

## Omni-Channel Capability, Online Experience & Value Co-Creation and Their Impact to Customer Satisfaction

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### Abstract

The advancement of technology in business has encouraged the retail sector to improve its technological capability in order to create an innovative and effective method to deliver the products so that it can be a solution for retail business to satisfy customer with a good shopping experience and build a collaborative relationship with customer for sharing value added. In this case, one of technology-based strategy that can be used by retail business is omni-channel. Therefore this study discusses some relevant factors namely omni-channel capability, online experience and value co-creation to measure customer satisfaction at ACE Hardware Indonesia as one of the leading retail store in Indonesia. The research survey was carried out to 165 customers who have experience in using omni-channel at ACE Hardware Indonesia. This study applied Structural Equation Modeling (SEM) analysis by using SmartPLS software to analyze the research data. This study found that omni-channel capability has a positive and significant effect on online experience and value co-creation. Then it also found that value co-creation has a positive and significant effect on customer satisfaction. However omni-channel capability and online experience do not have a significant effect on customer satisfaction.

**Keywords:** Omni-Channel Capability; Online Experience; Value Co-Creation; Customer Satisfaction

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### Introduction

Globalization era has encouraged the retail business to be adaptive in a rapid technology advancement. This situation makes the retailer have to innovate their marketing strategy continuously with a relevant method that can improve its capability in delivering the products to customer. Internet is one of intense technological developments that accelerate the business to provide more effective way to implement the strategy has been planned through many digital platform such as e-commerce that makes it easier for customer to do purchases online. According to (Aditya Wicaksono Irawan; Aan Yusufianto; Dwi Agustina; Reagan Dean, 2020), based on data from APJII (Association of Indonesian internet Service Providers), it is reported that from 277.77 million people of population, there are 204.7 million

internet users in Indonesia in 2022 and 77 percent are active internet users.

Based on data, the digital transaction of Indonesian customer also increases. According to Statista in 2021, the number of customer who do online purchase is increased to 14.9% or 158.6 million and the total of annual online purchase are also increases by 59.4% or USD 770.6 billion. From this data it can be seen that there is a high intensity of purchasing done by customer through digital platform. Moreover it also shows that customers have shifted from conventional commerce to e-commerce. Based on this situation, retail is one of sectors that have developed digital commerce in order to expand customer's shopping experience accross multiple channels including in store, mobile and online called as omni-channel.

With a massive use of technology in retail industry, it also create an intense competition so

that retailer should strategize its business especially on marketing in order to create a value added and satisfy customer with product and service offered. With the existence of new retail channels together with many online media and mobile phone, it has encouraged the customers to engage with organization in more than one retail channels to get a seamlessness in one as they flow among touch points.

Omni-channel as one of retail marketing will help the retailer to interact with customers in more than one channel namely in physical store, mobile, online store and social media so that customers can get more shopping experience and enjoy any kind of channel features provided by retail store. Specifically omni channel has emphasized the advantage of channel to encourage a more profitable interaction between consumer and brand (Picot-Coupey et al., 2016). Omni channel helps customer and retail business to create and deliver value of retail business. Based on the previous study by (Manser Payne et al., 2021) found that customers look for value co-creation, it shows that they view all aspects holistically in omni-channel environment.

In Indonesia there are several big retailers have adopted omni-channel in their business, one of them is ACE Hardware Indonesia that has shifted its business model from physical store to omni-channel. According to previous study by Nielsen's, the retail customer in Indonesia shows showrooming and webrooming behavior. Showrooming is practice of researching products in a physical store but consumer makes the final purchase online. Meanwhile webrooming is when consumer researches products online but makes their final purchase in physical store. Based on this situation, it is an opportunity for retail business to facilitate customer in purchasing offline and online. However there are still many retail businesses in Indonesia have not applied omni-channel widely. Moreover, the type of e-commerce that specializes in selling household goods, furniture and children's toys is not common when it is compared to online marketplaces that sell all kind of commodities. Even though online retail sector only accounts for 1% - 2% of the total physical retail market, actually its value continues to increase from year to year.

In this case, ACE Hardware believes that they have a potential opportunity to compete in

online market. Currently ACE Hardware has launched a digital retail channel called as MISS ACE that will make it easier for customers to shop at ACE Hardware Indonesia. MISS ACE stands for Mobile Interactive Shopping Solution, it is the official ACE Indonesia Mobile Application which was published in 2016. MISS ACE is form of omni-channel strategy that has been applied by ACE Hardware for its retail business which is intended to expand their customer experience in shopping activities and provide a value added for product and service offered in physical store and online platform. Based on these current phenomenon about the massive use of technology in retail business, this study discusses some related aspects namely analyze the impact of omni-channel capability, online experience and value co-creation towards customer satisfaction in one of large retail business in Indonesia ACE Hardware Indonesia.

## **Literature Review**

### **Omni-Channel Capability**

(Wulf, 2020) defines omni-channel capabilities as organizational practices that fulfill major organizational objectives in the providing of omni-channel services, in line with the resource-based definition of organizational capabilities. Using recent industry research and practices, omni-channel capabilities reveals customer views of omni-channel strategies (Galipoğlu et al., 2018).

The goal of omni-channel capabilities is frequently said to be customer acquisition and retention. However, businesses that just attract users are frequently unable to retain them when other, more convenient services emerge and steal them away. As a result, it is vital to assess not only the quality of a service but also, one step further, its potential to gain consumer pleasure. Customers will be less inclined to switch to other providers if customer loyalty is increased. As a result, the actual goal of omni-channel capabilities is to increase client loyalty (Harada, 2019).

Omni-channel retailing necessitates specific characteristics (both conventional and dynamic), typified by fully integrated retail software systems that combine data on items, customers, shopping, and communication, to be available across online and physical channels (Solem et al., 2023).

## **Customer Satisfaction**

Customer satisfaction is one of the most extensively studied concepts in marketing literature. It is significant in a competitive economy since of its capacity to hold existing customers while also recruiting new ones (Tandon et al., 2017). (Kotler & Keller, 2021) define satisfaction as an emotion by an individual of delight or dissatisfaction as a result of a comparison of goods and service performance and anticipation. (Oliver, 2010), defined customer satisfaction as the customer's satisfying reaction. It's a choice regarding a characteristic of a product or service, or when the goods or service has provided (or continues to provide) a satisfying degree of consumption satisfaction. According to (Brunero et al., 2009) and (Giese et al., 2009), customer satisfaction consists of three important parts: a response (cognitive or emotional) linked to specific emphasis (product, consuming experience, expectations, etc.) identified in a specific moment; a response (cognitive or emotional) linked to specific emphasis product, consuming experience, expectations, etc.) identified at some specific moment; and a response (emotional or cognitive) linked to (after consumption, after choice, based on accumulated experience, etc.).

## **Customer Online Experience**

The notion of customer experience has been investigated in a wide variety of business contexts, including tourism, service delivery, consumer marketing, and commerce, but currently it is also in the online setting (Novak et al., 2000). Online shopping across a wide variety of product categories, online services such as travel, financial services, and theater bookings, accessibility to latest information, and social network for leisure or business reasons are now all part of the online experience. Given the rising performance of online sales, online experience has become a significant concept for retailer responsibility for the online Business-to-Customer (B2C) environment, especially regarding to online shopping.

Even though there is the existence of two retail settings today, namely face-to-face (offline) and Internet-based (online), it is necessary to compare the two. (Rose et al., 2011) stated that clarity about the distinctions between them

enhances comprehension of the distinctions between offline and online experiences.

Based on the most recent study in online experience literature, there is presently no consensus on the concept of online experience. The literature uses a variety of terms to describe online experience, including online customer experience (Rose et al., 2011), website experience (Kim et al., 2009), and online purchase experience (Holloway et al., 2005).

## **Customer Value Co-Creation**

The complexities of customer needs, along with the ever-changing nature of the business environment, has driven organizations to include all stakeholders in knowledge development via an open system. Customers have been given the ability to play major roles in the generation of value by sharing operand and operant resources (Preikschas et al., 2017). (Vargo & Lusch, 2014) stated that the consumer is an active participant in the exchange process rather than a passive actor, and that value is always co-created with the customer.

Firms interact in order to meet the particular demands of their customers, and in doing so, they were able to generate new ideas. Co-creation is based on the interchange of information and knowledge between actors, in which the consumer is a vital player and actively participates in the sharing of knowledge and information. It is possible to infer that the client is an operant resource, sharing information and skills with the company (Vargo & Lusch, 2016). According to (Preikschas et al., 2017), the company is employing customers as a source of expertise and thereby putting them to work.

Value co-creation refers to the joint development and delivery of services by both customers and enterprises (Prahalad & Ramaswamy, 2004). The value co-creation paradigm, in contrast to the traditional business model in which corporations control the service development and delivery process, stresses consumer engagement and contribution. Customers and enterprises engage in a dynamic development process that benefits both sides to produce product value based on mutual understanding (FitzPatrick et al., 2013).

## Research Hypothesis

### 1. The Effect of Omni-Channel Capability on Customer Online Experience

(Wulf, 2020) defined omni-channel capability as one of organizational practices that fulfills the main goals of the organization to provide omni-channel services, in line with the resource-based definition of organizational capabilities. Using recent industry research and practices, omni-channel capabilities reveals customer views of omni-channel strategies (Galipoğlu et al., 2018). The goal of omni-channel capability is frequently said to be customer acquisition and retention.

Based on the previous study by from (Gao et al., 2021) found that in omni-channel context, customer experience congruence has a positive effect on all of the variables tested in the research. Study by (Tyrväinen et al., 2020) resulted the findings which support all hypotheses that confirm the positive relationships between all customer experience components in omni-channel context. Furthermore, (Yulisa & Permana, 2020) also stated that omni-channel has a positive and significant effect on customer experience in online environment, whereby customer experience is the mediating variable, while the omni-channel is an independent variable. Based on the results of previous research, the first hypothesis that can be obtained is:

H1: Omni-channel capability has a positive and significant effect on online experience

### 2. The Effect of Omni-Channel Capability on Value Co-Creation

Omni-channel retailing necessitates specific characteristics (both conventional and dynamic), typified by fully integrated retail software systems that combine the data on items, customers, shopping, and communication that is available in online and physical channels (Solem et al., 2023). (Cui et al., 2022) stated that online and offline omni-channel interactivity and value co-creation has a positive relationship. (Telli, 2020) identified the importance of omni-channel shopping services and value co-creation processes, whereby value co-creation is the mediating variable. It is also stated by (Costa Climent et al.,

2022) that there are several sources of value co-creation that can be implemented by omni-channel. Based on the results of previous research, the second hypothesis that can be obtained is:

H2: Omni-channel capability has a positive and significant effect on value co-creation

### 3. The Effect of Customer Online Experience on Customer Satisfaction

The notion of customer experience has been investigated in a wide variety of business contexts, including tourism, service delivery, consumer marketing, and commerce, but currently it is also in the online setting (Novak et al., 2000). Online shopping in a large variety of product categories, online services such as travel, financial services, and theater bookings, accessibility to latest information, and social network for leisure or business reasons are now all part of the online experience. Given the rising performance of online sales, online experience has become a significant concept for retailer responsibility for the online Business-to-Customer (B2C) environment, especially regarding to online shopping.

Based on the previous study by (Vakulenko et al., 2019) found a positive relationship between customer's perception of online shopping experience and customer satisfaction. then (Rose et al., 2011) stated that the results of a positive online experiences in online shopping activities are customer satisfaction. In line with (Izogo & Jayawardhena, 2018) also stated that online shopping experience can affect marketing outcome variables especially on satisfaction. In addition, the online experience is used as mediating variable in several studies as positive and significant towards customer satisfaction which resulted in full mediation. These studies are from (Ertemel et al., 2021), (Chen et al., 2021), (Kumar et al., 2022), and (Martin et al., 2015). Based on the results of previous research, the third hypothesis that can be obtained is:

H3: Online experience has a positive and significant effect on customer satisfaction

### 4. The Effect of Value Co-Creation on Customer Satisfaction

Recent research on consumer engagement in value co-creation has found that co-creation is a

direct predictor of customer satisfaction and loyalty (Yang et al., 2019). (Preikschas et al., 2017) discovered proof that sharing customer expertise helps to develop the beneficial solutions and satisfy the customer. According to (Opata et al., 2020), customer engagement in value co-creation has a large and beneficial effect on customer satisfaction. According to (Gligor & Maloni, 2022), value co-creation also has a larger effect on customer satisfaction for both B2B and B2C clients. In addition, value co-creation is used as mediating variable in several studies as positive and significant towards customer satisfaction which resulted in full mediation. These studies are from (Opata et al., 2020), (Liu & Jo, 2020), (Moretta Tartaglione et al., 2018) and (Grissmann & Stokburger-Sauer, 2012) & (Stokburger-Sauer et al., 2012). Based on the results of previous research, the fourth hypothesis that can be obtained is:

H4: Value co-creation has a positive and significant effect on customer satisfaction

## 5. The Effect of Omni-Channel Capability on Customer Satisfaction

The complexity of customer needs, along with the nature of business environment which is always changing, it has driven organizations to include all stakeholders in knowledge development via an open system. Customers have been given the ability to play major roles in the generation of value by sharing the operant resources (Preikschas et al., 2017). (Vargo & Lusch, 2014) stated that the consumer is an active participant in the exchange process rather than a passive actor, and its value always co-created with the customer.

(Blom et al., 2021) argue that when customers get purchasing goal-congruent promotions rather than purchasing goal-incongruent promotions, they are more likely to be happy with their omni-channel buying experience. The findings of (Cotarelo et al., 2021) indicated that customers are more satisfied when an organization provides a barrier-free buying experience, and omni-channel is one of them. (Mishra et al., 2023) stated that omni-channel gets strengthened because of customer satisfaction. Based on the results of previous research, the fifth hypothesis that can be obtained is:

H5: Omni channel capability has a positive and significant effect on customer satisfaction

Based on the literature review, research framework can be proposed as in Figure 1.

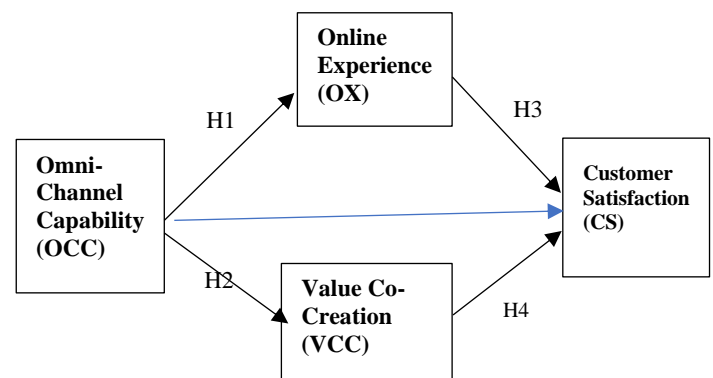


Figure 1. Theoretical Research Framework

## Methods

This study used quantitative method whereby the unit of analysis is individual customers. The population of this study was ACE Hardware customer in Indonesia. To collect data, the sampling technique was applied in this study is convenience sampling technique. The research questionnaire was carried out to 165 of ACE Hardware customers who have used omni-channel. According to (Hair et al., 2010), the sample size of respondent can be 5 to 10 time of research indicator whereby it is considered as a sufficient sample for a research that uses multivariate statistical for data analysis. This study has 33 indicators, so that the minimum number of research sample is about 165 respondent (55x33 indicators).

The instruments of this study were adapted from the previous studies, whereby the instrument of omni channel variable was adapted from (Sorkun et al., 2020). Then the instrument of online experience was adapted from (Tsegay et al., 2022). The instrument of value co-creation was adapted form (Mostafa, 2020). Moreover the instrument of customer satisfaction was adapted from (Rahman et al., 2022). To analyze the research data, this study applied Structural Equation Modeling analysis (SEM) by using SmartPLS 3.0.

## Research Results and Discussion

### Research Result

#### Evaluation of Measurement Model

The measurement model of this study was evaluated by using validity and reliability testing. Specifically the measurement model includes construct validity tests (convergent validity and discriminant validity) and composite reliability analysis. The purpose of convergent validity test is to identify the validity of relationship between each indicator used in the study and its latent.

There are two types of validity test, namely by viewing at the value of outer loading and the value of Average Variance Extracted (AVE). Outer loading value indicates the correlation between indicators and its construct and a low outer loading value indicates that the indicator measurement model does not work. The expected outer loading value is greater than 0.50 and the AVE value must be greater than 0.5. The detail value of outer loading for this study can be seen in table 1 below.

**Table 1. Final Outer Loading**

Indicators	Squared Loading
CS1	0.892
CS2	0.902
CS3	0.805
OCC1	0.753
OCC2	0.748
OCC3	0.779
OCC4	0.765
OCC5	0.766
OCC6	0.79
OCC7	0.746
OX1	0.822
OX2	0.83
OX3	0.754
OX4	0.797
OX5	0.86
OX6	0.856
OX7	0.857
OX8	0.841
OX9	0.843
VCC1	0.8
VCC2	0.808
VCC3	0.793

VCC4	0.731
VCC5	0.853
VCC6	0.836
VCC7	0.859
VCC8	0.784
VCC9	0.809
VCC10	0.752
VCC11	0.828
VCC12	0.765
VCC13	0.766
VCC14	0.756

Source: Output data from SmartPLS 4.0 (2022)

Based on the table 1, it can be seen that outer loading value of each variable indicator has met the requirements or it is above 0.50, so it can be concluded that each indicator of variable is valid.

**Table 2. Final Average Variance Extracted**

Variable	Cronbach's Alpha	Composite Reliability (rho_a)	Composite Reliability (rho_c)	Average Variance Extracted (AVE)
Customer Satisfaction	0.803	0.813	0.884	0.717
Omni-Channel Capability	0.721	0.731	0.843	0.642
Online Experience	0.917	0.919	0.933	0.634
Value Co-Creation	0.924	0.925	0.936	0.597

Source: Output data from SmartPLS 4.0 (2022)

Based on the table 2, it can be seen that the final AVE values of omni-channel capability, customer satisfaction, online experience, and value co-creation variable have met the requirements or the AVE value is above 0.50 so it can be said that convergent validity all indicators are valid. After processing the convergent validity test, then proceed it to the next stage which is discriminant validity. Discriminant validity testing can be done by viewing AVE root value on latent variable correlation and cross loading value.

Based on the table 2, it also can be seen that the value of AVE root in variable column with the variable row of customer satisfaction and omni-channel capability is higher than the value for the variable column with other variable rows. Meanwhile, the value of AVE root in the variable column with the variable row of online experience

and value co-creation is higher than the value for the variable column with other variable rows. This indicates that AVE root value in the latent correlation variable has met the requirements.

**Table 3. Final Fornell's Lacker Criterion**

Variable	Customer Satisfaction	Omni-Channel Capability	Online Experience	Value Co-Creation
Customer Satisfaction	<b>0.847</b>			
Omni-Channel Capability	0.597	<b>0.801</b>		
Online Experience	0.629	0.742	<b>0.796</b>	
Value Co-Creation	0.658	0.696	0.759	<b>0.772</b>

Source: Output data from SmartPLS 4.0 (2022)

This section contains a description of the obtained data. Data descriptions can be presented in descriptive statistics, frequency distributions accompanied by graphs, mean values, explanation of the results of the research instrument testing. Also, a brief and concise explanation of the development, testing, and results of hypotheses is presented in this section. The explanation is limited to the interpretation of data processing results on statistical figures and the meaning of these results. The discussion section describes whether the hypothesis is supported or rejected by scientific theory and evidence accompanied by logical reasoning.

Based on the table 3, the value of AVE root in the variable column with the variable row is higher than the value for the variable column with other variable rows. This indicates that AVE root value in the latent correlation variable has met the requirements.

### Structural Model Analysis

Inner Model testing was conducted to see the relationship between the construct, significance value and R-Square of the research model.

**Table 4. R-Square**

Variable	R-square	R-square adjusted
Customer Satisfaction	0.486	0.476
Online Experience	0.55	0.547
Value Co-Creation	0.485	0.482

Source: Output data from SmartPLS 4.0 (2022)

Based on table 4 above, it can be seen that R-Square value of customer satisfaction variable is about 0.486, which means that 48.6% of the customer Satisfaction variable is influenced by the omni-channel capability, online experience, and value co-creation variables, then the remaining 51.4% is influenced by other factors outside of this research.

R-Square value of online experience variable is about 0.55, it can be concluded that online experience variable is influenced by the omni-channel capability as much as 55%, then the remaining 45% is influenced by other factors outside the variables of this research.

The R-Square value of value co-creation variable is 0.485, it can be said that the value co-creation variable is influenced by the omni-channel capability variables is 48.5%, then the remaining 51.5% is influenced by other factors outside the variables of this research.

### Hypothesis Testing

**Tabel 5  
Structural Model Analysis**

Regression Path	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T-statistics ( O/STDEV )	P values
Omni-Channel Capability -> Online Experience	0.742	0.742	0.046	15.954	0.001
Omni-Channel Capability -> Value Co-Creation	0.696	0.698	0.054	12.886	0.002
Online Experience -> Customer Satisfaction	0.213	0.21	0.12	1.783	0.075
Value Co-Creation -> Customer Satisfaction	0.37	0.367	0.124	2.974	0.003
Omni-Channel Capability -> Customer Satisfaction	0.181	0.187	0.098	1.841	0.066

Source: Output data from SmartPLS 4.0 (2022)

H1: Omni-channel capability has a positive and significant effect on online experience



Based on table 5 above, by viewing the values in original sample, it shows that there is a positive effect between omni-channel capability and online experience. T-Statistics value is 15.954, P values of 0.001 and the beta value is ( $\beta= 0.742$ ) which means that there is a positive and significant effect of omni-channel capability on online experience. In addition, the P value of the path coefficient table is 0.001 which meets the criteria whereby P Value must also be less than 0.05 to accept the hypothesis. Thus, the first hypothesis is accepted.

H2: Omni-channel capability has a positive and significant effect on value co-creation

Based on structural model analysis table above, by viewing the values in original sample, it indicates that there is a positive effect between omni-channel capability and value co-creation. T-Statistics value is 12.886, P values of 0.002 and the beta value is ( $\beta= 0.742$ ) which means that there is a positive and significant effect of omni-channel capability on value co-creation. In addition, P value of the path coefficient table is 0.002 which meets the criteria whereby P Value must also be less than 0.05 to accept the hypothesis. Thus, the second hypothesis is accepted.

H3: Online experience has a positive and significant effect on customer satisfaction

Based on structural model analysis table, by viewing the values in original sample, it shows that there is a positive effect between online experience and customer satisfaction. T-Statistics value is 1.783, P values of 0.075 and the beta value is ( $\beta= 0.21$ ) which means that there is an insignificant and positive effect of online experience on customer satisfaction. In addition, P value of path coefficient table is 0.075 which does not meet the criteria whereby P Value must also be less than 0.05 to accept the hypothesis. Thus, the third hypothesis is rejected.

H4: Value co-creation has a positive and significant effect on customer satisfaction

Based on the structural model analysis table above, by viewing the values in original sample, it

shows that there is a positive effect between value co-creation and customer satisfaction. Then T-Statistics value is about 2.974, P values of 0.003 and the beta value is ( $\beta= 0.367$ ) which means that there is a significant and positive effect of value co-creation on customer satisfaction. In addition, P value of path coefficient table is 0.003 which meets the criteria that the P Value must also be less than 0.05 to accept the hypothesis. Thus, the fourth hypothesis is accepted.

H5: Omni-channel has a positive and significant effect on customer satisfaction

Based on the structural model analysis table above, by viewing the values in original sample, it indicates that there is a positive effect between omni-channel capability and customer satisfaction. Then T-Statistics value is about 1.841, P values of 0.066 and the beta value is ( $\beta= 0.187$ ) which means that there is an insignificant and positive effect of omni-channel capability on customer satisfaction. In addition, the P value of the path coefficient table is 0.066 which does not meet the criteria that the P Value must also be less than 0.05 to accept the hypothesis. Thus, the fifth hypothesis is rejected.

## Research Discussion

### *Omni-Channel Capability and Customer Online Experience*

This study found that omni-channel capability has a positive and significant effect on online experience. This result is in line with the previous research. (Gao et al., 2021) found that in an omni-channel context, customer experience congruence has a positive effect on all of variables are tested in the research. (Tyrväinen et al., 2020) obtained the findings that support all the hypotheses that confirm the positive relationships between all customer experience components in omni-channel context. Furthermore, (Yulisa & Permana, 2020) also stated that omni-channel has a positive and significant effect on customer experience in online environment.

This result is in accordance with the descriptive analysis of omni-channel capability variable, whereby customers of ACE Hardware Indonesia are able to use the online channel



pleasantly. Based on the characteristics of respondents, most of respondents are the younger generation who tend to use online shopping and are already used online shopping in their daily activities. They are educated and have no doubt to purchase their goods online through Omni-channel.

Another explanation of reason why there is a positive and significant relationship between omni-channel capability and online experience here is because there is a need for the online channels to omni-channel. Omni-channel cannot stand alone without online. Also with omni-channel capability, customers will be able to feel a different experience. Whereby with a website or mobile application, customers will be able to get experience in purchasing goods with proper capability in an online channel.

#### ***Omni-Channel Capability and Value Co-Creation***

This study found that omni-channel capability has a positive and significant effect on value co-creation. The result of this study is in line with the previous research. (Cui et al., 2022) stated that online and offline omni-channel interactivity and value co-creation has a positive relationship. (Telli, 2020) identified the importance of omni-channel shopping services and value co-creation processes. It is also stated by (Costa Climent et al., 2022) that there are several sources of value co-creation that can be implemented by omni-channel.

This result is in accordance with the descriptive analysis of omni-channel capability variable, where customers have no hesitation in giving feedback and collaborating with the retailer in order to make ACE Hardware and the online channel better. Based on the characteristics of respondents, most of respondents are young females who tend to critique the retailer and also give an honest review, so that the service will become better. They mostly purchase the home living category in ACE Hardware Indonesia's online channel.

Another explanation of reason why there is a positive and significant relationship between omni-channel capability and value co-creation here

is that most Indonesians tend to be lazy to understand about procedural things. Customer needs to get taught by other people so they can do and purchase in an online channel. This is also related to the lack of Indonesian people who have a high interest in reading. Omni-channel capability and value co-creation depend on each other so it is important for both variables to have positive and significant relationships.

#### ***Customer Online Experience and Customer Satisfaction***

This study found that online experience doesn't have a significant effect on customer satisfaction. Despite the difference in conclusion between the hypothesis mentioned and this research finding, there is a number of studies that are in line with this research finding. For example, in Indonesia's context, (Mustikasari & Astuti, 2021) found that the shopping process experience in the context of online channel to customer satisfaction is not significant. (Pham & Ahammad, 2017) stated that the effect of website appearance (one of the online experience items) on customer satisfaction is not significant. Another finding from Toon et al. (2013) found that consumer online shopping experience also does not have a significant effect on the relationship between customer satisfaction. (Jin & Park, 2006) mentioned that the source of consumer satisfaction remains the same regardless of the purchase experience.

This result is in accordance with the descriptive analysis of the online experience variable, where customers are most likely not satisfied maximally with the interface and overall experience of the online channel in ACE Hardware Indonesia. On the characteristics of respondents, most respondents use offline channels more than online channels. This might happen due to a lack of high satisfaction with the online channel experience from the customers.

One of the explanations regarding the online experience variable is that here, the online experience was created by the retailer only to broaden the variation for customers to experience shopping in the traditional offline experience and

an online experience that is newly adopted by ACE Hardware Indonesia. So when the retailer decided to create this, the impact on customer satisfaction will become not as high as another variable, due to this is not what customers are concerned about the most. Most likely customers are looking for the best price or the best quality of the product, whether it is placed on the online channel or offline channel.

Another explanation is that customer was not really valuing delivery speed for the products they purchase, especially for home living and hobby goods, where Indonesians not valuing productivity and experience as much as people in western countries value them. These two products are the goods customer purchased only several times a year. The experience is not high (mostly 1-3 times in a year for online purchases), and customer needs to feel and touch the direct experience of product quality with their five sense. There is a need for product physical involvement in a retail business. In other words, the result is not increasing significantly, even though the experience is fulfilled. Customers already trust ACE Hardware Indonesia and don't really matter if it is purchased from an online channel or offline channel.

#### ***Value Co-Creation and Customer Satisfaction***

This study found that value co-creation has a positive and significant effect on customer satisfaction. The result is in line with previous research findings. Recent research on consumer engagement in value co-creation has found that co-creation is a direct predictor of customer satisfaction and loyalty (Yang et al., 2019). (Preikschas et al., 2017) discovered proof that sharing customer expertise helps to develop the beneficial solutions and satisfy the customer. According to (Opata et al., 2020), customer engagement in value co-creation has a large and beneficial effect on customer satisfaction. According to (Gligor & Maloni, 2022) , value co-creation also has a larger effect on customer satisfaction for both B2B and B2C clients.

This result is in accordance with the descriptive analysis of value co-creation variable, where customers are able to comment, help and

contribute to ACE Hardware Indonesia. Based on the characteristics of respondents, most of respondents are female who purchases goods for their home in ACE Hardware Indonesia. Whether it is the offline or online channel, customers still are able to give feedback to the retailer so that customers will be satisfied with the service provided.

Another explanation of reason why there is a positive and significant relationship between value co-creation and customer satisfaction here is that most people tend to want to teach other customers because they have a lot of free time to use. This is also related to the characteristics of customers who use the application less than three times. This means that there are still many who do not know and understand this. In addition, Indonesians tend to like to explain how to use websites and applications of omni-channel for those who understand. By maximizing value co-creation, customer satisfaction will increase and this is also important to further improve the quality of the omni-channel capability of ACE Hardware Indonesia.

#### ***Omni-Channel Capability and Customer Satisfaction***

This study found that omni-channel capability doesn't have a significant effect on customer satisfaction. However, despite the difference in conclusion between the hypothesis mentioned and this research finding, there is a number of studies that are in line with this research finding. (Sorkun et al., 2020) stated that the direct effect of omni-channel capability on customer satisfaction is insignificant. Meanwhile, the findings of the research by (Lee et al., 2019) indicates that although several characteristics of omni-channel have a direct impact on customer satisfaction, the relationship between other omni-channel characteristics and customer satisfaction are not supported. Between the constructs the integrated promotion and integrated information access are not found to be significant, meanwhile three other constructs show a positive effect and insignificance between integrated promotion, integrated

information access and integrated customer services on customer satisfaction.

This result is in accordance with the descriptive analysis of the Omni-Channel Capability variable, where customers are most likely not satisfied maximally due to their experience in same-day delivery from online to a physical store and not really able to satisfy customers with their own requirements in ACE Hardware Indonesia. Regarding the characteristics of respondents, most respondents are female and mostly use offline channels more than online channels. This might happen due to a lack of high satisfaction with the same-day delivery experience from the customers.

One of the explanations why omni-channel capability is not significant to satisfaction is because their perceived omni-channel capability has exceeded what they expected so that the increase in omni-channel capability at ACE Hardware is no longer able to significantly increase their satisfaction. In other words, respondents' expectations for omni-channel capability are not too high and have been fulfilled by the current performance of omni-channel capability.

Another explanation is that the customer satisfaction of respondents in this study was not directly influenced by online channel capability (online delivery). This means that online delivery attributes such as goods can be ordered online, fast delivery times are not important in determining respondent satisfaction. This may have something to do with the profile of respondents who mostly order home living and hobby items, where the purchases are well planned and usually ordered in advance so that they are not items that are needed urgently. Thus, the speed of delivery does not have a significant impact on their satisfaction. In addition, the quality of ACE Hardware's offline delivery, which has been good so far, may also be one of the reasons why respondents' expectations are not too high on online delivery performance.

## **Conclusions**

Based on the results and discussion of this study, there are several conclusions that can be

obtained is that omni-channel capability has a positive and significant effect on online experience and value co-creation. It can be concluded that omni-channel capability is one of the important factors in order to improve customer online experience and value co-creation. Then it is found that value co-creation has a positive and significant effect on customer satisfaction, it means that value co-creation has an important role to improve customer satisfaction. However, this study found that omni-channel capability and online experience do not have a significant effect on customer satisfaction, it means that omni-channel capability and online experience are not really important factors to build customer satisfaction.

## **Research Implications**

Based on the research results that have been obtained, there are several implications obtained for ACE Hardware Indonesia in order to enhance their customer satisfaction through currently technology advancement in retail industry. This study found that omni-channel has a positive and significant effect on online experience and value-co creation, so that the researcher recommends ACE Hardware to keep maintaining and improving the quality of its omni-channel feature that has been applied for their customers, it can be done by continuing to innovate the features and services provided on physical store and MISS ACE application as its online commerce channel platform, so the customer can enjoy a better shopping experience and find a value added provided by ACE Hardware Indonesia. Moreover it is found that value co-creation has a positive and significant effect on customer satisfaction, so that the researcher recommends ACE Hardware Indonesia to keep creating value of its business, offered by building a collaborative business interaction with customers in order to make them can enjoy the benefits and feel satisfied with the product and service offered.

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