

Thanh Hoai Nguyen; Hai Quynh Ngo; Thu Trang D<sup>1</sup>/<sub>2</sub><sup>1</sup>/<sub>4</sub>ng

**Article**

## Motivations influencing virtual supermarket shopping: An exploratory study using means-end chains analysis

Cogent Business & Management

**Provided in Cooperation with:**

Taylor & Francis Group

*Suggested Citation:* Thanh Hoai Nguyen; Hai Quynh Ngo; Thu Trang D<sup>1</sup>/<sub>2</sub><sup>1</sup>/<sub>4</sub>ng (2021) : Motivations influencing virtual supermarket shopping: An exploratory study using means-end chains analysis, Cogent Business & Management, ISSN 2331-1975, Taylor & Francis, Abingdon, Vol. 8, Iss. 1, pp. 1-16,  
<https://doi.org/10.1080/23311975.2021.1954491>

This Version is available at:

<https://hdl.handle.net/10419/245096>

**Standard-Nutzungsbedingungen:**

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

**Terms of use:**

*Documents in EconStor may be saved and copied for your personal and scholarly purposes.*

*You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.*

*If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.*



<https://creativecommons.org/licenses/by/4.0/>

# Motivations influencing virtual supermarket shopping: An exploratory study using means-end chains analysis

Thanh Hoai Nguyen, Hai Quynh Ngo & Thu Trang Dương |

To cite this article: Thanh Hoai Nguyen, Hai Quynh Ngo & Thu Trang Dương | (2021) Motivations influencing virtual supermarket shopping: An exploratory study using means-end chains analysis, Cogent Business & Management, 8:1, 1954491, DOI: [10.1080/23311975.2021.1954491](https://doi.org/10.1080/23311975.2021.1954491)

To link to this article: <https://doi.org/10.1080/23311975.2021.1954491>



© 2021 The Author(s). This open access article is distributed under a Creative Commons Attribution (CC-BY) 4.0 license.



Published online: 03 Aug 2021.



Submit your article to this journal [↗](#)



Article views: 584



View related articles [↗](#)



View Crossmark data [↗](#)



Received: 14 April 2021  
Accepted: 24 June 2021

\*Corresponding author: Thanh Hoai Nguyen, Vietnam-Korea University of Information and Communication Technology, the University of Danang, Danang, Vietnam  
E-mail: [nthoai@vku.udn.vn](mailto:nthoai@vku.udn.vn)

Reviewing editor:  
Ogechi Adeola, Marketing, Lagos Business School, Nigeria

Additional information is available at the end of the article

## MARKETING | RESEARCH ARTICLE

# Motivations influencing virtual supermarket shopping: An exploratory study using means-end chains analysis

Thanh Hoai Nguyen<sup>1\*</sup>, Hai Quynh Ngo<sup>1</sup> and Thu Trang Dương<sup>1</sup>

**Abstract:** Virtual supermarket shopping has entered a phase of commercial mainstreaming as retailers aim at broadening the customer base, especially in the context of COVID 19 emergence. With the expansion of virtual supermarket shopping (VS-shopping) consumption, there is an increasing need to investigate the variety of consumers' motivations for engaging in such behavior. This study sought to address this gap by using the means-end chain theory method to explore the motivational complexity of VS-shopping. Based on data collected (n = 67) through the soft-laddering approach, six types of motivation are identified, include Quality of life, sense of accomplishment, Family well-being, Financial security, Self-direction, and Health consciousness. The results are expected to complement both theoretical contributions (additional understanding related to the virtual supermarket) and practical contributions (providing valid knowledge for retailers to create a more favorable service and marketing strategies for VS-shopping consumption).

### ABOUT THE AUTHORS

**Thanh Hoai Nguyen:** Dr. Hoai is a lecturer at Vietnam- Korea University of Information and Communication Technology. She received the M. S. degree in Danang University of Economics in 2013, respectively and obtained her Ph.D. in marketing from Soongsil University, Seoul, South Korea in 2019. Her research interest is related to consumer behavior, brand management, and digital marketing.

**Hai Quynh Ngo:** Dr. Quynh is a lecturer at Vietnam-Korea University of Information and Communication Technology, the University of Danang, Vietnam. She received her master's degree in 2010 at the University of Danang and obtained her Ph.D. in marketing from Soongsil University, South Korea in 2019. Her research interest is related to consumer behavior, customer engagement, and digital marketing.

**Thu Trang Dương:** Mrs. Trang is a lecturer at Vietnam-Korea University of Information and Communication Technology, the University of Danang, Vietnam. She received the M.S. degree in Danang University of Economics in 2013. Her research interest is related to consumer behavior and distribution management.

### PUBLIC INTEREST STATEMENT

Virtual Supermarkets are increasingly growing as a major field in recent years considering the importance are getting more increase, especially in the context of COVID 19 emergence. Consumers also show interest in this type of e-retailer through their consumption decisions in social life. How are consumers using a virtual supermarket? Why did they use it? How did they think about the virtual supermarkets? The overall goal of this article is to answer those questions. You will find interesting information about this type of retail such as a general overview of the virtual supermarkets, consumer undisclosed thoughts about the virtual supermarkets. In particular, these are the values that consumers want to find and be met when using this service. The findings would expect to support for the retailers to maximize consumers' enjoyment of virtual supermarket shopping as well as for consumers to better understand possible factors that impact their consumption activities.

**Subjects: Consumer Psychology; Economic Psychology; Business, Management and Accounting;**

**Keywords: Virtual supermarket; motivation; consumer; means-end chain; shopping**

## 1. Introduction

Retailers are now realizing that the consumer experience they give to their customers is a way to obtain a competitive advantage from other brands, so a huge development in this field is being made. To help retailers finding solutions, technology provided important changes and improvements in the shopping experience (Shankar et al., 2011; Van Kerrebroeck et al., 2017). One of them was the implementation of the virtual supermarket. The purpose behind this change is how it will impact consumer behavior and their shopping experience.

A virtual supermarket displays merchandise as if it were on a physical shelf on the streets, customers scan the barcode of the items they want with the app by their smartphones, and delivery is made at the end of the day. According to DK Marketing (2018), consumers agree that if the virtual supermarket is a combination of online and real supermarkets, it is definitely the revolution of shopping and hence they prefer this way of buying.

While virtual supermarket shopping is growing at a rapid pace, knowledge about the motives of virtual supermarket shoppers is essential for further growth. Although studies concerning retailing and store design in the virtual environment are starting to emerge, no research thus far has dealt specifically with virtual supermarket motivation (Jin & Bolebruch, 2009; Zhu & Owen, 2008). Furthermore, previous researches relating to online shopping have focused to explore and illustrate the motives among online shoppers. Several motives into online shopping have identified, such as shopping convenience (e.g., Bhatnagar et al., 2000; Duarte et al., 2018; Jiang et al., 2013); information seeking (e.g., Benn et al., 2015; Kau et al., 2003; Shah & Paul, 2020), social interaction needs (e.g., Christodoulides & Michaelidou, 2010; Grosso & Forza, 2019; Zhang et al., 2014), and online shopping experience (e.g., Mosteller et al., 2014; Trevinal & Stenger, 2014). Additionally, the literature suggests that the tendency to seek variety (e.g., Bin Dost et al., 2015; Rohm & Swaminathan, 2004) and the desirability of immediate possession (e.g., Alba et al., 1997; Barnard & Menoe, 2020) may also be motives for shopping. However, virtual supermarket shopping is different from online shopping. The motives for online buying, therefore, may not fully explain why consumers use virtual supermarket services.

The current study highlights that a means-end chain theory assists an appropriate method that helps to explore the motivations that drive consumers to use virtual supermarket shopping. The study provides a better understanding of how consumers satisfy the motivations when they use virtual supermarket services. The proposed motivation can present a framework that can be used to further develop a scale for measuring virtual supermarket shopping motivation. The current study also has important managerial implications, not only to retailers but also to the marketers who can learn about new ways to differentiate their distribution services.

## 2. Literature review

### 2.1. Virtual supermarket

A virtual supermarket is a form of applying e-commerce to the retail sector according to the supermarket model, providing standardized products to consumers. This is not an online supermarket, but it is an actual store location where customers can purchase virtual items. Virtual supermarkets use posters with shelves filled with products, located on the walls of the dock or at the station. The objective of virtual supermarkets is to bring stores close to consumers. By using shopping support apps installed on smartphones, consumers scan the products' QR codes that they want to buy and they are simultaneously added to their cart. Later in the day, they schedule their delivery as well. With

a virtual supermarket, consumers can replenish all of their essentials while going about their daily routines, no special trips to the supermarket required.

### **2.2. Virtual supermarket shopping motivation**

Until now there has been no definition of virtual supermarket shopping motivation. To better understand this concept, it is necessary to clarify the concept of shopping motivation. Shopping motivations are defined as a consumer's needs and wants related to consumption choice (Sheth et al., 1991) and thus the driver of behavior that prompts consumers to enter into the marketplace to meet their internal needs (Jih & Lee, 2004). Hence, identifying shopping motivations plays a significant role in acknowledging consumers' needs and meets those needs as well as possible. Therefore, in the current study, virtual supermarket shopping motivation was conceptualized as "a force that moves the individual" willingness to use virtual supermarket service, aims to meet one's needs or wants".

Studies concerning retailing in virtual environments are starting to emerge. These studies are mainly exploratory in nature; outlining, for instance, affordances, opportunities, and challenges for retailers in using the metaverse channel for distributing real-world products (e.g., Bourlakis, Papagiannidis, Li et al., 2009a, 2009a; Park et al., 2008). Other studies have tried to evaluate the potential value of virtual retailing and outline strategies for real companies/retailers to follow to succeed in such environments (e.g., Arakji & Lang, 2008; Gadalla et al., 2013; Hassouneh & Brengman, 2011b). Others have studied success factors for marketing real companies/brands in virtual retailing (e.g., Barnes & Mattsson, 2011; Tikkanen et al., 2009).

In the above studies, researchers have analyzed the benefits of using virtual technology in retail, developed principles when designing virtual stores, as well as explored the influencing factors and issues solutions to enhance the consumer experience when shopping in a virtual environment. However, no research has been done to investigate the motivations of consumers when using virtual supermarket services. While researchers discuss the key role and potential of motives in their studies, no empirical studies have been performed (Koh et al., 2007; Yang, 2012). Scholars (e.g., Rokeach, 1973; Schwartz, 1994) have suggested that motivations are a powerful force in consumer behavior. Despite the general consensus that motivations have a strong influence on consumer behavior, it is a field that has not yet been examined in the current VS-shopping motivational literature.

### **2.3. Means-end chain theory and laddering technique**

Consumers often do not deliberately think about the motives underlying their consumption behavior, therefore, researchers are faced with the challenge to reveal these motives. A method that has found widespread acceptance for investigating motives is means-end chain theory (e.g., Pieters et al., 1995; Wagner & Dennis, 2007).

The means-end chain is used as the fundamental theoretical framework of the study and as the tool to reveal the linkages between consumers' cognitive hierarchical value structures (Gutman, 1982). This approach explains hierarchically how an individual cognitively performs through a consumption process (Zeithaml, 1988). The main premise of this approach is that consumers choose the attributes of goods and services that will allow them to achieve their personal values (Gutman, 1982; Barrena et al., 2015).

Data collection for MEC analysis is conducted through laddering interviews (Grunert & Grunert, 1995; Reynolds & Gutman, 2001). This method follows the hierarchical structure of MECs, as interviews start out by having respondents name important product/service attributes, continue by asking about the reasons for each attribute's relevance, then again inquire why the reason provided is important, and repeat this question until the level of terminal values is used or respondents are unable to provide further reasons (Allen, 2001). The procedure is then repeated for the remaining attributes that were initially stated. The result of a laddering interview is therefore a set of ladders for each respondent (Wagner & Dennis, 2007).

### 3. Methodology

#### 3.1. Sampling

Reynolds and Gutman (1988) state that a pool of 50–60 participants would suggest the opportunity to address this issue by assessing a variety of different answers during the creation of the hierarchical value map. Accordingly, we selected 67 Vietnamese consumers as the respondents in the current study. As a matter of fact, the snowball technique was selected to choose participants for practical purposes. The sampling criteria were as follows: a participant was required to possess a smartphone, and the participant needed to have used VS-shopping at least once in the last six months. As the current study aimed to gather the viewpoints of VS shoppers, respondents were selected based on their past VR-shopping experience. These two criteria are employed with the purpose of ensuring that the participants are completely explained of the interview questions that the interviewers address. Only the participants who fully satisfied the selection criteria process were able to start the interview.

The snowball sampling was executed as follows: two VS shoppers, who the interviewer already knew and met the two criteria mentioned above, were chosen to survey. These two participants then recommended three other respondents who also used the virtual supermarket service, to be interviewed. With this recommendation, the researcher contacted these participants, conducted interviews with them, and, finally, also requested information of other suitable consumers, and so forth. The demographic characteristics of the respondents are exhibited in [Table 1](#) below.

The sample consists of 67 participants, where 58 are female (86.6%) and 9 are male (13.4%). The average age of the sample is 31.92 (range: 15–60 years old). In terms of education level, 47% of the participants have Bachelor Degree and 6% have Master Degree/Doctored/Ph.D., while 17.9% have Vocational Training and only 6% have Elementary/Secondary Education. Another relevant item for this study regards the frequency that the consumer uses the virtual supermarket to buy products. In fact, 18% of the participants use monthly, whereas 22% uses biweekly.

#### 3.2. Data collection

The interviews were performed in July and August 2020, with 67 Vietnamese consumers. In order to provide a private and comfortable atmosphere, each respondent can decide the location of the interviews accordingly to his/her desire in Vietnam.

Basing on a laddering technique, respondents took part in interview sessions individually, about 30 minutes or one hour, approximately. Each respondent was asked by a trained interviewer. After collecting all the demographical characteristics, the interviewer began to have an in-depth interview with each participant, this content would gather the relevant motives which they had in mind when using virtual supermarket service. Participants were informed there are no right or wrong answers. The researcher also notified that, for the aim of the study, it is important for the participants to give simplified opinions that can be used for outcome interpretation. The set of questions were provided to the point that the participant could possibly disclose a reasonable value or could no longer provide any further information (Klenosky & Saunders, 2007). By the end of the interview, each respondent has received a gift costing 8 USD USD for her/his contribution.

#### 3.3. Data coding

Data analysis started with a content analysis of the transcripts by the interviewer, which included coding responses (Grunert & Grunert, 1995; Mulvey et al., 1994). Firstly, the different elements recorded in the interviews were coded as distinct concepts. Secondly, each concept was associated with a hierarchical level of the MEC. Next, in a repeated process, the same codes on hierarchical levels were unified to decrease the number of codes and to attain a comprehensive set of MEC elements. For each participant, the links between the different concepts were mentioned in individual implication matrices. They were aggregated in a final implication matrix, demonstrating the number of times two elements were linked by all the participants.

**Table 1. The demographic profile of the selected sample**

Characteristic	Frequency	Percentage	Characteristic	Frequency	Percentage
Gender	9	13.4%	Education level	4	6%
Male	58	86.6%	Elementary/	12	17.9%
Female			Secondary	47	70.1%
			Vocational	4	6%
			Training	0	0%
			Bachelor Degree		
			Master Degree/		
			Doctored/PhD		
			Others		
Age Group	7	10.4%	Frequency to use	2	3%
15–25	29	43.3%	Every two	18	26.9%
26–35	21	31.3%	months	22	32.8%
36–45	9	13.4%	Monthly	5	7.5%
46–55	1	1.6%	Biweekly	11	16.4%
Over 55			Rarely	6	8.9%
			Weekly	3	4.5%
			Semiannually		
			Quarterly		
Total Number of Respondents			67		

Source: Authors

Based on the aggregated data, a hierarchical value map (HVM) was created to depict the different associations in the MECs. In an HVM, the hierarchical level of each element is depicted and the links between the different elements are mapped (Gengler et al., 1995). This leads to the visualization of various paths, each starting with service attributes at the lowest level that are related to consequences at the second level and terminal values at the third level.

## 4. Results

### 4.1. Content analysis

In analyzing a large number of responses to the triadic classifying and arranging tasks, the first step was to generate a correctly content analysis of all elicited concepts. Based on the outcomes of the data collection, a content analysis was executed in order to create the set of attributes, consequences, and values; and then, we have put together the concepts that are similar to their meaning. As a result, we have obtained at a general level, a set of attributes, consequences, and values. The coding of data was accomplished entirely by hand and was performed by three coders. The manual coding enabled the researcher to examine the data in the language of the respondents. Each response was systematically analyzed. Feedbacks collected from participants were examined as concepts (attribute, consequence, value) and coded. The concepts' frequency detected by respondents was noted and counted. The content analysis results comprised extraction of eight attributes (see Table 2), sixteen consequences (see Table 3), and six values (see Table 4).

### 4.2. Implication matrix

Basing on content analysis, an implication matrix was created to illustrate the total linkages within each pair of perceived elements. Input for the total implication matrix is all collected data from the laddering interviews. The rows and columns showed the relationships between attribute-consequence-value, and the table describes the number of links between attributes (i.e. T01), consequences (i.e. K01), and values (i.e. G01) (as exhibited in Table 5). Particularly, in each cell, the number on the left of the decimal of the implication matrix indicates how many times two concepts at distinct levels were noted as directly linkages, and the number on the right of the decimal indicates the number of indirect linkages (Reynolds & Gutman, 1988).

**Table 2. Table of attributes**

Code	Name of attribute	Frequency	Meaning
T01	Convenience	63	Virtual supermarket offers a convenient shopping experience that is easy to shop and has what consumers need.
T02	Vivid image	10	Virtual supermarket has the clarity and freshness of items' image.
T03	Try new thing	42	Virtual supermarket provides a new experience in shopping.
T04	Reduce transportation expenses	11	Virtual supermarket can help consumers reduce the expenses, such as money and time, that they spend on transportation.
T05	Ease of use	58	Virtual supermarket is easy to use the functions.
T06	Follow invoice/payment	32	Virtual supermarket can help consumers track of their spending.
T07	Variety items	8	Virtual supermarket has a diversified portfolio of goods.
T08	Individual	56	Virtual supermarket allows consumers to shop without having to interact with others.

Source: Authors

#### 4.3. Hierarchical value map

Based on the description of a minimum number of linkages to assure a connection, the implication matrix was then employed to guide a directed graph that underlined the basis for diagrammatically describing the cognitive structure labeled the hierarchical value map (HVM). The HVM is a tree-like grid, a synthetic network of a cognitive structure that includes three hierarchical levels—attributes, consequences, values—and their relationships.

In an HVM, each line is investigated to be a representation of consumers' MECs, which are regarded as the motivational basis of their behavior. Therefore, an HVM gives insights into participants' hierarchical cognitive structures and enables researchers to provide implications regarding basis motivational features.

When considering the cut-off value, a typical cut-off level was chosen as a criterion to decide which types of relationships should be shown on the HVM. Based on Grunert et al.'s (2001) statement, a cut-off value should be from 3 to 5 corresponding to a pool of 50 to 60 respondents. Meanwhile, Reynolds et al. (1995) proposed 5% of respondents are frequently noticed as a cut-off point. Therefore, in the map, any relationship mentioning to equal to or greater than 3 would be consisted ( $5\% \times 67$  respondents = 3). The linkages in which the total number of relationships less than 3 are not shown on the map. Figure 1 presented the summary HVM which demonstrates the most general concepts and relationships across concepts.

As shown in Figure 1, six important linkage paths of VS-shopping motive and some other sub-paths are realized above. To display the strength of the linkage between elements, the more times



**Table 3. Table of consequences**

<b>Code</b>	<b>Name of consequence</b>	<b>Frequency</b>	<b>Meaning</b>
K01	Stress decrease	68	VS-shoppers can reduce the unpleasant and unhealthy emotional effects of stressful events that have already occurred.
K02	Feel good	60	VS-shoppers feel good excitedly to be able to be efficient and strong.
K03	Making a difference	37	VS-shoppers can try to make a new experience.
K04	Exciting life	11	VS-shoppers feel very happy or enthusiastic in their life.
K05	Competency	6	VS-shoppers feel a sense of successful by completing a desirable task.
K06	Save time	45	VS-shoppers complete a task in a shorter amount of time by doing it more quickly or efficiently.
K07	Save money	11	VS-shoppers can buy something at low-priced and maintain low cost.
K08	Can do other things	7	VS-shoppers can do other things instead of spending time shopping.
K09	Work effectively	6	VS-shoppers can complete their tasks as quickly as possible, and produce the results that were intended.
K10	Spend more time with family	35	VS-shoppers can decrease time working on other tasks and have more free time with family.
K11	Stay on budget	30	VS-shoppers can maintain or not exceed estimated or intended expenditures.
K12	Have money for other things	30	VS-shoppers can spend their money on things that they think are necessary.
K13	Freedom of choice	6	VS-shoppers have opportunities to perform an action selected from variety items, unconstrained by external parties.
K14	Avoid health problem	32	VS-shoppers want to avoid problems that harm their health.
K15	Good for health	32	VS-shoppers are in the state of being healthy and free from physical or mental disease.
K16	Controllability	25	VS-shoppers are able to make their own choices and not be impacted by others.

Source: Authors

the linkage was mentioned by the participants, the thicker the line. As a consequence of this, the key patterns were demonstrated by these thicker lines. In addition, six key MECs emerged from the data analysis and gave deep insights into the Vietnamese consumers' motivation for using virtual supermarket shopping. The following section will interpret these paths noted above.

#### **4.4. Dominant perceptual orientations**

KMC1: Convenience—Stress decrease—Feel Good—Quality of life

The first key pattern is especially obvious in the consequence of stress decrease, which is addressed by the convenience attribute. Virtual supermarkets allow consumers to shop while moving at any time (e.g., in transportation, on the street, etc.) It clearly helps consumers make their life easier—e.g., through flexible use, reduced responsibility, or simply shopping models. Reducing stress and enabling customers to feel good by using VS- service are important to participants, as they enhance their quality of life (see pattern 1 in Figure 1).

**Table 4. Table of values**

Code	Name of value	Frequency	Meaning
G01	Quality of life	73	VS-shoppers want to improve the quality of life.
G02	Sense of accomplishment	36	VS-shoppers feel a sense of fulfilment by finishing a favorable task.
G03	Family well-being	48	VS-shoppers want their family to be healthy, happy, and comfortable.
G04	Financial security	30	VS-shoppers look for the state of being free from financial threat.
G05	Self-direction	36	VS-shoppers want to have the independent thought and action-choosing, determining, exploring.
G06	Health conscious	32	VS-shoppers want to live a healthy live.

Source: Authors

#### KMC2: Try new thing—Making a Difference—Sense of accomplishment

In the second pattern, the attribute “try new thing” allowed participants to experience something different in their life. “Try new thing” is thus distinct from offered attributes by other channels (e.g., online and offline shopping). For these respondents, to experience differences means “making a difference”. By experiencing the consequence of making a difference, they could avoid the challenges of incompetency. They stated that competency appeared when they were able to use VS-shopping correctly and comfortably. Through completing the challenge, participants communicated a “sense of accomplishment” personal value (see pattern 2 in [Figure 1](#)).

#### KMC3: Ease to use—Save time—Spend more time with family—Family well-being

The link between a virtual supermarket and ease of use is one of the strongest relationships in the HVM. Participants chose ease of use because they felt comfortable and confident when performing VS-shopping by using their familiar personal mobile device. Based on the ease to use the functions of the virtual supermarket, which makes it easier to purchase anything that reduces the time spent for shopping, saving time expresses one of the major consequences. Saving time is significant for participants, because it adds to their quality of family, especially by spending more time with their family. It ultimately creates a family well-being value (see pattern 3 in [Figure 1](#)).

#### KMC4: Follow invoice—Controllability—Stay in the budget—Have money for other things—Financial security

Continuing with the fourth pattern, many respondents explore that just by tracking aggregate figures for shopping expenses, they have the ability to control their invoices and reduce excessive spending. Therefore, they can maintain or not exceed estimated or intended expenditures. It means that they have more money and they spend their money on things that they think are necessary. Keeping track of how much they spend resulted in respondents feeling “financial security” (see pattern 4 in [Figure 1](#)).

#### KMC5: Individual—Freedom of choice—Self-direction

The fifth major pattern in the HVM is related to individual action. One of the most important advantages of VS-shopping includes no salespeople or annoying crowds. For example, in physical stores, the salespeople try to influence the consumers to purchase the product. There can be some type of pressure, while the consumers are not pressurized in any way in virtual supermarkets. Since they are independent thought and action-choosing, determining—is known as freedom of choice. On the other hand, when consumers search and buy something according to their own goals, they satisfy the value of self-direction (see pattern 5 in [Figure 1](#)).

KMC6: Individual—Avoid health problem—Good for health—Health Conscious

According to the sixth motivational pattern, as information of COVID-19 pandemic spread, respondents began avoiding public, crowded places. Therefore, VS-shopping is one of the better ways to keep social distancing. They have seen the problems that people with illnesses have and they are trying to avoid that. They think VS-shopping can help them to stay physically strong and not ill. By protecting their health, participants were able to have excellent health as much as they can, which satisfied their value of “health-conscious” (see pattern 6 in [Figure 1](#)).

#### **4.5. Motivations in virtual supermarket shopping consumption**

The results of the current study indicated five domains comprising the VS-shopping motivation, including Quality of life, sense of accomplishment, Family well-being, Financial security, Self-direction, and Health consciousness.

##### *4.5.1. Sense of accomplishment*

A sense of accomplishment can be achieved through challenge completion (Weiner, 1985). This study has explored that virtual supermarket shopping satisfies respondents’ sense of accomplishment when they recognize that they have made good decisions through a new way of shopping. The relevance of sense of accomplishment in the online shopping context has been highlighted by Shiu-Wan et al. (2015), Jayawardhena (2004), Poole and O’Cass (2003), and Degeratu et al. (2000), and Bakos and Brynjolfsson (2000). Respondents were happy with their using of virtual supermarket shopping as they felt self-satisfied about completing the new experience shopping. In addition, when having the satisfaction of themselves, they concurrently felt confident in making purchases through VS-shopping, which increased their VS-shopping consumption behavior. The motivation of sense of accomplishment is also classified as inner-directed since respondents perceived that this motivation could be anticipated intrinsically without the necessity to share it with others.

##### *4.5.2. Health conscious*

The motivation type is concerned about and aware of consumers’ health. Health Consciousness is the degree to which consumers care about his/her health (Basu & Dutta, 2008; Dutta-Bergman, 2004). The more health-conscious one is, the more likely he/she is to have healthy habits (Chen & Lin, 2018), which is the basis for individuals to take health measures. Nowadays, scholars have focused on the impact of health consciousness on various behaviors. However, this motivation has not ever been mentioned in the previous virtual supermarket and shopping online researches. Hence, it can be assumed as a motive created by the current situation, the covid 19 pandemic. Consumers start recognizing the benefits of VS-shopping, especially during the pandemic period. Virtual supermarkets are looked at as prioritizing shopping for individuals who should not be exposing themselves to potential coronavirus infection. For healthcare consumers, virtual supermarkets, therefore, are widely used during the coronavirus pandemic. Based on this, health consciousness is to have an important impact on virtual supermarket shopping behavior.

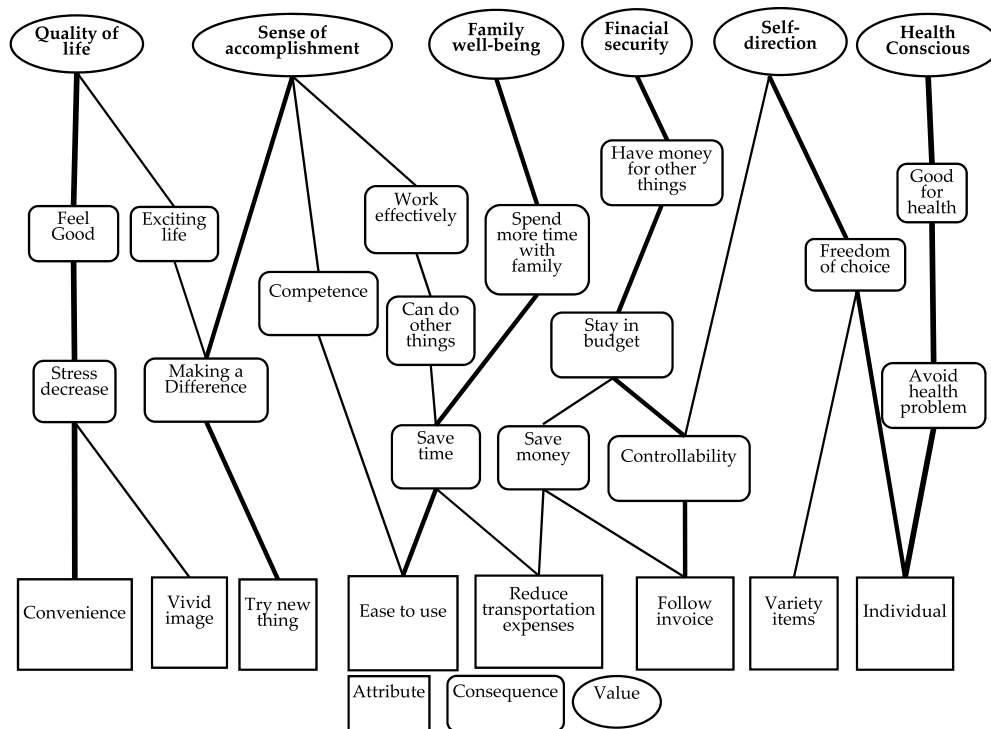
##### *4.5.3. Family well-being*

Family well-being refers to a sense of wellbeing of the family, collectively and subjectively, defined and informed by its members, in which individual and family-level needs interact (Zuna et al., 2010). The current study explored that consumers were more able to do household chores and get

**Table 5. Implication matrix**

	K01	K02	K03	K04	K05	K06	K07	K08	K09	K10	K11	K12	K13	K14	K15	K16	G01	G02	G03	G04	G05	G06
T01	59.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.07	00.00	00.11	00.00	00.00	00.00
T02	09.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.03	00.00	00.00	00.00	00.00	00.00
T03	00.00	00.00	37.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.05	00.00	00.00	00.00	00.03	00.00
T04	00.00	00.00	00.00	00.00	00.00	04.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00
T05	00.00	00.00	00.00	00.00	06.00	41.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.05	00.00
T06	00.00	00.00	00.00	00.00	00.00	00.00	07.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.04	00.00	00.00	00.00
T07	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	06.00	00.00	00.00	00.00	00.03	00.00	00.00	00.00	00.00	00.00
T08	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	20.00	32.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00
K01	00.00	60.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00
K02	60.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	45.00	00.00	00.00	00.00	00.00	00.00
K03	00.00	00.00	00.00	11.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00
K04	00.00	00.00	11.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	10.00	00.00	00.00	00.00	00.00	00.00
K05	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	05.00	00.00	00.00	00.00	00.00
K06	00.00	00.00	00.00	00.00	00.00	00.00	00.00	07.00	00.00	35.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00
K07	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	07.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00
K08	00.00	00.00	00.00	00.00	00.00	07.00	00.00	00.00	06.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00
K09	00.00	00.00	00.00	00.00	00.00	00.00	00.00	06.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	04.00	00.00	00.00	00.00	00.00
K10	00.00	00.00	00.00	00.00	00.00	35.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	33.00	00.00	00.00	00.00
K11	00.00	00.00	00.00	00.00	00.00	00.00	07.00	00.00	00.00	00.00	00.00	30.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00
K12	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	30.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	30.00	00.00	00.00
K13	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	25.00	00.00
K14	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00
K15	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00
K16	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	23.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00

**Figure 1. The hierachical value map.**



over stress by reducing shopping time through VS-shopping. It will make them feel more comfortable in family life. In addition, the reduction in shopping time also allows consumers to have more free time, and therefore, take better care of family members. If the family is managed well, pressure is reduced, thereby producing family well-being. Previous studies suggest that saving time is what drives shoppers to use virtual supermarket services but they do not refer to the relationship between saving time and family wellbeing (Bigne et al., 2016; Morganosky & Cude, 2000). This study extends that consumers value saving time and through the consequence, they ultimately can gain family well-being. Respondents who considered family well-being as a principal motivation were more likely to purchase through virtual supermarket shopping in order to have more time to take care of their family. Therefore, virtual supermarket shopping helps consumers to prioritize the important things of their lives, they are more favorable towards using virtual supermarket shopping.

#### 4.5.4. Quality of life

Quality of life concerns the experience of an individual's life and reflects his/her well-being (Andrews & Withey, 1976; Campbell et al., 1976; Hanestad, 1990). Respondents got the value of quality of life when they were able to buy something without being in a supermarket, that is when they were experiencing unbenefited time (e.g., on the street, while waiting for a bus). This study found that through virtual supermarket shopping, consumers pursued an exciting life by experiencing novelty such as virtual supermarket shopping while moving and doing more important work other than physical shopping. This finding differs from previous studies (Agrebi & Jallais, 2015; Kim et al., 2007; Lu & Su, 2009; Yang, 2012) that have suggested that consumers feel excited when they purchase products via innovative technology. This study firstly found that VS shoppers create a quality of life by maximizing priority time and completing important work other than shopping activities. Therefore, the more consumers want to achieve a quality of life value, the more they will use VS-shopping.

#### 4.5.5. *Self-direction*

Self-direction is independent thought and action, derived from the organismic need for mastery and control through choosing, creating, and exploring, and interactional requirements of autonomy and independence (Schwartz, 2012). Participants for whom the motivation of self-direction was a priority select products that corresponded with their taste and were uncompromising. Jayawardhena (2004) also confirms that there is a relationship between self-direction and a positive attitude toward e-shopping, which impacts e-shopping consumption. Personal VS-shopping allows respondents to make their own buying decisions. This indicates that such consumers put first concern on following their own way rather than being influenced by others. Respondents believed that VS-shopping was the best platform to seek self-direction with freedom of choice.

#### 4.5.6. *Financial security*

Most studies examine financial security without offering a definition of this motivation. The current study combines the concept of security value with financial context and suggests that it reflects the safety, harmony, and stability of financial status (Schwartz, 2012). The motivation of “financial security” relates to the most common concern felt by online shoppers—payment security issues (Assarut & Eiamkanchanalai, 2015; Hung et al., 2012). However, this study illuminated a different perspective: participants felt safe when they can easily track their orders as well as payments, thereby making it easier to control their finance. They also felt safer when controlling of their financial status. Therefore, financial security is what drives VS shoppers.

### 5. Discussion

#### 5.1. *Summary of findings*

The results of the study explored six virtual supermarket shopping motivations, such as Quality of life, sense of accomplishment, Family well-being, Financial security, Self-direction, and Health consciousness. There are extrinsic motives for expressing a clear goal when shoppers engage in virtual supermarket shopping, such as they want to save money (Financial security), to ensure their health (Health consciousness), or spend more time with family members (Family well-being). Meanwhile, the remaining three motives (Sense of accomplishment, Self-direction, and Quality of life) are considered intrinsic motives since VS shoppers engage in acts of using virtual supermarket shopping based on psychological benefit. In summary, the six motivations identified from the current study comprise a virtual super marketing shopping’s motivation from a multi-dimensional view, including intrinsic and extrinsic motives (Childers et al., 2001).

#### 5.2. *Contribution for theory and application*

##### 5.2.1. *Theoretical contribution*

The theoretical contribution of the findings is twofold. Firstly, the rising of advanced technology leads to an increasing number of VS shoppers through the years. Even so, there are no related studies regarding the reasons for the consumers’ desire to use this service. Therefore, the findings of the current study would feasibly fill this gap by exploring motivations in VS-shopping consumption.

Secondly, the results from this study can extend to existing knowledge of retailing literature. Using and highlighting important motivations in VS-shopping consumption can contribute useful awareness to retailing researchers. The results may probably propose a distinct VS-shopper typology in the market, classified based on their motivations.

##### 5.2.2. *Practical contribution*

Identifying the motivations for virtual supermarket consumption will give a strategic advantage to retailers. The recognition of the motivations of VS shoppers and the classification of VS shoppers based on their important motivations are probable to be considered favorably by retailers because it will enable them to offer better services and to gain expected results. Explicit recognition of motivational patterns will help retailers by suggesting appropriate marketing strategies for

different market segments. In addition, the employ of marketing strategy can be improved if the behavior of consumers can be related to their motivations. Retailers can evaluate the strategies by looking at the motivation fulfillment prior to the market implementation. Understanding customers' expectations will provide retailers insight into what consumers want to obtain and satisfy through their VS-shopping activity. By personalize offerings that link to these key motivations, retailers will be able to meet and satisfy consumer's desires.

### 5.2.3. Limitation and future research

Although this study enlarges our knowledge of virtual supermarket shopping, it suffers from some limitations. Firstly, six motivations were explored based on the means-end chain theory approach. The motivations keep their novelty as these have not yet been recognized in previous research related to virtual supermarkets. While this qualitative method is deemed appropriate for obtaining insights into fields, no empirical investigation exists. Therefore, future studies should perform quantitative methods to further investigate the motivations for virtual supermarket shopping consumption.

Secondly, this study did not examine the distinguishing demographic characteristics between the perceptions of respondents. However, future studies could examine a moderator variable of VS-shoppers' demographic characteristics with a more diverse sample of respondents representing a range in ages, income, gender, and education levels.

Thirdly, this study employed only Vietnamese consumers. The findings may be culturally relevant. Therefore, the utilization of the findings to other cultures may be limited. Examining other cultures should be a key direction for future research efforts in order to confront and obtain a more in-depth understanding.

#### Funding

This research received no external funding.

#### Author details

Thanh Hoai Nguyen<sup>1</sup>

E-mail: [nthoai@vku.udn.vn](mailto:nthoai@vku.udn.vn)

ORCID ID: <http://orcid.org/0000-0001-6073-213X>

Hai Quynh Ngo<sup>1</sup>

ORCID ID: <http://orcid.org/0000-0002-3853-5903>

Thu Trang Dương<sup>1</sup>

ORCID ID: <http://orcid.org/0000-0002-7176-3334>

<sup>1</sup> Vietnam-Korea University of Information and Communication Technology, the University of Danang, Danang, Vietnam.

#### Disclosure statement

No potential conflict of interest was reported by the author(s).

#### Citation information

Cite this article as: Motivations influencing virtual supermarket shopping: An exploratory study using means-end chains analysis, Thanh Hoai Nguyen, Hai Quynh Ngo & Thu Trang Dương, *Cogent Business & Management* (2021), 8: 1954491.

#### References

- Agrebi, S., & Jallais, J. (2015). Explain the intention to use smartphones for mobile shopping. *Journal of Retailing and Consumer Services*, 22(1), 16–23. <https://doi.org/10.1016/j.jretconser.2014.09.003>
- Alba, J., Lynch, J., Weitz, B., Janiszewski, C., Lutz, R., Sawyer, A., & Wood, S. (1997). Interactive home shopping: Consumer, retailer, and manufacturer incentives to participate in electronic marketplaces. *Journal of Marketing*, 61(3), 38–53. <https://doi.org/10.1177/002224299706100303>
- Allen, M. W. (2001). A practical method for uncovering the direct and indirect relationships between human values and consumer purchases. *Journal of Consumer Marketing*, 18(2), 102–120. <https://doi.org/10.1108/07363760110385983>
- Andrews, F. M., & Withey, S. R. (1976). *Social indicators of well-being*. Plenum Press.
- Arakji, R. Y., & Lang, K. R. (2008). Avatar business value analysis: A method for the evaluation of business value creation in virtual commerce. *Journal of Economic Commerce Research*, 9(3), 1–14. <https://ssrn.com/abstract=1146769>
- Assarut, R., & Eiamkanchanalai, S. (2015). Consumption values, personal characteristics and behavioral intentions in mobile shopping adoption. *Market- Tržište*, 27(1), 21–41. <https://hrcak.srce.hr/139425>
- Bakos, Y., & Brynjolfsson, E. (2000). Bundling and competition on the internet. *Marketing Science*, 19(1), 63–82. <https://doi.org/10.1287/mksc.19.1.63.15182>
- Barnard, B., & Menoe, D. (2020). Online shopping: Motivation, loyalty and process. *Expert Journal of Marketing*, 8(1), 48–72. <https://marketing.expertjournals.com/23446773-804/>
- Barnes, S. J., & Mattsson, J. (2011). Exploring the fit of real brands in the second life 1 virtual world. *Journal of Marketing Management*, 27(9–10), 934–958. <https://doi.org/10.1080/0267257X.2011.565686>
- Barrena, R., García, T., & Sánchez, M. (2015). Analysis of personal and cultural values as key determinants of novel food acceptance. Application to an ethnic product. *Appetite*, 87(4), 205–214. <https://doi.org/10.1016/j.appet.2014.12.210>
- Basu, A., & Dutta, M. J. (2008). The relationship between health information seeking and community participation: The roles of health information orientation and efficacy. *Health Communication*, 23(1), 70–79. <https://doi.org/10.1080/10410230701807121>
- Benn, Y., Webb, T. L., Chang, B. P., & Reidy, J. (2015). What information do consumers consider, and how do they look for it, when shopping for groceries online?

- Appetite*, 89(6), 265–273. <https://doi.org/10.1016/j.appet.2015.01.025>
- Bhatnagar, A., Misra, S., & Rao, H. R. (2000). On risk, convenience, and Internet shopping behavior. *Communications of the ACM*, 43(11), 98–105. <https://doi.org/10.1145/353360.353371>
- Bigne, E., Llinares, C., & Torrecilla, C. (2016). Elapsed time on first buying triggers brand choices within a category: A virtual reality-based study. *Journal of Business Research*, 69(4), 1423–1427. <https://doi.org/10.1016/j.jbusres.2015.10.119>
- Bin Dost, M. K., Illyas, M., & Abdul Rehman, C. (2015). Online shopping trends and its effects on consumer buying behavior: A case study of young generation of Pakistan. *NG-Journal of Social Development*, 417 (3868), 1–22. [https://www.arabianjbmr.com/pdfs/NGJSD\\_VOL\\_5\\_1/1.pdf](https://www.arabianjbmr.com/pdfs/NGJSD_VOL_5_1/1.pdf)
- Bourlakis, M., Papagiannidis, S., & Li, F. (2009a). Retail spatial evolution: Paving the way from traditional to metaverse retailing. *Electronic Commerce Research*, 9(1), 135–148. <https://doi.org/10.1007/s10660-009-9030-8>
- Campbell, A., Converse, P. E., & Rodgers, W. L. (1976). *The quality of American life: Perceptions, evaluations, and satisfactions*. Russell Sage Foundation.
- Chen, M. F., & Lin, N. P. (2018). Incorporation of health consciousness into the technology readiness and acceptance model to predict app download and usage intentions. *Internet Research*, 28(2), 351–373. <https://doi.org/10.1108/IntR-03-2017-0099>
- Childers, T. L., Carr, C. L., Peck, J., & Carson, S. (2001). Hedonic and utilitarian motivations for online retail shopping behavior. *Journal of Retailing*, 77(4), 511–535. [https://doi.org/10.1016/S0022-4359\(01\)00056-2](https://doi.org/10.1016/S0022-4359(01)00056-2)
- Christodoulides, G., & Michaelidou, N. (2010). Shopping motives as antecedents of e-satisfaction and e-loyalty. *Journal of Marketing Management*, 27(1–2), 181–197. <https://doi.org/10.1080/0267257X.2010.489815>
- Degeratu, A. M., Rangaswamy, A., & Wu, J. (2000). Consumer choice behavior in online and traditional supermarkets: The effects of brand name, price, and other search attributes. *International Journal of Research in Marketing*, 17(1), 55–78. [https://doi.org/10.1016/S0167-8116\(00\)00005-7](https://doi.org/10.1016/S0167-8116(00)00005-7)
- Duarte, P., E Silva, S. C., & 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 (5), 161–169. <https://doi.org/10.1016/j.jretconser.2018.06.007>
- Dutta-Bergman, M. J. (2004). Primary sources of health information: Comparisons in the domain of health attitudes, health cognitions, and health behaviors. *Health Communication*, 16(3), 273–288. [https://doi.org/10.1207/S15327027HC1603\\_1](https://doi.org/10.1207/S15327027HC1603_1)
- Gadalla, E., Keeling, K., & Abosag, I. (2013). Metaverse-retail service quality: A future framework for retail service quality in the 3D internet. *Journal of Marketing Management*, 29(13–14), 1493–1517. <https://doi.org/10.1080/0267257X.2013.835742>
- Gengler, C. E., Klenosky, D. B., & Mulvey, M. S. (1995). Improving the graphic representation of means-end results. *International Journal of Research in Marketing*, 12(3), 245–256. [https://doi.org/10.1016/0167-8116\(95\)00024-V](https://doi.org/10.1016/0167-8116(95)00024-V)
- Grosso, C., & Forza, C. (2019). Users' social-interaction needs while shopping via online sales configurators. *International Journal of Industrial Engineering and Management (IJIEM)*, 10(2), 139–154. <https://doi.org/10.24867/IJIEM-2019-2-235>
- Grunert, K. G., Beckmann, S. C., & Sørensen, E. (2001). *Means-end chains and laddering: An inventory of problems and an agenda for research*. Lawrence Erlbaum Associates Publishers.
- Grunert, K. G., & Grunert, S. C. (1995). Measuring subjective meaning structures by the laddering method: Theoretical considerations and methodological problems. *International Journal of Research in Marketing*, 12(3), 209–225. [https://doi.org/10.1016/0167-8116\(95\)00022-T](https://doi.org/10.1016/0167-8116(95)00022-T)
- Gutman, J. (1982). A means-end chain model based on consumer categorization processes. *Journal of Marketing*, 46(2), 60–72. <https://doi.org/10.1177/002224298204600207>
- Hanestad, B. R. (1990). Errors of measurement affecting the reliability and validity of data acquired from self-assessed quality of life. *Scandinavian Journal of Caring Sciences*, 4(1), 29–34. <https://doi.org/10.1111/j.1471-6712.1990.tb00004.x>
- Hassouneh, D., & Brengman, M. (2011b). Virtual worlds: A gateway for SMEs toward internationalization. *Journal of Brand Management*, 19(1), 72–90. <https://doi.org/10.1057/bm.2011.24>
- Hung, M. C., Yang, S. T., & Hsieh, T. C. (2012). An examination of the determinants of mobile shopping continuance. *International Journal of Electronic Business Management*, 10(1), 29. <http://203.72.2.146/bitstream/987654321/27104/1/An+Examination.pdf>
- Jayawardhena, C. (2004). Personal values' influence on e-shopping attitude and behaviour. *Internet Research*, 14(2), 127–138. <https://doi.org/10.1108/10662240410530844>
- Jiang, L. (., 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>
- Jih, W. J. K., & Lee, S. F. (2004). An exploratory analysis of relationships between cellular phone users' shopping motivators and lifestyle indicators. *Journal of Computer Information Systems*, 44(2), 65–73. <https://doi.org/10.1080/08874417.2004.11647568>
- Jin, S. A. A., & Bolebruch, J. (2009). Virtual commerce (v-commerce) in second life: The roles of physical presence and brand-self connection. *Journal For Virtual Worlds Research*, 2(4), 1–12. <https://doi.org/10.4101/jvwr.v2i4.867>
- Kau, A. K., Tang, Y. E., & Ghose, S. (2003). Typology of online shoppers. *Journal of Consumer Marketing*, 20 (2), 139–156. <https://doi.org/10.1108/07363760310464604>
- Kim, H. W., Chan, H. C., & Gupta, S. (2007). Value-based adoption of mobile internet: An empirical investigation. *Decision Support Systems*, 43(1), 111–126. <https://doi.org/10.1016/j.dss.2005.05.009>
- Klenosky, D. B., & Saunders, C. D. (2007). Put me in the zoo! A laddering study of zoo visitor motives. *Tourism Review International*, 11(3), 317–327. <https://doi.org/10.3727/154427207783948757>
- Koh, J., Kim, Y. G., Butler, B., & Bock, G. W. (2007). Encouraging participation in virtual communities. *Communications of the ACM*, 50(1), 68–73. <https://doi.org/10.1145/1216016.1216023>
- Lu, H.-P., & Su, P. Y. J. (2009). Factors affecting purchase intention on mobile shopping web sites. *Internet Research*, 19(4), 442–458. <https://doi.org/10.1108/10662240910981399>
- Morganosky, M. A., & Cude, B. J. (2000). Consumer response to online grocery shopping. *International Journal of Retail & Distribution Management*, 28(1), 17–26. <https://doi.org/10.1108/09590550010306737>
- Mosteller, J., Donthu, N., & Eroglu, S. (2014). The fluent online shopping experience. *Journal of Business*



- Research*, 67(11), 2486–2493. <https://doi.org/10.1016/j.jbusres.2014.03.009>
- Mulvey, M. S., Olson, J. C., Celsi, R. L., & Walker, B. A. (1994). Exploring the relationships between means-end knowledge and involvement. *ACR North American Advances*, 21(1), 51–57. <https://www.acrwebsite.org/volumes/7561>
- Park, S., Fui-Hoon Nah, F., DeWester, D., Eschenbrenner, B., & Jeon, S. (2008). Virtual world affordances: Enhancing brand value. *Journal of Virtual Worlds Research*, 1(2), 1–18. <https://doi.org/10.4101/jvwr.v1i2.350>
- Pieters, R., Baumgartner, H., & Allen, D. (1995). A means-end chain approach to consumer goal structures. *International Journal of Research in Marketing*, 12(3), 227–244. [https://doi.org/10.1016/0167-8116\(95\)00023-U](https://doi.org/10.1016/0167-8116(95)00023-U)
- Poole, M., & O’Cass, A. (2003). Personal values: A Comparative study between mall and online shoppers. *ANZMAC 2003 Conference Proceedings*. Adelaide. Austria.
- Reynolds, T. J., Gengler, C. E., & Howard, D. J. (1995). A means-end analysis of brand persuasion through advertising. *International Journal of Research in Marketing*, 12(3), 257–266. [https://doi.org/10.1016/0167-8116\(95\)00025-W](https://doi.org/10.1016/0167-8116(95)00025-W)
- Reynolds, T. J., & Gutman, J. (1988). Laddering theory, method, analysis, and interpretation. *Journal of Advertising Research*, 28(1), 11–31. <http://www.dl.edi-info.ir/Laddering%20theory,%20method,%20analysis,%20and%20interpretation.pdf>
- Reynolds, T. J., & Gutman, J. (2001). Advertising is image management. In *Understanding Consumer Decision Making* (pp. 161–178). Psychology Press
- Rohm, A. J., & Swaminathan, V. (2004). A typology of online shoppers based on shopping motivations. *Journal of Business Research*, 57(7), 748–757. [https://doi.org/10.1016/S0148-2963\(02\)00351-X](https://doi.org/10.1016/S0148-2963(02)00351-X)
- Rokeach, M. (1973). *The nature of human values*. Free press.
- Schwartz, S. H. (1994). *Beyond individualism/collectivism: New cultural dimensions of values*. Sage Publisher.
- Schwartz, S. H. (2012). An Overview of the Schwartz theory of basic values. *Online Readings in Psychology and Culture*, 2(1), 1. <https://doi.org/10.9707/2307-0919.1116>
- Shah, C. S., & Paul, A. (2020, December). Information seeking behaviour in online shopping. In *International working conference on transfer and diffusion of IT* (pp. 439–450). Springer.
- Shankar, V., Inman, J. J., Mantrala, M., Kelley, E., & Rizley, R. (2011). Innovations in shopper marketing: Current insights and future research issues. *Journal of Retailing*, 87(1), S29–S42. <https://doi.org/10.1016/j.jretai.2011.04.007>
- 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](https://doi.org/10.1016/0148-2963(91)90050-8)
- Shiu-Wan, H. U. N. G., Cheng, M. J., & Hsieh, S. C. (2015). Consumers’ satisfaction with online group buying—an incentive strategy. *International Journal of Retail & Distribution Management*, 43(2), 167–182. <https://doi.org/10.1108/IJRDM-09-2013-0183>
- Tikkanen, H., Hietanen, J., Henttonen, T., & Rokka, J. (2009). Exploring virtual worlds: Success factors in virtual world marketing. *Management Decision*, 47(8), 1357–1381. <https://doi.org/10.1108/00251740910984596>
- Trevinal, A. M., & Stenger, T. (2014). Toward a conceptualization of the online shopping experience. *Journal of Retailing and Consumer Services*, 21(3), 314–326. <https://doi.org/10.1016/j.jretconser.2014.02.009>
- Van Kerrebroeck, H., Brengman, M., & Willems, K. (2017). Escaping the crowd: An experimental study on the impact of a Virtual Reality experience in a shopping mall. *Computers in Human Behavior*, 77(12), 437–450. <https://doi.org/10.1016/j.chb.2017.07.019>
- Wagner, T., & Dennis, C. (2007). Shopping motivation revised: A means-end chain analytical perspective. *International Journal of Retail & Distribution Management*, 35(7), 569–582. <https://doi.org/10.1108/09590550710755949>
- Weiner, B. (1985). An attributional theory of achievement motivation and emotion. *Psychological Review*, 92(4), 548. <https://doi.org/10.1037/0033-295X.92.4.548>
- Yang, K. (2012). Consumer technology traits in determining mobile shopping adoption: An application of the extended theory of planned behavior. *Journal of Retailing and Consumer Services*, 19(5), 484–491. <https://doi.org/10.1016/j.jretconser.2012.06.003>
- Zeithaml, V. A. (1988). Consumer perceptions of price, quality, and value: A means-end model and synthesis of evidence. *Journal of Marketing*, 52(3), 2–22. <https://doi.org/10.1177/002224298805200302>
- Zhang, K. Z., Hu, B., & Zhao, S. J. (2014). How online social interactions affect consumers’ impulse purchase on group shopping websites? *PACIS 2014 Proceeding*. China (p. 81).
- Zhu, W., & Owen, C. B. (2008). Design of the promopad: An automated augmented-reality shopping assistant. *Journal of Organizational and End User Computing (JOEUC)*, 20(3), 41–56. <https://doi.org/10.4018/joeuc.2008070103>
- Zuna, N., Summers, J. A., Turnbull, A. P., Hu, X., & Xu, S. (2010). Theorizing about family quality of life. *Enhancing the quality of life of people with intellectual disabilities* (pp. 241–278). Springer, Dordrecht. <https://dkmarketing.gr>



© 2021 The Author(s). This open access article is distributed under a Creative Commons Attribution (CC-BY) 4.0 license.

You are free to:

Share — copy and redistribute the material in any medium or format.

Adapt — remix, transform, and build upon the material for any purpose, even commercially.

The licensor cannot revoke these freedoms as long as you follow the license terms.

Under the following terms:

Attribution — You must give appropriate credit, provide a link to the license, and indicate if changes were made.

You may do so in any reasonable manner, but not in any way that suggests the licensor endorses you or your use.

No additional restrictions

You may not apply legal terms or technological measures that legally restrict others from doing anything the license permits.



***Cogent Business & Management* (ISSN: 2331-1975) is published by Cogent OA, part of Taylor & Francis Group.**

**Publishing with Cogent OA ensures:**

- Immediate, universal access to your article on publication
- High visibility and discoverability via the Cogent OA website as well as Taylor & Francis Online
- Download and citation statistics for your article
- Rapid online publication
- Input from, and dialog with, expert editors and editorial boards
- Retention of full copyright of your article
- Guaranteed legacy preservation of your article
- Discounts and waivers for authors in developing regions

**Submit your manuscript to a Cogent OA journal at [www.CogentOA.com](http://www.CogentOA.com)**

