

Analysis Of the Reasons for Merchants' Reluctance to Accept Electronic Payment Methods

Fouad Mansour Omar Altwergi

Banking and Finance Department, University of Zintan, Libya

E-mail: Fouad.altwergi@uoz.edu.ly

Abstract

This study aims to determine the reasons behind customers' reluctance to adopt electronic payments and how these factors relate to their values. To identify the characteristics of electronic payments that customers find objectionable and to look into the relationships between those characteristics and people's values by looking at the effects of those characteristics; to offer advice to financial institutions and service providers on how to develop appropriate strategic plans to promote electronic payments in Libya. To achieve these research objectives, the means-end chain (MEC) theory is applied in combination with hard laddering interviews as a data collection method. Subsequently, the data is analyzed using the Association Pattern Technique (APT) to produce the Hierarchical Value Map (HVM). The HVM identifies five main obstacles that keep customers from using electronic payments: a lack of awareness about the benefits and security of electronic payments, a lack of laws protecting users of electronic payments, the unpopularity of electronic payments, the cost of transactions, and the lack of e-payment discounts. The Value Map also revealed that the most important value, safety, can explain the bulk of customers' reluctance to accept electronic payments. The respondents also expressed significant concerns about the economy and the convenience of e-payments. The report offers suggestions for banks and service providers to increase e-payment usage based on these findings.

Keywords e-payment, hard laddering interview, hierarchical value map (HVM), means-end chain(mec) theory, resistance

INTRODUCTION

Using a mobile device to make payments has a number of advantages, such as better customer satisfaction, lower transaction costs, and greater payment security (Kim & Kim, 2010). Consumers in the Libya (Africa) are starting to favor mobile payments more and more. This suggests that more people are using mobile-based transactions via services like Mobile Pay Google Pay or local pays account to account as well as in-app purchases, e-Commerce, Person to Person (P2P) payments, and in-store payments (Tanskanen, 2011; Salonoja, 2013). Innovations always encounter resistance at first, although resistance and adoption can coexist. Because of this, it is critical to comprehend resistance more thoroughly, particularly when it comes to the development of digital financial services (Anh Tran, 2016). The identified adopter categories (innovators, early adopters, early majority, late majority, and laggards) exhibit varying degrees of innovation resistance in a population, in accordance with theories of innovation dissemination (Jahanmir & Cavadas, (2018). Customers may choose to see resistance to technology innovations like new retail payment methods as a rational decision rather than something to be condemned (Kaur & Almotairi, 2020). Previous studies have revealed some legitimate obstacles that hinder the uptake and utilization of mobile payments (Moghavvemi & Phoong, 2021). Among these include the intricacy of payment processes retailers' unwillingness to take them worries about security and privacy, a lack of perceived value and low customer knowledge. Further research is required to



comprehend the causes of hesitation fully and, consequently, what can impede wider acceptance in business (Dahlberg & Mallat, 2002).

The primary objective of this research is to provide comprehensive insights into the reasons behind the non-adoption of mobile payments, despite the abundance of options available in the market, through quantitative with consumers who have yet to accept these services. In the context of technological innovation, specifically mobile payments, the research theoretically advances resistance to innovation theory. However, the report supports mobile service providers and merchants looking to boost the use of mobile payments, particularly for in-store transactions. The article is arranged as follows: The methodology is explained after a study of the literature on consumers' resistance to innovation. Following the presentation of the data, conclusions are made along with recommendations for additional study and managerial.

LITERATURE REVIEW

Advances that force consumers to adapt are often met with resistance. Consumer hesitation to adopt is explained by innovation resistance theory (IRT) in terms of two primary dimensions: psychological barriers and functional barriers (Musyaffi & Oktavia, 2022). Three barriers work together to form the Functional dimension: Usage, Value, and Risk. These challenges arise when a client anticipates significant changes as a result of the innovation (Mani & Chouk, 2018). The two obstacles that make up the psychological resistance component are the image and tradition barriers. They appear when customers' opinions of a certain good or service do not align with their traditions and beliefs (Veryzer, 1998). These five obstacles are especially significant when it comes to digital financial services, according to a previous study (Chen & Kuo, 2017). In terms of technical advancements, similar to the complexity dimension in the diffusion of innovation theory, barriers describe the degree of difficulty in comprehending and implementing a concept (MacVaugh & Schiavone, 2010) said that the two primary barriers to implementation were the complexity of mobile payment systems and a lack of general merchant acceptance. Customers in the Nordic region avoid making in-store purchases since they need to know if establishments allow mobile payments, and they find them difficult to use (Karesoja 2021). The ease of use of mobile payments is a major factor in determining customers' willingness to use those (Liu & Tai, 2016). Regarding technological developments, barriers, like the complexity dimension in the diffusion of innovation theory, characterize the level of difficulty related to understanding and putting a notion into practice (Greenhalgh & Peacock, 2005). According to Apanasevic & Arvidsson (2016), the two main obstacles to deployment were the intricacy of mobile payment techniques and a general need for retailer acceptability. Nordic consumers avoid making in-store purchases because they find it difficult to utilize mobile payments and are unsure if the establishments accept them. Customers' decisions to accept mobile payments are largely influenced by their convenience of use (Bamasak, 2011). Innovations' unexpected consequences and ambiguity are linked to risk barriers. It may be the subject of most research on mobile payments (Gao & Waechter, 2017). Consistent with the results of multiple earlier studies, a recent discovery indicates that people are less

inclined to use mobile payment technologies when they perceive risk (Heinze, 2016). They outlined a number of potential obstacles that would prevent mobile payments from being widely used, such as privacy and security issues, device and network instability, misuse, transaction failures, and a lack of easily accessible transaction records and documentation (Liébana-Cabanillas & Carvajal-Trujillo, 2021). It discovered that the issues preventing mobile in-store payments received the highest mean rating across privacy and financial concerns. There is often a correlation between the tradition barrier and the degree to which an innovation may upset consumers' habits; this correlation is likely stronger if the consumer places a high importance on their routines (Mani & Chouk, 2018). Since most consumers are used to using cash and credit cards, it takes some time to get used to new payment methods (Boden & Wilken, 2020). The biggest obstacle to the adoption of mobile banking services has been identified as tradition the uptake of in-store mobile payments is influenced by prior use of other mobile purchase systems and applications (Moghavvemi & Phoong, 2021). If adoption deviates from social conventions and family values, it may be challenging for the individual to adopt the general level of social impacts a person's propensity to use mobile payment (Dang & Dwivedi, 2023). The term "image barrier" refers to a bad opinion of a service or good just because it comes from a particular industry, product class, or nation of origin (Laukkanen & Cruz, 2009). It is a personal perception problem; according to Laukkanen (2015) problems with new technology in general may be the source of a poor perception of a technical advance. The consumer adoption process is also influenced by trust in mobile payment service providers (Laukkanen & Kivijarvi, 2008). This section examined prior studies on consumer acceptance of mobile payments as well as the innovation resistance theory. Next, we will use in-depth information from qualitative interview research with non-adopters to add to these earlier findings. The objective was to increase comprehension of the factors that prevent adoption and, in the end, to provide light on potential roadblocks.

METHOD

Data Collection

The main objective of this study is to determine the reasons behind customers' reluctance to accept and use electronic payments. In order to achieve this, MEC theory, in conjunction with hard-laddering interviews, will be used to collect data. There are two stages to the investigation. Soft-laddering interviews were done in the first phase, utilising values (V), characteristics (A), and consequences (C) from previous research. Completed with the help of three clients, two electronic payment specialists (one is the director of the customer center at another commercial bank, and the other is the head of the product development division at one commercial bank), and adjustments to the A-C-V Libya bank. A total of fifteen (A) e-payment characteristics (one new A added), twelve (C) consequences (two new Cs added), and six (V) values are used for the hard-laddering interview after five soft-laddering interviews. Table 1 shows the A-C-V list after completion.



Finalized A-C-V

No	Stakeholders	From previous studies	Finalized after interviews	Code
		ATTRIBUTES		
1	Internal factors: Users	Cash habit	Cash habit	A1
2		ignorance of the advantages of electronic payments.	Lack of knowledge about the advantages of electronic payments	A2
3		Must possess a bank card	Need to have a bank card	A3
4		Absent a smartphone, computer, or Internet connection	Need to have connected laptop/smartphone	A4
5		Enter billing and card information	Need to enter billing and card information	A5
6		Lack of a receipt	Lack of a sealed receipt	A6
7		Electronic money is not real	Electronic money is not real	A7
8		Previous unsuccessful experience	Previous unsuccessful experience	A8
9	External factors:	Not being widely used	Not being widely used	A9
10	1. Banks or Financial institutions 2. Services providers 3. Merchants	The e-payments business is still in its infancy due to inconsistent payment platforms and inadequate infrastructure.	E-payment market is immature (lack of adequate infrastructure and uniform payment platforms)	A10
11	4. Policymakers		Transaction fee/No special discount for E-payment	A11
12		Complicated payment procedure	Complicated payment procedure	A12
13		Internet Environment	Information security system is not good	A13
14		Not timely support services, including	Not timely support services, including unwell trained staff	A14

No	Stakeholders	From previous studies	Finalized after interviews	Code
		ATTRIBUTES		
		unwell trained staff		
15		Unavailable regulators to protect	No legal to protect users	A15

	users		
CONSEQUENCES			
1	Do not want to know/learn about EPS	No need to learn about e- payment	C1
2	Feel uncomfortable, unclear when using e- payment	Not clearly understand	C2
3	Time-consuming	Time-consuming	C3
4	Purchase computer/phone	Costly/ no discount	C4
5	Make mistakes by users	Possibility of making mistakes by users	C5
6	No transaction evidence	No transaction evidence	C6
7	Feel insecure	No trust	C7
8	Usage difficulty, including password required for the transaction	Usage difficulty	C8
9		Not all merchants accept E-payments	C9
10	Payment transaction errors	Payment system errors	C10
11	Possible internet threats: Fraud of bank accounts and card number	Risk of disclosing personal information, card and account	C11
12		Risk of losing money	C12
VALUES			
1	Economy	Using E-payment is not economical	V1
2	Security	Using E-payment is not safe	V2
3	Convenience	Using E-payment is not convenient	V3
4	Control	Using E-payment doesn't bring financial control	V4
5	Efficiency	Using E-Payment is not efficient	V5
6	Change resistance	I'm not willing to use E-payment	V6

The questionnaire for the hard-laddering interview is then created in the second stage using the Association Pattern Technique (APT), which includes two matrices (A-C and C-V) of internal factors. This allows respondents to choose the characteristics, related outcomes, and values that influence their reluctance to make an electronic payment. The final two questions will also examine external influences.



Sampling

Because hard-lading surveys are unpopular, respondents often need more certainty when answering the questionnaire. We addressed each responder and asked the appropriate questions in an effort to determine who would be the best fit for the study. A client must meet one of three requirements in order to become a surveyor:

1. They must be aware of electronic payment but do not use it, doing most of their transactions in cash.
2. They must have used electronic payment in the past but do not use it now.
3. They must limit the use of electronic payment in their transactions.

After that, it takes each respondent 15 to 20 minutes to finish the questionnaire.

A minimum of fifty participants was recommended by Costa, Dekker, and Jongen (2004) for a study that used the hard laddering interview technique. Therefore, the minimal sample size for this study should be at least fifty. After the data was collected, 203 validated questionnaires were used for analysis.

Data Analysis

Hofstede (2011) developed and validated the Association Pattern Technique, a survey-based method for analysing the means-end data from laddering interviews. As to Reynolds and Gutman's (1988) description, the APT has three steps: Fill in the following list of three groups: characteristics (A), consequences (C), and values (V). (2) Using the initial set of data, make association pattern matrices and ask respondents to select the cells they think are related. (3) Examine the relationships between the items in the two matrices, A-C and C-V, to construct the Hierarchical Value Map (HVM).

To construct the HVM, the APT model must first be used to quantify the A-C and C-V matrices. For the two matrices given above, the responses are either "Yes" or "No". If the answer is "Yes," one point will be given, and a hyperlink for A-C or C-V will be created. On the other hand, if the answer is "No," meaning that there is no relationship between them, a score of 0 will be given. By summing each point made in each cell, one can determine how many times the linkage is addressed. Two relational matrices' quantitative output is used to construct the HVM. To help participants visualise the study's findings and focus on the issues that need to be resolved, an HVM is a map that shows every relationship between the attributes, consequences, and values (A-C-V) as a chart.

Next, retain the A/C/V elements and their relationships while balancing the quantity of information from the two relational matrices to create a final, clear, and simple map with sufficient data for an explanation. The sample size has an impact on this equilibrium.

As well as the reliability of the information the respondents supplied. It represents the absolute minimum of values a link must have in order to appear in the hierarchical value map and is frequently referred to as the cut-off point. In the event that the cut-off point is 4, links that appear at least four will not be retained in the HVM. The cut-off is intended to recognise the important linkages and eliminate the rest in order to generate meaningful and comprehensible HVMs. Kang, Kang, Yoon, and Kim (2014) suggested a cut-off threshold of 5% of the total number of cells in the A-C matrix and three to five linkages in the C-V matrix. The HVM covers three layers of abstraction. The highest level of abstraction is

represented by the value (V) at the top of the map, and the lowest level is represented by the attribute (A) at the bottom.

Data Description

The sample's attributes, such as age, gender, and payment methods, are summarised in Table 2. 55% of respondents, according to the qualifying questionnaires, are under 35 years old, which is consistent with the data from the Loi (2017) article that was stated in the Introduction. Seventy-one per cent of the respondents (203 out of 201) are under 45, and the bulk of them utilise cash for most or all of their everyday transactions. As a result, the sample satisfies the needs of the suggested target demographic.

Table 2. Sample' description

Description						Total
Age	18-25	26-35	36-45	46-55	>55	
No.	51	61	59	23	9	203
Gender	Male		Female			
No.	98		105			203
Payment methods	100% by cash	Mostly by cash		Same ratio		
No.	37	124		42		203

Source: Data analysis result of the research

Implication Matrices

The matrix in Table 3 displays the attributes that deter consumers from making electronic payments as well as the consequences of those attributes. Each cell in the matrix represents a link. There are 126 and 54 links that are cited and not listed, respectively. The most often cited links are A1, C1) at 86, A11, C4) at 85, or A13, C11) at 81. On the other hand, the minimal occurrence of certain links, like (A3, C5), (A5, C1), or (A7, C4), is at 1. Qualities A9 and A10 are associated with most of the effects, whereas A11 is only related to a few of the outcomes. Although there is a stronger correlation between C6 and C11 and qualities, the outcome of C9 is related to all traits.

Table 3. A-C matrix about reasons why customers are unwilling to use E-payment

	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12
A1	86	42	20	12	22	11	26	15	28	0	0	0
A2	17	70	11	4	8	2	16	11	16	0	0	0
A3	2	6	76	19	1	2	6	7	8	0	0	0
A4	4	3	13	33	8	0	4	16	43	0	0	0
A5	1	3	20	0	47	0	2	8	17	0	0	0



A6	0	0	0	0	3	50	8	2	1	0	0	0
A7	4	4	1	1	0	3	20	3	2	0	0	0
A8	0	4	15	2	15	1	17	8	13	0	0	0
A9	48	35	6	5	0	0	20	23	55	10	16	10
A10	13	24	18	1	0	0	36	21	41	41	31	33
A11	0	8	2	85	0	0	0	0	5	1	0	3

	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12
A12	3	6	39	2	0	0	10	35	23	17	6	12
A13	2	3	0	0	0	0	41	1	5	44	81	70
A14	2	8	24	2	0	0	21	7	30	9	4	17
A15	4	7	1	0	0	0	21	1	9	17	35	58

The relationship between the consequences (which stem from the primary reasons why customers are reluctant to adopt electronic payments) and the underlying values impacted by those consequences is illustrated in Table 6's matrix. The number of times a relationship between consequence (C) and value (V) occurs is likewise represented by numbers in the matrix, just like in the analysis above. Since there are zero (0) cells in the matrix, there are three pairs (C, V) that do not form a relationship. The highest number of occurrences in this matrix is 118, which is found in cells C9 and V3. With the exception of C6 and C11, which only have a link to four values, the majority of the consequences are connected to six variables. Since there is no zero (0) in Columns V2, V3, and V4, all 12 outcomes have an impact on these three respondent values.

RESULT AND DISCUSSION

The HVM illustrates the five main aspects of electronic payments that discourage consumers from utilising them:

1. A2: "Insufficient knowledge about electronic payments and their advantages"
2. A 13: "Inadequate information security for electronic payments"
3. A 15: "No laws exist to safeguard electronic payment users."
4. A 9: "Inadequate use of electronic payments"
5. An 11: "Requires payment of a transaction fee or does not offer a discount for electronic payments."

From the HVM, several locations are easily recognized.

To begin with, most client's select attribute A11. Second, these five factors give consumers the impression that using electronic payments has no benefits in terms of money, convenience, or safety (V1), V2), and V3). Thirdly, the fact that three out of every five links lead to V2 indicates that the majority of responders are clearly interested in this value. The A-C-V linkages that are most commonly observed are A11-C4-V1 (transaction fee required or no discount for using E-payment E-payment is costly \diamond E-payment is not economical);

A13-C11-V2 (information security system of E-payment is not good \diamond Risk of disclosing information, card and account \diamond E-payment is not safe); and A9-C9-V3 (E-payment is not widely used \diamond Not always accepted by merchants \diamond E-payment is not convenient). The last three A-C-V connections that responders saw the most often are listed here.

When taking into account the degree of consequence, C12 (Risk of losing money) stands out as the most pertinent feature, with 128 instances. In 70 and 58 instances, respectively, the statements "No laws to protect E-payment users" (A15) and "Information security system of E-payment is not good" (A13) are related to this result. The banking security system has been connected to several cases of financial loss in the banking sector (at Vietcombank, Dong A Bank, Agribank, etc.) in recent years. These occurrences include hacker attacks, the potential for viruses to propagate, and the revealing of account and credit card number information. These occurrences draw attention to the weaknesses in the current security system, making consumers reluctant to make electronic payments due to their sense of unease. Technology adoption is hampered by the lack of a complete regulatory framework that currently governs the supply of electronic payment and banking services. The cases also show how out-of-date, insufficient, and unprepared the current legal system is for the sophistication of hackers and the quick development of technology. Because they are uneasy, customers are reluctant to convert from cash to electronic payments.

Eighty-five cases of the second significant consequence, C4 (Using E-payment is costly), may be attributed to A11 (Need to pay transaction fee or No discount for E-payment). Most Libya ese banks now charge bank fees for any transactions made online, but they do not charge more for cash transactions. The more transactions there are, the higher the charge that user has to pay. Therefore, in an effort to persuade customers to switch from conventional payment systems (cash) to electronic ones,

It is a good idea to apply a bonus or reduction for payments made electronically. Rich countries charge retailers two to three per cent more for electronic payments. This is a very great incentive for people who use electronic payment methods (e.g., cards, electronic wallets). These advertisements, however, are still infrequent in Libya and do not encourage users to use electronic payment methods.

The other consequences, C11, C2, and C9, are connected to A13, A2, and A9 at 81, 70, and 55, respectively. The HVM's links show that hurdles can come from both the inside (customers' ignorance of e-payment and its benefits) and the outside (no laws protecting e-payment users or e-payment are not commonly used).

The fundamental value of V2, Safety, is associated with 274 occurrences (from C2, C11, and C12, at 77, 102, and 95, respectively), and six A-C-V linkages (A11-C4-V1, A2-C2-V2, A13-C11-V2, A13-C12-V2, A15-C12-V2, and A9-C9-V3) are shown in the HVM. To begin with, A11-C4-V1 is the most conspicuous and frequently occurring link among the six (85, 115). This suggests that consumers are particularly worried about additional expenses and financial advantages/discounts when embracing e-payment as a new payment option. They are unwilling to accept electronic payments since the increased costs go against their notion of "Economy." The primary obstacle keeping these clients from taking electronic payments is the economy."



Second, four A-C-V links are associated with the fundamental concept of "safety": A2-C2-V2, A13-C11-V2, A13-C13-V2, and A15-C12-V2. The A2-C2-V2 linkage indicates that customers have a hazy grasp of the technology due to their ignorance about e-payment and its benefits. Individuals are hesitant to accept novel and unfamiliar payment methods because they are uncomfortable with them. They will definitely feel more at ease using the new service now that they have more information regarding electronic payments at their disposal. The A13-C11-V2 and A13-C13-V2 links illustrate two more important facets of electronic payments: the information security system. An unsecured e-payment system can have many detrimental impacts, including the potential for financial loss (C13) and the chance of card and account information being compromised (C11). Customers are reluctant to try out other payment methods when they see multiple cases of payment fraud in the media, which are brought on by weaknesses in the bank security system. The last A-C-V linkage that leads to the safety value is A15-C12-V2. The current legal structure needs to be revised to protect customers in the case of a dispute when they use new services like electronic payments. The likelihood of money being lost during online transactions increases as hackers become more skilled and dangerous. Because of this, customers are reluctant to utilise electronic payments and instead choose to continue with traditional ones. It is possible to deduce from the four A-C-V links that customers' top concern when deciding whether to accept electronic payments is "safety."

Clients in the A9-C9-V3 linkage are also worried about how simple it is to use electronic payments. Because only some retailers have an electronic payment system set up, customers are unable to use this strategy extensively. They are compelled to revert to the traditional cash technique, which is still favoured by a substantial portion of Libya ese retailers over other payment options. Customers' continued dissatisfaction with the new payment method makes sense. To sum up, the reason why "e-payment is not being widely used" is that users are deterred from adopting e-payment by their underlying desire for "convenience" on a personal level.

CLOSING

Conclusion

The study employs the Means-End chain theory and hard-laddering interview techniques to identify five key attributes of electronic payments that Libya ese consumers see as substantial impediments to their use. A2: "Insufficient knowledge about electronic payments and their advantages" is one of these traits. A 13: "Inadequate information security system for electronic payments," A 15: "No laws protecting electronic payment users exist," A 9: "E-payment is not widely used," as well as A11: "Transaction fees or no discounts for electronic payments are required." Of the five attributes listed, the majority of respondents selected attribute A11. In particular, driving has three main effects that are related to A2, A12, and A15. The conclusion of V2, "Using E-payment is not safe," is C2 stands for "Not clearly understand about E-payment," C11, "Risk of disclosing personal information, card and account," together with C12 "Risk of losing money." The main value that accounts for

Libya ese clients' reluctance to accept electronic payments is safety, according to the study's HVM.

Implications

The research findings show 03 important values including Safety, Economy, and Convenience explaining why customers are not willing to use E-payment.

The primary concern among consumers regarding safety is mostly financial loss. To solve this security issue, a strong data security solution must be developed. A strong IT foundation is necessary, and software must be improved and upgraded to keep up with new developments in technology. The second safety precaution is to draft a plan for risk management and business continuity. Furthermore, e-payments cleverly integrate Internet and banking technologies. Therefore, technical people's knowledge and skill enhancements are required to satisfy the need to manage payment systems with advanced technology and sophisticated security. The second reason for their underutilization is that customers need to be made aware of the benefits of electronic payments and the complexities of the system. Consequently, banks and service providers must educate their customers more about e-payments. This content should be presented across a range of media and should highlight the primary benefits for the target demographic in order to reach as many clients as possible.

Simplifying other processes and the payment process while preserving service reliability and security is necessary for e-payment convenience. Collaboration between banks and service providers is necessary to offer clients a uniform platform and electronic payment service. Another problem that needs to be fixed is the growing e-payment network, which needs to have a high level of merchant acceptance. The government and banks need to expand the network of ATMs and POS terminals in rural areas in order to achieve inclusive growth. To broaden their offerings, fintech organizations (service providers) need to increase the number of agreements they have with other service sectors. These include paying utility bills, paying street vendors, using traditional marketplaces, educating people, and doing internet shopping with delivery.

To sum up, about electronic payment, A promotion or incentive programme for non-cash transactions should be put in place by the economy, banks, service providers, and merchants, especially in the e-commerce and bill payment sectors. As an example, in May 2018, Amazon reached an agreement to distribute to other retailers the credit card fee savings it gets from customers using the online payment option.

Service (Surane & Soper, 2018). The chance to get a discount for making early payments was another perk that some companies offered to their credit customers. Giving anything out for free or at a discounted price would surely not deter consumers from making frequent online purchases using e-payments, and it would even increase the total number of transactions made online.

Research Limitations and Further Research

This study has several areas for improvement, even though it covers all research objectives. First off, the size of the 203 qualifying samples did not follow Gutman's (1982)



recommended Association Pattern Technique (APT) sampling parameters. Furthermore, because the study's matrix format questionnaire requires facilitator assistance with survey delivery, it is contentious and difficult for respondents to complete. This limits the number of sample sizes that the online survey can yield. Second, the research's conclusions are only applicable to some of the Libya ESE market as a whole due to its convenience-driven focus on big City.

The limitations above inform the following suggestions for future research avenues. First, a bigger sample size is needed to confirm the study's conclusions. Second, by surveying additional places, researchers will have the opportunity to broaden the study's focus and apply its findings to a larger area of Libya.

REFERENCES

- Anh Tran, Q. (2016). Finnish grocery retailing market assessment for the deployment of payment innovation: Case: Uniqul face recognition payment application.
- Apanasevic, T., Markendahl, J., & Arvidsson, N. (2016). Stakeholders' expectations of mobile payment in retail: lessons from Sweden. *International Journal of Bank Marketing*, 34(1), 37-61.
- Bamasak, O. (2011). Exploring consumers acceptance of mobile payments—an empirical study. *International Journal of Information Technology, Communications and Convergence*, 1(2), 173-185.
- Boden, J., Maier, E., & Wilken, R. (2020). The effect of credit card versus mobile payment on convenience and consumers' willingness to pay. *Journal of Retailing and Consumer Services*, 52, 101910.
- Chen, P. T., & Kuo, S. C. (2017). Innovation resistance and strategic implications of enterprise social media websites in Taiwan through knowledge sharing perspective. *Technological Forecasting and Social Change*, 118, 55-69..
- Dahlberg, T., & Mallat, N. (2002). Mobile payment service development-managerial implications of consumer value perceptions. *ECIS 2002 Proceedings*, 139.
- Dang, T. Q., Tan, G. W. H., Aw, E. C. X., Ooi, K. B., Metri, B., & Dwivedi, Y. K. (2023). How to generate loyalty in mobile payment services? An integrative dual SEM-ANN analysis. *International Journal of Bank Marketing*, 41(6), 1177-1206.
- Gao, L., & Waechter, K. A. (2017). Examining the role of initial trust in user adoption of mobile payment services: an empirical investigation. *Information Systems Frontiers*, 19, 525-548.
- Greenhalgh, T., Robert, G., Macfarlane, F., Bate, P., Kyriakidou, O., & Peacock, R. (2005). Storylines of research in diffusion of innovation: a meta-narrative approach to systematic review. *Social science & medicine*, 61(2), 417-430.
- Jahanmir, S. F., & Cavadas, J. (2018). Factors affecting late adoption of digital innovations. *Journal of business research*, 88, 337-343.
- Karesoja, M. (2021). *The adoption of in-store mobile payment in Finland* (Bachelor's thesis).

- Kaur, P., Dhir, A., Singh, N., Sahu, G., & Almotairi, M. (2020). An innovation resistance theory perspective on mobile payment solutions. *Journal of Retailing and Consumer Services*, 55, 102059.
- Kim, C., Tao, W., Shin, N., & Kim, K. S. (2010). An empirical study of customers' perceptions of security and trust in e-payment systems. *Electronic commerce research and applications*, 9(1), 84-95.
- Laukkanen, T. (2015, January). How uncertainty avoidance affects innovation resistance in mobile banking: The moderating role of age and gender. In *2015 48th Hawaii international conference on system sciences* (pp. 3601-3610). IEEE.
- Laukkanen, T., & Cruz, P. (2009). Comparing consumer resistance to mobile banking in Finland and Portugal. In *e-Business and Telecommunications: International Conference, ICETE 2008, Porto, Portugal, July 26-29, 2008, Revised Selected Papers* (pp. 89-98). Springer Berlin Heidelberg.
- Laukkanen, T., Sinkkonen, S., Laukkanen, P., & Kivijarvi, M. (2008). Segmenting bank customers by resistance to mobile banking. *International Journal of Mobile Communications*, 6(3), 309-320.
- Liébana-Cabanillas, F., Singh, N., Kalinic, Z., & Carvajal-Trujillo, E. (2021). Examining the determinants of continuance intention to use and the moderating effect of the gender and age of users of NFC mobile payments: A multi-analytical approach. *Information Technology and Management*, 22(2), 133-161.
- Heinze, J. (2016). *New Channels for Old Businesses: Examining the Drivers and Obstacles of Mobile Commerce Adoption for Complex Products* (Doctoral dissertation).
- Liu, G. S., & Tai, P. T. (2016). A study of factors affecting the intention to use mobile payment services in Libya. *Economics World*, 4(6), 249-273.
- MacVaugh, J., & Schiavone, F. (2010). Limits to the diffusion of innovation: A literature review and integrative model. *European journal of innovation management*, 13(2), 197-221.
- Mani, Z., & Chouk, I. (2018). Consumer resistance to innovation in services: challenges and barriers in the internet of things era. *Journal of Product Innovation Management*, 35(5), 780-807.
- Mani, Z., & Chouk, I. (2018). Consumer resistance to innovation in services: challenges and barriers in the internet of things era. *Journal of Product Innovation Management*, 35(5), 780-807.
- Moghavvemi, S., Mei, T. X., Phoong, S. W., & Phoong, S. Y. (2021). Drivers and barriers of mobile payment adoption: Malaysian merchants' perspective. *Journal of Retailing and Consumer Services*, 59, 102364.
- Moghavvemi, S., Mei, T. X., Phoong, S. W., & Phoong, S. Y. (2021). Drivers and barriers of mobile payment adoption: Malaysian merchants' perspective. *Journal of Retailing and Consumer Services*, 59, 102364.
- Musyaffi, A. M., Gurendrawati, E., Afriadi, B., Oli, M. C., Widawati, Y., & Oktavia, R. (2022). Resistance of traditional SMEs in using digital payments: development of innovation resistance theory. *Human Behavior and Emerging Technologies*, 2022.



- Salonoja, N. (2013). Bridging the equity and entrepreneurial gaps in the Finnish fashion industry: a comparative case study of the Swedish, Danish & Finnish fashion ecosystems.
- Tanskanen, T. (2011). Bridging the digital divide in developing countries: The role of mobile technology in. *Journal of theoretical and applied electronic commerce research*, 6(2).
- Veryzer Jr, R. W. (1998). Key factors affecting customer evaluation of discontinuous new products. *Journal of product innovation management*, 15(2), 136-150.