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# A Synthesis of Constructs for Modelling Consumers' Perception of Value from Mobile-Commerce (M-VAL)

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## Abstract

Customer Perceived Value (CPV) is a well-established concept in the marketing literature; however, there is a need to extend the concept of Perceived Value (PV) to mobile shopping consumers. Meanwhile, the synthesis of construct, dimensionality, and modelling of PV in the context of mobile shopping only received scant attention despite the efforts in conceptualising and testing various PV elements for a range of businesses. Hence, a definite contribution to the existing literature is by structuring the themes based on related approaches. Accordingly, the present study conducted a systematic and comprehensive review of perceived value literature on mobile shopping obtained from the Scopus database. Next, all the possible factors from recent literature were synthesised in the current research for the purpose of measuring the perception of value on mobile commerce (M-VAL). Finally, a framework of ten parameters was successfully established and can be used as a reference for future research. Overall, the tentative yet inclusive set of parameters is deemed useful in designing future empirical researches that aim to develop a multidimensional multi-item scale to measure M-VAL.

## **1. INTRODUCTION**

The mobile phone is possibly one of the fastest technologies which have been widely adopted around the world for communication, shopping, payment, booking, and entertainment (Deloitte, 2019). Furthermore, over 36% of the world population (approximately 2.52 billion) are using smartphones, followed by 61% of the population which are using the internet on mobile phones, and approximately one billion users who have purchased retail goods using mobile devices (Statista, 2019). Based on the statistical evidence which revealed that approximately one-fourth of product and service purchases are performed through smartphones or tablets, it could be seen that mobile purchases have become a habit (Shukairy, 2017). It is predicted that the number of downloads through mobile phones would have increased to \$284 billion,

including \$100 billion in revenues by 2020 (AppAnnie, 2016). Therefore, the traditional market shifted to the online market has been widely extended to the mobile markets (KPMG, 2019).

'The perception is reality. Everything else is an illusion'. This famous quote by Ries and Trout (1993) has proven the phenomenon of mobile shopping and competitive markets. There has been a demand for businesses to offer the right and attractive value proposition according to the needs of consumers (Leppäniemi, Karjaluoto, & Saarijärvi, 2017). CPV is a well-established and important concept in the field of marketing, and the significant influence of it on customers' satisfaction (e.g., Li et al., 2015; Zboja et al., 2016), purchase intention (Hsiao and Chen, 2016; Wang et al., 2018), and loyalty (e.g., Koller et al., 2011; Kuikka and Laukkanen, 2012) was proven in previous studies. Concerning the definition of CPV by Zeithaml (1988), numerous studies had expanded the first one-dimensional approach to a multidimensional approach, including the higher-order aspects of CPV (Grewal, Monroe, & Krishnan, 1998a; Holbrook, 1994; Lapierre, 2000; Sheth, Newman, & Gross, 1991; Woodruff, 1997). Similarly, the same approach had been tested for various industries and markets (e.g., Carlos Fandos Roig, Sanchez Garcia, Angel Moliner Tena, & Llorens Monzonis, 2006; Molinillo, Gómez-Ortiz, Pérez-Aranda, & Navarro-García, 2017; Sweeney, & Soutar, 2001).

The aforementioned perceived value models were developed in the context of in-store (traditional) consumption to extend the research landscape from in-store consumptions to B2B, service, and online businesses (e.g., Chiu et al., 2014; El-adly, 2018; Williams and Soutar, 2009). Most studies on mobile devices adopted the existing multi-dimensional models (e.g., Karjaluoto et al., 2018; Yang et al., 2018), while some researchers identified the perceived the value dimensions for mobile businesses in a different context (e.g., Huang et al., 2019; Karjaluoto et al., 2019). Moreover, the dimensionality and model taxonomy was reviewed and conceptualised in the review papers by several studies (e.g., Aulia, Sukati, & Sulaiman, 2016; Chang & Dibb, 2012; Sanchez-Fernandez & Iniesta-Bonillo, 2007; Zauner, Koller, & Hatak, 2015).

The unique characteristics of mobile commerce (m-commerce) consist of interactivity (Storm et al., 2014; Wang et al, 2015; Husiso and Wu, 2017), convenience (Andrews et al., 2016; Shankar et al., 2016; Storm et al., 2014), personalisation (Shankar et al., 2016; Tang et al., 2013), effectiveness (Andrew et al., 2015; Hofacker et al., 2016), and the production of value beyond in-store commerce and e-commerce resulting in the achievement of consumers' goals in a simple, instant, and economical way. The characteristics of m-commerce are distinguished from the characteristics of in-store and electronic commerce (e-

commerce). Furthermore, m-commerce consists of an attribute of ubiquity, indicating easier information access in real-time which contributes to a communication which is independent of the user's location (Åkesson, 2007; Choi, 2018). It also provides convenience to the customers through the constant availability of the device which stores data. Besides enabling consumers to be contacted anywhere and anytime, limited accessibility could be offered to a particular person or a particular time (Pihlström & Brush, 2008).

M-commerce assists in the matching of services based on the location, offering localisation as another aspect which distinguishes m-commerce from the in-store and desktop-based e-commerce (Choi, 2018). However, some limitations of m-commerce are present, which consists of the usability aspects originating from the small screens and keypads of mobile devices resulting in limited messages and information browsing. Furthermore, technical aspects of mobile device including limited memory and computing power would lead to insufficient bandwidth and limited data transfer capacity. Therefore, empirical tests were conducted on conventional models in the traditional market, while some of the models were tested in the electronic market. Nevertheless, it is crucial to note that both traditional and electronic market settings are different from the m-commerce setting. Overall, these statements were in line with Huang et. al. (2019) and Karjaluoto et al. (2019), who highlighted that m-commerce offers additional value elements, indicating the importance of investigating the consumers' perception of value.

In-store businesses are usually constrained by location and time-consuming processes. Although some conventional value dimensions may be relevant in the m-commerce setting, such as the convenience value or functional value, the meaning of the value in M-commerce is partially different from the meaning of the value in-store business set up (Huang et al., 2019). Despite the same definitions of m-commerce in the current literature, the convenience of m-commerce results in different perceptions regarding the functional (Huang et al., 2019; Strom et. al, 2014) and economic values among others. Moreover, m-commerce offers flash sales and discounts, making it different from the in-store business where discounts are generally offered during festive seasons. With social m-commerce, the interaction between consumers and companies could be performed at any time and any place, which leads to the improvement in the consumers' perception of the social value (Strom et al., 2014; Wang et al. 2015; Wu and Hsiao, 2017). M-commerce organisations are also capable of utilising large data and offering personalised recommendations to consumers so that they could gain positive perceptions of the emotional value (Shankar et al., 2016; Tang et al., 2013). Meanwhile, although the experiential value in e-commerce could

be extended to m-commerce, further investigation is needed to identify the experiential value in ecommerce due to small screen size and limited storage space (Choi, 2018). Additionally, compared to desktop-based website, detailed product description and quality product images are required in mcommerce apps (Chi, 2018).

CPV is a comparative, personal, and situational concept (Miao et al., 2014), with the definition of value, continuously evolving (Chi and Kilduff, 2011). Due to the rapid development of m-commerce along with the evolution of smartphones and mobile technologies, business models become increasingly complex and consumers start to perceive value in different ways (Storm et al., 2014). To be specific, consumers in the current era are not only demanding, but they are also becoming more value-conscious (Leroi-Werelds et al., 2014). Furthermore, the development of applications is increasing among companies to gain additional consumers due to the essential role of mobile phones in humans' lives (Stocchi et al., 2017). However, challenges in the industry are present, such as high cost of conversion and difficulty to acquire new consumers, and determining the perceived value dimensions is believed to be the solution to these issues (KPMG, 2019). Moreover, predicting the expectation and perception of consumers is not an easy task despite the rapid development of the mobile market (Gilbert, Sangwan, & Ian, 2005). It was highlighted by Dodds, Monroe, and Grewal (1991) that although regular customers are the best source of revenue, they are faced with challenges of expressing their expectations of a new context and perceptions of the new markets, especially when the services are not present in the traditional market. Nevertheless, it is equally important to understand that mobile consumers have the attribute of 'instatism' (Jaminson, 2018; Pihlström et al., 2008), where they tend to expect everything to be performed in a quick, instant, and simple way.

As the existing marketing literature may not thoroughly describe how m-commerce provides value beyond the traditional or electronic commerce, there is a continuous need to rethink, reinvestigate, and reconceptualise the perceived value to determine what is perceived as valuable to the customers. However, some studied had highlighted what consumers perceived as valuable from mobile shopping, although the technical aspects were the main focus (e.g., Büyüközkan, 2009) or the studies were mainly based on the implementation of traditional models of perceived value in the mobile shopping context (e.g., Chiu et al., 2014; El-adly, 2018; Williams and Soutar, 2009). Apart from that, although a large and growing body of literature investigated the importance of mobile shoppers, particularly in terms of better benefits and reduced cost of mobile shopping, the lack of conceptualisation of the elements into relevant and

appropriate dimensions should be addressed. Therefore, identifying the empirical findings on the factors of the conceptualisation of mobile CPV dimensions and model taxonomy is crucial. Based on the literature review in this article, it was found that no conceptualisation was found to propose the construct of CPV, particularly for m-commerce. Overall, the necessity for multidimensional perceived value construct is important to identify the heterogeneity of perceived value from m-commerce.

In this study, it was believed that the conceptualisation of the mobile CPV is important by adopting the scope for M-VAL from mobile shopping, which includes the purchase from mobile devices including tablets and smartphones. Concerning this issue, this study aims to prepare a synthesis of all factors from the literature, which could be incorporated to measure consumers' perceptions of value in m-commerce. This objective could be achieved by reviewing all the major works in the relevant field to determine the answers for the following research questions:

- 1. What factors constitute M-VAL?
- 2. How to conceptualise such factors into various appropriate dimensions?

Accordingly, a comprehensive and updated review of m-commerce research was conducted. This study contributes to an improved understanding of the perceived value from m-commerce by conceptualising it as M-VAL, followed by the synthesis of the construct of perceived value from m-commerce.

Overall, this study extended the concept of Perceived Value (PV) to mobile shopping consumers, which was followed by the synthesis of all the possible factors derived from recent literature to develop a measurement for the perception of value on mobile commerce (M-VAL). Finally, this study proposed a framework of a tentative yet inclusive set of parameters, which would be useful for the development of empirical researches, which are conducted to construct multi-dimensional and multi-item scales for the measurement of M-VAL.

## **2. LITERATURE REVIEW**

#### 2.1 The Narrative of Perceived Value

The pioneering definition established by Zeithaml (1988) states CPV as the consumers overall assessment of perceived benefits resulted from shopping against perceived sacrifices. More importantly, a considerable amount of research (e.g. Holbrook, 1994; Lapierre, 2000; Sheth et al., 1991; Woodruff, 1997) expanded the proposed one-dimensional definition as well as the multidimensional and higher-order

aspects of PV dimensions by taking into account various industries and markets. In this case, the construct of perceived value has been widely defined based on several terms that share the same meaning. According to an extensive literature review conducted by Woodall (2003), more than fifteen different names managed to be discovered for the value consumer which is derived from buying and using the product. Furthermore, business researchers had used a wide range of terms such as value for money, consumption value, and service value based on the context of the product, service, industry, or market. Accordingly, the frequently used terms are summarised below:

Term Used	Author (s)		
Perceived Value	(T. Z. Chang & Wildt, 1994; Dodds et al., 1991; Grewal, Monroe,		
	& Krishnan, 1998b)		
Customer Perceived	(Grönroos, 1997)		
Value			
Perceived Customer	(Z. Chen & Dubinsky, 2003)		
Value			
Acquisition and	(Grewal et al., 1998b; Parasuraman & Grewal, 2000)		
Transaction Value			
Consumption Value	(Sheth et al., 1991)		
Value	(de Ruyter, Wetzels, Lemmink, & Mattson, 2003; Iacobucci,		
	Ostrom, & Grayson, 1995)		
Customer Value	(Anderson & Gerbing, 1988; Dodds et al., 1991; Morris B.		
	Holbrook, 1994; Woodruff, 1997)		
Consumer Value	(Havlena & Holbrook, 2002)		
Service Value	(Bolton & Drew, 1991)		
Value for Money	(Sweeney, Soutar, & Johnson, 1999)		

Table 1: Alternative terms for Perceived Value

Furthermore, it should be noted that various definitions and interpretations of the perceived value are available in the literature. Nevertheless, the classification of customer perceived value elements is different depending on the disciplines. In this case, the dimensionality of CPV is tested from time to time, while additional elements are continuously proposed according to the market or products. On a similar

note, empirical research further proposed new aspects in the definition of perceived value. In particular, it is assumed that the first definition of the CPV was provided by Schechter (1984) who describes CPV as the combination of qualitative and quantitative factors which are both objective and subjective that subsequently forms the buying experiences of consumers jointly. Meanwhile, Monroe and Chapman (1987a, p. 46) describe CPV as "a trade-off between the quality or benefits they perceive in the product relative to the sacrifice they perceive by paying the price". Nevertheless, Woodruff (1997, p. 142) took a different approach of hierarchy in the perceived value elements by defining it as "a customer's perceived preference for an evaluation of those product attributes attribute performances, and consequences arising from use that facilitate (or block) achieving the customer's goal and purposes in use situations". Next, a holistic view of the concept was defined with more details by Woodall (2003, p. 21) as "any demand-side, personal perception of advantage arising out of a customer's association with an organization's offering, and can occur as reduction in sacrifice; presence of benefit (perceived as either attributes or outcomes); the resultant of any weighted combination of sacrifice and benefit (determined and expressed either rationally or intuitively); or an aggregation, over time, of any or all of these". Apart from that, Sheth et al. (1991) came up with multi-discipline view of CPV which describes it as a combination of economics, psychology, sociology, and marketing aspects by presenting five categories of the value, namely viz functional, social, emotional, epistemic, and conditional value. More importantly, new elements were added in the definition based on the market type such as industrial markets.

Nevertheless, it should be noted that there are a few commonalities among all the definitions. The first one refers to the notion that the value is being treated as a trade-off between 'give' and 'get' components from the perspective of the consumers. Second, CPV is mostly stated as consumers' overall assessment, followed by the perception of the value which is linked through the use of some products or services. The final commonality describes the perception of the value by the consumers rather than its objective determinations. However, the most recent definition given by Chang and Dibb (2012) describes CPV as an aspect-like perception that is based on competitors product which is beyond the typical benefits and sacrifice components.

### 2.2 Major Approaches towards the Concept of Perceived Value

Regarding this matter, past research had conducted the classification of dimensionality and conceptualisation of CPV in several ways which include reviewing the CPV based on the one-dimensional

or multi-dimensional approach as suggested by Sánchez, Callarisa, Rodríguez, and Moliner (2006) as well as classifying the CPV based on discipline established by Chang and Dibb (2013). Meanwhile, the review of literature enables the approaches adopted in the past to be further classified in order to conceptualise the dimensions of perceived value for various markets or industry. The present study aims to review such empirical models based on the industry viz., namely retail market, industrial market, service sector, relationship marketing, e-commerce, and m-commerce. More importantly, it is expected that the gap in the literature will be uncovered at the end of this section.

Most of the perceived value research (e.g. Dodds et al., 1991; Sweeney et al., 1999) were carried out in the sector of retail marketing. In particular, the initial approach explained perceived value as a onedimensional concept which is presented as a set of self-reported items that evaluate the perception of value of consumers. However, further research redefined the concept of value as an aggregate construct that is formed from several components. Accordingly, this approach presents perceived value as a multidimensional construct which consists of several interrelated elements that form a holistic but complex representation of perceived value (e.g. Huber et al., 1997; Sheth et al., 1991; Sweeney & Soutar, 2001; Woodruff, 1997). Meanwhile, Woodruff (1997) presented a value hierarchy model where perceived value elements are presented in a hierarchy form and classified as goals, consequences, and attributes. The emphasis of the model refers to the value elements that are based on preferences and evaluations which tend to change over time. On a similar note, consumption value theory proposed by Sheth et al. (1991) presented a multifaceted approach of the consumption value which includes the functional, social, emotional, epistemic, and conditional aspects. Moreover, the theory suggested that the decision of consumers to buy a particular product is influenced by their perceptions related to numerous values. Subsequently, several researchers employed this theory as a foundation for proposing models for the sector or product particularly selected for the research. However, the consumption value theory was majorly criticised due to the lack of generalisability and measurement. As a result, Sweeney and Soutar (2001) developed a 22-item scale for measuring perceived value for the retail sector by identifying the four value dimensions as emotional, social, quality, and price. Overall, it can be considered as a combination of the means-end approach and consumption value theory. More importantly, this scale has been widely adopted by numerous researchers and tested in different markets. However, Holbrook (1994) presented the aspects of dimensions of perceived value differently and categorised them into intrinsic and extrinsic nature, selforiented and others oriented, passive and active. Overall, this together presents a total of eight value elements which are com-present according to the theory.

In the case of industrial marketing, business to business marketing involves industrial product which is mainly classified under heavy investment. Moreover, these products come with associated services, while the customers of these products are regarded as business units that will be assisted by a representative in the negotiation of the purchases. Furthermore, this poses additional incidences of benefits and sacrifices components for industrial customers. Meanwhile, the complexities in the dimensionality of the perception of value occur as a result of opportunity cost and the product of competitors. More importantly, this nature warrants relationship aspect, while the emotional bond established between consumer and producer was included in the perceived value dimensionality as suggested by Butz and Goodstein (1996).

On a similar note, it should be understood that consumers tend to consider the opportunity cost and opinion based on the contribution to the perceived value of the competitor's offerings (Gale, 1994). In this case, Day, Crask, and Melvin (2000) emphasised the perceived lifetime cost in a retail context rather than the perceived the cost. In addition, Lapierre (2000) proposed a total of 13 value-based drivers that are related to products, services, and relationship which offer comprehensive dimensionality to the CPV in an industrial marketing context. However, the parallels that exist between the B2B and economics literature indicate that these perceptions involve a trade-off between what customers receive as well as what they surrender in return.

Services marketing is described as services that are perishable, inseparable, and variable in nature. Hence, this indicates that the process of identifying perceived value for services is complex compared to tangible products. In a service context, value is not only considered as product attribute due to its intangibility, thus requiring the adoption of another approach. Moreover, Bolton and Drew (1991) presented the performance level as an important dimension of service value, while Petrick (2002) stated that service quality forms an important component of the perceived value in this context. According to other researchers, service value is dependent on visual components of the service, information about the offering, previous experiences of the service, and the organisation providing it Brady et al. (2005). In the service literature, the constituent parts of customer-perceived value are much more than price and quality. The inseparability of the service product indicates that the customer is closely connected to product delivery, including personal and situational variables that play important roles in value perceptions.

In the case of relationship marketing, the minimised relationship costs of customers can lead to a reduction in customer-perceived sacrifice, which in turns increases customer-perceived value (Grönroos, 1997). Relationship cost is a long-term sacrifice and the importance of these elements is given by consumers.

The following table summarises the empirical models of customer perceived value in a chronological order that are related to various industries stated above.

Author(s)	Dimensions				
(Morris B. Holbrook	Hedonic Value, Utilitarian Value				
& Corfman, 1985)					
(Monroe &	Acquisition Value, Transaction Value				
Chapman, 1987b)					
(Zeithaml, 1988)	Intrinsic attributes, Extrinsic attributes, Quality, Other high-level				
	abstractions, Price (monetary and non-monetary)				
(Oxenfeldt &	perceived benefits - Convenience, monetary, quality, social				
Monroe, 1990)	perceived sacrifices – Monetary, efforts, health, social, opportunities				
(Sheth et al., 1991)	Social Value, Emotional Value, Functional Value, Epistemic Value,				
	Conditional Value				
(Mattsson, 1992)	Practical (P): Concerns the tangible and functional aspects of the				
	product. Emotional (E): Relates to the `Gestalt experience' of a service				
	delivery process. Logical (L): Refers to the rational and abstract aspects				
	of the consumption experience.				
(Anderson, Jain, &	Economic, Technical Services, Social Benefits, Price, Alternative				
Chintagunta, 1993)	Offerings.				
(Darden & Babin,	Hedonic Value, Utilitarian Value				
1994)					
(Groth, 1995)	Perceived Utility, Psychological, Internal, External				
(Kantamneni &	Societal Value, Experiential Value, Functional Value, Market Value				
Coulson, 1996)					
(Zeithaml & Bitner,	Benefits (Quality, Satisfaction And Specific Benefits), Costs (Money,				
1996)	Time and Effort)				
(Flint, Woodruff, &	Personal Values, Desired Value, Perceived Value				
Gardial, 1997)					
(Grönroos, 1997)	Cognitive Emotional (Psychological)				

Table 2: Major approaches of Perceived Value

(de Ruyter et al.,	Emotional Dimension or Intrinsic Value, Functional Dimension or				
2003)	Extrinsic Value, Logical Dimension				
(Woodruff, 1997)	Attribute-Based, Consequence-Based, Goal-Based				
(Voss, Parasuraman,	Quality, Price, Acquisition, Transaction				
& Grewal, 1998)					
(Dodds et al., 1991)	Acquisition Value, Transaction Value				
(Moris B. Holbrook,	Efficiency, Excellence, Play, Aesthetics, Status, Esteem, Ethics,				
1994)	Spirituality				
(Oliver & Wardle,	Consumption Value, Extended Value				
1999)					
(Sweeney et al.,	Social Value (Acceptability), Emotional Value, Functional Value				
1999)	(Price/Value for Money), Functional Value (Performance/Quality),				
	Functional Value (Versatility)				
(Lapierre, 2000)	Alternative Solutions, Product Quality, Product Customization,				
	Responsiveness, Flexibility, Reliability, Technical Competence,				
	Supplier's Image, Trust, Solidarity, Price, Time/Effort/Energy, Conflict				
(Parasuraman &	Acquisition Value, Transaction Value, Value "In-Use", Redemption				
Grewal, 2000)	Value				
(Sweeney & Soutar,	Functional Dimension (Economic and Quality), Social Dimension,				
2001)	Emotional Dimension				
(Petrick, 2002)	Quality, Emotional Response, Monetary Price, Behavioral Price,				
	Reputation				
(Eggert & Ulaga,	Cognitive Construct, Pre-/Post-Purchase Perspective, Strategic				
2002)	Orientation, Present and Potential Customers and Suppliers',				
	Competitors' Offerings				
(Wang, Lo, & Hui,	Functional Value, Emotional Value, Social Value, Perceived Sacrifices				
2003)					
(A. H. Liu, Leach, &	Core Service, Support Service, Economic Value				
Bernhardt, 2005)					

(Carlos Fandos Roig	Functional Value of The Establishment (Installations), Functional Value				
et al., 2006)	of the Contact Personnel (Professionalism), Functional Value of the				
	Service Purchased (Quality), Functional Value, Price, Emotional Value,				
	Social Value				
(Smith & Colgate,	Instrumental/Functional Value, Cost/Sacrifice Value,				
2007)	Symbolic/Expensive Value Experiential/Hedonic Value, Monetary				
	Value				
(Heskett, 2009)	Creating, Economic, Value by Design				
(G. Li, Li, &	Perceived Sacrifice (Technological Effort, Perceived Fee, Perceived				
Kambele, 2012)	Risk) Social/Emotional Value Utilitarian Value Economic Value				
(Puustinen, Maas, &	Economic Value-Monetary Saving, Economic Value-Efficiency,				
Karjaluoto, 2013)	Functional Value-Convenience, Emotional Value-Emotional and				
	Experiences Symbolic Value- Altruism, Symbolic Value- Esteem				
(Gallarza, Arteaga,	Efficiency, Service Quality, Social Values, Play, Aesthetics, Perceived				
Del Chiappa, Gil-	Monetary Price, Time and Effort Spent, Perceived Risk				
Saura, & Holbrook,					
2017)					

On another note, the electronic marketing in electronic commerce which experienced a booming at the beginning of the 2000s has been attracting considerable interest on online consumers in studies of online consumer-based marketing. Accordingly, several advantages of internet shopping have been identified over the traditional way of shopping which includes easy comparison of price and product features, time-saving, and effort saving. However, it should also be noted that the electronic shopping format comes with many sacrifices. For example, the perceived cost aspect can refer to the inability to feel items before purchase. In addition, the need for atmospheric cues and its impact on online shopping perception have been warranted together with a purchase that is often accompanied with photos and product information on the website. However, these issues occur less in online services such as travel product bookings. Presumably, the first proposed and well-accepted model of CPV in the context of online shopping is Experiential Value Scale (EVS) developed by Mathwick, Malhotra, and Rigdon (2001) which takes into account the benefits that are derived from playfulness, aesthetics, service excellence, and return on investment. Apart from that, the scale highlights the multidimensional nature of online CPV and moves

beyond the traditional value dimensions such as social value, emotional value, and others. For example, online shopping is regarded as quite boring due to the missing aspect of socialising which is considered as one the aspects of playfulness in the e-commerce context. However, the scale ignores relevant aspects such as risk and price. In response to this matter, a series of researchers then expanded the dimensionality of CPV in the online context by including several other dimensions as summarised in Table 1.

Chen and Dubinsky (2003) proposed a conceptual model of CPV in e-commerce which considers perceived risk aspects along with the decorative or valence, price, and quality dimensions. More importantly, this contributes to online CPV literature that takes into account the balanced aspects of hedonics and experiential. Electronic commerce researchers tend to consider perceived value as "a consumer's perception of the net benefits gained in exchange for the costs incurred in obtaining the desired benefits" (Chen & Dubinsky, 2003). The definition is derived from the traditional 'give and get' concept that emphasises the incorporation of consumption experience in the process of value evaluation (Anderson et al., 1993). Furthermore, Chen & Dubinsky (2003) explored perceived gains and costs instead of focusing on the identification of benefits and sacrifice. In this case, they further proposed that experience, perceived product quality, perceived risk, and price can have an impact on value perceptions. However, Overby and Lee (2006) proposed a multidimensional scale by taking into account the utilitarian values such as price saving, time-saving, service, and selection. In addition, it also expanded the existing experiential dimensions by including the interaction aspects along with the value derived from escape and visual elements. Other than that, this scale was tested in various sectors of e-commerce that commend the relevance of dimensions in the model. More importantly, there were several additions in the utilitarian and experiential value dimensions approach described as follows: (1) the flow experience through attractiveness and interactivity by Lu & Lin (2012), (2) website technology by Bonsón Ponte, Carvajal-Trujillo, and Escobar-Rodríguez (2015), and (3) product information aspects as suggested by Zhao (2011).

Author (s)	Dimensions			
(Mathwick et al., 2001)	Playfulness, Aesthetics, Customer "return on investment" and			
	Service Excellence			
(Z. Chen & Dubinsky,	The valence of On-Line Shopping Experience, Perceived Product			
2003)	Quality, Perceived Risk, and Product Price			

Table 3: Selected studies on CPV in an online shopping context

(Montoya-Weiss, Voss,	Navigation Structure Perceptions, Information Content					
& Grewal, 2003)	Perceptions, Graphic Style perceptions, Online Channel Risk					
	perceptions					
(Overby & Lee, 2006)	Utilitarian Value – Price Saving, Time Saving, Service, Selection.					
	Experiential Value – Entertainment, Visual, Escape, Interaction					
(Broekhuizen, 2006)	Price, Time & Efforts, Risk, Enjoyment, Reputation,					
	Informativeness, Ease of use					
(Lu & Lin, 2012)	Utilitarian Value – Reliability, Ease of Use. Flow Experience –					
	Attractiveness, Interactivity					
(Chew, Shingi, &	Perceived usefulness, Perceived Ease of Use					
Ahmad, 2006)						
(Zhao, 2011)	Website Technology, Commodity Information, Transaction					
	Function, Service Function					
(Peng & Liang, 2013)	Price Value, Functional Value, Emotional Value, Social Value					
(Carlson, O'Cass, &	Service Performance Value, Emotional Value, Monetary Value,					
Ahrholdt, 2015)	Brand Integration Value, Convenience Value					
(Bonsón Ponte et al.,	Perceived Privacy - Internet Privacy Concerns, Familiarity with					
2015)	Website, Disposition to Third-Party Certification, Understanding					
	of Seals. Perceived Security – Security Policy, Website					
	Investment, Vendor Reputation, Assurance Seal					
(Mohd-Any, Winklhofer,	Utilitarian Value, Emotional Value, Social Value, Perceived					
& Ennew, 2015)	Control and Freedom, Value For Money, User's Cognitive Efforts					
(Kazim, Karaboga. &	Functional, Emotional, Social, Monetary					
Nezahat, 2017)						

On another note, a few researchers proposed online value models based on the traditional CPV dimensions. However, these studies were mostly conducted based on the theoretical foundations in the Technology Acceptance Model developed by Sheth et al. (1991). Moreover, a considerable amount of past research did not uncover the new dimensions of online CPV but there were considered unique because they managed to extend the existing theories for a particular objective. For example, OCVAL model proposed by Carlson et al. (2015) is mainly based on the theoretical foundation of the model established

by Sheth et al. (1991) but some additional dimensions were included to develop a model for multi-channel online retailers. Meanwhile, Unified Theory of Acceptance and Use of Technology (UTAUT), Expectation Confirmation Theory (ECT), Model of PC Utilization (MPCU), and combined TAM-TBP application had also been utilised as a theoretical foundation in several types of research. Overall, temporal, spatial, technical, and functional aspects were also considered in most of the previous studies.

On the note of m-commerce, very little information is known about perceived value from m-commerce in the mobile market setting. Ubiquity localisation, personalisation, and convenience are identified as the key aspects of perceived value (Åkesson, 2007; Clarke Iii & Harrisonburg, 2001), while some of the other models (e.g. Alsheikh & Bojei, 2013; Pihlström & Brush, 2008) were established based on the foundations of traditional theories. Overall, it can be clearly understood that the existing theories are dominated by technical and functional aspects. However, exploratory studies and scale development studies are highly recommended to be carried out by future works considering that the existing empirical studies mostly focused on the traditional foundations of customer perceived value. Therefore, this warrants the need for the development of the construct for M-VAL.

Authors	Dimensions				
(Clarke Iii &	Ubiquity, Localization, Personalization, Convenience				
Harrisonburg,					
2001)					
(Åkesson, 2007)	Ubiquity, Localization, Personalization, Convenience, Socialization				
(Pura &	Conditional, Epistemic, Emotional, Social, Monetary and Convenience				
Gummerus, 2007)	Value				
(Pihlström &	Social, Emotional, Conditional, Monitory, Convenience, Epistemic				
Brush, 2008)					
(Büyüközkan,	User Requirement Model				
2009)					
(Alsheikh & Bojei,	Benefits – Performance Expectancy, Effort Expectancy. Sacrifice –				
2013)	Perceived Cost, Perceived Risk				

Table 4: Selected studies on CPV in a mobile shopping context

(Choi, 2018)	Ubiquity, Location Based Services, User Control, Usefulness, Ease				
	Use				

## **3. METHODOLOGY**

The process of the literature review was conducted based on the formulation developed by Tranfield, Denyer, and Smart (2003) which is known as the three-stages procedure represented as planning, execution, and reporting. The papers were taken as samples based on the definitional, operational, conceptual, and theoretical similarities. Meanwhile, the reporting of this review and conceptualisation was carried out to be demonstrated as precise, clear, and critical in its style as described by Zauner et al. (2015).

First, the established models of mobile perceived value and its dimensions were critically reviewed. Nevertheless, it should be noted that there is a scarcity of empirically tested CPV models for mobile shopping, unlike the general CPV models and dimensions. Hence, the review of these models is of lesser utility in conceptualising the dimensionality of M-Val. Therefore, empirical studies which tested various benefits and sacrifices of shopping using m-commerce platform were searched using the definition keywords of CPV. In the case of the present study, the following basic questions were considered: (1) What does customer look for while shopping on mobile? (2) What do they perceive as benefits, and (3) What do they perceive as a sacrifice? Therefore, on this basis, related empirical papers were searched from Scopus database which is a source of high-quality peer-reviewed papers from top-ranked journals. In this case, the following keywords were used for the search: perceived value AND mobile shopping, perceived value AND mobile consumers, and perceived value AND m-commerce. Meanwhile, alternative terms for perceived value were used which include customer perceived value, customer value, and perceived customer value.

The search managed to obtain a total of 124 papers with the majority of papers published from the year 2012 to 2018. However, a few related papers published from 2000 to 2012 were excluded due to the change of technological aspects that led to the changes in the perception of consumers. The peak of the papers was published in 2017 (35%), followed by 2018 and 2016. Next, the papers were narrowed down to 108 papers by excluding book chapters and review papers. In terms of disciplines categorisation, the papers were obtained from the following disciplines: business, information systems, computer system engineering, e-commerce, and m-commerce. However, the highest percentage of 43% is from the business discipline, followed by information systems, e-commerce/m-commerce, and others. Hence, this indicates

that nearly half of the empirical studies originated from the business field, while the rest half from other disciplines. The main focus of the literature was on mobile shopping which is attributed by 62%, while the remaining 38% focused on other sectors such as retail, tourism, fashion, banking, payment, and others. Apart from that, more than half of these studies (52%) did not specify the geographical location of the research, but the rest of the studies were conducted in Asia (dominated by China, followed by India, South East Asia, and the Far East), Europe, and the USA. Meanwhile, a handful of studies were from Africa, the Middle East, and other parts of the world.

Next, the elements or items as per the definition of CPV were identified, followed by its classification under the heads of perceived benefits or perceived sacrifices. Meanwhile, shopping on mobile was then conceptualised based on the classification of the proposed connotation of each conceptualised dimensions.

## 4. FINDINGS AND DISCUSSION

#### **4.1 Conceptual Foundation**

The conceptual foundation of M-VAL is in line with the main aspects of the core concept of perceived value, which particularly regard the 'benefit' and 'sacrifice' component to be similar to the component of 'give' and 'get' of perceived value. However, the synthesis of each dimension was carried out by combining both aspects into one dimension. For example, the conceptualisation of the term 'information value' represents the combination of 'benefit' and 'sacrifice' aspects that are related to the information aspect. Similarly, Sheth et al. (1991) highlighted the same conceptualisation for the development of the theory of consumption values. In addition, it is important to note that M-VAL tends to consider the overall assessment of consumers rather than one particular aspect. Meanwhile, the perception of value is linked to the use of m-commerce apps which act as a platform to shop for products or aid the services. Therefore, empirical studies that define the conceptualisation of M-VAL are included in the methodology section because the existing models are not comprehensive in nature and inadequate to conceptualise the dimensions and model taxonomy of mobile CPV. Overall, the ten unique dimensions of perceived value from m-commerce are discussed below, followed by a critical review of existing models as well as empirical evidence of perceived benefits and sacrifices of shopping using mobile devices.

Table 5 a: Conceptualised Dimensions of M-VAL

Dimension	<b>Re-worded item</b>	Sources		
Information	Content	(Kaatz et al., 2018)		
Value	Effectiveness			
	Content	(Chi, 2018; Kaatz et al., 2018; Lee & Han, 2017; Liao & Shi,		
	Informativeness	2017)		
	Typography	(Faisal et al., 2017)		
	Language Variety	(Tseng et al., 2017)		
	Information Search	(Holmes et al., 2014; Pappas, 2017)		
Interface	Design	(Kaatz et al., 2018; Molinillo et al., 2017; Subrahmanya		
Value	Effectiveness	Sastry & Madhusudhana Rao, 2017; X. Zhao & Wan, 2017)		
	Navigation	(Delić et al., 2017; Rezaei et al., 2018; Stefanie Sohn, 2017)		
	Effectiveness			
	Interaction	(Kaatz et al., 2018; Lee & Han, 2017)		
	Effectiveness			
	Perceived	(Bonn et al., 2016; YM. Chen et al., 2018; Delić et al.,		
	Usefulness	2017; Eze & Poong, 2017; Matemba & Li, 2018; Rezaei &		
		Amin, 2013; Roy & Moorthi, 2017; Saprikis et al., 2018; S.		
		Sohn, 2017; Z. Sun et al., 2017; Yuan et al., 2016)		
	Simulation Feature	(Blazquez Cano et al., 2017)		
	Performance Risk	(Baganzi & Lau, 2017; Park & Tussyadiah, 2017; Thakur &		
		Srivastava, 2014; Yuan et al., 2016)		
Customizat	Web	(Celik & Kocaman, 2017; Tseng et al., 2017)		
ion Value	Personalization			
	Personalized	(San-Martín, 2017)		
	Information			
	Personalized	(Celik, 2016)		
	Service			
Gamificatio	Entertainment	(Z. Huang & Benyoucef, 2013; Lim, 2015; Maity & Dass,		
n Value		2014)		
	Exciting	Jung (2018)		

	Hedonic	(Bhat & Singh, 2018; Gan & Wang, 2017; Madan & Yadav,			
		2018; McKay-Nesbitt, Ryan, & Yoon, 2018; I. O. Pappas,			
		Kourouthanassis, Giannakos, & Lekakos, 2017; Pauzi et al.,			
		2017; Shaw & Sergueeva, 2017; Z. Sun et al., 2017; Yim,			
		Yoo, Sauer, & Seo, 2014)			
Gratificatio	Innovativeness	(Knežević & Delić, 2017; Rezaei et al., 2018)			
n Value	Novelty	(Rezaei et al., 2018)			
	Emotional	(GH. Huang et al., 2018)			
	Compatibility	(Jiménez & San-Martín, 2017)			
Credibility	Security	(Tan & Ooi, 2018)			
Value	Privacy	(Chopdar et al., 2018; Kaatz et al., 2018; Liébana-Cabanillas			
		et al., 2018)			
	Policy	(Chopdar et al., 2018; Kaatz et al., 2018; Liébana-Cabanillas			
		et al., 2018; Tan & Ooi, 2018)			
	Trust	(Baganzi & Lau, 2017; Kim et al., 2017; Madlberger, 2017;			
		Marriott & Williams, 2018a; Ng, 2016; Rezaei et al., 2018)			
Social	Reputation	(Punyatoya, Satpathy, & Agrawal, 2018)			
Value	Brand Equity	(Jiménez & San-Martín, 2017; Pauzi et al., 2017; von			
		Helversen et al., 2018)			
	Social Influence	(Pauzi et al., 2017; Xu-Priour, Cliquet, & Palmer, 2017)			
	Social Interaction	(Bonn et al., 2016; Eze & Poong, 2013; Madlberger, 2017;			
		Roy & Moorthi, 2017; Saprikis et al., 2018)			
Convenienc	Browsing	(Kaatz et al., 2018; McLean et al., 2018)			
e Value	Convenience				
	Timeliness	(Lee & Han, 2017; T. S. H. Pham & Ahammad, 2017)			
	Accessibility	(Kang, 2014; Lee & Han, 2017; Sinha & Singh, 2017)			
	Payment	(Kaatz et al., 2018; Katta & Patro, 2017; Liébana-Cabanillas,			
	Convenience	Muñoz-Leiva, & Rejón-Guardia, 2013)			
	Location	(Gupta & Arora, 2017; Z. Sun et al., 2017)			
	Convenience				

Economic	Affordability	(Saricam & Erdumlu, 2017; Sinha & Singh, 2017)				
Value	Discounts	(Park & Tussyadiah, 2017; Shang & Wu, 2017)				
	Payment Risk	(M. Li et al., 2012)				
Visual	Richness	(Hasan, 2016; Lim, 2015; T. S. H. Pham & Ahammad, 2017;				
Value		Sreeram et al., 2017)				
	Appearance	(S. Sohn, 2017; S. Sohn et al., 2017)				
	Stimuli	(Aboubaker Ettis, 2017; Faisal et al., 2017)				
	Colour	(Kaatz et al., 2018)				

## 4.2 Conceptualised M-VAL Dimensions

In the case of information value for mobile consumers, the mobile application acts as a shopping platform that emphasises the use of self-information search in making a decision due to the absence of salesperson or demonstrator. In addition, information quality plays an important role in this type of environment (Chi, 2018; Kaatz, Brock, & Blut, 2018; Lee & Han, 2017). Moreover, various mobile shopping platforms tend to be visited by consumers who wish to acquire important information prior to any purchase. Hence, this indicates that platforms which offer comprehensive information are more preferable. According to Liao and Shi (2017), appropriate web content may lead to a better experience, while Tseng, Cheng, Li, and Teng (2017) state that language variety should be offered by global platforms because they are normally visited by multinational consumers. In addition, the arrangement of product portfolio (Kaatz et al., 2018) and facilitation of information search (Holmes, Byrne, & Rowley, 2014) are considered as important key factors. According to Pappas (2017), all of these factors may prevent consumers from feeling confused and help to enhance the mobile shopping procedure. The empirical studies showed that the group of elements are more relevant and critical for mobile shopping compared to desktop-based shopping which can be performed anytime and anywhere. Moreover, this takes into account the ability of the mobile retailer to effectively and efficiently communicate information. Next, the dimensions were grouped according to its similar nature under the proposed dimension of information value. In this case, it is defined as mobile consumers' assessment of perceived benefits received from information provided by mobile retailer. On the other hand, the perceived cost of information search or perceived risk of a possible inappropriate decision as a result of misinformation from the m-tailor is termed as Information Value derived from m-businesses. The m-commerce is distinguished from the in-store business set up due to the

accessibility of easy and real-time information (Åkesson, 2007; Choi, 2018). Although the detailed product description and quality product images were the prerequisites of e-commerce portals, the effectiveness of this information is essential for m-commerce due to small screen sizes and limited memory (Andrew et al., 2015; Hofacker et al., 2016). Therefore, it could be seen that the newly proposed dimension of information value is compatible with m-commerce.

In the case of interface value, mobile channel interface of m-tailor is as good as the store of the offline retailer, thus further encouraging the consumers to seek value from both contexts. Meanwhile, it should be noted that the design of the navigation greatly influences value perception (Delić, Knežević, & Dužević, 2017; Rezaei, Chandran, & Oh, 2018) because it affects the flow experience which facilitates easy sailing throughout the mobile shopping process (Stefanie Sohn, 2017) with lesser perception of performance risk (Baganzi & Lau, 2017; Park & Tussyadiah, 2017; Thakur & Srivastava, 2014; Yuan, Liu, Yao, & Liu, 2016). On another note, TAM based variable perceived usefulness had been empirically tested and successfully formed beneficial perception among online shoppers (Bonn, Kim, Kang, & Cho, 2016; Y.-M. Chen, Hsu, & Lu, 2018; Eze & Poong, 2017; Knežević & Delić, 2017; Matemba & Li, 2018; Rezaei & Amin, 2013; Roy & Moorthi, 2017; Saprikis, Markos, Zarmpou, & Vlachopoulou, 2018). Moreover, it should be noted that perceived usefulness is defined as the perception of online users on how a particular element of an online system is able to enhance job performance or in this context, shopping performance. The review conducted by the present study on perceived usefulness in the context of online shopping has been validated as an element of interface quality rather than adoption. However, the optimisation of the web store is the factor that distinguishes m-commerce from e-commerce; hence, it is very crucial to provide an effective and efficient interface. Meanwhile, past research mentioned that the perception of consumers is influenced by several interface-related aspects which include responsive design and synchronicity (Kaatz et al., 2018), web atmospheric, (Ortiz, Friás-Jamilena, & García, 2017), efficient web atmosphere (Subrahmanya Sastry & Madhusudhana Rao, 2017; X. Zhao & Wan, 2017) and app functionality (Kaatz et al., 2018; Lee & Han, 2017). Accordingly, the grouping of elements for the quality interface has led to the proposed dimension of an interface value. Specifically, it is defined as the tradeoff between perceived benefits resulted from the use of quality interface. Moreover, shopping on mobile as well as the perceived cost of the erroneous interface or perceived risk from the faulty interface can be termed as interface value which is derived from m-commerce. The factors distinguishing m-commerce from in-store and e-commerce, such as interactivity (Storm et al., 2014; Wang et al, 2015; Wu and Husio, 2017) and effectiveness (Andrew et al., 2015; Hofacker et al., 2016) were taken into account. Furthermore,

the usability aspect of small screens and keypads of mobile devices leads to limited messaging and browsing of information and technical limitations, such as limited memory and computing power (Choi, 2018). As a result, the importance of taking interface value dimension into account was enhanced.

On the notion of customisation value, m-businesses find it difficult to convert the visitors into actual sales despite the high flow of traffic on mobile apps. For offline shopping, visitors rarely visit shops without purchase intentions compared to online shopping website visits. Hence, those who are visiting may register the actual sales if they find the experience is customised to their need and shopping style. Therefore, the personalised experience, customisation value, and contextual information emerge as the value dimensions when it comes to online shoppers (Celik & Kocaman, 2017). According to Tseng et al. (2017), the personal focus is described as the generator of self-expression value. The cross-selling and upselling of some m-commerce giants become successful with the help of customised interfaces that familiarise the habits of customers. In particular, the customer interfaces refer to web personalisation which involves shoppers' attributes or personalisation of the information or personalised services. Regarding this matter, the grouping of the similar elements under customisation value is defined as the benefits perceived by consumer from m-tailors. More importantly, the personalised shopping experience provided by m-tailors reduces the perceived risk of selecting inappropriate products/services. Mcommerce is unique due to the availability of personalisation in terms of the development of services, which customise the end-user experience (Åkesson, 2007), including the aspects of localisation, which could be used to match the services with location (Choi, 2018). Therefore, the proposed dimension of customisation value has contributed to a new aspect of CPV with a specific focus on m-commerce.

According to Goi (2016), the most influential perception elements for gamification value include mobile image recognition, app with augmented reality, and video content. Meanwhile, the factors that are related to the improvement of value include interactive and attractive features (Jung, 2018) as well as entertainment (Lim, 2015). Moreover, media richness plays a vital role and significantly influences mobile consumer's perception towards a number of elements such as app design, atmospheric interface, entertainment, and flow (Huang & Benyoucef, 2013; Maity & Dass, 2014). Initially, it was disputed whether the entertainment is preferred over quality or service; however, current empirical studies have highlighted the perceived benefits derived from gamification aspects. More importantly, the hedonic motivations and pleasurable shopping experience are considered as the key elements in generating perceived value as suggested by existing literature. Moreover, this dimension is conceptualised as

gamification value and defined as the value of pleasurable shopping which is derived from perceived benefits of enjoyable and exciting mobile shopping. The purpose is to avoid the perceived cost of boredom and hedonic demotivation which is termed as gamification value from m-commerce.

In the case of gratification value, the pleasure received from the satisfaction or achievement of desire is described as gratification and experiential gratification which is a source of perceived value (Rezaei et al., 2018), particularly in the context of mobile shopping. Furthermore, the features or innovativeness in shopping provided by m-tailors tend to impact consumer gratification (Delić et al., 2017; Madan & Yadav, 2018; Saprikis et al., 2018; Thakur & Srivastava, 2015) along with emotional ambivalence (G.-H. Huang, Korfiatis, & Chang, 2018) and compatibility (Jiménez & San-Martín, 2017). More importantly, faulty coding or design has resulted in the erroneous performance of the app with a particular context of mobile apps. Moreover, it should be noted that certain products mentioned on the web catalogue may be out of stock or unavailable in the quality needed by the consumers. Hence, this element of scarcity negatively impacts consumer gratification (Akram, Hui, Khan, Yan, & Akram, 2018). Overall, the gratification value is defined as the emotional value derived from m-business which takes into account several aspects that enhance experiential gratification.

The credibility value is described as the success of m-commerce in regard to the confirmation of the transaction instead of an online search for decision-making purposes. The profit realisation for the firms occurs when the transaction is executed by customers, thus causing the customers to be very cautious despite the wide adoption of mobile payments. Hence, this indicates the important role of trustworthiness in developing a positive perception about privacy and security (Baganzi & Lau, 2017; Kim, Kim, & Park, 2017; Madlberger, 2017; Marriott & Williams, 2018b; Ng, 2016; Rezaei et al., 2018). Moreover, this extended to the risk related to the authenticity of the products catalogued on the website, dealers, warranty, and aftersales service which are related to the purchases. The m-tailors privacy policy is seen as a key aspect of perceived risk (Chopdar, Korfiatis, Sivakumar, & Lytras, 2018; Kaatz et al., 2018; Liébana-Cabanillas, Marinkovic, Ramos de Luna, & Kalinic, 2018; Tan & Ooi, 2018) considering that the robust policy can protect the privacy of consumers, thus subsequently encouraging customers' trust towards m-tailors. The privacy aspects play a crucial role to ensure that consumers perform their shopping worry-free because the interaction is non-human in nature. In addition, various security concerns that are primarily related to payment security are also considered as the antecedents of perceived risk. Consequently, this has led to the formation of a dimension related to the overall credibility of m-tailor.

The value dimension is defined as consumers' overall assessment of the credibility of mobile shopping. Therefore, perceived trustworthiness against perceived security and privacy concerns is termed as credibility value.

In this case, social value is described as brand reputation and brand image which are among the factors that shape the perception of consumers in an online context (Chi, 2018). Brand image and social factors (Jiménez & San-Martín, 2017) along with social value (Gan & Wang, 2017) play a definite role in forming consumers' perception in mobile shopping. A strong foundation for trusting m-retailers by new consumers who purchase for the first time may be possible. However, system robustness and interface are attributed to trustworthiness, brand familiarity, brand image, and vendor reputation (San-Martín, 2017). In addition, brand equity which is formed by loyalty, association, perceived quality, and image tend to affect the perception and preference towards m-tailors with better brand equity or branded products on the catalogue. Meanwhile, social value plays an important role (Jiménez & San-Martín, 2017; Z. Sun et al., 2017) because consumers will refer to online reviews when they are not familiar with the brands. Hence, generally, it is understood that negative consumer reviews will negatively affect the perception of new consumers (von Helversen, Abramczuk, Kopeć, & Nielek, 2018). In addition, it is crucial to note that social influence and social interaction have a crucial role in forming both positive and negative perceptions (Pauzi, Thoo, Tan, Muharam, & Talib, 2017). Regarding this matter, it has been debated that the element of socialising is missing in terms of perceived cost for mobile shopping. Hence, this has motivated practitioners to work out on the methods that can include social commerce aspect in mobile shopping (Wong, Dastane, Mohd Satar, & Ma'arif, 2019). More importantly, the present study has grouped all the elements related to brand value as well as a social value. In this case, the conceptualised dimension is defined as the value derived from branding aspects and social aspects of mobile shopping. The use of social media in m-commerce facilitates the interaction of consumers with companies and other consumers who use social platforms. As this interactivity of m-commerce contributes to the diverse perception of social value among consumers (Storm et al., 2014; Wang et al, 2015; Wu and Husio, 2017), the proposed dimension of social value is suitable for m-commerce due to its incorporation of several aspects of social influence through reviews and social interaction among others.

In the convenience value, the proposed dimension is identical to the dimensions conceptualised and validated by several researchers as a factor of traditional CPV. However, two main aspects of convenience in regard to M-VAL had been tested by numerous researchers. Majority of researches emphasised the

perceived ease of use as the main factor of perceived value in the context of mobile shopping, be it desktop-based or mobile-based (Bonn et al., 2016; Eze & Poong, 2013; Roy & Moorthi, 2017; Saprikis et al., 2018). Moreover, perceived ease of use helps to provide effective functioning and greater convenience browsing (Madlberger, 2017), length of time spent while shopping (McLean, Al-Nabhani, & Wilson, 2018), time-saving (Kaatz et al., 2018), ease of ordering (Lee & Han, 2017), and ease of checking out (T. S. H. Pham & Ahammad, 2017) considering that the phenomenon of mobile shopping has been well adapted. In addition, online shopping convenience which is the second major component of this dimension was developed based on several terms such as access, search, evaluation, transaction, and post-purchase service in forming a major aspect of perceived convenience value (Abdallah & Jaleel, 2017; Jiang, Yang, & Jun, 2013; Q. T. Pham, Tran, Misra, Maskeliunas, & Damaševičius, 2018). Apart from that, online convenience is crucial in forming purchase intention and various other consequences through perceived value (Abdallah & Jaleel, 2017; Assarut & Eiamkanchanalai, 2015; Carlson et al., 2015; Duarte, Costa e Silva, & Ferreira, 2018; Fadhilla & Farmania, 2017; Mahapatra, 2017; Shaw & Sergueeva, 2017). Other aspects involve accessibility (Katta & Patro, 2017), comfort (Purwanto & Kuswandi, 2017), and facilitating conditions. Therefore, convenience value is defined as the convenience gained from shopping on mobile devices through the enhancement of perceived benefits such as shopping from anywhere and anytime. On the other hand, the simultaneous reduction of perceived cost such as slow internet or length of time spent online is termed as convenience value. The meaning of convenience in the context of mcommerce consists of several aspects, such as the constant availability of the device which stores data, enhanced the convenience of usage, contactable by consumers regardless of time and place, and limited accessibility to particular person or time (Åkesson, 2007). Considering these aspects differentiating mcommerce from other channels, the current study proposes a dimension of convenience value.

Next, economic value refers to the popularity of mobile shopping which is significantly attributed to the type of discounts offered as a result of the elimination of several channels between manufacturer and consumers. Hence, various online sales, auctions, and festive offers tend to increase the growth of mobile buying and discounts (Saricam & Erdumlu, 2017; Sinha & Singh, 2017), coupons (Reichhart, Pescher, & Spann, 2013; Sarkar & Khare, 2017; Zheng, Lee, & Cheung, 2017), and low cost products (Gupta & Arora, 2017; J. Sun & Chi, 2018) which are largely perceived as benefits by mobile shoppers. On the other hand, perceived payment risk (Park & Tussyadiah, 2017) and financial security (Zhang, Li, Wu, & Li, 2017) form part of the perceived cost or risk associated with economic aspects related to mobile shopping. Therefore, this dimension is defined as the financial gains perceived by mobile shoppers from buying on

mobile. In addition, it is able to ensure the increase of perceived benefits such as discounts or right-priced products with minimum perceived cost or perceived payment risk.

On a final note, visual value describes the aesthetics and tangibles which are the important elements of traditional CPV that affect consumers' overall perceived value (Tsai, 2017; Zhang et al., 2017). In the context of mobile shopping, media richness (M. Li, Dong, & Chen, 2012) and website atmospherics (Hasan, 2016; Lim, 2015; T. S. H. Pham & Ahammad, 2017; Sreeram, Kesharwani, & Desai, 2017) play a similar role. In this case, these factors are not just intended to provide a pleasurable shopping experience but also facilitates better decision making by ensuring richer images of products and information on several specifications. In addition, it also distinguishes m-tailors from competitors whereby atmospheric colour (Aboubaker Ettis, 2017; Faisal, Gonzalez-Rodriguez, Fernandez-Lanvin, & Andres-Suarez, 2017), visual rotation (Blazquez Cano, Perry, Ashman, & Waite, 2017), visual stimuli (Kahn, 2017), and web store appeal (Abdallah & Jaleel, 2015; Y. Liu, Li, & Hu, 2013) are those that comprised of perceived value from visual elements. Similarly, visual complexity (S. Sohn, 2017; S. Sohn, Seegebarth, & Moritz, 2017) and congruence (S. Sohn, 2017) form a part of the perceived cost. Therefore, visual value is described as the value derived from perceived benefits of the visual aspects of m-stores which is against its visual complexity and can be termed as Visual Value from m-businesses.

A total of 99 items that form the construct of M-VAL managed to be found based on the review of empirical studies. Accordingly, the items were synthesised in the above conceptual dimensions. However, it should be noted that redundancy or also known as close similarity in the meaning and repetitions of several items were removed. Hence, the remaining were grouped based on similar items and then reworded with the help of two marketing professors. Meanwhile, a few other items were reworded as required in order to get a clear interpretation, followed by the rewording of items that are presented in technical words to simplify the process of understanding. Therefore, Table 5b summarises the conceptualised ten dimensions, re-worded items, source of such items, and their proposed connotations. Next,

Table 5b:	Proposed	connotations	for M-V	VAL	dimensions
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Dimensions	Proposed Connotation
Information Value	Mobile consumers' assessment of perceived benefits received from
	information provided by mobile retailer versus the perceived cost of
	information search or perceived risk of a possible inappropriate decision
	based on misinformation by the App which can be termed as Information
	Value derived from m-businesses.
Interface Value	The trade-off between perceived benefits gained from usage of the quality
	interface while shopping on mobile as well as the perceived cost of the
	erroneous interface or perceived risk from the faulty interface which can be
	termed as Interface value derived from m-businesses.
Customization	This can be termed as benefits consumer perceived from App through
Value	personalised shopping experience provided by App which in turn reduces
	the perceived risk of selecting in-appropriate products/services.
Gamification	The value of pleasurable shopping derived from perceived benefits of
Value	enjoyable and exciting mobile shopping by avoiding the perceived cost of
	boredom and hedonic demotivation which can be termed as Gamification
	Value from m-businesses.
Gratification Value	Gratification value is defined as the emotional value derived from m-
	business considering aspects that can enhance the experiential gratification.
Credibility Value	Consumers overall assessment of the credibility of mobile shopping by
	considering perceived trustworthiness against perceived security and
	privacy concerns which can be termed as credibility value.
Social Value	The value derived from branding aspects and social aspects while shopping
	on mobile.
Convenience Value	The convenience gained by shopping on mobile through the enhancement of
	perceived benefits such as shopping from anywhere and anytime with
	simultaneous reduction of perceived cost such as slow internet or length of
	time spent online which is termed as convenience value.

Economic Value	The financial gains perceived by mobile shoppers from buying on mobile
	ensuring increased in perceived benefits such as discounts or right-priced
	products and with minimum perceived cost or perceived payment risk.
Visual Value	The value derived from perceived befits of App's visual aspects against its
	visual complexity which can be termed as Visual Value from E-businesses.

Figure 1 presents the conceptual framework and the mind map of M-VAL construct which illustrates the construct, dimensions, and elements.

# 4.3 Conceptual Model

Figure 1a – Proposed Conceptual Model



Figure 1b – M-VAL Mind map



### 4.4 Interdisciplinary Nature of M-VAL

Traditional CPV contains an interdisciplinary approach with most of the dimensions originated from economics and psychology backgrounds. However, this interdisciplinary nature is extended to multidisciplinary through the addition of dimensions from various fields such as information systems and computer system engineering. Moreover, the multidisciplinary nature extends the fields of business and psychology which leads to the M-VAL nature. Nevertheless, it has been argued that more emphasis had been given on the field of information systems in most empirical studies that investigated M-VAL. Moreover, most of the models were dominated by the technical aspects that focused on improving or creating perceived value. More importantly, it is the general tone of researchers that the M-VAL in the specific context of m-commerce is formulated mainly by technical aspects such as screen size and navigational flow. Contrastingly, the dimensions were conceptualised and classified based on the common elements. However, M-VAL was dominated by business aspects equally as the information system aspect. Nevertheless, the influence of the field of psychology cannot be ignored. Overall, the following represents the discipline-based classification of conceptualised M-VAL dimensions.





1	Information Value, Customization Value
2	Brand and Social Value, Convenience Value
3	Gamification Value, Credibility Value, Visual Value
4	Economic Value
5	Interface Value

6 Gratification Value

Nevertheless, this is a broad classification which indicates that the borders are thin considering that a particular dimension belongs to a particular discipline. Information value and customisation value are categorised under the intersect of business and information systems aspect due to the strategic nature of business management. Accordingly, a specific customisation is required, while the information system explains the type of information that is deemed appropriate to be displayed which is decided based on segment, markets, and competitions as well as how these values should be operationalised. On a similar note, brand and social value, as well as convenience value, are classified as the intersect of business and psychology aspects. Meanwhile, it is crucial to understand that branding is a business management concept, whereas social influence and status quo fall under the psychology discipline. However, convenience value is considered as the psychological outcome even though it is delivered by quality business services. Meanwhile, gamification value, credibility value, and visual value are placed as the perceptions at the intersect of information system and psychological aspect. In this case, the realisation of these values is psychological, while the operationalisation is related to information system. On another note, the business aspect is an aspect related to the business management of online retail outlets which causes the economic value to fall under this category due to its exclusivity. Similarly, interface value is dominated by the aspect of information system, while the gratification value is almost completely related to the psychological field. In conclusion, M-VAL nature refers to the union of business, information systems, and psychological aspects which are multidisciplinary and richer in dimensionality.

## **5. CONCLUSION**

This article attempts to develop a synthesis of all the possible factors stated in the previous literature, which could be incorporated to measure consumers' perceptions of value in m-commerce. In the current study, all major works in the field were thoroughly reviewed for synthesis purposes, while a framework of ten parameters was proposed for future research. An extensive review was also conducted due to its ability to determine the various aspects of the emerging empirical researches, which were carried out previously. Moreover, it should be noted that exponential growth in studies related to m-commerce was present in the last five years, where various aspects were focused on including the antecedents and consequences of M-VAL. However, due to the absence of a robust modelling of the same conceptual

clarity, the current research suggested the appropriate connotations for all ten conceptualised dimensions. The definition of M-VAL is as follows:

The assessment of overall received benefits versus the risks incurred to obtain the right information, effective interaction, appropriate customisation, enjoyable gamified browsing, gratification, social aspects, convenience, discounted products and impressive visuals while shopping on mobile devices.

It is indicated from the above conceptualisation that the dimensionality of M-VAL is richer and wider compared to the traditional CPV. Furthermore, with the classification of such dimensions, a clearer picture of the multidisciplinary nature could be developed after it is conceptualised. In this case, the conceptualisation enables the provision of an alternative theoretical foundation for future research despite the sole focus on the foundations of TAM, Seth, UTAT 1, and UTAT 11 in previous studies. Apart from that, this tentative yet inclusive set of parameters was perceived as useful for future empirical studies to develop a multidimensional multi-item scale for the measurement of M-VAL. Notably, this article may be assumed as the first attempt of reviewing CPV in the context of mobile consumers by presenting the conceptualisation of dimensions.

#### 5.1 Theoretical Contribution

Despite the growing body of research conducted in the field of CPV, the conceptualisation of perceived value from m-commerce remained unexplored. However, the current study has contributed to the literature on the relevant matter by providing an extensive review of CPV literature and conceptualisation of M-VAL. As a result, a framework of tentative yet an inclusive set of parameters was proposed through the study analysis, revealing the complexity, multidimensional, and multidisciplinary nature of perceived value from m-commerce. The major contributions of this study concerning the nature of M-VAL and its dimensions are as follows:

The current conceptualisation of this study has enriched the theory of perceived value as ten dimensions of M-VAL were proposed, namely information value, interface value, customisation value, gamification value, gratification value, credibility value, social value, convenience value, economic value, and visual value. These dimensions were proposed specifically in the context of m-commerce due to its unique characteristics, which distinguish it from the in-store and desktop-based online businesses. Meanwhile, the dimensions of information value, interface value, gamification value, credibility value, and

convenience value were the newly proposed dimensions which were not present in the current CPV literature. Besides, the names of the dimensions of social value, economical value, customisation value, gratification value, and visual value were adopted from the existing literature, extending the meaning of CPV by covering several other aspects of consumers' perceptions in m-commerce.

Despite the relation of the current CPV literature to in-store businesses, the newly proposed five dimensions were not discussed. However, several dimensions developed by previous studies in the context of e-commerce, including information value and interface value, were partially discussed in the aspect of information content (Montoya-Weiss et. al, 2003) and informativeness (Broekhuizen, 2006). Furthermore, several dimensions proposed in earlier studies consisted of experiential value (Lee and Overby, 2006) and design value (Huang et. al, 2019) which broadly cover multiple aspects of design and experience. However, current conceptualisation encompasses several aspects related to each proposed dimension, which is compatible with the unique nature of m-commerce. This relation could be further explained through convenience value as an example. The meaning of convenience offered by m-commerce consists of several aspects. To illustrate, it indicates the constant availability of the device which stores data, the increase in convenience, being able to contact the customers regardless of time and place and the choice for limited accessibility for particular person or times. As the aforementioned aspects differentiate m-commerce from traditional and e-commerce, the conceptual dimension of convenience value in this study was proposed for m-commerce.

Another contribution of this study is the proposed dimension of credibility value. The aspect of risk was emphasised in the existing CPV literature (Sanchez, 2006; Moneoe, 1991), while guarantee value, which covers guarantee policies, reliability, and security issues was highlighted by Huang et al. (2019). The current conceptualisation considered the elements related to the benefits and risks, including privacy, reliability, security, and the risks related to non-delivery of products and product quality among others, followed by the suggestion of a new dimension compatible with m-commerce. In the case of the gamification value, although previous literature discussed the elements of hedonic value (Overby & Lee, 2006) and enjoyment (Broekhuizen, 2006), a limited number of aspects were highlighted, such as entertainment, playfulness, and others. Notably, the current conceptualisation of m-commerce presented a profound meaning and proposed a new dimension of gamification value, which is enriched with particular aspects including augmented reality, innovative app features and video content among others, although these aspects are not the elements of the traditional hedonic value dimension.

The existing CPV literature discussed on the emotional value (Sweeny and Souter, 2001), comfort, and stress (Sanzes, 2006; Monroe, 1991), and term similar to emotional value was also discussed in the context of e-commerce (Carlson, O'Cass, & Ahrholdt, 2015; Kazim, Karaboga & Nezahat, 2017; Mohd-Any, Winklhofer & Ennew, 2015; Peng & Liang, 2013). Although the meaning for mobile marketing was extended by Huang et al. (2019), the same term as the emotional value was adopted in their model. In this study, the conceptualisation highlighted a range of aspects related to the perceived gratification and proposed a new dimension as the gratification value, which was richer in its context compared to the traditional dimension of emotional value.

Social value is a common and well-established dimension of CPV in the existing literature. Seth et al. (1991) developed this value dimension in the theory of consumption value, and Holbrook (1997) proposed elements such as status and self-esteem. In the case of m-commerce, it consists of a wide range of users, who subsequently form a larger segment and utility for business purpose. Although the same term as the social value was used, the dimension extended the meaning of social value by covering particular aspects including online interaction, reviews, recommendations, and trends among others. Furthermore, economic value is possibly the pioneering dimension of perceived value discussed by Ziethml (1988) in quality-price theory, while the CPV models proposed by Monroe (1991) and Sanzes (1991) conceptualised it as the monetary value, which was also a term used in m-commerce context by Huang et al. (2019). Notably, the unique aspects of m-commerce such as flash sales and discount, dynamic pricing, and many others were emphasised in the current conceptualisation.

Design value was proposed by Huang et al. (2019) in the context of mobile marketing as an extension of aesthetics (Mathwick et al., 2001) and attractiveness (Lu & Lin, 2012) of website. To be specific, effective pictorial information in small screen size and quality product images are crucial due to the limited memory and computing powers. Meanwhile, the conceptualisation in this study considered the aforementioned aspects of design and proposed the dimension of visual value. Although the element of personalisation was proposed by Åkesson (2007) in the CPV literature, this element was limited to the personalisation of services. Therefore, an extension of the CPV element was performed in this study, including the newly proposed dimension of customisation value, which encompassed multiple aspects, such as the customisation of services, information, and recommendation system among others.

Based on the discussion regarding the previous literature, it could be concluded that the ten proposed dimensions in this study were different from the dimensions in the previous models in several aspects.

Therefore, the gaps left in previous studies were filled. Notably, the study presented the first conceptualisation of CPV exclusively for m-commerce, which considered the extensive aspects of the element which distinguished m-commerce from in-store and e-commerce. Accordingly, the perception of value for this channel was analysed. Besides, after elaborating on the meaning of CPV for mobile consumers, items were generated and presented for each dimension as the important inputs in scale development studies in the future. Overall, through this extensive review and conceptualisation, a framework of a tentative yet inclusive set of parameters was proposed in this study, which was deemed useful for the development of future empirical studies.

#### 5.2 Managerial Implications

Accordingly, marketers need to comprehend the perception of value to devise viable strategies, while information system or mobile app developer has to understand the functional aspects in the process of developing the apps. Overall, it is critical to understand consumer perception of value, particularly within the context of m-commerce, as it will assist the m-commerce businesses in drafting the right value proposition for the right type of consumers. These conceptualization and synthesis of the selected constructs may help both marketers and business industry to realise what really mobile shoppers perceive as value, which in turn, may result in skilful development and delivery of offerings via mobile apps or mobile platforms. This approach goes beyond the conventional emphasis on the benefits and sacrifices of CPV by considering the literature pertaining to the entire mobile shopping process and experience comprehensively. Marketers should adopt a holistic approach in creating value for customers, in ensuring that a wider mix of value-creating elements is identified, and in integrating the identified vital aspects into the mobile platform through which the product is delivered. In light of managerial implications, this present study offers a viable framework for mobile businesses to design the right mix of value proposition by bridging the gap between customer perceptions and company value propositions.

## 5.3 Limitations

Any study is bound to have some limitations and certainly, this present study is not an exception as it bears several drawbacks, such as the extensive bibliography that leads to a complex synthesis inclusive of multiple dimensions with a number of items. It is not empirically tested, as the dimensions and the related items have a stronger influence on M-VAL. The conceptualization omitted statistical meta-analysis of such bibliography. Therefore, the conceptualized framework has to be empirically evaluated to ascertain that various dimensions can be validated. Additionally, this present study did not review the various

consequences of M-VAL, apart from a shortcoming in presenting an integrated model of M-VAL. This warrants a need for future research in this context.

#### 5.4 Future Research Scope

Future research may be directed to develop and validate the M-VAL SCALE as a multi-item and multidimensional scale for consumers' perception of m-commerce. On a more important note, the 10 unique dimensions of M-VAL conceptualized in this study serve as a foundation for scale development, validation, and further empirical research in the field. There is also a scope to select several relevant dimensions based on the industry or all 10, followed by an empirical test that presents the customized M-VAL models for various markets. Future researches also can adopt this synthesis as a foundation to build research frameworks with the aim of examining the impacts of M-VAL for a variety of m-commerce markets, segments, and industries. The proposed framework has ten dimensions and any measurement scale is ineffective if it has too many dimensions. Shorter scales are generally accurate and so future research should direct to enhance accuracy of measuring M-VAL by shortening number of dimensions.

#### **6. REFERENCES**

- Abdallah, S., & Jaleel, B. (2015). Website appeal: Development of an assessment tool and evaluation framework of e-marketing. *Journal of Theoretical and Applied Electronic Commerce Research*, *10*(3), 46–62. https://doi.org/10.4067/S0718-18762015000300005
- Abdallah, S., & Jaleel, B. (2017). Online shopping in the United Arab emirates: User web experience.
  Mobile Commerce: Concepts, Methodologies, Tools, and Applications (Vol. 2).
  https://doi.org/10.4018/978-1-5225-2599-8.ch033
- Aboubaker Ettis, S. (2017). Examining the relationships between online store atmospheric color, flow experience and consumer behavior. *Journal of Retailing and Consumer Services*, *37*, 43–55. https://doi.org/10.1016/j.jretconser.2017.03.007
- Åkesson, M. (2007). Value proposition in m-commerce: exploring service provider and user perceptions. *Proceedings of 6th Annual Global Mobility Roundtable*, 1–19.
- Akram, U., Hui, P., Khan, M. K., Yan, C., & Akram, Z. (2018). Factors affecting online impulse buying: Evidence from Chinese social commerce environment. *Sustainability (Switzerland)*, 10(2).

https://doi.org/10.3390/su10020352

- Alsheikh, L., & Bojei, J. (2013). Determinants Affecting Customer's Intention to Adopt Mobile Banking in Saudi Arabia. International Arab Journal of e-Technology.
- Anderson, J. C., & Gerbing, D. W. (1988). Structural Equation Modeling in Practice: A Review and Recommended Two-Step Approach. *Psychological Bulletin*. https://doi.org/10.1037/0033-2909.103.3.411
- Anderson, J. C., Jain, D. C., & Chintagunta, P. K. (1993). Customer Value Assessment in Business Markets: A State-of-Practice Study. *Journal of Business-to-Business Marketing*, 1(1), 3–29. https://doi.org/10.1300/J033v01n01
- Andrews, M., Goehring, J., Hui, S., Pancras, J., Thomswood, L. (2016). Mobile promotions: a framework and research priorities. J. Interact. Mark. 34, 15–24.
- AppAnnie. (2016). App Annie 2016 Retrospective.
- Assarut, R., & Eiamkanchanalai, S. (2015). Consumption values, personal characteristics and behavioural intentions in mobile shopping adoption. *Trziste*, 27(1), 21–41.
- Aulia, S. A., Sukati, I., & Sulaiman, Z. (2016). Asian Journal of Social Sciences and Management Studies A Review: Customer Perceived Value and its Dimension. Asian Journal of Social Sciences and Management Studies, 3(2), 150–162. https://doi.org/10.20448/journal.500/2016.3.2/500.2.150.162
- Baganzi, R., & Lau, A. K. W. (2017). Examining trust and risk in mobile money acceptance in Uganda. Sustainability (Switzerland), 9(12). https://doi.org/10.3390/su9122233
- Bhat, I. H., & Singh, S. (2018). Examining the moderating effect of shopping value on private-label and loyalty in Indian grocery stores. *Management and Marketing*, 13(1), 748–760. https://doi.org/10.2478/mmcks-2018-0003
- Blazquez Cano, M., Perry, P., Ashman, R., & Waite, K. (2017). The influence of image interactivity upon user engagement when using mobile touch screens. *Computers in Human Behavior*, 77, 406– 412. https://doi.org/10.1016/j.chb.2017.03.042

Bolton, R., & Drew, J. (1991). Multistage Model of Service Customers ' Quality and Value

Assessments. *Journal of Consumer Research*, 1–30. https://doi.org/10.1017/CBO9781107415324.004

- Bonn, M. A., Kim, W. G., Kang, S., & Cho, M. (2016). Purchasing Wine Online: The Effects of Social Influence, Perceived Usefulness, Perceived Ease of Use, and Wine Involvement. *Journal of Hospitality Marketing and Management*, 25(7), 841–869. https://doi.org/10.1080/19368623.2016.1115382
- Bonsón Ponte, E., Carvajal-Trujillo, E., & Escobar-Rodríguez, T. (2015). Influence of trust and perceived value on the intention to purchase travel online: Integrating the effects of assurance on trust antecedents. *Tourism Management*, 47, 286–302. https://doi.org/10.1016/j.tourman.2014.10.009
- Brady, M. K., Knight, G. A., Cronin, J. J., Tomas, G., Hult, M., & Keillor, B. D. (2005). Removing the contextual lens: A multinational, multi-setting comparison of service evaluation models. *Journal of Retailing*, 81(3), 215–230. https://doi.org/10.1016/j.jretai.2005.07.005
- Broekhuizen, T. (2006). A Conceptual Model of Channel Choice : Measuring Online and Offline Shopping Value Perceptions. Synthesis. https://doi.org/10.4135/9781452230153
- Butz, H. E., & Goodstein, L. D. (1996). Measuring customer value: Gaining a strategic advantage. *Organizational Dynamics*, 24(3), 63–77. https://doi.org/10.1016/s0090-2616(96)90006-6
- Büyüközkan, G. (2009). Determining the mobile commerce user requirements using an analytic approach. *Computer Standards & Interfaces*, 31(1), 144–152. https://doi.org/10.1016/J.CSI.2007.11.006
- Carlos Fandos Roig, J., Sanchez Garcia, J., Angel Moliner Tena, M., & Llorens Monzonis, J. (2006). Customer perceived value in banking services. *International Journal of Bank Marketing*, 24(5), 266–283. https://doi.org/10.1108/02652320610681729
- Carlson, J., O'Cass, A., & Ahrholdt, D. (2015). Assessing customers' perceived value of the online channel of multichannel retailers: A two-country examination. *Journal of Retailing and Consumer Services*. https://doi.org/10.1016/j.jretconser.2015.07.008
- Celik, H. (2016). Customer online shopping anxiety within the Unified Theory of Acceptance and Use Technology (UTAUT) framework. *Asia Pacific Journal of Marketing and Logistics*, 28(2), 278–

307. https://doi.org/10.1108/APJML-05-2015-0077

- Celik, H., & Kocaman, R. (2017). Roles of self-monitoring, fashion involvement and technology readiness in an individual's propensity to use mobile shopping. *Journal of Systems and Information Technology*, 19(3–4), 166–182. https://doi.org/10.1108/JSIT-01-2017-0008
- Chang, C., & Dibb, S. (2012). Reviewing and conceptualising customer-perceived value. *The Marketing Review*, *12*(3), 253–274. https://doi.org/10.1362/146934712X13420906885395
- Chang, C., & Dibb, S. (2013). Reviewing and conceptualising customer-perceived value. *The Marketing Review*, *12*(3), 253–274. https://doi.org/10.1362/146934712x13420906885395
- Chang, T. Z., & Wildt, A. R. (1994). Price, product information, and purchase intention: An empirical study. Journal of the Academy of Marketing Science: Official Publication of the Academy of Marketing Science, 22(1), 16–27. https://doi.org/10.1177/0092070394221002
- Chen, Y.-M., Hsu, T.-H., & Lu, Y.-J. (2018). Impact of flow on mobile shopping intention. *Journal of Retailing and Consumer Services*, *41*, 281–287. https://doi.org/10.1016/j.jretconser.2017.04.004
- Chen, Z., & Dubinsky, A. J. (2003). A Conceptual Model of Perceived Customer Value in E-Commerce: A Preliminary Investigation. *Psychology and Marketing*, 20(4), 323–347. https://doi.org/10.1002/mar.10076
- Chew, K. W., Shingi, P. M., & Ahmad, M. I. (2006). TAM derived construct of perceived customer value and online purchase behaviour: An empirical exploration. *IFIP International Federation for Information Processing*, 226, 215–227.
- Chi, T. (2018). Understanding Chinese consumer adoption of apparel mobile commerce: An extended TAM approach. *Journal of Retailing and Consumer Services*, 44, 274–284. https://doi.org/10.1016/j.jretconser.2018.07.019
- Chi, T., Kilduff, P.P. (2011). Understanding consumer perceived value of casual sportswear: an empirical study. J. Retail. Consum. Serv. 18 (5), 422–429.
- Chiu,C.M.,Wang,E.T.G.,Fang,Y.H.,Huang,H.Y.,2014.Understandingconsumers'repeatpurchaseintention sinB2Ce-commerce:therolesofutilitarianvalue,hedonic valueandperceivedrisk.Inf.Syst.J.24(1),85–114.

- Choi, S. (2018). What promotes smartphone-based mobile commerce? Mobile-specific and self-service characteristics. *Internet Research*, 28(1), 105–122. https://doi.org/10.1108/IntR-10-2016-0287
- Chopdar, P. K., Korfiatis, N., Sivakumar, V. J., & Lytras, M. D. (2018). Mobile shopping apps adoption and perceived risks: A cross-country perspective utilizing the Unified Theory of Acceptance and Use of Technology. *Computers in Human Behavior*, 86, 109–128. https://doi.org/10.1016/j.chb.2018.04.017
- Clarke Iii, I., & Harrisonburg, J. @bullet. (2001). Emerging Value Propositions for M-commerce. *Journal of Business Strategies*, 25(2), 41–57.
- Darden, W. R., & Babin, B. J. (1994). Exploring the concept of affective quality: Expanding the concept of retail personality. *Journal of Business Research*, *29*(2), 101–109. https://doi.org/10.1016/0148-2963(94)90014-0
- Day, E., & Crask, Melvin, R. (2000). Value Assessment: the antecedent of customer satisfaction. Journal of Consumer Satisfaction, Dissatisfaction and Complaining Behavior, 13.
- De Ruyter, K., Wetzels, M., Lemmink, J., & Mattson, J. (2003). The dynamics of the service delivery process: A value-based approach. *International Journal of Research in Marketing*. https://doi.org/10.1016/s0167-8116(97)00004-9
- Delić, M., Knežević, B., & Dužević, I. (2017). Factors influencing customer loyalty towards mobile commerce: The case of young retail customers in Croatia. *International Journal of Economic Perspectives*, 11(1), 314–325.
- Deloitte Touche Tohmatsu Limited. (2019). Global powers of retailing 2019. Delloite.
- Dodds, W. B., Monroe, K. B., & Grewal, D. (1991). Effects of Price, Brand, and Store Information on Buyers' Product Evaluations. *Journal of Marketing Research*, 28(3), 307–319. https://doi.org/10.1177/002224379102800305
- Duarte, P., Costa e Silva, S., & Ferreira, M. B. (2018). How convenient is it? Delivering online shopping convenience to enhance customer satisfaction and encourage e-WOM. *Journal of Retailing and Consumer Services*, 44, 161–169. https://doi.org/10.1016/j.jretconser.2018.06.007

Eggert, A., & Ulaga, W. (2002). Customer perceived value: A substitute for satisfaction in business

markets? Journal of Business & Industrial Marketing. https://doi.org/10.1108/08858620210419754

- El-adly, I.M. (2019). Modeling the relationship between hotel perceived value, customer satisfaction, and customer loyalty. J. Retail. Consum. Serv (In press, Available online July 11, 2018).
- Eze, U. C., & Poong, Y. S. (2013). The moderating roles of income and age in mobile commerce application. *Journal of Electronic Commerce in Organizations*, 11(3), 46–67. https://doi.org/10.4018/jeco.2013070103
- Eze, U. C., & Poong, Y. S. (2017). Investigating the moderating roles of age and ethnicity in mobile commerce acceptance. Mobile Commerce: Concepts, Methodologies, Tools, and Applications (Vol. 2). https://doi.org/10.4018/978-1-5225-2599-8.ch039
- Fadhilla, F., & Farmania, A. (2017). E-commerce in Indonesia: Purchasing decision of shopping online. In ACM International Conference Proceeding Series (Vol. Part F1286, pp. 60–64). https://doi.org/10.1145/3092027.3092043
- Faisal, C. M. N., Gonzalez-Rodriguez, M., Fernandez-Lanvin, D., & Andres-Suarez, J. D. (2017). Web Design Attributes in Building User Trust, Satisfaction, and Loyalty for a High Uncertainty Avoidance Culture. *IEEE Transactions on Human-Machine Systems*, 47(6), 847–859. https://doi.org/10.1109/THMS.2016.2620901
- Flint, D. J., Woodruff, R. B., & Gardial, S. F. (1997). Customer value change in industrial marketing relationships: A call for new strategies and research. *Industrial Marketing Management*. https://doi.org/10.1016/S0019-8501(96)00112-5
- Gale, B. (1994). Managing customer value: Creating quality and service that customers can see. American Journal of Business.
- Gallarza, M. G., Arteaga, F., Del Chiappa, G., Gil-Saura, I., & Holbrook, M. B. (2017). A multidimensional service-value scale based on Holbrook's typology of customer value: Bridging the gap between the concept and its measurement. *Journal of Service Management*, 28(4), 724– 762. https://doi.org/10.1108/JOSM-06-2016-0166
- Gan, C., & Wang, W. (2017). The influence of perceived value on purchase intention in social commerce context. *Internet Research*, 27(4), 772–785. https://doi.org/10.1108/IntR-06-2016-0164

- Gilbert, A. L., Sangwan, S., & Ian, H. H. M. (2005). Beyond usability: The OoBE dynamics of mobile data services markets. *Personal and Ubiquitous Computing*. https://doi.org/10.1007/s00779-004-0321-8
- Goi, C.-L. (2016). Journal of Internet Banking and Commerce Special Issue: E-commerce trends and future of E-commerce M-Commerce: Perception of Consumers in Malaysia. *Journal of Internet Banking and Commerce*, 21. Retrieved from http://www.icommercecentral.com/openaccess/mcommerce-perception-of-consumers-in-malaysia.pdf
- Grewal, D., Monroe, K. B., & Krishnan, R. (1998a). The Effects of Price-Comparison Advertising on Buyers' Perceptions of Acquisition Value, Transaction Value, and Behavioral Intentions. *Journal* of Marketing. https://doi.org/10.2307/1252160
- Grewal, D., Monroe, K. B., & Krishnan, R. (1998b). The Effects of Price-Comparison Advertising on Buyers' Perceptions of Acquisition Value, Transaction Value, and Behavioral Intentions. *Journal* of Marketing, 62(2), 46–59. https://doi.org/10.2307/1252160
- Grönroos, C. (1997). Keynote paper From marketing mix to relationship marketing towards a paradigm shift in marketing. *Management Decision*, 35(4), 322–339. https://doi.org/10.1108/00251749710169729
- Groth, J. (1995). Important factors in the sale and pricing of services. *Management Decision*, *33*, 29–34. https://doi.org/10.1108/00251749510090557
- Gupta, A., & Arora, N. (2017). Understanding determinants and barriers of mobile shopping adoption using behavioural reasoning theory. *Journal of Retailing and Consumer Services*, 36, 1–7. https://doi.org/10.1016/j.jretconser.2016.12.012
- Hasan, B. (2016). Perceived irritation in online shopping: The impact of website design characteristics. *Computers in Human Behavior*, 54, 224–230. https://doi.org/10.1016/j.chb.2015.07.056
- Havlena, W. J., & Holbrook, M. B. (2002). The Varieties of Consumption Experience: Comparing Two Typologies of Emotion in Consumer Behavior. *Journal of Consumer Research*, 13(3), 394–404. https://doi.org/10.1086/209078

Heskett, J. (2009). Creating economic value by design. International Journal of Design.

- Hofacker, C.F., De Ruyter, K., Lurie, N.H., Manchanda, P., Donaldson, J. (2016). Gamification and mobile marketing effectiveness. J. Interact. Mark. 34, 25–36.
- Holbrook, Moris B. (1994). The Nature of Customer Value: An Axiology of Services in the Consumption Experience. In Service Quality: New Directions in Theory and Practice. https://doi.org/http://dx.doi.org/10.4135/9781452229102
- Holbrook, Morris B. (1994). The Nature of Customer Value: An Axiology of Services in the Consumption Experience. In Service Quality: New Directions in Theory and Practice (pp. 21–71). https://doi.org/10.4135/9781452229102.n2
- Holbrook, Morris B., & Corfman, K. (1985). Quality and Value in the consumption experience: Phaldrus rides again. In *Perceived Quality* (pp. 31–57).
- Holmes, A., Byrne, A., & Rowley, J. (2014). Mobile shopping behaviour: Insights into attitudes, shopping process involvement and location. *International Journal of Retail and Distribution Management*, 42(1), 25–39. https://doi.org/10.1108/IJRDM-10-2012-0096
- Hsiao, K.L., Chen, C.C. (2016). What drives in-app purchase intention for mobile games? An examination of perceived values and loyalty. Electron. Commer. Res. Appl. 16, 18–29.
- Huang, G.-H., Korfiatis, N., & Chang, C.-T. (2018). Mobile shopping cart abandonment: The roles of conflicts, ambivalence, and hesitation. *Journal of Business Research*, 85, 165–174. https://doi.org/10.1016/j.jbusres.2017.12.008
- Huang, L., Mou, J., See-To, E. W., & Kim, J. (2019). Consumer perceived value preferences for mobile marketing in China: A mixed method approach. *Journal of Retailing and Consumer Services*, 48, 70-86.
- Huang, Z., & Benyoucef, M. (2013). From e-commerce to social commerce: A close look at design features. *Electronic Commerce Research and Applications*, 12(4), 246–259. https://doi.org/10.1016/j.elerap.2012.12.003
- Huber, J., Lynch, J., Corfman, K., Feldman, J., Holbrook, M. B., Lehmann, D., ... Simonson, I. (1997). Thinking about values in prospect and retrospect: Maximizing experienced utility. *Marketing Letters*, 8(3), 323–334. https://doi.org/10.1023/A:1007964630841

- Iacobucci, D., Ostrom, A., & Grayson, K. (1995). Distinguishing Service Quality and Customer Satisfaction: The Voice of the Consumer. *Journal of Consumer Psychology*, 4(3), 277–303. https://doi.org/10.1207/s15327663jcp0403\_04
- Izquierdo-Yusta, A., Olarte-Pascual, C., Reinares-Lara, E. (2015). Attitudes toward mobile advertising among users versus non-users of the mobile Internet. Telemat. Inform. 32 (2), 355–366.
- Jaminson, M. (2018, December 18). Payments technology trends to watch in 2019: How AI, Millennials and chatbots will shape the future of payments. Retrieved from https://usa.visa.com/visaeverywhere/blog/bdp/2018/12/18/payments\_technology-CZYI.html
- Jiang, L. A., Yang, Z., & Jun, M. (2013). Measuring consumer perceptions of online shopping convenience. *Journal of Service Management*, 24(2), 191–214. https://doi.org/10.1108/09564231311323962
- Jiménez, N., & San-Martín, S. (2017). Attitude toward m-advertising and m-repurchase. European Research on Management and Business Economics, 23(2), 96–102. https://doi.org/10.1016/j.iedeen.2016.12.001
- Kaatz, C., Brock, C., & Blut, M. (2018). Developing a Conceptualization of Mobile Service Quality. In ICIS 2017: Transforming Society with Digital Innovation.
- Kahn, B. E. (2017). Using Visual Design to Improve Customer Perceptions of Online Assortments. *Journal of Retailing*, 93(1), 29–42. https://doi.org/10.1016/j.jretai.2016.11.004
- Kang, J.-Y. M. (2014). Augmented reality and motion capture apparel e-shopping values and usage intention. *International Journal of Clothing Science and Technology*, 26(6), 486–499. https://doi.org/10.1108/IJCST-05-2013-0055
- Kantamneni, S. P., & Coulson, K. R. (1996). MEASURING PERCEIVED VALUE: FINDINGS FROM PRELIMINARY RESEARCH. *Journal of Marketing Management*, 6(2), 72–86.
- Katta, R. M. R., & Patro, C. S. (2017). Influence of web attributes on consumer purchase intentions. *International Journal of Sociotechnology and Knowledge Development*, 9(2), 1–16. https://doi.org/10.4018/IJSKD.2017040101

Karjaluoto, H., Shaikh, A. A., Saarijärvi, H., & Saraniemi, S. (2019). How perceived value drives the

use of mobile financial services apps. *International Journal of Information Management*, 47, 252-261.

- Kazim, Karaboga; Nezahat, K. A. E. Y. (2017). A Study on Online Shopping Sites from the Perspective of Perceived Value and Perceived Customer Satisfaction. *Journal of Knowledge Management*, *Economics and Information Technology*, VII(6), 1–32.
- Kim, S. Y., Kim, J. U., & Park, S. C. (2017). The effects of perceived value, website trust and hotel trust on online hotel booking intention. *Sustainability (Switzerland)*, 9(12). https://doi.org/10.3390/su9122262
- Knežević, B., & Delić, M. (2017). Young consumers' perception of problems and usefulness of mobile shopping applications. *Entrepreneurial Business and Economics Review*, 5(1), 43–58. https://doi.org/10.15678/EBER.2017.050103
- Koller, M., Floh, A., Zauner, A. (2011). Further insights into perceived value and consumer loyalty: a 'green' perspective. Psychol. Mark. 28 (12), 1154–1176.
- KPMG. (2019). Global Consumer & Retail change the rules of document please contact Dev KPMG International Global Table of contents. Retrieved from https://assets.kpmg/content/dam/kpmg/xx/pdf/2019/02/global-retail-trends-2019-web.pdf
- Kuikka, A., Laukkanen, T. (2012). Brand loyalty and the role of hedonic value. J. Product. Brand Manag. 21 (7), 529–537.
- Lapierre, J. (2000). Customer-perceived value in industrial contexts. *Journal of Business & Industrial Marketing*, 15(2/3), 122–145. https://doi.org/10.1108/08858620010316831
- Lee, E., & Han, S. (2017). Mobile service consumption values: an exploratory mixed-method study. *Information Technology and Management*, 18(4), 253–264. https://doi.org/10.1007/s10799-016-0263-7
- Leppäniemi, M., Karjaluoto, H., & Saarijärvi, H. (2017). Customer perceived value, satisfaction, and loyalty: the role of willingness to share information. *The International Review of Retail, Distribution and Consumer Research*, 27(2), 164–188. https://doi.org/10.1080/09593969.2016.1251482

- Leroi-Werelds, S., Streukens, S., Brady, M.K., Swinnen, G. (2014). Assessing the value of commonly used methods for measuring consumer value: a multi-setting empirical study. J. Acad. Mark. Sci. 42 (4), 430–451.
- Li, G., Li, G., & Kambele, Z. (2012). Luxury fashion brand consumers in China: Perceived value, fashion lifestyle, and willingness to pay. *Journal of Business Research*, 65(10), 1516–1522. https://doi.org/10.1016/j.jbusres.2011.10.019
- Li, M., Dong, Z. Y., & Chen, X. (2012). Factors influencing consumption experience of mobile commerce: A study from experiential view. *Internet Research*, 22(2), 120–141. https://doi.org/10.1108/10662241211214539
- Liao, Z., & Shi, X. (2017). Web functionality, web content, information security, and online tourism service continuance. *Journal of Retailing and Consumer Services*, 39, 258–263. https://doi.org/10.1016/j.jretconser.2017.06.003
- Liébana-Cabanillas, F., Marinkovic, V., Ramos de Luna, I., & Kalinic, Z. (2018). Predicting the determinants of mobile payment acceptance: A hybrid SEM-neural network approach. *Technological Forecasting and Social Change*, 129, 117–130. https://doi.org/10.1016/j.techfore.2017.12.015
- Liébana-Cabanillas, F., Muñoz-Leiva, F., & Rejón-Guardia, F. (2013). The determinants of satisfaction with e-banking. *Industrial Management and Data Systems*, 113(5), 750–767. https://doi.org/10.1108/02635571311324188
- Lim, W. M. (2015). Antecedents and consequences of e-shopping: An integrated model. *Internet Research*, 25(2), 184–217. https://doi.org/10.1108/IntR-11-2013-0247
- Liu, A. H., Leach, M. P., & Bernhardt, K. L. (2005). Examining customer value perceptions of organizational buyers when sourcing from multiple vendors. *Journal of Business Research*. https://doi.org/10.1016/j.jbusres.2003.09.010
- Liu, Y., Li, H., & Hu, F. (2013). Website attributes in urging online impulse purchase: An empirical investigation on consumer perceptions. *Decision Support Systems*, 55(3), 829–837. https://doi.org/10.1016/j.dss.2013.04.001

Lu, H.-P., & Lin, K.-Y. (2012). Factors influencing online auction sellers' intention to pay: An empirical

study integrating network externalities with perceived value. *Journal of Electronic Commerce Research*.

- Madan, K., & Yadav, R. (2018). Understanding and predicting antecedents of mobile shopping adoption. Asia Pacific Journal of Marketing and Logistics, 30(1), 139–162. https://doi.org/10.1108/APJML-02-2017-0023
- Madlberger, M. (2017). Booking high-complex travel products on the internet: The role of trust, convenience, and attitude. Lecture Notes in Business Information Processing (Vol. 296). https://doi.org/10.1007/978-3-319-69644-7\_14
- Mahapatra, S. (2017). Mobile shopping among young consumers: an empirical study in an emerging market. *International Journal of Retail and Distribution Management*, 45(9), 930–949. https://doi.org/10.1108/IJRDM-08-2016-0128
- Maity, M., & Dass, M. (2014). Consumer decision-making across modern and traditional channels: Ecommerce, m-commerce, in-store. *Decision Support Systems*, 61, 34–46. https://doi.org/10.1016/j.dss.2014.01.008
- Marriott, H. R., & Williams, M. D. (2018a). Exploring consumers perceived risk and trust for mobile shopping: A theoretical framework and empirical study. *Journal of Retailing and Consumer Services*, 42, 133–146. https://doi.org/10.1016/j.jretconser.2018.01.017
- Marriott, H. R., & Williams, M. D. (2018b). Journal of Retailing and Consumer Services Exploring consumers perceived risk and trust for mobile shopping : A theoretical framework and empirical study ☆. *Journal of Retailing and Consumer Services*, 42(January), 133–146. https://doi.org/10.1016/j.jretconser.2018.01.017
- Matemba, E. D., & Li, G. (2018). Consumers' willingness to adopt and use WeChat wallet: An empirical study in South Africa. *Technology in Society*, 53, 55–68. https://doi.org/10.1016/j.techsoc.2017.12.001
- Mathwick, C., Malhotra, N., & Rigdon, E. (2001). Experiential value: Conceptualization, measurement and application in the catalog and Internet shopping environment. *Journal of Retailing*, 77(1), 39– 56. https://doi.org/10.1016/S0022-4359(00)00045-2

Mattsson, J. (1992). A Service Quality Model Based on an Ideal Value Standard. International Journal

of Service Industry Management, 3(3), 18-33. https://doi.org/10.1108/09564239210015148

- McKay-Nesbitt, J., Ryan, C., & Yoon, S. (2018). College students' online purchase attitudes and intentions: Gender, product type, and risk. *International Journal of Electronic Marketing and Retailing*, 9(3), 207–229. https://doi.org/10.1504/IJEMR.2018.092693
- McLean, G., Al-Nabhani, K., & Wilson, A. (2018). Developing a Mobile Applications Customer Experience Model (MACE)- Implications for Retailers. *Journal of Business Research*, 85, 325– 336. https://doi.org/10.1016/j.jbusres.2018.01.018
- Miao, R., Xu, F.S., Zhang, K., Jiang, Z.B. (2014). Development of a multi-scale model for consumer perceived value of electric vehicles. Int. J. Prod. Res. 52 (16), 4820–4834.
- Mohd-Any, A. A., Winklhofer, H., & Ennew, C. (2015). Measuring Users' Value Experience on a Travel Website (e-Value): What Value Is Cocreated by the User? *Journal of Travel Research*, 54(4), 496–510. https://doi.org/10.1177/0047287514522879
- Molinillo, S., Gómez-Ortiz, B., Pérez-Aranda, J., & Navarro-García, A. (2017). Building Customer Loyalty: The Effect of Experiential State, the Value of Shopping, and Trust and Perceived Value of Service on Online Clothes Shopping. *Clothing and Textiles Research Journal*, 35(3), 156–171. https://doi.org/10.1177/0887302X17694270
- Monroe, V., & Chapman, J. D. (1987a). Framing Effects on Buyers' Subjective Product Evaluations. Advances in Consumer Research, 14, 193–197.
- Monroe, V., & Chapman, J. D. (1987b). Framing Effects on Buyers' Subjective Product Evaluations. Advances in Consumer Research.
- Montoya-Weiss, M. M., Voss, G. B., & Grewal, D. (2003). Determinants of Online Channel Use and Overall Satisfaction with a Relational, Multichannel Service Provider. *Journal of the Academy of Marketing Science*, 31(4), 448–558. https://doi.org/10.1177/0092070303254408
- Ng, M. (2016). Examining factors affecting mobile commerce adoption of Chinese consumers. *International Journal of Electronic Business*, 13(1), 98–115. https://doi.org/10.1504/IJEB.2016.075357

Oliver, G., & Wardle, J. (1999). Perceived effects of stress on food choice. Physiology and Behavior,

66(3), 511–515. https://doi.org/10.1016/S0031-9384(98)00322-9

- Ortiz, C. M. S., Friás-Jamilena, D. M., & García, J. A. C. (2017). Overall perceived value of a tourism service: Analysing the spillover effect between electronic channel and consumption of the hotel service. *Tourism and Hospitality Research*, 17(2), 217–227. https://doi.org/10.1177/1467358415613410
- Overby, J. W., & Lee, E.-J. (2006). The effects of utilitarian and hedonic online shopping value on consumer preference and intentions. *Journal of Business Research*, 59(10–11), 1160–1166. https://doi.org/10.1016/j.jbusres.2006.03.008
- Oxenfeldt, A. R., & Monroe, K. B. (1990). Pricing: Making Profitable Decisions. *Journal of Marketing*, 44(1). https://doi.org/10.2307/1250041
- Pappas, I. O., Kourouthanassis, P. E., Giannakos, M. N., & Lekakos, G. (2017). The interplay of online shopping motivations and experiential factors on personalized e-commerce: A complexity theory approach. *Telematics and Informatics*, 34(5), 730–742. https://doi.org/10.1016/j.tele.2016.08.021
- Pappas, N. (2017). Effect of marketing activities, benefits, risks, confusion due to over-choice, price, quality and consumer trust on online tourism purchasing. *Journal of Marketing Communications*, 23(2), 195–218. https://doi.org/10.1080/13527266.2015.1061037
- Parasuraman, A., & Grewal, D. (2000). Serving customers and consumers effectively in the twenty-first century: A conceptual framework and overview. *Journal of the Academy of Marketing Science*. https://doi.org/10.1177/0092070300281001
- Park, S., & Tussyadiah, I. P. (2017). Multidimensional Facets of Perceived Risk in Mobile Travel Booking. *Journal of Travel Research*, 56(7), 854–867. https://doi.org/10.1177/0047287516675062
- Pauzi, S. F. F., Thoo, A. C., Tan, L. C., Muharam, F. M., & Talib, N. A. (2017). Factors Influencing Consumers Intention for Online Grocery Shopping - A Proposed Framework. In *IOP Conference Series: Materials Science and Engineering* (Vol. 215). https://doi.org/10.1088/1757-899X/215/1/012013
- Peng, L., & Liang, S. (2013). The effects of consumer perceived value on purchase intention in ecommerce platform: A time-limited promotion perspective. In *Proceedings of the International Conference on Electronic Business (ICEB)*.

- Petrick, J. F. (2002). Development of a multi-dimensional scale for measuring the perceived value of a service. *Journal of Leisure Research*, 34(2), 119–134. https://doi.org/http://js.sagamorepub.com/jlr/article/view/625
- Pham, Q. T., Tran, X. P., Misra, S., Maskeliunas, R., & Damaševičius, R. (2018). Relationship between convenience, perceived value, and repurchase intention in online shopping in Vietnam. *Sustainability (Switzerland)*, 10(1). https://doi.org/10.3390/su10010156
- Pham, T. S. H., & Ahammad, M. F. (2017). Antecedents and consequences of online customer satisfaction: A holistic process perspective. *Technological Forecasting and Social Change*, 124, 332–342. https://doi.org/10.1016/j.techfore.2017.04.003
- Pihlström, M., & Brush, G. J. (2008). Comparing the perceived value of information and entertainment mobile services. *Psychology and Marketing*, 25(8), 732–755. https://doi.org/10.1002/mar.20236
- Punyatoya, P., Satpathy, A., & Agrawal, A. (2018). Factors driving consumer loyalty intention towards e-tailers: An integrated model. *International Journal of Business Information Systems*, 27(4), 466– 492. https://doi.org/10.1504/IJBIS.2018.090288
- Pura, M., & Gummerus, J. (2007). Discovering Perceived Value of Mobile Services. Working Papers.
- Purwanto, & Kuswandi, K. (2017). Effects of flexibility and interactivity on the perceived value of and satisfaction with e-commerce (evidence from Indonesia). *Trziste*, 29(2), 139–159. https://doi.org/10.22598/mt/2017.29.2.139
- Puustinen, P., Maas, P., & Karjaluoto, H. (2013). Development and validation of the Perceived Investment Value (PIV) scale. *Journal of Economic Psychology*, *36*, 41–51. https://doi.org/10.1016/j.joep.2013.02.009
- Reichhart, P., Pescher, C., & Spann, M. (2013). A comparison of the effectiveness of e-mail coupons and mobile text message coupons for digital products. *Electronic Markets*, 23(3), 217–225. https://doi.org/10.1007/s12525-013-0129-3
- Rezaei, S., & Amin, M. (2013). Exploring online repurchase behavioural intention of university students in Malaysia. *Journal for Global Business Advancement*, 6(2), 92–119. https://doi.org/10.1504/JGBA.2013.053561

- Rezaei, S., Chandran, R., & Oh, Y. M. (2018). Pre-purchase user perceptions of attributes and postpurchase attitudes in building successful online retail promotional strategies. Digital Marketing and Consumer Engagement: Concepts, Methodologies, Tools, and Applications. https://doi.org/10.4018/978-1-5225-5187-4.ch019
- Ries, A., & Trout, J. (1993). The 22 immutable laws of marketing: Violate them at your own risk. New York, NY: HarperBusiness.
- Roy, S., & Moorthi, Y. L. R. (2017). Technology readiness, perceived ubiquity and M-commerce adoption: The moderating role of privacy. *Journal of Research in Interactive Marketing*, 11(3), 268–295. https://doi.org/10.1108/JRIM-01-2016-0005
- San-Martín, S. (2017). Are signals a solution to perceived risk and opportunism in mobile shopping?: Gender differences and similarities. Mobile Commerce: Concepts, Methodologies, Tools, and Applications (Vol. 3). https://doi.org/10.4018/978-1-5225-2599-8.ch065
- Sanchez-Fernandez, R., & Iniesta-Bonillo, M. A. (2007). The concept of perceived value: a systematic review of the research. *Marketing Theory*. https://doi.org/10.1177/1470593107083165
- Sánchez, J., Callarisa, L., Rodríguez, R. M., & Moliner, M. A. (2006). Perceived value of the purchase of a tourism product. *Tourism Management*, 27(3), 394–409. https://doi.org/10.1016/j.tourman.2004.11.007
- Saprikis, V., Markos, A., Zarmpou, T., & Vlachopoulou, M. (2018). Mobile shopping consumers' behavior: An exploratory study and review. *Journal of Theoretical and Applied Electronic Commerce Research*, 13(1), 71–90. https://doi.org/10.4067/S0718-18762018000100105
- Saricam, C., & Erdumlu, N. (2017). Determination of priorities in apparel purchasing from private sale websites. *Autex Research Journal*, 17(4), 386–394. https://doi.org/10.1515/aut-2016-0038
- Sarkar, S., & Khare, A. (2017). Moderating effect of price perception on factors affecting attitude towards online shopping. *Journal of Marketing Analytics*, 5(2), 68–80. https://doi.org/10.1057/s41270-017-0018-2
- Shang, D., & Wu, W. (2017). Understanding mobile shopping consumers' continuance intention. Industrial Management & Data Systems, 117(1), 213–227. https://doi.org/10.1108/IMDS-02-2016-0052

- Shankar, V., Kleijnen, M., Ramanathan, S., Rizley, R., Holland, S., Morrissey, S. (2016). Mobile shopper marketing: key issues, current insights, and future research avenues. J. Interact. Mark. 34, 37–48.
- Shaw, N., & Sergueeva, K. (2017). Mobile shopping should be useful, convenient and fun! Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics) (Vol. 10294 LNCS). https://doi.org/10.1007/978-3-319-58484-3\_7
- Sheth, J. N., Newman, B. I., & Gross, B. L. (1991). Why we buy what we buy: A theory of consumption values. *Journal of Business Research*, 22(2), 159–170. https://doi.org/10.1016/0148-2963(91)90050-8
- Shukairy, A. (2017). *Mobile Commerce Statistics and Trends [Infographic]. Invespcro.* Retrieved from https://www.invespcro.com/blog/mobile-commerce/
- Sinha, P., & Singh, S. (2017). Comparing risks and benefits for the value enhancement of online purchases. *Gadjah Mada International Journal of Business*, 19(3), 307–326. https://doi.org/10.22146/gamaijb.10512
- Smith, J. B., & Colgate, M. (2007). Customer Value Creation: A Practical Framework. *Journal of Marketing Theory and Practice*, 15(1), 7–23. https://doi.org/10.2753/MTP1069-6679150101
- Sohn, S. (2017). Consumer processing of mobile online stores: Sources and effects of processing fluency. *Journal of Retailing and Consumer Services*, 36, 137–147. https://doi.org/10.1016/j.jretconser.2017.01.008
- Sohn, S., Seegebarth, B., & Moritz, M. (2017). The Impact of Perceived Visual Complexity of Mobile Online Shops on User's Satisfaction. *Psychology and Marketing*, 34(2), 195–214. https://doi.org/10.1002/mar.20983
- Sohn, Stefanie. (2017). A contextual perspective on consumers' perceived usefulness: The case of mobile online shopping. *Journal of Retailing and Consumer Services*, 38, 22–33. https://doi.org/10.1016/j.jretconser.2017.05.002
- Sreeram, A., Kesharwani, A., & Desai, S. (2017). Factors affecting satisfaction and loyalty in online grocery shopping: an integrated model. *Journal of Indian Business Research*, 9(2), 107–132. https://doi.org/10.1108/JIBR-01-2016-0001

- STATISTA (2019). M-Commerce Statistics and Market Data. Retrieved from https://www.statista.com/stats/m-commerce
- Stocchi, L., Cuerini, C., Michaelidou, N. (2017). When are apps worth paying for? How marketers can analyze the market performance of mobile apps. J. Advert. Res. 57 (3), 260–271.
- Ström, R., Vendel, M., Bredican, J. (2014). Mobile marketing: a literature review on its value for consumers and retailers. J. Retail. Consum. Serv. 21 (6), 1001–1012.
- Subrahmanya Sastry, T. D. V. R., & Madhusudhana Rao, B. (2017). Consumer perception about the influence of online retail service quality on e-satisfaction, moderated by purchase volume and perceived value. *Journal of Business and Retail Management Research*, *12*(1), 178–188. Retrieved from https://www.scopus.com/inward/record.uri?eid=2-s2.0-85030633469&partnerID=40&md5=b0f09c97ef7d40e9c065bb04506d985d
- Sun, J., & Chi, T. (2018). Key factors influencing the adoption of apparel mobile commerce: an empirical study of Chinese consumers. *The Journal of The Textile Institute*, 109(6), 785–797. https://doi.org/10.1080/00405000.2017.1371828
- Sun, Z., Ji, Z., Zhang, P., Chen, C., Qian, X., Du, X., & Wan, Q. (2017). Automatic labeling of mobile apps by the type of psychological needs they satisfy. *Telematics and Informatics*, 34(5), 767–778. https://doi.org/10.1016/j.tele.2017.03.001
- Sweeney, J. C., & Soutar, G. N. (2001). Consumer perceived value: The development of a multiple item scale. *Journal of Retailing*, 77(2), 203–220. https://doi.org/10.1016/S0022-4359(01)00041-0
- Sweeney, J. C., Soutar, G. N., & Johnson, L. W. (1999). The role of perceived risk in the quality-value relationship: A study in a retail environment. *Journal of Retailing*, 75(1), 77–105. https://doi.org/10.1016/S0022-4359(99)80005-0
- Tan, G. W. H., & Ooi, K. B. (2018). Gender and age: Do they really moderate mobile tourism shopping behavior? *Telematics and Informatics*. https://doi.org/10.1016/j.tele.2018.04.009
- Tang, H., Liao, S.S., Sun, S.X. (2013). A prediction framework based on contextual data to support mobile personalized marketing. Decis. Support Syst. 56 (1), 234–246.
- Thakur, R., & Srivastava, M. (2014). Adoption readiness, personal innovativeness, perceived risk and

usage intention across customer groups for mobile payment services in India. *Internet Research*, 24(3), 369–392. https://doi.org/10.1108/IntR-12-2012-0244

- Thakur, R., & Srivastava, M. (2015). A study on the impact of consumer risk perception and innovativeness on online shopping in India. *International Journal of Retail and Distribution Management*, 43(2), 148–166. https://doi.org/10.1108/IJRDM-06-2013-0128
- Tranfield, D., Denyer, D., & Smart, P. (2003). Towards a Methodology for Developing Evidence-Informed Management Knowledge by Means of Systematic Review. *British Journal of Management*. https://doi.org/10.1111/1467-8551.00375
- Tsai, S.-P. (2017). E-loyalty driven by website quality: The case of destination marketing organization websites. *Journal of Organizational Computing and Electronic Commerce*, 27(3), 262–279. https://doi.org/10.1080/10919392.2017.1331674
- Tseng, F.-C., Cheng, T. C. E., Li, K., & Teng, C.-I. (2017). How does media richness contribute to customer loyalty to mobile instant messaging? *Internet Research*, 27(3), 520–537. https://doi.org/10.1108/IntR-06-2016-0181
- Twitter. (2019). Mobile Commerce: Southeast Asia 2019 Edition. https://doi.org/10.4018/978-1-59904-558-0
- von Helversen, B., Abramczuk, K., Kopeć, W., & Nielek, R. (2018). Influence of consumer reviews on online purchasing decisions in older and younger adults. *Decision Support Systems*, 113, 1–10. https://doi.org/10.1016/j.dss.2018.05.006
- Voss, G. B., Parasuraman, A., & Grewal, D. (1998). The Roles of Price, Performance, and Expectations in Determining Satisfaction in Service Exchanges. *Journal of Marketing*. https://doi.org/10.2307/1252286
- Wang, J.H., Malthouse, E.C., Krishnamurthi, L. (2015). On the go: how mobile shopping affects consumer purchase behavior. J. Retail. 91 (2), 217–234.
- Wang, J.J., Wang, L.Y., Wang, M.M. (2018). Understanding the effects of eWOM social ties on purchase intentions: a moderated mediation investigation. Electron. Commer. Res. Appl. 28, 54–62.

Wang, Y., Lo, H. P., & Hui, Y. V. (2003). The antecedents of service quality and product quality and

their influences on bank reputation: Evidence from the banking industry in China. *Managing Service Quality: An International Journal*. https://doi.org/10.1108/09604520310456726

- Williams, P., Soutar, G.N. (2009). Value, satisfaction and behavioral intentions in an adventure tourism context. Ann. Tour. Res. 36 (3), 413–438.
- Wong, W. S., Dastane, O., Mohd Satar, N. S., & Ma'arif, M. Y. (2019). What Wechat Can Learn From Whatsapp? Customer Value Proposition Development for Mobile Social Networking (MSN) Apps: a Case Study Approach. *Journal of Theoretical and Applied Information Technology (JATIT)*, 97(4), 1091–1117. Retrieved from http://www.jatit.org/volumes/Vol97No4/4Vol97No4.pdf
- Woodall, T. (2003). Conceptualising Value for the Customer: An Attributional, Structural and Dispositional Analysis. *Academy of Marketing Science Review Review*, *12*(12).
- Woodruff, R. B. (1997). Customer value: The next source for competitive advantage. *Journal of the Academy of Marketing Science*, 25, 139. https://doi.org/10.1007/BF02894350
- Wu, I.L., Hsiao, W.H. (2017). Involvement, content and interactivity drivers for consumer loyalty in mobile advertising: the mediating role of advertising value. Int. J. Mob. Commun. 15 (6), 577–603.
- Xu-Priour, D. L., Cliquet, G., & Palmer, A. (2017). The Influence of Buyers' Time Orientation on Online Shopping Behavior: A Typology. *International Journal of Electronic Commerce*, 21(3), 299–333. https://doi.org/10.1080/10864415.2016.1319206
- Yim, M. Y.-C., Yoo, S.-C., Sauer, P. L., & Seo, J. H. (2014). Hedonic shopping motivation and coshopper influence on utilitarian grocery shopping in superstores. *Journal of the Academy of Marketing Science*, 42(5), 528–544. https://doi.org/10.1007/s11747-013-0357-2
- Yang, S., Jiang, H., Yao, J., Chen, Y., Wei, J. (2018). Perceived values on mobile GMS continuance: a perspective from perceived integration and interactivity. Comput. Hum. Behav. 89, 16–26.
- Yuan, S., Liu, Y., Yao, R., & Liu, J. (2016). An investigation of users' continuance intention towards mobile banking in China. *Information Development*, 32(1), 20–34. https://doi.org/10.1177/0266666914522140
- Zauner, A., Koller, M., & Hatak, I. (2015). Customer perceived value—Conceptualization and avenues for future research. *Cogent Psychology*. https://doi.org/10.1080/23311908.2015.1061782

- Zboja, J.J., Laird, M.D., Bouchet, A. (2016). The moderating role of consumer entitlement on the relationship of value with consumer satisfaction. J. Consum. Behav. 15 (3), 216–224.
- Zeithaml & Bitner. (1996). Service quality in public service. *International Journal of Marketing and Marketing Research*.
- Zeithaml, V. A. (1988). Consumer Perceptions of Price, Quality, and Value: A Means-End Model and Synthesis of Evidence. *Journal of Marketing*. https://doi.org/10.2307/1251446
- Zhang, C.-B., Li, Y.-N., Wu, B., & Li, D.-J. (2017). How WeChat can retain users: Roles of network externalities, social interaction ties, and perceived values in building continuance intention. *Computers in Human Behavior*, 69, 284–293. https://doi.org/10.1016/J.CHB.2016.11.069
- Zhao, D. (2011). Evaluating the customer perceived value of B2C websites from the aspect of online consumers. In *Proceedings - 2011 4th International Conference on Business Intelligence and Financial Engineering*, *BIFE 2011*. https://doi.org/10.1109/BIFE.2011.58
- Zhao, X., & Wan, H. L. (2017). Drivers of online purchase intention on Singles' Day: A study of Chinese consumers. *International Journal of Electronic Marketing and Retailing*, 8(1), 1–20. https://doi.org/10.1504/IJEMR.2017.083546
- Zheng, X., Lee, M., & Cheung, C. M. K. (2017). Examining e-loyalty towards online shopping platforms: The role of coupon proneness and value consciousness. *Internet Research*, 27(3), 709– 726. https://doi.org/10.1108/IntR-01-2016-0002