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# How to Shift Consumer Willingness to Use the Emerging Technologies on Omnichannel

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### ABSTRACT

*This paper examines factors that show how to shift consumer willingness to use emerging technologies on omnichannel. The goal was to understand what parameters influence consumer tendency to adopt developing technologies on Omnichannel. The study was motivated by a desire to better understand the challenges that emerging technologies face, as they are not widely used due to concerns about operability, safety, and privacy, in contrast to established technologies. The study utilized UTAUT2 and ECM Models to create a triangulation model. Furthermore, the study used empirical data to develop 11 hypotheses, nine constructs, and one moderating factor by Structural Equation Modeling (SEM). The study was a quantitative survey using both online and offline shoppers in Thailand. A structured questionnaire was used to obtain primary data from a sample size of 520 people between May 12 and August 15, 2021. The result indicated that all the hypotheses were supported, and the variables were seen to have direct and indirect influences on the acceptance model. Finally, this paper proposes that combining the Unified Theory of Acceptance and Use of Technology, Expectation-Confirmation Model, Service Quality, and Personal Innovativeness would allow for a better understanding of factors of Willingness to Use Emerging Technologies.*

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## INTRODUCTION

Emerging technologies have become popular in various industries that are using this new concept to help to combat the pandemic outbreak of COVID-19 globally, and this has changed everything from operations to other traditional areas such as Artificial Intelligence (AI), Blockchain, 5G technology, Smart Applications, Internet of Things (IoT), Robotics, Augmented Reality (AR), Virtual Reality (VR), and Mixed Reality (MR), etc. (Muangmee et al., 2021; Queiroz and Wamba, 2021).

Various Companies have excitedly designed a seamless retail world where customers can conduct business round the clock from any location. The word omnichannel is often used to characterize this kind of retail. Moreover, the retail era of omnichannel has impacted sales patterns and has seen the competition between consumers and retailers lead to unprecedented shopping habits and models (Beck and Rygl, 2015). Omnichannel shopping has been made possible by advances in computer-mediated technologies, which allow customers to shop in conventional establishments using mobile technologies and online resources. In addition to providing the benefit of more excellent conversion rates via multiple channels, the omnichannel model enhances the marketing strategy by incorporating multiple channels into the marketing and shopping experience (Yurova et al., 2017), through innovation, customers will have a more enjoyable shopping experience. E-commerce is being transformed by artificial intelligence, which international companies already use. Self-service pickup machines provide human-friendly interfaces and intelligent services with new information technology, such as artificial intelligence, virtual reality, etc. AR and VR are becoming popular. AR allows customers to interact with products and complete tasks without involving store personnel in any way, and these are being used to help in-store and online shops increase sales and improve the overall shopping experience (Bonetti et al., 2018; Chaveesuk et al., 2021; Wall and Khalid, 2021).

Furthermore, examples of launched emerging technologies about AR, VR, and computer vision with AI has been successfully integrated in firms such as IKEA, Shopee, Artistry, NIKE, Vket Mall-Virtual Market in Japan, BingoBox in China, Amazon Go, Amazon go grocery, etc.

Emerging technologies are challenging to obtain and are not widely used because of skepticism about the operability and safety of the technologies, whereas established or well-known technologies are easier to use because they have been validated over time by users. Therefore, this paper analyzes how to shift consumer willingness to use the emerging technologies on omnichannel using Structural Equation Modeling (SEM). In addition, this study aims to utilize empirical data to establish 11 hypotheses, nine constructs, and one moderating factor, all of which were chosen from a conceptual framework by Rodríguez-Torrico et al. (2017) to address the question "How to shift consumer willingness to use the emerging technologies on omnichannel?"

Moreover, combining this concept with the Unified Theory of Acceptance and Use of Technology (UTAUT2), Expectation-Confirmation Model (ECM), Service Quality, and Personal Innovativeness would allow for an enhanced understanding of Willingness to Use Emerging Technologies.

The following is a breakdown of the structure of this paper: The Literature Review and Hypotheses of this study are described in Section 2. The Methods are presented in Section 3. The result is shown in Section 4. Finally, the conclusion of this research is presented in Section 5.

## **1. MATERIALS AND METHODS**

This section describes the Literature Review and Hypotheses of How to shift consumer willingness to use the emerging technologies on omnichannel, including UTAUT2, ECM, Service Quality, and Personal Innovativeness.

### **1.1 Omnichannel**

Omnichannel Retail is referred to as a multi-channel shopping system that eliminates barriers and seamlessly integrates the online shopping experience and in-store customer experience. Consumers can buy goods and services online, in-store, or integrate both processes by starting the purchase online and completing it in-store or starting a purchase in-store and completing the order online. Table 1 presents some definitions of omnichannel according to different authors.

**Table 1.** Omnichannel Definitions

<i>Definition of Omnichannel</i>	<i>Reference</i>
Retail Businesses have all been on board with a seamless retail experience in which customers can shop everywhere and whenever they want. As a result, many distribution methods are commonly called "omnichannel retailing."	(Beck and Rygl, 2015)
Since the introduction of digital devices, there has been an increase in available information sources. In practice, customers engage in omnichannel behavior, which combines online and in-store shopping.	(Rodríguez-Torrico, 2017)
The omnichannel model complements the marketing strategy by adding the benefit of increased conversion through the combination of channels.	(Kaczorowska-Spychalska, 2017)
Increased computer-mediated technologies have facilitated the Omnichannel, which shops from traditional stores to mobile and online shops across all retail channels.	(Yurova et al., 2017)
Channel integration decision-making of retailers is a relatively new trend that remains an innovation process in the retail industry, mainly as cross-channel integration.	(Cao and Li, 2018)

## 1.2 Emerging Technologies

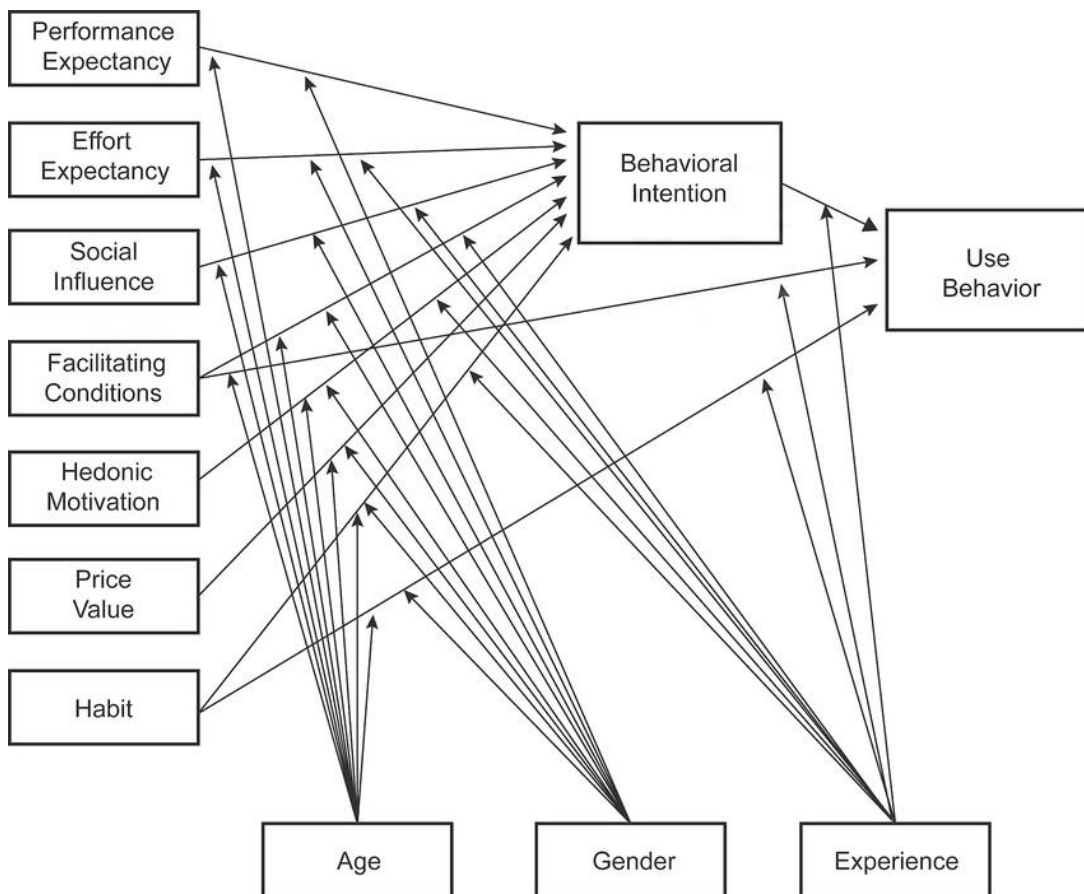
Shopping technologies have improved greatly with advances and innovations in technologies. Interventions ranging from shopper assistance tools to payment options and even online shopping via smartphone applications have revolutionized the marketing and shopping experience for both retailers and customers [17]. The new service benefits are service simplification and the customer experience in emerging technologies such as AI, Blockchain, 5G technology, Smart Applications, IoT, Robotics, AR, VR, MR, etc. The example emerging technologies have been listed in Table 2.

**Table 2.** Emerging Technologies Definition

<i>Definition of Emerging Technologies</i>	<i>Reference</i>
With advancements, customers will have a better shopping experience. International retailers already use AI that is revolutionizing e-commerce.	(Oosthuizen et al., 2021)
The increasing AR and VR have evolved to enhance in-store and online retailers to improve their sales and shopping experience through fast emerging innovations.	(Bonetti et al., 2018)
Self-service pickup machines should feature human-friendly interfaces and offer intelligent services, such as AI, virtual reality, and other modern technologies.	(Chen et al., 2018)
A critical goal of the Omnichannel project is a consistent customer experience. Digital solutions such as AI often become established. IoT is following the patterns found in the retail era of omnichannel.	(Chi et al., 2019)
Allows the robot to navigate a pre-designed route to show customers where to find what they want. In addition, the robot can inform a customer of their intent to buy.	(Lin et al., 2020)
Chatbots powered by natural language processing and deep learning algorithms could help replace human employees in online retailing.	(Haque et al., 2021)

## 1.3 Willingness to Use

This study used empirical data to develop 11 hypotheses, nine constructs, and one moderating factor selected from a conceptual framework (Rodríguez-Torrico et al., 2017) to answer the question, "How to shift consumer willingness to use the emerging technologies on Omnichannel?". Willingness to Use Emerging Technologies to assess to what extent an individual has deliberately established plans to use these innovative emerging technologies in their future shopping and retail activities. Various researchers have found that customers develop consequence behavior on continuance to use, intention to use, intention to adopt self-service technology, Kiosk, mobile commerce applications, etc. (Natarajan et al., 2017; Iqbal et al., 2018; Muangmee et al., 2021; Khalid et al., 2021; Rahi et al., 2019). Willingness to Use Emerging Technologies was significantly influenced by UTAUT2 with focus on three factors (facilitating conditions, price value, and social influence).



**Figure 1.** UTAUT2 framework  
 Source: Adopted from Rahi et al., 2019.

Firstly, Facilitating Conditions refer to customers' awareness of assistance resources and ways to assist them in their shopping experience (Patil et al., 2020; Venkatesh et al., 2012). Secondly, Price Value refers to customers making financial-trade-off decisions (based on which is more valuable to them) regarding their significant profits and methodology. There was a strong correlation between consumer behavioral intention toward m-commerce adoption facilitating conditions, the service quality, and price value. These factors accounted for 65.5 percent of consumer behavioral intention (Venkatesh et al., 2012). Thirdly, Social Influence means Consumers believe as influenced by family and friends that technology should be used for specific purposes. This reflects the effects of external factors such as the user's friends, family, and superiors (Okumusa et al., 2018). In addition, social influence and facilitating conditions are important factors that explain customer willingness to use mobile banking (Oliveira et al, 2016). Moreover, predicting behavioral intention to use self-service kiosks was made more accessible with the help of facilitating conditions and social influence. Therefore, the research hypotheses are as follows:

- H1 Facilitating Conditions positively influences the Willingness to Use Emerging Technologies.*
- H2 Price Value significantly and positively influences the Willingness to Use Emerging Technologies.*
- H3 Social Influence has a positive influence on the Willingness to Use Emerging Technologies*

Willingness to Use Emerging Technologies was also significantly influenced by Expectation-Confirmation Model (ECM) focus on three factors: Perceived Usefulness, Expectation Confirmation, Customer Satisfaction. The ECM model was adapted from Okumusa et al. (2018).

Firstly, Perceived Usefulness about people feels that working with a particular system will improve their productivity. According to the findings of the empirical studies, expected value is a significant indicator of technology use and is correlated with Willingness to Use Emerging Technologies (Natarajan et al., 2017; Taufik and Hanafiah, 2019) and Customer Satisfaction (Natarajan et al., 2017; Yang and Geetha, 2019). Users' satisfaction and continuance intention to use mobile instant messaging is influ-

enced by Perceived Usefulness (Yang and Geetha, 2019). Secondly, Expectation confirmation and customer satisfaction is verified because it measures whether customer expectations have been exceeded or met, based on how they have experienced the service, related to Perceived Usefulness and Customer Satisfaction (Yang and Geetha, 2019). For example, online food m-shoppers' satisfaction and intention to continue mobile shopping were influenced by the perceived value for money they received. Thirdly, Customer satisfaction is considered an adequate response. Satisfaction can be achieved if customers are confident that their service requirements are met and are willing to use Emerging Technologies (Natarajan et al., 2017; Gu et al., 2021). Based on the reviewed literature, therefore, the study explored the following research hypotheses:

- H4 Perceived Usefulness positively influences the Willingness to Use Emerging Technologies*
- H5 Perceived Usefulness significantly and positively influences Customer Satisfaction*
- H6 Expectation Confirmation has a positive effect on Perceived Usefulness*
- H7 Expectation Confirmation has a positive influence on Customer Satisfaction*
- H8 Customer Satisfaction significantly and positively influences Willingness to Use Emerging Technologies*

Service Quality has been used to describe the Emerging Technologies service's quality. Service Quality was tested using a scale replication process on several samples from the company and consumer behavior. Efficiency and validity tests have been tracked in various settings and have been shown to be significant with Customer Satisfaction (Iqbal et al., 2018; Mango et al., 2017) and Willingness to Use Emerging Technologies (Iqbal et al., 2018; Joshi, 2020). Furthermore, Iqbal et al. (2018) summarized Service Quality, where : (1) Reliability and ease of use lead to the features like "response." (2) The term "enjoyment" refers to the customer's feelings toward the system after using it. (3) Customers' concerns about security/privacy are reflected in security/privacy measures. (4) The overall layout of a system is what design considers the most important factor. (5) Assurance shows that a service provider is competent and well-known in the industry. (6) Convenience has to do with how simple it is for a customer to use the company's services. (7) Customization is defined as knowing what a customer wants and needs and then shaping these services in response to that knowledge. And Self-service technology, which has profound effects on how customers interact with businesses to create positive service outcomes, such as customer satisfaction, loyalty, and behavioral intentions (Iqbal et al., 2018; Kazancoglu and Yarimoglu, 2018). Therefore, the following research hypotheses were proposed as follows:

- H9 Service Quality positively influences Customer Satisfaction.*
- H10 Service Quality has a significant and positive relationship with Willingness to Use Emerging Technologies*

An individual's ability to experiment with new IT is referred Personal Innovativeness. Consumers' purchase intent at retail is influenced by an AI-enabled checkout. Furthermore, arousal has been moderated by the importance of innovativeness in consumers' responses to AI-enabled checkouts (Lin et al., 2020). Purchase intention is influenced by social influence, and the perceived value of products plays a role in mediating these relationships to some extent. Furthermore, the personal characteristic of "consumer innovativeness" affects the moderates of these relationships (Persaud and Schillo, 2017). Moreover, the social influence of self-driving cars is positively related to purchase intentions. The relationships between the constructs are moderated by consumer innovativeness, with the effects being stronger when consumer innovativeness is high rather than low (Ayu et al., 2020). Therefore, the research hypotheses are as follows:

- H11 Personal Innovativeness moderates the relationship between Social Influence and Willingness to Use Emerging Technologies*

## **2. METHODOLOGY**

This study investigated how to shift consumer willingness to use emerging technologies on Omnichannels among Thai shoppers. The research was designed to adopt a triangulation model using UTAUT2 and the ECM Models. The study adopted a quantitative survey research design using online and offline



shoppers across Thailand. Primary data was collected between from May 12 – August 15, 2021, using questionnaire from a sample size of 520. The questionnaire was divided into two sections; the first section collected data on the demographics of the study population, such as age, gender, education, shopping frequency, and preferred channel. The second section collected data on the study constructs that measured different relations which are summarized in Table 3. The constructs were all developed from prior literature and discussed in the conceptual framework. The data were collected using Google Forms. The survey link was distributed using popular social media groups in Thailand (Shopee, Lazada, Facebook, Line, Instagram, and Twitter), some colleagues also helped in distributing the questionnaire among their networks. Respondents to the survey were mainly residents of Bangkok, Chiang Mai, Chiang Rai, Krabi, and Phuket where large populations are already familiar with the dynamics of online shopping and e-commerce.

### 3. RESULTS

The respondents were categorized into Gender, Age, Education, Frequency, Chanel (Online, In-Store), a breakdown of the findings are presented in Table 3.

**Table 3.** Characteristics of the study sample

		<i>Frequency</i>	<i>Percent</i>
Gender	Male	141	30.7
	Female	319	69.3
Age	< 21	20	4.3
	21 – 30	303	65.9
	31 – 40	72	15.7
	41 – 50	25	5.4
	>51	40	8.7
Education	Undergraduate	53	11.5
	Bachelor's degree	294	63.9
	Postgraduate degree	113	24.6
Frequency of shopping	1-3 days per week	121	26.3
	4-6 days per week	73	15.9
	Every day	266	57.8
Chanel	Online	129	28
	In-Store	79	17.2
	Online and In Store	252	54.8

Source: autors

Highlights of the demographic information revealed that females were dominant over the male gender; the age range of 21-30 were the most represented with 65.9% of the study population, while those below 21 were the least represented with 4.3%. Those with a bachelor's degree education were more represented with 63.9%, while those who are undergraduates constitute the smallest educational qualification level with 11.5%. In terms of frequency of shopping, those who shopped every other day were the dominant group with 57.8%, while those whose shopping frequency was 4-6 per week were the least with 26.3%. When analyzing the channel employed by the shoppers, those who used a combination of both online and in-store channels were dominant with 54.8% and those relying on in-store channel were least represented with 17.2%.

#### 3.1 Confirmatory Factor Analysis (CFA)

The Cronbach's alpha coefficient was utilized to evaluate the reliability of the study results. The metric used to assess the inter-item consistency of the measurement variables. According to (Kline 2005), the Cronbach's Alpha values should be greater than 0.7, while 0.60 are also considered moderate but

acceptable. They indicated that the reliability is considered excellent when it is >0.9, adequate if >0.8, and acceptable if >0.6. In Table 4, the constructs exceed the minimum acceptable threshold at 0.684, which is accepted because it is above 0.60. The result shows a high level of internal consistency, which has important implications.

**Table 4.** Results of CFA, validity analysis, and reliability test

<i>Latent variable</i>	<i>Observed variable</i>	<i>Loadings</i>	<i>Cronbach's Alpha</i>
FC	Resources	0.77	.900
	Knowledge	0.85	
	Compatible	0.82	
	Assistance	0.59	
PV	Price	0.72	.793
	Value	0.81	
SI	Influence	0.64	.684
	Important	0.75	
PU	Useful	0.84	.797
	Helpful	0.78	
EC	Experience	0.85	.817
	Service	0.77	
PI	Experiment X Influence	0.93	.816
	Experiment X Important	0.62	
	Trying X Influence	0.71	
	Trying X Important	0.47	
CS	Satisfied	0.88	.899
	Pleased	0.91	
SQ	Functionality / Customization / Convenience / Security	0.90	.910
	Assurance	0.83	
	Design / Enjoyment	0.84	
WTU	Continue Use	0.76	.837
	Intend to use	0.77	
	Intend to adopt	0.77	

The required threshold of the CFA fitness indices according to studies (Hair et al., 2010) should be as follows: RMSEA < 0.08; GFI/NFI/CFI/TLI > 0.9 (satisfactory fit) and > 0.8 (acceptable fit);  $\chi^2/df$  < 0.5. The results of CFA using Structural Equation Model (SEM) analysis found that the model according to the hypotheses did not match the empirical data, as determined by the fit index, which was as follows: The value different without statistical significance (TLI = 0.756, GFI = 0.702, AGFI = 0.629, CFI = 0.787, RMSEA = 0.120, RMR = 0.139,  $\chi^2/df$  = 7.621) as shown in Table 5 under the “Before” column.

In the research model, the model Willingness to Use has second-order latent variables were used to adjust the findings and presented in Table 5 under the “After” column. The obtained results as shown in Table 6 which illustrate the overall fit indexes of the model > It also shows good results for Tucker-Lewis Index (TLI), Goodness of Fit Index (GFI), Adjusted Goodness of Fit Index (AGFI), Comparative Fit Index (CFI), Root Mean Square of Error of Approximation (RMSEA), Root Mean Residual (RMR) and  $\chi^2/df$ . As a result of the findings, the model has reached an acceptable level and can be used to explain the set hypotheses.

In addition, Table 5 also highlights the results of the reliability and validity measurements and the results of the model. The adjusted model of the presented results is presented in Table 6 and show the hypotheses were all supported under type II error. In addition, Figure 2 is used to represent the Empirical model.

**Table 5.** Goodness of Fit

<i>Indices</i>	<i>Threshold</i>	<i>Before</i>	<i>After</i>
TLI	≥ 0.90	0.756	0.963
GFI	≥ 0.90	0.702	0.944
AGFI	≥ 0.90	0.629	0.908
CFI	≥ 0.90	0.787	0.976
RMSEA	≤ 0.05	0.120	0.046
RMR	< 0.08	0.139	0.068
X <sup>2</sup> /df	≤ 2.0	7.621	1.992

Source: authors.

**Table 6.** Relative Influence of Items (Standardized Regression Weights) (N=460) Results after Model Adjustment

<i>Hypotheses</i>	<i>Estimate</i>	<i>S.E.</i>	<i>C.R. (t-value)</i>	<i>P-value</i>	<i>Hypothesis testing re- sults</i>
H1: FC →WTU	.105	.040	2.606	.009**	Supported
H2: PV →WTU	.112	.055	2.027	.043*	Supported
H3: SI →WTU	.117	.056	2.074	.038*	Supported
H4: PU →WTU	.332	.083	3.980	***	Supported
H5: PU →CS	.335	.084	3.981	***	Supported
H6: EC →PU	.982	.065	15.098	***	Supported
H7: EC →CS	.314	.083	3.766	***	Supported
H8: CS →WTU	.235	.077	3.050	.002**	Supported
H9: SQ →CS	.357	.060	5.946	***	Supported
H10: SQ →WTU	.233	.095	2.436	.015*	Supported
H11: PI X SI →WTU	.048	.024	1.994	.046*	Supported

Source: authors.

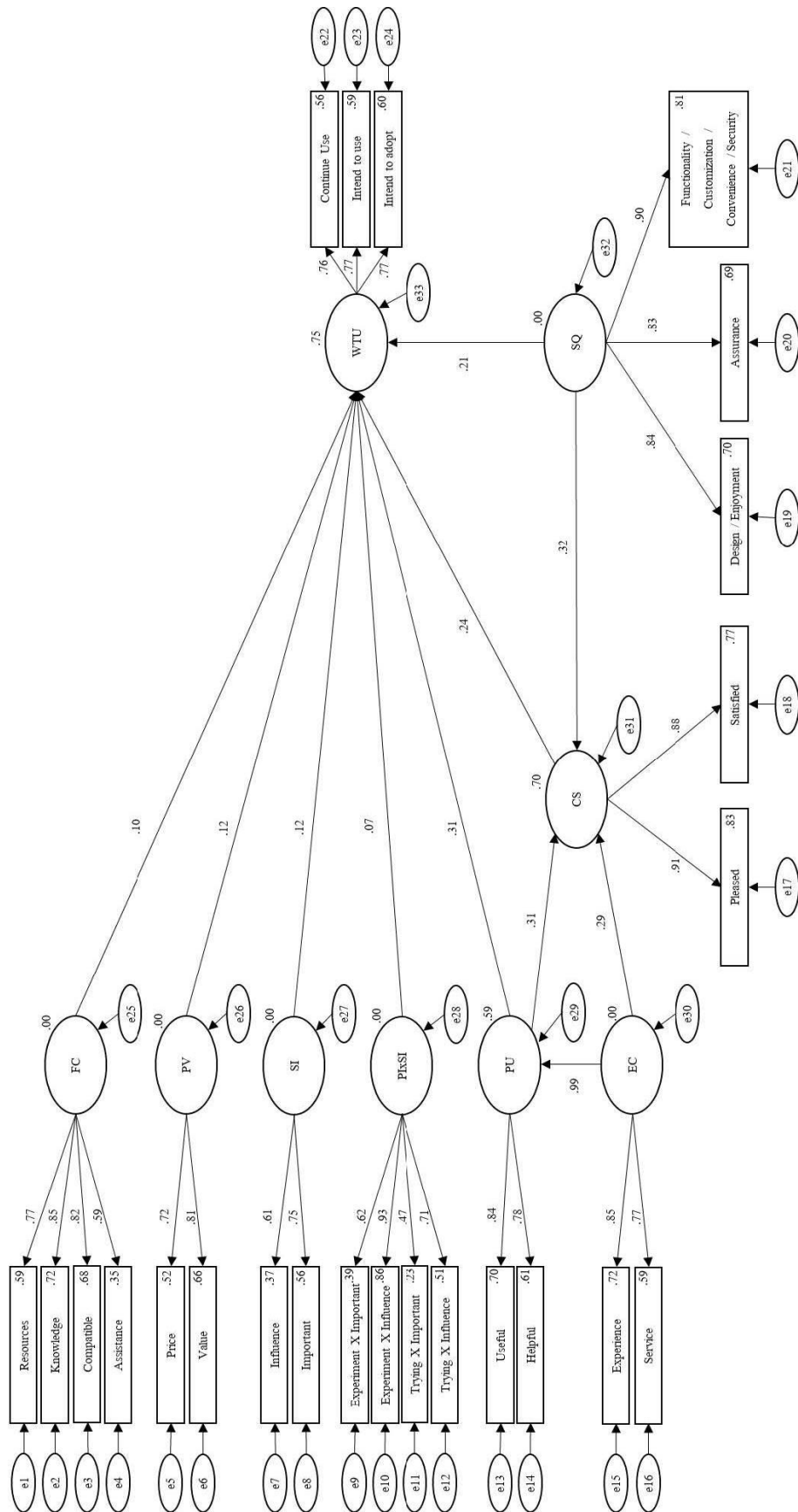
Note. \*p < 0.05, \*\*p < 0.01 and \*\*\*p < 0.001.

Table 7 shows the extent to which variables have a direct, indirect, and total influence on the acceptance model of Willingness to Use Emerging Technologies.

**Table 7.** Summary of Direct Influence and Indirect Influence and Total Influence on Willingness to Use Emerging Technologies.

<i>Variable</i>	<i>Direct influence</i>	<i>Indirect influence through other varia- bles</i>	<i>Total influence</i>
FC	.105		.105
PV	.112		.112
SI	.117		.117
PU	.332	(.335 x .235) = .079	.411
CS	.235		.235
SQ	.233	(.357 x .235) = .084	.317
EC		(.982 x .332) + (.982 x .335 x .235) + (.314 x .235) = .477	.477
PI moderating SI and WTU	.048		.048





**Figure 2.** Empirical model from SEM analysis

Source: Researcher's own data

## 4. DISCUSSIONS

Table 7 are shown the total influence following; FC = .105, PV = .112, SI = .117, CS = .235, PI moderating SI and WTU = .048 are direct influence, EC = .477 is indirect influence, PU = .411 and SQ = .317 are direct and indirect influence, as well as all variable positive effects on Willingness to Use Emerging Technologies. Facilitating Conditions has a positive effect on Willingness to Use with the correlation coefficient 0.105 and  $p < 0.01$ . Therefore, H1 is supported. The finding was in addition supported by several studies (Khalid et al., 2021; Muangmee et al., 2021, Venkatesh et al., 2012) where Facilitating Conditions was ascertained to have a positive direct effect on Willingness to Use, and this is based on consumers' knowledge of resources and behavioral support that is available.

Price Value has a positive effect on Willingness to Use with the correlation coefficient of 0.112 and  $p < 0.05$ . Therefore, H2 is supported as the 'customers' mental trade-offs between the methodological gain and the deal's financial expense. This is consistent with the previous research (Muangmee et al., 2021, Patil et al., 2020). Social influence has a positive effect on Willingness to Use with the correlation coefficient 0.117 and  $p < 0.05$ . Therefore, H3 is supported. This was also in congruence with the prior studies (Khalid et al., 2021; Okumusa et al., 2018; Oliveira et al., 2016) who found that consumers believe others (e.g., family and friends) think that technology should be used for specific purposes. This reflects the effects of environmental factors like friends, family, and superiors.

Perceived Usefulness has a positive effect on Willingness to Use with the correlation coefficient 0.332 and  $p < 0.001$ . Therefore, H4 is supported. This finding is supported by several studies (Chiu et al., 2020; Haque et al., 2021; Yang and Geetha, 2019) where it was found that people believe their work performance would be improved by the adoption of a particular system. The empirical findings show that the expected is a significant indicator of technology use. Perceived Usefulness has a positive effect on Customer Satisfaction with the correlation coefficient of 0.335 and  $p < 0.001$ . Therefore, H5 is supported. This is consistent with the previous research from (Haque et al., 2021; Yang et al., 2019) found that Perceived Usefulness affects Customer Satisfaction.

Expectation Confirmation has a positive effect on Perceived Usefulness with the correlation coefficient of 0.982 and  $p < 0.001$ . Therefore, H6 is supported. The support for this positive effect of perceived usefulness as seen in the literature (Kazancoglu and Yarimoglu, 2018), provides key indices measuring the positive effect of Expectation Confirmation on Perceived Usefulness. Expectation Confirmation has a positive effect on Customer Satisfaction with a correlation coefficient of 0.314 and  $p < 0.001$ . Therefore, H7 is supported. This is supported by (Kazancoglu and Yarimoglu, 2018; Muangmee et al., 2021) where they determined that the actual user experience matches the original requirements or exceeds them; customer satisfaction is verified.

Customer satisfaction has a positive effect on Willingness to Use with the correlation coefficient 0.235 and  $p < 0.01$ . Therefore, H8 is supported as considered an adequate reciprocation, and satisfaction can be reached if a customer is sure that its demands from service are fulfilled. This is consistent with the previous research from (Haque et al., 2021; Iqbal et al., 2018; Kazancoglu and Yarimoglu, 2018; Taufik and Hanafiah, 2019; Venkatesh et al., 2012) where customer satisfaction can be achieved.

Service Quality has a positive effect on Customer Satisfaction and Willingness to Use. Firstly, service quality positively affects customer satisfaction with the correlation coefficient of 0.357 and  $p < 0.001$ . Therefore, H9 is supported; the finding is supported by (Gu et al., 2021; Taufik and Hanafiah, 2019). Secondly, Service Quality has a positive effect on Willingness to Use with a correlation coefficient of 0.233 and  $p < 0.05$ . Therefore, H10 is supported. This is consistent with the previous research from (Iqbal et al., 2018; Gu et al., 2021). Therefore, Service Quality has been used to describe the quality of the self-service technology. SQ was tested using several samples around the company and consumer behaviors, using a scale replication process. In multiple settings, efficiency and validity tests have been tracked.

Personal Innovativeness has moderate Social Influence and Willingness to Use with the correlation coefficient of 0.048 and  $p < 0.05$ . Therefore, H11 is supported. This is consistent with the previous research from (Mango et al., 2017) which is an individual's ability to try out some new IT. The findings of this study confirm a literature review on the effect of willingness to use emerging technologies on Omni-

channel. The result has three levels of significance: very highly significant, highly significant, and statistically significant. As the result, H4, H5, H6, H7, and H9 are very high significance levels. Perceived Usefulness refers to emerging technologies that help customers do things better and effectively and perform many things more conveniently, which affect Willingness to Use and Customer satisfaction. Customer experience with emerging technologies was better than what customers expect. And the service level or function provided by emerging technologies was better than customers expected. Therefore, customer experience has exceeded expectation that means Expectation Confirmation, which affects Perceived Usefulness and Customer satisfaction. Moreover, the service process of the firm's emerging technologies is clear, easy to use, and reliable in Functionality, Customization, Convenience, Security, layout esthetically appealing, a good firm reputation which Service Quality affects Customer satisfaction.

In addition, H1 and H8 are both highly significant levels. The resources required knowledge and necessary guidance for applying emerging technologies compatible with other technologies while Facilitating Conditions affect the Willingness to Use. This leads to the point of making the customer satisfied and pleased with using emerging technologies which shows how customer satisfaction affects the Willingness to Use.

Furthermore, H2, H3, H10, and H11 have statistically significant levels. Emerging technologies provide good value for reasonably priced money and worth using or payment which Price Value affects Willingness to Use. Customers use emerging technologies for purchases that are influenced by influencers, thus, showing how social influence affects Willingness to Use. Service Quality refers to Functionality, Customization, Convenience, Security, Assurance, Design, and Enjoyment, which affect Willingness to Use. Moreover, Personal Innovativeness relates to customers who enjoy experimenting and are often among the first to try new ways of purchasing via emerging technologies that moderate between Social Influence and Willingness to Use.

Overall, these findings imply all hypotheses answer how the willingness to use emerging technologies on Omnichannel. The person interested in innovativeness is affected if they have watched, listened to influencers, then, are willing to use emerging technologies. Therefore, personal Innovativeness is an important factor in trying new ways of purchasing via emerging technologies. Moreover, the use of emerging technologies is compatible with other technologies that require resources, knowledge, and guidance, and Perceived Usefulness aids consumers in doing tasks more efficiently and effectively.

## CONCLUSIONS

Various Emerging technologies include AI, Blockchain, 5G technology, Smart Applications, IoT, Robotics, AR, VR, MR, etc. These will make things easier for customers and provide a better service. For example, customers can shop via omnichannel anytime, anywhere, such as IKEA, Shopee, Artistry, NIKE, Vket Mall-Virtual Market in Japan, BingoBox in China, Amazon Go, Amazon go grocery, etc.

This paper used empirical data to develop 11 hypotheses, nine constructs, and one moderating factor using SEM. In the research model, the model Willingness to Use has second-order latent variables. The obtained results illustrate the overall fit indexes of the model, which include good results TLI = 0.963, GFI = 0.944, AGFI = 0.908, CFI = 0.976, RMSEA = 0.046, RMR = 0.068, X<sup>2</sup>/df = 1.992. As a result of the findings, the model has reached an acceptable level and can be used to explain the set hypotheses.

Collected data, 460 persons completed the questionnaire. Gender, Age, Education, Frequency, and Channel (Online, In-Store) were used to categorize the respondents. As a result, all hypotheses are acceptable, and variables have both direct and indirect effects on the acceptance model. These findings provide an answer to the question, "How to shift consumer willingness to use emerging technologies on Omnichannel?" These findings include UTAUT2 (facilitating conditions, price value, social influence), ECM (Perceived Usefulness, Expectation Confirmation, Customer Satisfaction), Service Quality, and Personal Innovativeness.

This study is acceptable on willingness to use emerging technologies on Omni-channel and supported by literature review. Moreover, the result has three levels of significance: very highly significant, highly

significant, and statistically significant. In addition, this study also found Personal Innovativeness to be a moderator of Social Influence and Willingness to Use Emerging Technologies.

Customer's Willingness to Use and Customer Satisfaction go up when Emerging technologies assist them in getting things done more efficiently or quickly and easily. Emerging technologies provided an exceptional customer experience. Even more excellent service has been provided as a result of Emerging technologies. Expectation confirmations impact perceived usefulness and customer satisfaction. Clear, easy-to-use, and trustworthy service procedures influence customer satisfaction, which is the foundation of a good company's reputation.

In addition, Facilitating Conditions affect a user's willingness to use Emerging technologies by providing the necessary resources, expertise, and assistance for them to be used. Customers' willingness to use emerging technologies increases when they are pleased with them.

Furthermore, Advances in technology provide consumers excellent value for their money, making them more willing to use or pay for them. And when it comes time to purchase, customers are affected by influencers and employ new technologies that positively impact their willingness to use. Functionality, Customization, Convenience, Security, Assurance, Design, and Enjoyment are aspects of service quality that affect customers' willingness to use a service. As a result, customers with a high level of Personal Innovativeness tend to be early adopters of developing technologies such as social influence and willingness to use.

Limitations of the study include the small number of variables examined, the lack of other variables that may have enriched the findings, and the number of respondents should be increased. However, the authors consider this and other variables and increase respondents potentially impact other disorders for further surveys.

Therefore, the answer for “How to shift consumer willingness to use the emerging technologies on Omnichannel?” which are Willingness to Use Emerging Technologies was significantly influenced by facilitating conditions, price value, social influence, Perceived Usefulness, Expectation Confirmation, Customer Satisfaction, Service Quality, and Personal Innovativeness moderating Social Influence and Willingness to Use Emerging Technologies. Finally, further research will look at additional variables and increase respondents for the understanding of this phenomenon fully.

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