or radical technology (Gatignon & Xuereb, 1997). Moreover,

according to Derbaix & Vanhamme (2003), a novel offering is more likely to be interesting and surprising to the customers, and research suggests that people talk more about products which they find surprising (Dichter, 1966; Feick & Price, 1987).

Moldovan, Goldenberg, & Chattopadhyay (2011) also find that product-related factors have an influence on why people articulate reviews. Product originality is said to increase the buzz and in turn enhances the usefulness of WOM such that consumers spread it relatively more and feel positively about the product's utility and originality. However, originality can lead to positive or negative WOM (Moldovan, Goldenberg, & Chattopadhyay, 2011) as it is the usefulness, that is the product's ability to meet needs, which determines the positive or negative valence of WOM (Henard & Szymanski, 2001). Accordingly, researchers postulate that product originality enhances the effect of usefulness on WOM valence, where high usefulness leads to more positive WOM (Moldovan, Goldenberg, & Chattopadhyay, 2011). Originality is also likely to magnify this positively valenced WOM. Similarly, Derbaix & Vanhamme (2003) argue that product novelty leads to an increase in WOM activity because of the attention it elicits. This also includes the unique benefits that the product or service offers. Findings within existing literature (Derbaix & Vanhamme, 2003) suggest that product originality stimulates WOM. Feng (2018) asserts that products that are innovative and provide a pleasant surprise can arouse emotions within the customer and lead to positive WOM generation. In light of this we postulate the hypothesis that:

*H3: There is a positive relationship between originality and intention to recommend MPS*

*H3a: There is a positive relationship between originality and intention to recommend MPS via attitude*

*H3b: There is a positive relationship between originality and intention to recommend MPS via subjective norm*

*H3c: There is a positive relationship between originality and intention to recommend MPS via perceived behavioral control*

#### 3.2.2.2 Service Quality

The literature surrounding positive WOM intention also lists service quality as an important driver. Walker (2001) highlights service quality as the motivator behind WOM communication. Service quality is conceptualized as an attitude that is dependent on an individual's importance-weighted evaluation of the performance of the specific dimensions of a service (Cronin & Taylor, 1992). This construct results in customer satisfaction, which is referred to as a post-purchase response, defined as the favorability of the individual's subjective evaluations of outcomes and experiences associated with his or her consumption

activities (Brown, Barry, Dacin & Gunst, 2005). Satisfaction with products and services usually results in outcomes such as loyalty and hence, positive WOM (de Matos, Rossi, Veiga & Vieira, 2009; Wangenheim & Bayón, 2007). Ullah & Shabbir (2020) exhibit that service quality has a direct impact on WOM communications in the form of referrals. Moreover, Sundaram, Mitra & Webster (1998) also outline quality as a motivation behind positive WOM. Parasuraman, Zeithaml & Berry (1988) present five dimensions of service quality: tangibles, reliability, responsiveness, assurance, and empathy. Boulding, William, Kalra, Staelin, & Zeithaml (1993) state that service quality positively affects important behavioral outcomes such as positive WOM and loyalty (de Matos et al. 2009; Wangenheim & Bayón, 2007).

Meeting or surpassing the customers' expectations (satisfaction) or not meeting them (dissatisfaction) results in an emotional imbalance. Walker (2001) finds that existing customers are more likely to engage in WOM in more detail if service quality is low. Individuals restore this balance by engaging in post-purchase responses, and WOM is an example of that (Hennig-Thurau et al. 2004). Satisfied customers are more likely to engage with WOM in a positive manner (Fu, Ju & Hsu, 2015) and past studies have provided empirical evidence where WOM is dependent on satisfaction (Wangenheim & Bayón, 2007). Nonetheless, perceived service quality level positively impacts the favorableness of an individual's WOM communication. This is also evident within the service industry as Sundaram, Mitra & Webster (1998) exhibit that service quality has a direct impact on WOM communication. This leads to the hypothesis:

*H4: There is a positive relationship between service quality and intention to recommend MPS*

*H4a: There is a positive relationship between service quality and intention to recommend MPS via attitude*

*H4b: There is a positive relationship between service quality and intention to recommend MPS via subjective norm*

*H4c: There is a positive relationship between service quality and intention to recommend MPS via perceived behavioral control*

## 4. Methodology

*This chapter provides the reader with an overview of the methodological approach that is followed for this study. It starts with the research philosophy and presents how that translates into the research approach. It also draws attention to the chosen research design and methods for sampling, which lead to a detailed description of the questionnaire. Moreover, independent and dependent variables are also presented. The chapter then outlines the data analysis method and concludes with a presentation of results.*

### 4.1 Research Philosophy

According to Easterby-Smith (2018), research philosophy refers to the development and nature of knowledge. It is the knowledge which influences the aim of intended research and the underlying research design. In addition, it covers critical assumptions related to how the researchers view and interpret the world around (Saunders, Lewis & Thornhill, 2009). Therefore, it becomes imperative to elaborate on the philosophical stance at the initial stages of the study. The benefit to the study is twofold. Firstly, it aids in acquiring a coherent representation of the research problem. Secondly, its development in the early stages is critical as it helps to make sure that research philosophy is consistent with the research approach. In this study, the authors aim to develop consolidated knowledge from the two selected research streams, mobile payment system and positive word-of-mouth intention. In order to achieve this, the authors make certain assumptions about the nature of the world, referred to as epistemological, and about the nature of reality (ontological) that has built the foundation for the research question, methodology and interpretation of findings (Crotty, 1998).

Epistemology is the study of how individuals interpret facts to be true or false, how they come across knowledge and what steps they take in order to acquire knowledge about the world (David, 2015). Keeping under consideration the epistemological approach, the authors concur that a positivist stance is well-aligned with this research. According to Easterby-Smith (2018) and Saunders, Lewis & Thornhill (2009), positivism is referring to knowledge based on facts. This means that reality should be measured objectively, through quantitative means. Furthermore, it deals with existing theories that were used to develop the hypotheses.

This research aims to study the motivations behind recommendation intention for MPS within Sweden. Thus, findings and theories from prior bodies of knowledge were used to develop a logic for the motivation behind recommendation intention. The model is a development to the TPB, which was used to elaborate on the hypotheses. The data collection was quantitative in

nature, thus allowing the authors to identify the most critical motivations behind WOM intention, which resulted in supported or not supported hypotheses. This approach is in line with the positivists' goal of generating findings obtained through statistical research (Easterby-Smith, 2018).

Ontology, on the other hand, refers to the nature of reality and existence, and raises questions regarding the subject of matter, how it should be inferred and subsequently, how the world functions (Bell, Bryman & Harley, 2018; Saunders, Lewis & Thornhill, 2009). Internal realism is one form of ontology (Bell, Bryman & Harley, 2018). Easterby-Smith (2018) states that internal realism is different from other stances in the sense that truth exists but it is obscure. He further justifies it by arguing that it is impossible to approach the truth directly, which implies that evidence must be gathered indirectly. The observed phenomenon, recommendation intention for MPS, is not dependent on a particular researcher. The concept can be conceptualized and described through various explanations. Moreover, even though the truth exists, the lens through which reality is viewed can be changed depending on the data collection method. Hence, the aforementioned arguments support the ontological position of internal realism to be fitting for this research.

## 4.2 Research Approach

The relationship between theory and research must be considered when conducting research (Bryman & Bell, 2015). The aim of the research question, along with the main aim of the research, is to direct the research approach of the study (Bryman & Bell, 2015; Saunders, Lewis & Thornhill, 2009). There is an agreement among social scientists that business research is categorized into inductive, deductive, and abductive approaches (Bell, Bryman & Harley, 2018; Saunders, Lewis & Thornhill, 2009). Bryman & Bell (2015) state that deductive approach reflects the most dominant research approach within scientific research when studying the relationship between theory and research. In such cases, the researcher uses what is already known about the main topic to deduce hypotheses. It can be inferred that a deductive approach begins with existing theory, based on which hypotheses are developed (Bell, Bryman & Harley, 2018). Through observations, researcher concludes to either support or not support the postulated hypotheses. Accordingly, accepting the hypotheses will lead to theory development as well as revision of existing ones (Bryman & Bell, 2015). Consequently, the deductive approach is a top-down one, beginning with more general ideas and culminating into more specific ones (Burns & Burns, 2008).

Within quantitative research, a deductive approach is the most common one since hypothesis testing is prominent (Saunders, Lewis & Thornhill, 2009; Yilmaz, 2013). Keeping under consideration the information mentioned above and the aim of this research, a deductive approach was used, as it allowed for exploring the relationships between variables (Bryman & Bell, 2015). The aim was to explore the research question — the relationship between

independent variables, thus, the motivation behind recommendation intention, and the dependent variable, the intention itself. In order to investigate this, the authors used the existing TPB to develop the hypotheses. Through the collection of empirical material, the authors were able to gauge whether the hypotheses were supported or not and developed the theory further.

### 4.3 Research Design

According to Malhotra (2010), a research design is a blueprint for conducting research. It encompasses all procedures and processes required to provide the information needed in order to answer the research question. Therefore, a research design is a framework for the data collection as well as analysis (Burns & Burns, 2008). A structured, consistent and carefully executed research design facilitates the later stages for research and is therefore important.

Research suggests that there are two types of research designs: exploratory and conclusive (Malhotra, 2010). An exploratory research design deals with qualitative studies usually, while the conclusive research design is opted for quantitative studies (Sreejesh, Mohapatra & Anusree, 2014). In addition, a conclusive research design entails a large sample coupled with a research process that is formal and structured. Hypotheses testing and exploring relationships is another aspect of conclusive research design (Malhotra, 2010). Considering this, the authors concur a conclusive research design to be more appropriate for this study. The nature of this study is structured due to an examined relationship between positive WOM motivation and the intention to recommend. Moreover, the hypotheses confirm the chosen design as they are typically used for conclusive research design.

After choosing a conclusive research design, the authors decided which form the research would take: descriptive or causal. Initially, the idea was to create an experiment and showcase the behavior. This particular method is useful in studying experiments. The prior choice of causal design is different from descriptive because of the incorporation of experiments, to gauge the effects on the dependent variable when the independent variable is changed (Zikmund, Carr & Griffin, 2013). However, after consideration and some thoughts, the authors chose to eliminate the experiment and decided to opt for a descriptive research design. The main objective behind descriptive research is to describe a phenomenon – in some cases, through user and market characteristics (Malhotra, 2010). This research design is employed by researchers when: describing characteristics of a particular group – in this case, existing MPS users; estimating the percentage of a population exhibiting a particular behavior; and analyzing perceptions (Malhotra, 2010).

A descriptive research design is further categorized into cross-sectional and longitudinal design. This study opted for cross-sectional design, more specifically a single cross-sectional design, due to several reasons: firstly, the research had more than one case as the survey was

completed by 144 persons; secondly, the data was collected at a single point in time, hence simultaneously; thirdly, single cross-sectional design is a standard method for identifying variations and quantifiable data; and lastly, it is used to examine the relationship between independent and dependent variables in order to detect patterns (Bryman & Bell, 2015).

## 4.4 Sampling Method

### *4.4.1 Target Population and Sample*

Burns & Burns (2008) describe sampling as the process by which a representative portion of the population is selected for a study. This allows researchers to make observations about a smaller group of elements and generalize the findings back to the population from which the sample is drawn. Population is defined as “the entire collection of all observations of interest to the researcher” (Burns & Burns, 2008, p.194) that shares a common set of characteristics that is of interest for the study (Malhotra, 2010). The first step in drawing a sample is to define the population. For this study, the authors came to the conclusion that the population is quite diverse, consisting of people from various demographics. In most cases, a bank account and Swedish personal number are necessary to use the MPS within Sweden. As some immigrants residing in Sweden do not hold the Swedish personal number, the authors realised that not all residents were using the system. Moreover, MPS is available for individuals who are above the age of 18. From the previous literature on WOM intention, it was identified that product or service experience is crucial in recommending it to others. Thus, the target population consisted of: residents in Sweden; who are above 18 years of age; and have used the mobile payment system. Those who did not meet the established criteria were ineligible to fill out the questionnaire. Due to restrictions created by the coronavirus pandemic, the questionnaire was shared via the internet on Facebook, Instagram, Whatsapp, and through email.

### *4.4.2 Sampling Technique*

There are two established sampling techniques; probability sampling and non-probability sampling (Burns & Burns, 2008; Malhotra, 2010). In probability sampling, each individual is randomly selected and has an equal chance of being selected (Burns & Burns, 2008). In contrast, non-probability sampling does not require random selection and the individuals do not have an equal chance of being selected, where some are often selected in a deliberate way (Burns & Burns, 2008). This means that while some individuals have no chance of being selected, others would be more likely to be chosen (Bryman & Bell, 2015).

For this research, a non-probability sample was used as details regarding the full population could not be attained and reaching each user would have required extensive resources in terms of time and cost. A disadvantage of using this sampling method is that sampling error or

reliability cannot be established and the assumptions cannot be generalized to a larger population, however, it is still used as a form of sampling method for it is quick, inexpensive and convenient to use (Burns & Burns, 2008). In addition, the sampling bias in the results can be reduced by increasing the sample size with the addition of diverse sample elements (Bryman & Bell, 2015).

For the purpose of this thesis, a convenience or opportunity sample was used which is defined as “a sample selected from conveniently available participants” (Burns & Burns, 2008, p.216). These could be participants available in the researcher’s surroundings like friends, people in the neighbourhood, or fellow students in online social groups. As defined in the previous section, the eligibility criteria for this study was current residents of Sweden who are aged 18 years and above and have used MPS in Sweden. Therefore, the survey was shared on Facebook and Whatsapp groups, where there was a strong likelihood to find the intended sample.

#### *4.4.3 Sample Size*

Malhotra (2010) emphasizes on the importance of determining the sample size before beginning data collection. As a general rule, a higher sample size means that there is less deviation from the true population estimate. In other words, a higher sample size would reflect a lower sampling error. Sarstedt, Ringle & Hair (2017) recommend a sample of between 100 and 200 respondents for running the PLS-SEM technique, the method of analysis used for this research. Following these guidelines, the authors aimed for a number of respondents exceeding 100. In total, the survey was completed by 144 respondents, out of which 125 were used for the analysis.

### **4.5 Data Collection Method**

#### *4.5.1 Questionnaire Design*

The survey technique has evolved with the advent of new technologies. Over the past decade, the internet has become an integral part of people’s daily lives. Bryman & Bell (2015) introduce self-completion questionnaires as one of the main instruments used for data gathering, which allow participants to complete the survey by themselves. The most common form is a mail or postal questionnaire, which is returned by respondents either by post or by depositing completed questionnaires in a certain location (Bryman & Bell, 2015). However, with the advent of modern communications technology, this technique is being replaced by internet-based or web-based surveys that are more convenient and cost-effective (Easterby-Smith, 2018). Instead of mailing the questionnaire to individual participants, the survey is placed on a website where each respondent can access it through a web link and complete it online. The responses are recorded in an online database for statistical processing

and analysis (Easterby-Smith, 2018). An advantage of this technique is that it can reach a high number of respondents and elicit many responses at any time. Moreover, the survey is customizable for individual respondents and holds features like drop down menus that can explain difficult parts of the survey. Skip-logic and conditions can further skip topics that are irrelevant based on previous questions. Further, data can be downloaded in different formats into programs like Excel or SPSS for analysis, reducing cost of data entry and errors due to transcription (Easterby-Smith, 2018). It also solves time-constraints as the interviewer is not required to be physically present.

There are a number of cost-effective tools available for administering web-based surveys (Easterby-Smith, 2018), several of them offering customizable functions to meet different purposes and types of questionnaires (Saunders, Lewis & Thornhill, 2009). For this study, the authors have used Google Forms for administering the questionnaires, which allows data to be exported in CSV or txt format that is compatible with SMART-PLS — the analysis software for this research. Google Forms is quick and easy to set up, and allows to incorporate rules for eligibility e.g. respondents who have not used the MPS do not progress to the next section of the survey.

The authors used previously established scales from the literature surrounding WOM intention antecedents in choosing the items for the questionnaire. The statements were modified to adapt to the context of MPS recommendations, however they remained largely similar to the original items. By using established scales for each of the variables, the authors were confident that the survey was relevant and appropriate enough to use.

The survey began by welcoming respondents to the study, followed by the requirements for participation, a description of the subject matter, the goal of the thesis, the process, and estimated time for survey completion. Information about the authors, supervisor, and ethical considerations regarding agreement, confidentiality and anonymity were also disclosed, along with information about data processing and the email addresses of the researchers.

Section one in the survey consisted of questions relating to consent, demographic background including age and gender, and whether the participant had used the MPS. The responses derived from this section provided demographic characteristics to further analyze data and helped filter out the target audience. All questions were closed-ended which provided simplicity to both the respondents (fewer options) and the authors in processing the answers (Bryman & Bell, 2015). Such questions also aid in comparing answers easily and studying the relationships between the variables.

The first question asked about eligibility and consent, and was formulated as “I have read the above and agree that I am above 18 years of age, reside within Sweden, and consent to take part in this study.” The respondent could choose between the options “Agree” and “Disagree”.

The second and third questions asked about the respondents' age and gender and were formulated as "What is your age?" and "Which gender do you identify with?", respectively. For age, respondents could choose between five options; 18-24, 25-34, 35-44, 45-54 and 55 and above. For gender, participants could choose from the nominal scale measures "Male", "Female" and "Other." The fourth question confirmed the eligibility criteria for MPS experience and was formulated as "Do you use a mobile payment system? (e.g. Swish, ApplePay, GooglePay, SamsungPay, PayPal, WyWallet etc.)" If a respondent chose "No", they would exit the survey, while choosing the option "Yes" would proceed to the next section.

The subsequent sections concerned the different determinants of the intention to recommend MPS as defined in the hypotheses. Easterby-Smith (2018) emphasizes the grouping of the questions that relate to the same topic. Keeping this in mind, the authors divided the scale items into four sections; 1) individual-related motivations, 2) technology related motivations, 3) TPB, and 4) intention to recommend MPS. Each section began by asking the respondents to answer the questions based on their experience with the MPS that they used.

Proposed by Likert (1932), the Likert-style attitude measurement involves a set of statements that each respondent rates on a numbered scale that could take the form of four-, five-, six- or seven-point rating scale. This method is used to establish how strongly the participants agree or disagree with a scale item (Burns & Burns, 2008; Saunders, Lewis & Thornhill, 2009). For this study, a seven-point Likert scale was used where 1=strongly disagree and 7=strongly agree, asking respondents to rate their extent of agreement with each of the statements (see Appendix: Table 1). A higher score indicated a higher agreement with the item. The authors are aware that Likert-scales do not provide an exact calculation as probability values are based on assumptions, however, they can be used as a guideline to get insights from the analysis and help in drawing conclusions / inferences.

#### *4.5.2 Pre-Test*

A pre-pretest allows researchers to remove ambiguities and reduce errors before conducting a survey (Reynolds, Diamantopoulos & Schlegelmilch, 1993). It is a useful tool to find problem areas and test the formulation and interpretation of survey questions. Therefore, a pre-test was conducted using Google Forms on eight respondents within the target group. At the end of the survey, the respondents were asked to leave any feedback/suggestions that were deemed relevant for the study. The comments were related to the clarity and similarity of the statements, alternative questions that could be included, and the general perception of the survey.

Based on the suggestions, minor adjustments were made to reduce the ambiguity in the statements. For instance, the term 'mobile payment system' was used consistently throughout

the survey and replaced with ‘mobile payment service’ wherever it appeared. This was done to ensure that the respondents were clear about the topic under study.

While most of the pre-test respondents were clear about what the statements asked, some raised concerns about the similarity between some statements. Thus, adjustments were made to the wording to make it more comprehensible. However, no major changes were made as the items were taken from scales developed in previously published research.

### 4.6 Variable Measurement and Scaling

When designing the research, the first step entails building a conceptual framework that links abstract concepts of the problem (Burns & Burns, 2008). However, these abstract and vague components of the problem must be converted into measurable (specific, concrete and observable) variables. (Burns & Burns, 2008). This operationalization of the variables allows researchers to obtain evidence for their questions and measure them accurately. Bryman & Bell (2015) further elaborate that in order to operationalise the concepts, indicators need to be established that will stand for each concept. These can be derived from a variety of sources and methods including questionnaires, recording of individuals’ behaviour, official statistics, and content analysis (Bryman & Bell, 2015). The researcher can use either one indicator or ask a number of questions in order to fully capture the concept (Bryman & Bell, 2015). Following this, the concepts in this study were measured through multiple-item scales (adapted from previous studies) in order to tap into a broader set of facets concerning each concept. It also allowed the authors to ask multiple questions concerning each concept to be measured. The questionnaire consisted of only closed questions that aid in the handling of data and enable it to be easily processed when converting into the statistical software SMART-PLS.

#### 4.6.1 Dependent Variable

The dependent variable in the study was the intention to recommend MPS, measured by a seven-point likert scale. The dependent variable was operationalized by asking questions related to the respondent’s intention to share information about MPS with others and their likelihood to recommend it. The scale items were adapted from Meilatinova (2021) and Kim & Park (2013). ‘S-commerce sites’ was replaced with ‘mobile payment system.’ For example, “I would share with others positive things about the mobile payment system”. A total of four items were used to measure this construct, mentioned in Table 1 below.

Table 1: Variable ‘Intention to recommend MPS’

Variables	Indicating Variable	Item	Reference(s)
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Intention to Recommend	ITR1	I would share with others positive things about the mobile payment system	Kim & Park, 2013; Meilatinova, 2021
	ITR2	I would provide others with information on the mobile payment system	
	ITR3	I am likely to recommend the mobile payment system to my friends or acquaintances	
	ITR4	I am likely to encourage others to consider the mobile payment system	

#### 4.6.2 Independent Variables

The Likert scale was employed to measure the items regarding individual-related (self-enhancement and concern for others) motivations and technology-related (originality and service quality) motivations behind MPS recommendation, which formed the independent variables. It was also used to measure constructs related to TPB; subjective norm, attitude towards MPS recommendation and perceived behavioral control. A seven-point Likert scale was used in each scale item which was measured by 1 = Strongly Disagree and 7 = Strongly Agree. Both the dependent and independent variables were of ordinal scale, meaning that response alternatives were ranked with a meaningful order (Burns & Burns, 2008).

The four independent variables were developed from previous literature on WOM. These independent variables were operationalized using established indicators and scales developed in different sources. Concern for others and self-enhancement motivations were adapted from the items developed by Hennig-Thurau et al. (2004). The terms ‘products’ and ‘buy’ were adapted to ‘mobile payment system’ and ‘payments.’ For concern for others, four items were used. An example of the items is “I want to help others with the same positive experiences as me”. The variable self-enhancement was also measured by four items. For example, “I feel good when I can tell others about my payment successes”. These are presented in Table 1 (see Appendix).

Items related to the constructs of the TPB were adapted from Venkatesh et al. (2003). The term ‘use’ was modified to ‘recommend.’ Attitude was measured by four items, for example, “recommending the mobile payment system is a good idea”. The construct of subjective norm was measured by two items, for example, “people who influence my behavior think I should recommend the mobile payment system”. Perceived behavioral control was measured through five items. An example is “given the resources, opportunities and knowledge required, it would be easy for me to recommend the mobile payment system”.

The construct of originality was measured by adapting scale items on product innovativeness from Ali, Krapfel and LaBahn (1995). The item ‘innovativeness’ was adapted to ‘originality’ while ‘product’ was changed to ‘mobile payment system.’ The construct was measured

through three items. For example, “The mobile payment system has unique features for customers”.

Finally, the four items measuring service quality were adapted from Alshibly (2015). Original construct “s-commerce firm” was adapted to “mobile payment system”. For example, “The mobile payment system provides services with the features I want”. These items, along with the adapted classifications, are listed in Table 1 and Table 2 (see Appendix).

## 4.7 Data Analysis Method

### 4.7.1 Data Preparation

In order to facilitate the data analysis, the response data was exported in CSV format from Google Forms. The data was cleaned and included only those responses that met the two set conditions; previous experience with MPS and resident of Sweden. The variables were coded and transferred to SMART-PLS for screening. The screening process allows researchers to ensure accuracy of input (Wong, 2019). There were no missing values reported.

### 4.7.2 Descriptive Statistics

After conducting an initial screening of the data, an analysis was executed based on the responses. Descriptive statistics were used to organize data and reveal any underlying patterns. Burns and Burns (2008) suggests four measures while applying the descriptive analysis. These include the distribution of frequencies, the central tendency of the data, the dispersion or variability of the data, and skewness (Burns & Burns, 2008).

First, the distribution of frequencies measures how frequently a value occurs, displayed as a percent or cumulative percentage. Second, the measure of central tendency refers to the average value and indicates the usual, typical or representative value for that construct. Normal methods of measuring the central tendency include computing the mode, median and mean, each of which measures the average in a slightly different way. Mode refers to the observation that occurs most frequently in a given data set, median is the value in the middle of the data set and above 50 percent of the scores, while mean is the widely used measure of central tendency, calculated by summing individual scores and dividing the result by the number of scores in the given dataset (Burns & Burns, 2008). Third, the dispersion or variability denotes how spread out or scattered the points in a given dataset are from one another.

One method to calculate variability is by identifying the range between the smallest and largest scores (Burns & Burns, 2008). However, this method is not popular as the presence of extreme scores can affect the range value. Another way to surpass this issue is by calculating variance, which takes into account each score in the sampling distribution rather than two

extreme points (Burns & Burns, 2008). The spread in a data is measured through the standard deviation, which is calculated by taking the square root of the variance. Standard deviation reflects the variability of each score from the mean, where the higher the value of standard deviation, the greater the dispersal of scores. Moreover, measures of dispersion or variability also include quartiles and interquartile range, where the first quartile represents the lowest 25 percent of the values, the second quartile represents exactly 50 percent of the distribution and the third quartile divides the bottom 75 percent of the distribution from the fourth quarter (Burns & Burns, 2008). The distance between the first and third quartile is known as the interquartile range, which represents the middle 50 percent of the scores (Burns & Burns, 2008).

#### *4.7.3 PLS-SEM*

Partial least squares structural equation modeling (PLS-SEM) was used to study the impact of individual and technological factors on the intention to recommend MPS. PLS-SEM enables marketers to visually examine the existing relationships among the variables of interest, while allowing them to measure “unobservable” or “hard-to-measure” latent variables (Wong, 2019). For these reasons, it has been used as the method of statistical analysis and has garnered support from previous studies, as it enables researchers to not only analyse the latent variable model but also examine relationships between endogenous and exogenous variables (Cenamor, Parida & Wincent, 2019).

PLS-SEM is built on two submodels, the inner model specifying the relationship between the independent and dependent variable while the other model specifying relationship between the latent variables and their observed indicators (items) (Wong, 2019). This soft modeling approach to SEM allows researchers to perform analysis for limited participants. Moreover, it is insensitive to non-normality, heteroscedasticity, and autocorrelation of error terms. For the data analysis, the authors used SMART-PLS software version 3.0 and measured the moderating effects in the same path model. According to Sarstedt, Ringle & Hair (2017), a reflective measurement scale should be used if variables are correlated and can be used interchangeably. Conversely, a formative measurement scale is used if the indicators are not correlated and cannot be used interchangeably (Wong, 2019). Since the technology-related variables (originality and service quality) had no direct relationship between them, a reflective measurement scale was used. However, the individual-related variables (concern for others and self-interest) were measured with a formative scale. The sample size (125 responses) met the minimum requirement (100 - 200) for running the analysis in Smart-PLS (Sarstedt, Ringle & Hair, 2017).

#### 4.7.4 Measurement Model Assessment

The authors assessed the measurement model by examining the validity, reliability, indicator collinearity, and the overall model fit (Sarstedt, Ringle & Hair, 2017).

##### 4.7.4.1 Validity

According to Burns & Burns (2008), validity is a measure of how well the method measures what it had intended to measure. Accordingly, the research method is said to be valid if it actually measures the concept it was supposed to measure (Burns & Burns, 2008; Saunders, Lewis & Thornhill, 2009). Validity is imperative for the study to ensure quality of findings, not only in terms of making valid generalizations about the population, but also in drawing conclusions about the impact of independent variables (Malhotra, 2010). The former refers to external validity while the latter is related to internal validity (Bryman & Bell, 2015; Malhotra, 2010).

Research suggests that studies need to balance external and internal validity in order to get an accurate and optimal outcome (Bryman & Bell, 2015). Internal validity deals with how well the variables within the experiment are controlled, thus, indicating that the relationship is solely based on the independent variable and is not influenced by other factors (Saunders, Lewis & Thornhill, 2009). In this study, internal validity is exhibited through the questionnaire and refers to its ability to measure what is intended to be measured, and that the results are reflective of reality (Saunders, Lewis & Thornhill, 2009). Moreover, the scales used for measuring the constructs have been tested in various studies previously. Therefore, the validity of scales within their respective stream of research is believed to be high. The degree of validity is further established for the scales measuring the motivational factors to recommend MPS. Table 1 (see Appendix) illustrates various authors who have used similar variables. Hence, the formulation of the research question was aligned with the variables and scales included in the questionnaire, since the items were based on published studies.

Next, the authors assessed the validity of our research using the values for Average Variance Extracted (AVE) and Heterotrait-monotrait (HTMT) ratio of correlations. The two common measurements to establish validity include convergent validity and discriminant validity. Convergent validity is referred to as “how closely the new scale is related to other variables and other measures of the same construct”, whereas discriminant validity is used to ensure that there is no correlation with other constructs measuring different traits (Krabbe, 2017, p.118). Table 2 below shows the values for discriminant validity (HTMT ratio) of the variables. All the constructs met the threshold of 0.85.

Table 2: Discriminant Validity

	Attitude	Intention to Recommend MPS	Originality	Perceived Behavioral Control	Service Quality	Subjective Norm
Attitude						
Intention to Recommend MPS	0.805					
Subjective Norm	0.612	0.447	0.636	0.3	0.212	
Perceived Behavioral Control	0.498	0.588	0.425			
Service Quality	0.481	0.626	0.495	0.452		
Originality	0.67	0.649				

#### 4.7.4.2 Reliability

Developed by Lee Cronbach (Cronbach, 1951), the Cronbach's Alpha is used to provide a measure of the internal consistency of a test or scale, which "describes the extent to which all the items in a test measure the same concept or construct" (Tavakol & Dennick, 2011, p.53), thereby establishing the reliability of the test. It is expressed as a figure between 0 to 1, where higher scores indicate lower measurement error. There are differing opinions about acceptable values of the Cronbach's Alpha, however the general agreed range is from 0.70 to 0.95 (Tavakol & Dennick, 2011). Much like the Cronbach's Alpha, composite reliability measures the internal consistency of the test. Brunner and Süß describe it as "the total amount of true score variance in relation to the total scale score variance" (2005, p.229). The generally acceptable threshold for Composite reliability is 0.60 and above, although different authors suggest different thresholds (Glen, 2019).

The composite reliability and Cronbach Alpha values met the requirement for all variables except for service quality, which were slightly below the required threshold. Table 5 (see Appendix) provides a list of all variables with their reliability measures.

#### 4.7.4.3 Collinearity Statistics

The next step involves checking the collinearity between indicators. Collinearity assessment involves "computing each item's variance inflation factor (VIF) by running a multiple regression of each indicator in the measurement model of the formatively measured construct on all the other items of the same construct" (Sarstedt, Ringle & Hair, 2017, p.18). PLS-SEM evaluates the values for VIF, which are mentioned in Table 3 below.

As a general rule, the higher the value of VIF, the greater the problem of collinearity. However, the rule of thumb is that values exceeding 5 are indicative of collinearity among the variables (Sarstedt, Ringle & Hair, 2017). The analysis reported VIF values between 1.197 and 2.066, which met the collinearity requirement.

Table 3: Collinearity Statistics (VIF)

Variable	VIF
Concern for Others	1.849
Self-Enhancement	2.066
Originality	1.434
Service Quality	1.197
Attitude	1.689
Subjective Norm	1.464
Perceived Behavioral Control	1.243

#### 4.7.4.4 Model Fit

There is no consensus in the extant literature using PLS on the criteria for estimating model fit. However, multiple methods are suggested by researchers to establish the model fit.

The authors assessed the fitness of the model based on the Standardized Root Mean Square Residual (SRMR), squared Euclidean distance ( $d_{ULS}$ ) and the geodesic distance ( $d_G$ ) in the estimated model (Wong, 2019; Dijkstra and Henseler, 2015). The SRMR is defined as “the difference between the observed correlation and the model implied correlation matrix” (SmartPLS GmbH, 2020, n.p.), which allows researchers to assess the average magnitude of discrepancies between observed and expected correlations. The SRMR value for the model was 0.091, meeting the threshold of  $p < 0.08$ . Next, the authors checked the exact model fit to interpret the SRMR exact model results.

As a general rule, the model has a “good fit” if the upper bound of the confidence interval is greater than the original value of the exact  $d_{ULS}$  and  $d_G$  fit criteria (SmartPLS GmbH, 2020). The authors chose a 95 percent confidence level for the study. Overall, the values for  $d_{ULS}$  and  $d_G$  in the estimated model exceeded those in the saturated model, implying that the difference between the correlation matrix implied by the model and the empirical correlation matrix can be attributed to sampling error. These measures are listed in Table 4 below.

Table 4: Overall Model Fit Evaluation

Discrepancy	Saturated Model	Estimated Model	Conclusion
SRMR	0.074	0.091	Supported
$d_{ULS}$	2.058	3.128	Supported
$d_G$	0.907	1.008	Supported

Given the satisfactory quality of the measurement model assessment, the authors moved to the structural model assessment based on previous research (Henseler, Ringle & Sarstedt, 2015; Sarstedt, Ringle & Hair, 2017). The coefficient of determination, R Square, is used as a common method for analyzing how differences in one variable can be explained by a difference in another variable. The adjusted-squared takes into account the number of variables in the data set (Glen, 2019). Table 5 below lists the R Square values for the model.

Table 5: R Square

Construct	R Square	R Square Adjusted
Attitude	0.548	0.533
Subjective Norm	0.298	0.275
Perceived Behavioral Control	0.296	0.272
Intention to Recommend MPS	0.573	0.563

The intention to recommend construct had R Square and adjusted R Square values of 0.573 and 0.563, respectively. These indicate a moderate level of predictive ability, and explain that 56.3 percent of the variability in the intention to recommend MPS is explained by attitude, subjective norm and perceived behavioral control.

The construct of attitude had R Square and adjusted R Square are values of 0.548 and 0.533, indicating that it was well explained by the four independent variables, which accounted for 53.3 percent of the variability in attitude towards intention to recommend MPS. In contrast, perceived behavioral control was explained by 27.2 percent, while subjective norm was explained by 27.5 percent. Thus, attitude was quite well explained by the independent variables in comparison with perceived behavioral control and subjective norm. Figure 2 below lists the structural model with the variables, indicators and their loadings.

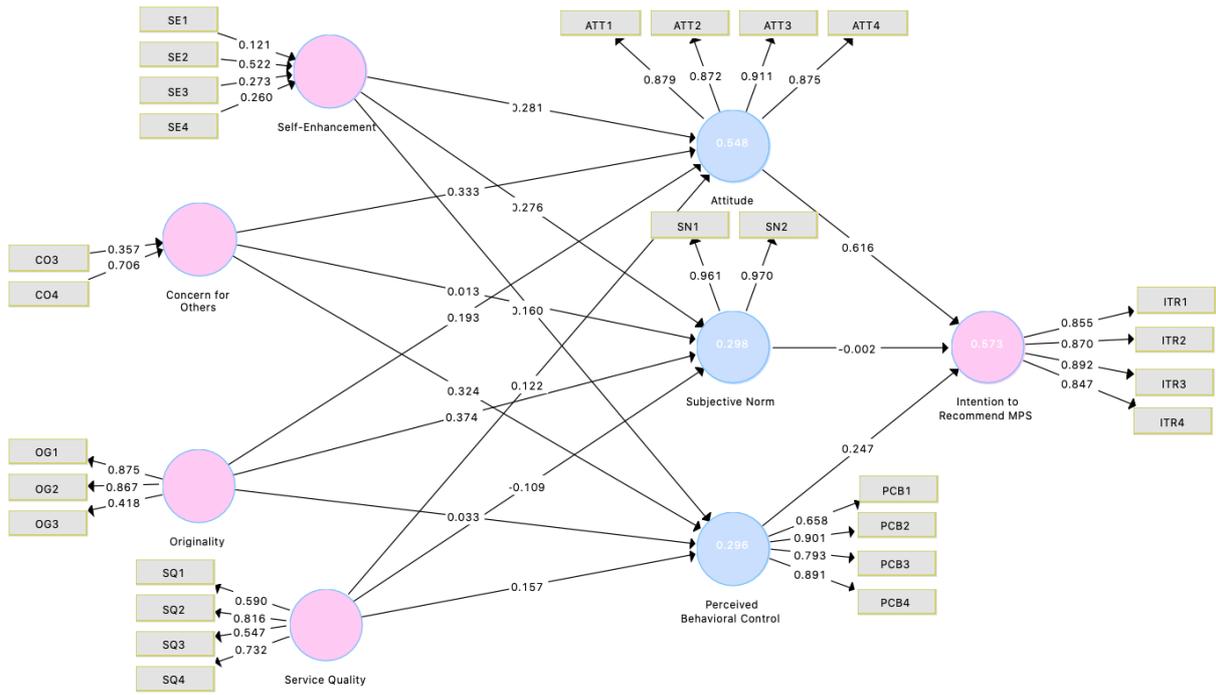


Figure 2: Results of the Structural Model

## 5. Findings

*This chapter covers the findings derived from the survey. It begins with descriptive statistics including demographic information about the respondents. Additionally, the chapter also includes an analysis of the findings followed by an explanation of the relationships observed between variables. The chapter concludes with a summary of the findings obtained.*

### 5.1 Descriptive Statistics

#### 5.1.1 Demographics

Table 6 below presents the summary statistics of the respondents' characteristics. The survey was completed by a total of 144 respondents. Out of those, 125 responses were used for analysis, filled out by those who satisfied the criteria. 65 (52.4 percent) of the initial cohort of respondents were females whereas 59 (47.8 percent) were males. Thus, a greater proportion of the survey respondents were women. The age of the participants differed, with the greatest proportion of participants aged between 25 and 34 years (47.2 percent) and between 18 and 24 years (43.2 percent).

Table 6: Demographic Characteristics

Gender	Frequencies	Percentage
Male	59	47.58%
Female	65	52.42%
Total	124	100.00%
Age		
18-24	54	43.20%
25-34	59	47.20%
35-44	8	6.40%
45-54	2	1.60%
55 & above	2	1.60%
Total	125	100.00%

### 5.1.2 Mean Values and Standard Deviation

There are three measures of central tendency, as described in the previous section. The most commonly used is arithmetic mean, which reflects the point of equilibrium in a distribution by determining the average value (Burns & Burns, 2008). Table 7 below illustrates the mean and standard deviations for all the indicators. The questions were formulated on 7-point likert scales and the respondents selected a number on a continuous scale ranging from (1) *Strongly disagree* to (7) *Strongly agree*, where a mean value of 4.0 indicated neutral stances by the participants, neither agreeing nor disagreeing with the statements.

Table 7 below shows the breakdown of all variables with their corresponding mean values and standard deviations. The data shows that most mean values meet or exceed the neutral value of 4. The dependent variable had the highest mean value, indicating that participants were inclined towards recommending MPS to others. Among the independent variables, service quality had the highest mean value, followed by self-enhancement, concern for others and originality. For the constructs in the TPB, mediating variables attitude and perceived behavioral control had higher mean values than subjective norm, implying that the latter was not as relevant for participants than the former ones.

Moreover, subjective norm had the highest standard deviation (2.143 and 2.147), suggesting that the respondents had differing views about these items and did not exhibit a continuous pattern while answering them. In contrast, service quality and perceived behavioral control had the lowest values for standard deviation. Given that the standard deviation for all constructs was close to or exceeded 1.0, it is demonstrated that each of the participants responded differently to the statements.

Table 7: Descriptive Statistics

Variable	Minimum	Maximum	Mean	Std. Deviation
Concern for Others	1.5	7	4.46	1.35
Self-enhancement	1	7	4.89	1.24
Originality	1.33	7	4.15	1.15
Service Quality	2.75	7	5.27	0.92
Attitude	1	7	5.16	1.36
Subjective Norm	1	7	3.99	1.63
Perceived Behavioral Control	2	7	5.00	0.99
Intention to Recommend MPS	1	7	5.30	1.30

## 5.2 Analysis of the Findings

Hypothesis testing requires calculation of the statistical significance in order to test the constructed hypotheses. It is done by setting up two opposing statements — the null hypothesis and the alternate hypothesis. According to Burns & Burns (2008), the null hypothesis or H0 suggests that the finding was due to chance and nothing really happened. In contrast, the alternative hypothesis or H1 suggests that the finding was not due to chance.

The first step in hypothesis testing involves the attempt to disprove the null hypothesis. This is done by proving the opposite to be true, otherwise the null hypothesis is presumed to remain valid. In the event the null hypothesis is retained, the alternate hypothesis is disregarded. However, if the findings are vague, the null hypothesis is rejected and the alternate hypothesis is supported.

A significance level of 5 percent was chosen to test out the hypotheses. The level of significance indicates the percentage of risk in making a wrong decision, which is referred to as either rejecting a true hypothesis (Type 1 error) or supporting a false hypothesis (Type 2 error). With the significance level at 5 percent and a p-value of less than 0.05, the null hypothesis is rejected, meaning that the findings do not occur due to chance. However, if the p-value exceeds the significance level of 5 percent or p-value is greater than 0.05, the null hypothesis is retained and the findings occur simply due to chance.

The path coefficients measure the correlation between the latent variables, ranging from -1 to +1. The positive or negative sign indicates the direction of the relationship whereas the absolute value is a measure of the strength of relationship between the variables (Saunders, Lewis & Thornhill, 2009). Moreover, the closer the value is to 1, the stronger the relationship between the variables, indicating that a change in one would lead to a change in the other (Burns & Burns, 2008). The absolute values between 0.10 - 0.29 indicate a weak relationship, 0.30 - 0.59 indicate a moderate relationship, and 0.60 - 1.0 indicate a strong relationship (Pallant, 2013).

The authors used bootstrapping with 5000 subsamples and 5 percent significance level, a nonparametric procedure to test the statistical significance of the path coefficients (Wong, 2019). According to Sarstedt, Ringle & Hair (2017), an indicator can be deleted if its factor loading is low and its weight is insignificant. Following this rule of thumb, items 1 and 2 were removed from the construct concern for others and item 5 was removed from perceived behavioral control.

After the bootstrapping procedure was completed, the path coefficients for the inner model were checked to establish the significance of the indicators. The path coefficients measure the correlation between the variables. Given the significance level of 5 percent, a two-tailed t-test considers the path-coefficient to be significant if the resultant t-statistic is larger than 1.96. Table 3 (see Appendix) shows the result for the inner model path coefficients' significance.

After exploring the inner model, the authors explored the path coefficients for the outer model. Table 4 (see Appendix) reports the findings. Except for item 1 and 4 in self-enhancement and item 1 in service quality, all coefficients of indicators were significant with t values greater than 1.96.

After exploring the inner and outer model path coefficients, the authors looked at the effect size of the model. The effect size analyses the magnitude or strength of relationship between latent variables, which helps researchers in assessing the overall contribution of a study (Wong, 2019). Figure 3 below lists the F Square values computed by PLS-SEM to calculate the effect size for the variables. In the model, there was only one path with considerably large enough effects, attitude towards the intention to recommend MPS, implying that it had a meaningful effect.

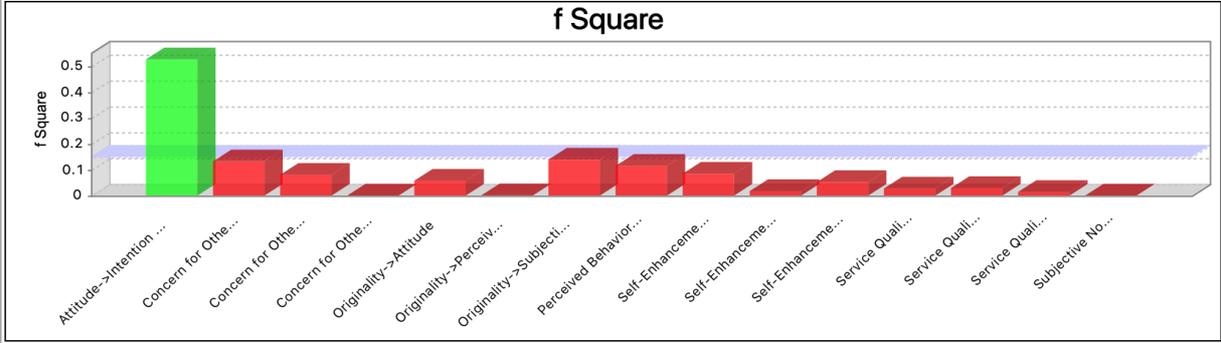


Figure 3: Effect Size (F Square)

### 5.3 Relationship With Intention to Recommend

The result of the PLS - SEM analysis shows that overall, attitude has a significant positive effect on the intention to recommend MPS ( $\beta = 0.616$ ;  $t = 7.998$ ;  $p = 0.000$ ). On the other hand, subjective norm does not have a significant positive effect on the intention to recommend MPS. Perceived behavioral control, overall has a significant positive relationship with the intention to recommend MPS ( $\beta = 0.247$ ;  $t = 3.498$ ;  $p = 0.000$ ).

Table 8 below shows the indirect effects of the constructs on the intention to recommend MPS. All the independent variables had a significant indirect effect on the dependent variable, with concern for others having the highest correlation with intention to recommend MPS, followed by self-enhancement, originality and service quality, thereby supporting hypotheses 1, 2, 3 and 4.

Table 8: Total Indirect Effects

Relationship	Coefficient	T Value	P Value	Conclusion
--------------	-------------	---------	---------	------------

Concern for Others -> Intention to Recommend MPS (H1)	0.285	4.036	0	Supported
Self-Enhancement -> Intention to Recommend MPS (H2)	0.212	3.131	0.002	Supported
Originality -> Intention to Recommend MPS (H3)	0.126	2.095	0.036	Supported
Service Quality -> Intention to Recommend MPS (H4)	0.114	2.282	0.023	Supported

### 5.3.1 Individual-Related Factors

#### 5.3.1.1 Concern For Others Motivation

The path coefficients from PLS-SEM analysis show that concern for others has a significant positive effect on intention to recommend MPS via attitude and perceived behavioral control, thereby supporting hypotheses 1a and 1c.

Table 9: Specific Indirect Effects for Concern for Others

Path	Coefficient	T Value	P Value	Conclusion
Concern for Others -> Attitude -> Intention to Recommend MPS (H1a)	0.205	3.236	0.001	Supported
Concern for Others -> Subjective Norm -> Intention to Recommend MPS (H1b)	0	0.004	0.997	Not supported
Concern for Others -> Perceived Behavioral Control -> Intention to Recommend MPS (H1c)	0.08	2.009	0.045	Supported

#### 5.3.1.2 Self-Enhancement Motivation

The PLS-SEM analysis revealed that self-enhancement positively impacts the intention to recommend MPS via attitude, supporting hypotheses 2a.

Table 10: Specific Indirect Effects for Self-Enhancement

Path	Coefficient	T Value	P Value	Conclusion
Self-Enhancement -> Attitude -> Intention to Recommend MPS (H2a)	0.173	2.535	0.011	Supported
Self-Enhancement -> Subjective Norm -> Intention to Recommend MPS (H2b)	-0.001	0.03	0.976	Not supported
Self-Enhancement -> Perceived Behavioral Control -> Intention to Recommend MPS (H2c)	0.039	1.119	0.263	Not supported

### 5.3.2 Technology-Related Factors

#### 5.3.2.1 Originality

Results show that originality has a significant positive relationship with the intention to recommend MPS via attitude, supporting hypothesis 3a.

Table 11: Specific Indirect Effects for Originality

Path	Coefficient	T Value	P Value	Conclusion
Originality -> Attitude -> Intention to Recommend MPS (H3a)	0.119	2.125	0.034	Supported
Originality -> Subjective Norm -> Intention to Recommend MPS (H3b)	-0.001	0.033	0.973	Not supported
Originality -> Perceived Behavioral Control -> Intention to Recommend MPS (H3c)	0.008	0.344	0.731	Not supported

#### 5.3.2.2 Service Quality

Service quality has no significant positive relationship with the intention to recommend MPS via attitude, subjective norm and perceived behavioral control.

Table 12: Specific Indirect Effects for Service Quality

Path	Coefficient	T Value	P Value	Conclusion
Service Quality -> Attitude -> Intention to Recommend MPS (H4a)	0.075	1.726	0.084	Not supported
Service Quality -> Subjective Norm -> Intention to Recommend MPS (H4b)	0	0.026	0.979	Not supported
Service Quality -> Perceived Behavioral Control -> Intention to Recommend MPS (H4c)	0.039	1.596	0.111	Not supported

### 5.4 Summary of Findings

An overview of the results is presented in Table 6 (see Appendix). Based on these results, the authors conclude that hypotheses 1, 1a, 1c, 2, 2a, 3, 3a and 4 were supported and that all motivational factors were positively correlated to the intention to recommend MPS. However, the effect size was quite weak for all of the indicators except attitude towards the intention to recommend MPS. The strength of the relationship between attitude and intention to recommend MPS was moderate, while subjective norm and perceived behavioral control had a weak relationship with the intention to recommend MPS. Table 7 (see Appendix) displays a summary of the hypothesis tests.



## 6. Discussion

*This chapter provides an in-depth discussion of the findings of the thesis. Existing studies and literature highlighted in chapter two will be used to analyze these findings and identify similarities and differences – thus, addressing how this study fills the potential research gaps. Furthermore, theoretical and managerial implications for the two previously identified research streams are also presented. The chapter concludes with explaining the potential limitations and direction for future research.*

### 6.1 Discussion of Findings

#### *6.1.1 Individual-Related Factors*

The findings of this thesis revolve around the chosen antecedents of recommendation intention: concern for others; self-enhancement; originality; and service quality. The impact of each antecedent is gauged through the constructs of TPB: attitude, subjective norm and perceived behavioral control. The four main hypotheses are divided into two broader categories, individual-related factors and technology-related factors.

The first hypothesis within the individual-related category is focused on concern for others. The relationship between this variable and the intention to recommend MPS is supported. In addition, concern for others is also exhibited via attitude and perceived behavioral control. However, there was no significant relationship between concern for others and the intention to recommend MPS via subjective norm. This implies that concern for others when viewed via subjective norm does not positively impact existing users' recommendation intention for MPS. Since Sweden is an individualistic society, it can be inferred that other peoples' views do not significantly impact an existing MPS users' intention to recommend the technology. This means that the act of recommending and consequently exhibiting a concern for others is not determined by the society's view on recommending MPS. The results also suggest that existing MPS users are more likely to exhibit a concern for others and recommend a technology such as MPS if their own attitude towards technology recommendation is positive and they have the means to make the recommendation, which translates into perceived behavioral control. For concern for others, the findings relating to total relationships (with the dependent variable) are coherent with that of partial relationships (with the mediating variables).

Concern for others is triggered only via attitude and perceived behavioral control, and not through subjective norm. In other words, concern for others can also be equated with care,

consideration and looking out for potential users. Individuals are more willing to show this care for other potential consumers if they have the resources and ability to make that recommendation (Taylor & Todd, 1995) coupled with a positive attitude towards the act of technology recommendation. The results correspond with other studies surrounding antecedents of recommendation intention which state that concerns for others results in positive WOM generation (Cheung & Lee, 2012; Hennig-Thurau et al. 2004; Nam et al. 2020). Further, previous studies have stated that attitude towards a behavior also impacts intention formation (Ajzen, 1991). It has also been found that attitude is a critical antecedent for intention (Fu, Ju & Hsu, 2015) and the findings suggest the same for the variable concern for others. Moreover, for perceived behavioral control, studies state that its significance can vary across different contexts (Ajzen, 1991). The results show that in the case of MPS recommendation, concern for others helps in intention formation if perceived behavioral control is experienced by the individual. Thus, as the results indicate, concern for others within the Swedish MPS market impacts intention to recommend through attitude and perceived behavioral control.

The second hypothesis relating self-enhancement to the intention to recommend MPS is also supported when the total relationship with the dependent variable is examined. However, from the three sub hypotheses, only one is supported. The PLS-SEM analysis reveals that self-enhancement has an impact on intention to recommend MPS via attitude only, but not via subjective norm or perceived behavioral control. The significant results for self-enhancement as an antecedent for recommending a product or service have previously been acknowledged by various researchers within the field. Hennig-Thurau et al. (2004) argue that self-enhancement constitutes as the biggest motivation behind engaging in positive WOM or recommendations, where the ultimate goal is to elevate one's own value (Wojnicki & Godes, 2008). Similarly, Engel, Blackwell & Miniard (1993) state that engaging in such behavior backed by self-enhancement motives allows individuals to gain attention and assert superiority over other potential users. Moreover, Fu, Ju & Hsu (2015) concur that individuals with a higher need to enhance their value have a more favorable attitude towards WOM communication. This is also confirmed through findings of the present study when self-enhancement is looked at via attitude. Phau & Sari (2004) also find that consumers who have a more favorable attitude towards WOM communication are more likely to express their opinion, comments and recommendations.

The findings derived from total relationship for self-enhancement suggest that subjective norm does not impact the intention to recommend MPS. However, the partial relationship analysis reveals that self-enhancement is generally correlated with subjective norm but not within the context of MPS. Through this, it is inferred that within a society such as Sweden, self-enhancement and subjective norm do matter, but that cannot be extended to recommendation intention for MPS. This is backed by Ajzen (1991) who states that the

normative beliefs held by users also affect behaviors, however the results reveal that this is context-dependent. Research suggests that people want to enhance their value only if it does not cause nuisance (Richins, 1982), which implies that establishing an act as a norm is important.

Interestingly, the findings suggest that with self-enhancement as a motivation, perceived behavioral control does not affect recommendation intention. Within existing bodies of literature, there is a lack of consensus with regards to perceived behavioral control being dependent on attitude and subjective norm. Ajzen (1991) states that if attitude is positive and subjective norm is established, then the likelihood of perceived behavioral control having an impact on intention is also greater. In case of self-enhancement, the relationship between attitude and the intention to recommend MPS, and that between self-enhancement and subjective norm, is positively correlated, but perceived behavioral control still does not positively impact recommendation intention. On the other hand, Cheng, Lam & Hsu (2006) assert that the presence of positive attitude and subjective norm are not enough to guarantee the existence of perceived behavioral control. Nonetheless, self-enhancement is highly crucial when assessing antecedents for recommendation intention, as it increases the likelihood of engaging in WOM behavior.

Overall, the findings imply that individual-related factors; concern for others and self-enhancement, impact the individuals' intention to participate in recommendation and engage in social influence for a technology such as MPS. However, the paths towards intention formation differ in each case. One commonality between the two motivations is that both have an impact on intention formation when viewed through attitude. Thus, a positive attitude towards recommending a technology is critical for individual-related motivations. The influence of other two mediators, subjective norm and perceived behavioral control, differs based on specific individual-related motivations.

### *6.1.2 Technology-Related Factors*

The technology-related hypotheses concerning originality and service quality also show significant results for the intention to recommend MPS. Results suggest that originality does have a direct impact on recommendation intention. This relationship is also established through attitude. However, originality does not serve as an antecedent for MPS recommendation via subjective norm and perceived behavioral control. Previous literature has stated that originality helps in increasing the buzz around new products and services as it surprises individuals (Derbaix & Vanhamme, 2003; Feick & Price, 1987). Current findings present a somewhat alternate perspective, where originality only impacts intention formation for MPS if a person holds a positive attitude about the act of recommendation. Feng (2018)

also asserts that offerings that are innovative and provide pleasant surprise can arouse emotions within the customer and lead to recommendations, which is exhibited by the analysis for the case of attitude. Furthermore, research states that an individual's attitude is determined by the subjective values associated with the outcome and the relative strength of those associations (Fishbein, 1963; Fishbein, 1967; Fishbein & Ajzen, 1975). In other words, originality of a product determines users' recommendation intention only if there are subjective values associated with the action.

Moreover, the study finds that subjective norm is important in the case of originality, but not for recommending MPS, hence it is partially supported. This is also the case for self-enhancement motivation. For original offerings, establishment of normative beliefs of those around is imperative (Ajzen, 1991). Further, for original products and services, a positive attitude towards technology recommendation does matter to existing users. This presents a similar finding to what has been outlined by Fu, Ju & Hsu (2015) who state that attitude towards WOM communication has a positive effect on WOM intention. However, originality does not influence intention formation for recommending MPS when measured through perceived behavioral control. In other words, the ease or difficulty with which an individual can perform a specific action is not a determining factor for recommending original offerings.

The ability to make the recommendation as well as availability of resources is not as crucial in increasing the buzz for original products and services as subjective norm. Multiple studies have found that originality results in positively valenced WOM communication (Derbaix & Vanhamme, 2003; Moldovan, Goldenberg, & Chattopadhyay, 2011; Feng, 2018). According to the findings, it can be argued that originality is crucial in generating positive WOM but only if personal attitude towards the act is favorable. Complying with the expectations of others within the society is also imperative for original products, but intention formation varies across contexts. It can also be deduced that if recommending MPS is seen as a righteous behavior by the person doing it, then an individual's propensity to recommend MPS, an original offering, is also high. Since Sweden is said to be an individualistic society, this finding about personal attitude is quite interesting and provides an in-depth understanding.

The last hypothesis gauged whether recommendation intention for MPS was positively affected by service quality. According to the findings, a direct relationship is supported. However, the relationship is not apparent with attitude, subjective norm and perceived behavioral control. Partial relationships are also observed, where perceived behavioral control is significantly related with service quality but not for the intention to recommend MPS. This implies a positive relationship between service quality and perceived behavioral control, without the existence of recommendation intention for MPS. From the findings, it can be

deduced that an existing MPS user's positive attitude towards MPS recommendation is not significant based on service quality. In addition, the sum of normative interpersonal influences, also known as subjective norm, does not positively impact intention formation for recommending MPS when measuring service quality.

For technology-related motivation, such as service quality, only perceived behavioral control is partially relevant. This has uncovered an interesting aspect, the opposite of which is mentioned by Ajzen (1991). It is stated that the more favorable the first two predictors, attitude and subjective norm, the more confident we can be in predicting the influence of perceived behavioral control. As mentioned, in this study, service quality serves as a motivation for performing an action if perceived behavioral control is strong. However, for the intention to recommend MPS, perceived behavioral control is of no significance. According to the findings, attitude and subjective norm neither guarantee nor negate that perceived behavioral control will be observed. Moreover, previous literature has asserted that service quality is an important motivation behind WOM behavior (Sundaram, Mitra & Webster, 1998). Boulding et al. (1993) state that service quality results in loyalty which further leads to recommendations. Wangenheim & Bayón (2007) also find that WOM is dependent on satisfaction and service quality, which is coherent with the current findings. Here, it can be argued service quality is important in forming an intention to recommend MPS but not via the mediators put forth by the TPB.

Interestingly, attitude has been a recurring mediating factor of significance for the first three hypotheses, pertaining to concern for others, self-enhancement and originality. Generally, the findings from this paper imply that all antecedents impact an existing MPS user's intention to recommend MPS technology. However, the influence of mediating factors differs in each antecedent. In other words, the paths towards intention formation differ in each case. There is no commonality between the mediating factors: attitude, subjective norm and perceived behavioral control, for originality and service quality. This implies that technology-related motivations present different paths to intention formation for MPS.

## 6.2 Theoretical Implications

The theoretical contributions and implications of the present paper are discussed with respect to each hypothesis. This section then delves into how the mediators; attitude, subjective norm and perceived behavioral control, impact the relationship between the antecedents of recommendation intention and the dependent variable. The implications and extensions to the TPB are drawn based on the role that the mediators serve with respect to each antecedent. Various studies have delved into the antecedents for WOM and recommendation (Alexandrov, Lilly & Babakus, 2013; Bone, 1992; Brown & Reingen, 1987; Chang, Jeng & Hamid, 2013; Cheng, Lam & Hsu, 2006; Cheung & Lee, 2012; Chu & Kim, 2011; Dholakia, Bagozzi &

Pearo, 2004; Fu, Ju & Hsu, 2015; Hennig-Thurau et al. 2004; Ho & Dempsey, 2010; Kaur et al. 2020; Liébana-Cabanillas, García-Maroto & Muñoz-Leiva, 2014; Meilatinova, 2021; Nam et al. 2020; Picazo-Vela et al. 2010; Sun et al. 2006; Sundaram, Mitra & Webster, 1998; Verkijika & De-Wet, 2019; Walker, 2001; Wasko & Faraj, 2005; Yap, Soetarto & Sweeney, 2013), however, there has been limited application of TPB within the context of recommendation intention. The gap is filled, to an extent, through this research.

Currently, the literature on recommendation intention formation is emerging, especially within the context of digital technologies; this study contributes to the literature of MPS technology and recommendation formation by focusing on Swedish MPS users. The present study adds to the literature streams not only relating to recommendation intention antecedents but also to technology spread. Past research on MPS technology is predominantly focused on technology acceptance and usage, whereas this paper brings in another critical dimension for technology spread, i.e., the role of social influence in form of recommendations. In addition, this study is novel to employ a well-developed theory, TPB, as the foundation to test the antecedents of technology recommendation intention. Results of this study provide strong evidence to the applicability of the theory in measuring consumers' recommendation intention and give new theoretical insights into the leading factors of recommendation intention among existing MPS users.

The findings reveal significant relationships, thus, it is deduced that studying WOM and recommendation antecedents in isolation can be limiting. TPB as an underlying framework to measure the influence of each antecedent provides added insight into consumers' perceptions. In addition, the theoretical implications of the present paper lend an alternate perspective than what has already been studied by File, Cermak & Prince (1994), Guo, Wang, Zhang, Lin & Han (2019), Huete-Alcocer (2017), King, Racherla & Bush (2014), Koh et al. (2007), Lee, Noh & Kim (2013), Oliveira et al. (2016), Özdemir et al. (2016), Pham & Ho (2015) and Vasan (2020). While the studies mentioned focus on the individuals consuming WOM communication and recommendations, this study gauges the intention formation of existing MPS adopters and what leads them to recommend it to potential users.

Regarding the first individual-related antecedent, concern for others, the present study finds that there is a positive relationship between recommendation intention for MPS and exhibiting a concern for others. However, since the influence of each antecedent is measured through the mediating factors outlined by TPB, the authors were able to ascertain the paths through which the relationship is established. Concern for others is only apparent via attitude and perceived behavioral control and not via subjective norm. This means that while concern for others serves as a critical antecedent as stated by previous literature (Hennig-Thurau et al. 2004; Nam et al. 2020), it is only acted upon if an individual possesses a positive attitude about the act of recommending and has the resources to engage in that recommendation. Subjective

norm, another mediator, did not have an influence on recommendation intention for MPS when tested with concern for others. This insight might be highly relevant to the context as showing a concern for others and making a recommendation decision based on that is not seen as a norm within the Swedish society. This implies that users in the studied context face difficulties recommending MPS if they want to do it based on concern for others. In light of this, the present study contributes with unique insights on the field (Fu, Ju & Hsu, 2015; Yap, Soetarto & Sweeney, 2013), providing an extension to previous literature surrounding concern for others. It is relevant because attitude and perceived behavioral control impacts concern for potential MPS users. This paper argues that concern for others viewed in isolation may not be as beneficial as the TPB determines the path through which the concern is exhibited, thus presenting a holistic view.

The present paper contributes to the literature stream around another individual-related factor, self-enhancement. It is found that the need to self-enhance is evident when forming recommendation intention for MPS. However, when viewed with the mediators, only attitude is important when self-enhancement is hypothesized. Self-enhancement does not surface as a critical antecedent for recommending MPS when it is looked at via subjective norm and perceived behavioral control for recommending MPS. Hennig-Thurau et al. (2004) argue that self-enhancement constitutes as the biggest motivation behind engaging in WOM communication, where the ultimate goal here is to enhance one's own interest and image (Alexandrov, Lilly & Babakus, 2013; Cheung & Lee, 2012).

The findings from this paper provide a deeper understanding of the phenomenon i.e. self-enhancement is critical for recommendation intention only if the individual's attitude about it is positive. Moreover, self-enhancement is an imperative antecedent if the specific action is perceived as a norm in the society. It can be inferred that the participants of this study, who view self-enhancement as a justifiable reason to recommend technology, do not view perceived behavioral control as an important mediator. Moreover, the findings also suggest that within the two individual-related factors, existing MPS users' opinions differ. While subjective norm is not deemed significant for concern for others; it is for self-enhancement. Thus, implying that recommendation intention, when based on concern for others, will not be made as the act of recommending MPS is not seen as the subjective norm. However, an individual is more likely to perform an action for self-enhancement motivation if that action is established as a subjective norm.

Moreover, the thesis also explores the significance of two technology-related motivations: originality and service quality, for recommending MPS. Firstly, Derbaix & Vanhamme (2003) and Feick & Price (1987) stress that product originality is important for providing recommendation. The research carried out has indeed proved that but only to an extent. Various authors have similar beliefs (Feng, 2018; Moldovan, Goldenberg, & Chattopadhyay,

2011), however, the findings offer an interesting anecdote regarding originality as a motivation behind recommendations. Originality is said to result in intention formation for new technologies if an individual's attitude about making the recommendation is favorable. Moreover, subjective norm and perceived behavioral control do not serve as mediators for originality when forming recommendation intention for MPS. Within partial relationships, however, originality has a positive relationship with subjective norm. Since Leenders (2002) suggests that the frequency and intensity of communication between an individual and his or her significant others also determines the likelihood of the individual performing an action, it can be deduced from the findings that for original products, the frequency of conversation is also high, thus leading to an establishment of subjective norm within Sweden with regards to original technologies. However, it does not translate into recommendations for MPS.

The last implication stems from service quality, which is another technology-related factor for engaging in WOM communication and producing recommendations. Walker (2001) highlights that service quality is a key motivation for recommendation and can later result in extended loyalty. Overall, the relationship between service quality and intention to recommend is positive. However, this relationship does not exist when service quality is tested via the mediators put forth within the TPB by Ajzen (1991). The authors also gauge the existence of a positive relationship between service quality and the mediating factors. Within that, service quality tested positively with perceived behavioral control, implying that performing an action based on service quality will only happen if the individual making the recommendation has time, skills, infrastructure, ability, and the confidence to do so. Interestingly, attitude as a mediating factor for recommending MPS has been observed in all the antecedents except for service quality. According to this, the authors can determine that service quality is not susceptible to an individual's personal attitude like the other three antecedents.

### 6.3 Managerial Implications

The present paper was partly inspired by the notion of Sweden on the way to becoming cashless in the near future. Besides the theoretical contributions outlined, the managerial implications provide a novel understanding of the recommendation intention for existing MPS users. In the authors' view, these insights could provide great value for managers, marketers and companies currently operating within the fintech industry. In addition, the insights relating to MPS can contribute to researchers analyzing new technology spread.

Firstly, since most hypotheses are supported through one or multiple mediators of TPB, it indicates that all motivational factors studied in this research relate to the recommendation intention for MPS. Therefore, it is imperative for marketers to create an environment that is

not only conducive for recommendations but also helps in propagating recommendations. Further, marketing managers must understand how recommendations operate within the marketplace so that they can learn how to effectively manage it. In an effort to provide managerial input to the marketers interested in stimulating recommendation, the authors suggest that they design social media campaigns around these motivational factors which may encourage recommendations. An awareness and understanding of consumers' motivations to engage in recommendations can help practitioners develop more efficient promotions and campaigns within this context.

Moreover, the authors suggest that the practitioners employ marketing techniques that lead existing users to advocate for their brands. This would stem from loyalty that the customers have towards the company. Turning customers into advocates is an emerging trend within various industries, which can help new companies gain a foothold as well. This can be done through providing incentives to existing MPS users, which will in turn influence attitudes favorably. Since existing users value concern for others and self-enhancement, incorporating cause-related marketing can also help fintech companies to propagate recommendations. Moreover, as originality and service quality surface as important antecedents, it is recommended that companies highlight these aspects in their communication. There is a need to communicate the benefits of a technology when it is new, as people are unaware of its existence, making it important to take into consideration the role of recommenders who are driven by the identified aspects. Therefore, marketers should focus on these aspects as consumers value them. In order to further facilitate the recommendation intention for MPS users, practitioners within the industry can also add prompts for feedback in their apps. This will aid in creating a buzz around MPS, leading it to reach its full potential.

#### 6.4 Research Limitations

The following section presents the limitations pertaining to this thesis. The aim of presenting limitations is not to refute the research but rather to present valuable lessons as a result of completing the present study. These limitations must be considered in order to understand the overall contributions and the future research direction connected to this study.

The foremost limitation of the present study, which is also related to its strength, was its purpose to discover an empirically emerging phenomenon as factors forming existing users' recommendation intention for new technologies are not commonly known. The authors attempted to deal with this limitation by drawing analogies from other industries, and connecting the interpretations of and opinions on the determinants of recommendation intention. This was then applied to the context of MPS within Sweden with the TPB as a guiding framework.

Another limitation was the sampling method chosen for this study. As mentioned, the sample size of 144 respondents was obtained with non-probability, convenience sampling, whereas the questionnaire was posted on platforms where the likelihood of targeting respondents was greater. The authors of this thesis believed convenience sampling to be the best suited way to obtain the desired size, whilst also ensuring that there was no sampling error (Burns & Burns, 2008). In addition, this paved the way for another limitation pertaining to fewer abilities to generalise the results to other contexts and the entire Swedish population (Burns & Burns, 2008; Easterby-Smith, 2018). The results could be a consequence of the chosen sampling method, with limiting sampling method and size. However, the findings still offer a holistic insight specific to the context of this study.

Moreover, this study was also limited due to time and budget constraints. If more time was available, it would have been possible to conduct a study while employing probability sampling and a larger sample size could have been obtained. Greater availability of time could have allowed for the inclusion of qualitative interviews to address the research question in more depth with help from respondents' reasoning. In addition, a greater budget would have allowed for offering respondents a gift or reward to show appreciation for their participation, which could have increased the response rate as well.

The thesis focused on recommendation intention for MPS, therefore, the results and findings derived may not be applicable to other industries, for instance, the fashion industry. As mentioned before in the introduction of the present study, fintech is an emerging industry, and users are increasingly becoming aware of its advantages. Therefore, the threshold for existing users' perception of MPS recommendation is relatively low. Nonetheless, the risks associated with spreading a bad experience are present, and MPS companies must invest in extensive resources in sustaining their reputation and image by advocating for recommendations. Moreover, the fintech industry in which MPS operates is one that is still establishing itself in terms of replacing cash, hence, using that as a basis for this research could have been a limitation due to limited exposure to the industry. Nevertheless, the authors of this thesis believe that other researchers should be aware of these insights.

One ethical limitation can also be outlined here which relates to how the MPS within Sweden has been the topic of debate for enabling organized crime. MPS platforms have been accused of doing so in order to take advantage of youngsters and marginalised people for drug-related transactions and money-laundering purposes. It is also said that the banks in charge have not been enthusiastic about covering the loopholes that are presented to them. Due to these reasons, MPS recommendation intention can be overshadowed.

Lastly, as mentioned in the methodology chapter of this thesis, the items in the survey which were used for measuring the motivational factors were drawn from work conducted by

previous researchers. In light of this, the authors experienced that some scales were slightly harder to interpret than others, and this could have been the case for the respondents as well. Therefore, the authors experienced a degree of inflexibility with the scales, as they could not be revised or reformulated to a great extent.

## 6.5 Direction For Future Research

The purpose of this section is to outline gaps and avenues for future research within the identified literature streams, thus leading to improved studies being conducted in the future by other researchers.

The present study interprets the intention to recommend in the context of MPS, in Sweden where such technology acceptance is high. Thus, it is recommended to further study the application of the same motivations but in different geographical locations. Moreover, since Sweden is considered to be an individualistic society, the effect of mediating drivers may also differ across locations as social influence is taken into account. In addition to this, doing comparative studies can be done between the developing and developed world, where the penetration of MPS is on different trajectories. Insights regarding these aspects can aid marketers in adapting their strategy for each location, thus leading to a more customized but effective approach as people will be more receptive to such marketing strategies. Moreover, the authors suggest examining gender differences to gauge the similarities and differences in factors leading to recommendations. In the present study, insights emerged but were on a limited scale and outside the scope of this study.

Moreover, the authors suggest that this study could be made more generalizable to different populations and contexts in the future by using a probability sampling method and a larger sample size. Further, as mentioned in the previous section, the items used in the survey were adapted from previous studies. It is suggested to formulate new items when examining similar research as this thesis, since it allows for more flexibility in formulations and interpretations. The study has also demonstrated that this area of research is an emerging one, hence, the authors believe that other researchers should be made aware of this aspect and suggest that future research could be conducted in industries with more publications.

The present paper provided insights on existing users' need to recommend MPS and the motivation behind that. Yet, further insights are required pertaining to the factors that lead to technology recommendation. Considering this, another stream of factors other than individual-related and technology-related can be explored, such as interaction-related factors. Within this, the concept of homophily is particularly interesting. Homophily relates to the degree to which interaction occurs between people who are congruent not entirely but in certain respects (Rogers & Bhowmik, 1970). Prior studies have indicated that friends tend to

be similar in socio-demographic characteristics, these include race, age, and gender as well as behavioral attributes such as attitudes and beliefs (Festinger, 1957; Gilly, Graham, Wolfinger & Yale, 1998). People socialize with those who share similar characteristics (Chu & Kim, 2011) and therefore, interpersonal communication is also likely to take place between individuals who are similar and share similar qualities (Rogers & Bhowmik, 1970). Due to aforementioned reasons, the authors stress that exploring homophily as an antecedent can result in relevant insights.

As the findings reveal that service quality is a significant motivator for recommendation intention, but not through the TPB, it could be interesting to study this variable in more depth. Lastly, this thesis has examined the factors which lead to intention to recommend MPS, which differs from the act of recommendation. Hence, it is suggested that future research upon similar contexts could examine the relationship between intention to recommend and the act of recommending MPS. This could allow for highlighting more concrete findings within the stream of technology spread and the act of recommendation.

## 7. Conclusion

The present study has drawn upon four motivational factors, categorized into two groups, that could hypothetically influence recommendation intention for MPS within Sweden. By overviewing previous research conducted within the field of recommendation intention (positive WOM intention) and MPS, the authors have identified a clear gap, which concerns the limited research carried out for MPS recommendation intention. The following research question was formulated and addressed via the TPB:

*What drives current adopters to recommend mobile payment solutions in Sweden?*

Data from 144 Swedish MPS was analysed using Structural Equation Modeling (SEM). Findings indicate satisfactory results for answering the above posited research question. The individual-related motivational factors, concern for others and self-enhancement, positively correlate with recommendation intention for MPS but only via certain mediators put forth by the TPB, which serves as a guiding framework for hypotheses formulation. There is a positive relation between concern for others and intention to recommend MPS. The relationship is also positive with attitude and perceived behavioral control as mediators. Self-enhancement unveils a positive relationship with the intention to recommend MPS via attitude. Moreover, technology-related motivations, originality and service quality, also present significant findings. A positive relationship is witnessed between originality and recommendation intention overall and via attitude as well. As for service quality, it only directly impacts the intention to recommend MPS but not via any of the mediators. Despite the weak or moderate correlations between motivational factors and recommendation intention, the results indicate the presence of a positive relationship between them. Thus, this thesis has successfully fulfilled its purpose.

Furthermore, building upon the findings, the present study has successfully contributed to the research stream of recommendation intention and technology spread. This has been achieved by clearly presenting the findings which add to the research conducted previously. The study also merges knowledge withdrawn from both research streams to outline a holistic approach towards technology recommendation. This thesis contributes to the research stream of recommendation intention by presenting four motivational factors that influence actual users to recommend MPS. Since these factors are drawn from previous studies within different industries, the findings from this paper can be applied to new contexts. The present study also extends previous literature surrounding the TPB. By integrating the fundamental idea of the existence of different audiences, this thesis builds upon previous research by proposing that

influences for recommendation intention formation stem from either individual-related factors or technology-related factors. Moreover, this study contributes to existing knowledge of recommendation intention by proposing a theoretical framework that suggests that intention is formed in conjunction with the mediators; attitude, subjective norm and perceived behavioral control. This implies that existing MPS users taking part in MPS recommendation also consider the presence of mediators.

Next, the findings shed new light on the research stream of technology spread. Various authors within this context stress the importance of companies to understand how social influence impacts consumers. By showing that each of the four motivational factors have an influence on recommendation intention, the authors believe to have partially filled a gap concerning how existing MPS users resonate with each motivation through the TPB. Additionally, the thesis finds that attitude is the most recurring mediator for individual-related factors and originality, while it is not apparent for service quality. This suggests that users are more motivated if they have a positive attitude about technology recommendation. Additionally, this study adds to the emerging body of literature by suggesting that concepts such as originality and service quality do not have overlapping mediators. That is, originality is related to subjective norm only, while perceived behavioral control relates with service quality.

Lastly, it is believed that this research provides a solid base and addresses adequate prerequisites for future researchers in order to build on the findings. Hence, there is room to elaborate further on, for instance, the factors leading to intention to recommend MPS, with a possible incorporation of a qualitative research approach to gain in-depth insights into existing users' reasonings and alternatives for other contexts and sectors.

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# Appendix

Table 1: Items For Indicating Variables

Variables	Indicating Variable	Item	Reference(s)
Concern for others	CO1	I want to warn others of a bad mobile payment system	Hennig-Thurau et al., 2004
	CO2	I want to save others from having the same negative experiences as me	
	CO3	I want to help others with the same positive experiences as me	
	CO4	I want to give others the opportunity to get the right mobile payment system	
Self-Enhancement	SE1	I can express my joy about a good mobile payment system	Hennig-Thurau et al., 2004
	SE2	I feel good when I can tell others about my mobile payment successes	
	SE3	With my contributions, I can show others that I am a clever customer	
	SE4	I can tell others about a great experience	
Originality	OG1	The originality of the mobile payment system to the market is high	Ali, Abdul, Krapfel, Robert Jr. and LaBahn, Douglas, 1995
	OG2	The mobile payment system has unique features for customers	
	OG3	The mobile payment system is new to the customer	
Service Quality	SQ1	The mobile payment system performs the service correctly the first time	Yang et. al, 2004; Alshibly, 2015
	SQ1	The mobile payment system quickly resolves problems I encounter	
	SQ3	The mobile payment system provides services with the features I want	
	SQ4	The mobile payment system's employees have the knowledge to answer my questions	
Attitude	ATT1	Recommending the mobile payment system is a good idea	Fishbein & Ajzen, 1975; Taylor & Todd, 1995; Venkatesh et. al, 2003
	ATT2	Recommending the mobile payment system is a wise idea	
	ATT3	I like the idea of recommending the mobile payment system	
	ATT4	Recommending the mobile payment system is pleasant	

Subjective Norm	SN1	People who influence my behavior think I should recommend the mobile payment system	Ajzen, 1991; Venkatesh et al., 2003
	SN2	People who are important to me think I should recommend the mobile payment system	
Perceived Behavioral Control	PBC1	I have control over recommending the mobile payment system	Venkatesh et al., 2003
	PBC2	I have the resources necessary to recommend the mobile payment system	
	PBC3	I have the knowledge necessary to recommend the mobile payment system	
	PBC4	Given the resources, opportunities and knowledge required, it would be easy for me to recommend the mobile payment system	
	PBC5	The mobile payment system is not compatible with other payment system I recommend (e.g. credit cards)	
Intention to Recommend MPS	ITR1	I would share with others positive things about the mobile payment system	Kim & Park, 2013; Meilatinova, 2021
	ITR2	I would provide others with information on the mobile payment system	
	ITR3	I am likely to recommend the mobile payment system to my friends or acquaintances	
	ITR4	I am likely to encourage others to consider the mobile payment system	

Table 2: Adapted Classifications

Our classification	Classification from literature	Adapted from	Used by other author(s)
Concern for Others	Concern for other consumers	Hennig-Thurau et al. (2004)	
Self-Enhancement	Extraversion / positive self enhancement	Hennig-Thurau et al. (2004)	
Originality	Product innovativeness	Ali, Krapfel & LaBahn (1995)	
Service Quality	Online service quality	Alshibly (2015)	Yang, Jun & Peterson (2004)
Attitude	Attitude towards behavior	Venkatesh et al. (2003)	Fishbein & Ajzen (1975) Taylor & Todd (1995)
Subjective Norm	Subjective norm	Venkatesh et al. (2003)	Ajzen (1991)
Perceived Behavioral Control	Perceived behavioral control	Venkatesh et al. (2003)	
Intention to Recommend MPS	WOM intention	Meilatinova (2021)	Kim & Park (2013)

Table 3: Path Coefficients for Inner Model

Relationship	Coefficient	T Value	P Value	Conclusion
Concern for Other -> Intention to Recommend MPS	0.302	4.459	0	Supported
Concern for Others -> Attitude	0.333	3.627	0	Supported
Concern for Others -> Subjective Norm	0.013	0.117	0.907	Not supported
Concern for Others -> Perceived Behavioral Control	0.324	2.571	0.01	Supported
Self-Enhancement -> Intention to Recommend MPS	0.2	2.982	0.003	Supported
Self-Enhancement -> Attitude	0.281	2.857	0.004	Supported
Self-Enhancement -> Subjective Norm	0.276	2.162	0.031	Supported
Self-Enhancement -> Perceived Behavioral Control	0.16	1.296	0.195	Not supported
Originality -> Intention to Recommend MPS	0.129	2.126	0.034	Supported
Originality -> Attitude	0.193	2.111	0.035	Supported
Originality -> Subjective Norm	0.374	3.737	0	Supported
Originality -> Perceived Behavioral Control	0.033	0.36	0.719	Not supported
Service Quality -> Intention to Recommend MPS	0.106	2.153	0.031	Supported
Service Quality -> Attitude	0.122	1.719	0.086	Not supported
Service Quality -> Subjective Norm	-0.109	1.045	0.296	Not supported
Service Quality -> Perceived Behavioral Control	0.157	2.007	0.045	Supported
Attitude -> Intention to Recommend MPS	0.616	7.974	0	Supported
Subjective Norm -> Intention to Recommend MPS	-0.002	0.035	0.972	Not supported
Perceived Behavioral Control -> Intention to Recommend MPS	0.247	3.463	0.001	Supported

Table 4: Weights for Outer Model

Path	Coefficient	T Values	P Values
CO3 -> Concern for Others	0.357	2.395	0.017
CO4 -> Concern for Others	0.706	5.189	0.000
SE1 -> Self-Enhancement	0.121	0.814	0.416
SE2 -> Self-Enhancement	0.522	4.137	0.000
SE3 -> Self-Enhancement	0.273	2.295	0.022
SE4 -> Self-Enhancement	0.26	1.959	0.050
OG1 <- Originality	0.541	11.48	0.000
OG2 <- Originality	0.513	11.212	0.000
OG3 <- Originality	0.196	2.379	0.017
SQ1 <- Service Quality	0.239	1.815	0.070
SQ2 <- Service Quality	0.479	5.556	0.000
SQ3 <- Service Quality	0.235	2.13	0.033

SQ4 <- Service Quality	0.464	4.163	0.000
ATT1 <- Attitude	0.295	16.062	0.000
ATT2 <- Attitude	0.272	16.975	0.000
ATT3 <- Attitude	0.287	21.416	0.000
ATT4 <- Attitude	0.276	18.421	0.000
SN1 <- Subjective Norm	0.487	15.075	0.000
SN2 <- Subjective Norm	0.548	13.663	0.000
PCB1 <- Perceived Behavioral Control	0.262	4.661	0.000
PCB2 <- Perceived Behavioral Control	0.344	11.95	0.000
PCB3 <- Perceived Behavioral Control	0.233	5.553	0.000
PCB4 <- Perceived Behavioral Control	0.373	11.05	0.000
ITR1 <- Intention to Recommend MPS	0.303	13.148	0.000
ITR2 <- Intention to Recommend MPS	0.29	13.309	0.000
ITR3 <- Intention to Recommend MPS	0.296	17.243	0.000
ITR4 <- Intention to Recommend MPS	0.265	11.844	0.000

Table 5: Measurement Model Evaluation

Construct / indicator	Cronbach's Alpha	CR	AVE	VIF	Weight	Loading
<b>Concern for Others</b>	1.000			1.849		
CO1 (removed)						
CO2 (removed)						
CO3					0.357	0.880
CO4					0.706	0.971
<b>Self-Enhancement</b>	1.000			2.066		
SE1					0.121	0.766
SE2					0.522	0.942
SE3					0.273	0.779
SE4					0.260	0.781
<b>Originality</b>	0.599	0.781	0.564	1.434		
OG1					0.541	0.875
OG2					0.513	0.867
OG3					0.196	0.418
<b>Service Quality</b>	0.627	0.770	0.462	1.197		
SQ1					0.239	0.590
SQ2					0.479	0.816

SQ3					0.235	0.547
SQ4					0.464	0.732
<b>Attitude</b>	0.907	0.935	0.782	1.689		
ATT1					0.295	0.879
ATT2					0.272	0.872
ATT3					0.287	0.911
ATT4					0.276	0.875
<b>Subjective Norm</b>	0.928	0.965	0.932	1.464		
SN1					0.487	0.961
SN2					0.548	0.970
<b>Perceived Behavioral Control</b>	0.829	0.888	0.667	1.243		
PCB1					0.262	0.658
PCB2					0.344	0.901
PCB3					0.233	0.793
PCB4					0.373	0.891
PCB 5 (removed)						
<b>Intention to Recommend MPS</b>	0.891	0.923	0.75			
ITR1					0.303	0.855
ITR2					0.290	0.870
ITR3					0.296	0.892
ITR4					0.265	0.847

Table 6: Overview of Findings

Construct / indicator	Cronbach's Alpha	CR	AVE	VIF	Weight	Loading
<b>Concern for Others</b>	1.000			1.849		
CO1 (removed)						
CO2 (removed)						
CO3					0.357	0.880
CO4					0.706	0.971
<b>Self-Enhancement</b>	1.000			2.066		
SE1					0.121	0.766
SE2					0.522	0.942
SE3					0.273	0.779
SE4					0.260	0.781
<b>Originality</b>	0.599	0.781	0.564	1.434		
OG1					0.541	0.875

OG2					0.513	0.867
OG3					0.196	0.418
<b>Service Quality</b>	0.627	0.770	0.462	1.197		
SQ1					0.239	0.590
SQ2					0.479	0.816
SQ3					0.235	0.547
SQ4					0.464	0.732
<b>Attitude</b>	0.907	0.935	0.782	1.689		
ATT1					0.295	0.879
ATT2					0.272	0.872
ATT3					0.287	0.911
ATT4					0.276	0.875
<b>Subjective Norm</b>	0.928	0.965	0.932	1.464		
SN1					0.487	0.961
SN2					0.548	0.970
<b>Perceived Behavioral Control</b>	0.829	0.888	0.667	1.243		
PBC1					0.262	0.658
PBC2					0.344	0.901
PBC3					0.233	0.793
PBC4					0.373	0.891
PBC 5 (removed)						
<b>Intention to Recommend MPS</b>	0.891	0.923	0.750			
ITR1					0.303	0.855
ITR2					0.290	0.870
ITR3					0.296	0.892
ITR4					0.265	0.847

Table 7: Summary of Results

Path	Coefficient	T Value	P Value	Conclusion
Concern for Other -> Intention to Recommend MPS (H1)	0.302	4.459	0.000	Supported
Concern for Others -> Attitude -> Intention to Recommend MPS (H1a)	0.205	3.236	0.001	Supported
Concern for Others -> Subjective Norm -> Intention to Recommend MPS (H1b)	0.000	0.004	0.997	Not supported

Concern for Others -> Perceived Behavioral Control -> Intention to Recommend MPS (H1c)	0.080	2.009	0.045	Supported
Self-Enhancement -> Intention to Recommend MPS (H2)	0.200	2.982	0.003	Supported
Self-Enhancement -> Attitude -> Intention to Recommend MPS (H2a)	0.173	2.535	0.011	Supported
Self-Enhancement -> Subjective Norm -> Intention to Recommend MPS (H2b)	-0.001	0.03	0.976	Not supported
Self-Enhancement -> Perceived Behavioral Control -> Intention to Recommend MPS (H2c)	0.039	1.119	0.263	Not supported
Originality -> Intention to Recommend MPS (H3)	0.129	2.126	0.034	Supported
Originality -> Attitude -> Intention to Recommend MPS (H3a)	0.119	2.125	0.034	Supported
Originality -> Subjective Norm -> Intention to Recommend MPS (H3b)	-0.001	0.033	0.973	Not supported
Originality -> Perceived Behavioral Control -> Intention to Recommend MPS (H3c)	0.008	0.344	0.731	Not supported
Service Quality -> Intention to Recommend MPS (H4)	0.106	2.153	0.031	Supported
Service Quality -> Attitude -> Intention to Recommend MPS (H4a)	0.075	1.726	0.084	Not supported
Service Quality -> Subjective Norm -> Intention to Recommend MPS (H4b)	0.000	0.026	0.979	Not supported
Service Quality -> Perceived Behavioral Control -> Intention to Recommend MPS (H4c)	0.039	1.596	0.111	Not supported