Contents lists available at GrowingScience

International Journal of Data and Network Science

homepage: www.GrowingScience.com/ijds

The effect of digital marketing on value creation and customer satisfaction

Maher Alwan^a and Muhammad Alshurideh^{b*}

^aDepartment of Marketing, Faculty of Business, Al-Zaytoonah University, Amman, Jordan ^bDepartment of Marketing, School of Business, The University of Jordan, Amman 11942, Jordan CHPONICLE APSTPACT

CHRONICLE	ABSIKACI
Article history:	The current research main purpose is to examine the effect of digital marketing on both value crea-
Received: January 10, 2022	tion and customer satisfaction. The literature was reviewed for the relevant existing studies to ad-
Received in revised format: March	dress the knowledge gap that has not been fulfilled before by a proposed integrative model. A quan-
20, 2022	titative research approach was used in this study to investigate the hypothesized proposed model
Accepted: April 22, 2022	with a survey questionnaire to collect data from the sample of customers of telecommunication firms
Available online: April 22 2022	operating in Jordan. The instrument was developed and customized to achieve the research objec-
Keywords:	tives. With a total of 315 valid and complete returned questionnaires, the research has analyzed the
Digital marketing	data collected by using the PLS-SEM approach to run the essential analysis procedures and test the
Value creation	hypothesized statements. The results showed a significant and positive effect of digital marketing on
Customer satisfaction	both value creation and customer satisfaction. The research would contribute to providing more un-
Telecommunication firms	derstanding of the issues related to this topic and filling research gaps and provide some new knowl-

edgeable and theoretical research implications.

© 2022 by the authors; licensee Growing Science, Canada.

1. Introduction

Over the new characteristics associated with technology development in the current time, most people have gained advanced technological experience and how the digitalization trends have transformed and changed their attitudes and behaviors in many different aspects of life (Almaazmi et al., 2020; Awadhi et al., 2021). The technology also has transformed the methods that people run and operate new integrations of the digitalization in work and life (Gobble, 2018; Tariq et al., 2022a&b). The concern with the role of technology and dramatic effects on the business development and people perceptions has aroused the need to re-emphasis the importance of building skills-biased technological changes that confirm positive competitive edge of the business and productivity benefits (Gonçalves et al., 2016; Ahmad et al., 2021a). Certainly, the technological tools as well as digital platforms are not seen as intermediaries, but also, they have become more than a communication language which individuals use in order to express their changed needs (Ahmed et al., 2020; Alwan & Alshurideh, 2022). Wijaya and others (2020) have hypothesized and examined a positive relationship between value creation and customer satisfaction, and this relationship through the role of information technology responses has contributed to effective business transactions and customer satisfaction efficiency. Furthermore, the literature has emphasized that digital transformation will create changes in value creation, which reflects the influence of digitalization on firms' performance (Hess et al., 2016; Ahmad et al., 2021b&c). Today's companies are largely influenced by the technological transformations which will soon make huge changes in the ways that all companies and enterprises operate their key operations in the digital economic world. Mostly, the companies strive with the approaches and strategies to cope with the new and emerging customers' segmentation and the role of the internet on the core business of the companies (Akerman et al., 2015; Alshurideh, 2022).

* Corresponding author. E-mail address: <u>m.alshurideh@ju.edu.jo</u> (M. Alshurideh)

© 2022 by the authors; licensee Growing Science, Canada. doi: 10.5267/j.ijdns.2022.4.021

However, the suggestion that the companies can meet the changes in the customers' changes and the mechanism of value creation has struggled the businesses to integrate the advanced technology methods and tools into their daily essential activities for desirable market achievements and competitiveness (Ilyas et al., 2021; Lee et al., 2022a&b). This suggestion may encourage the organizations to achieve progress through creating a customer-focus organizational structure. As the current world is characterized with rapid changing in many fields and aspects of the business, hence the company's interest to learn how newly operate their operations in terms of maintaining a lasting value for customers and good market position (Alshurideh, 2016; Hamilton, Kaltcheva, & Rohm, 2016). Moreover, the phenomenon of E-commerce has influenced a lot of big organizations associated with the intense market competition between the traditional marketing methods and online ones (Alshurideh et al., 2017; Štreimikienė, Navikaitė, & Varanavičius, 2019). The evidence provided significant trends and changes in this issue, thus the analysts expect a stream of effects will occur and lead to accept the technological emerging trends of this phenomenon which also influence many sectors and industries (Gerasimenko, 2019; Alzoubi et al., 2022). For instance, the telecommunication mobile industry has encouraged and integrated within various forms of improvement and innovative technological methods and ways to meet the different customers' expectation particularly due to the consequences resulting from COVID-19 pandemic that increase online transactions (Alshurideh et al., 2021a&b; Redjeki & Affandi, 2021). The traditional companies consider one of the key motivated tools to retain customers and invade new market segmentation is value the customer's experiences and this requires from the innovative management to give concern to the different digital transformation (Kitsios et al., 2021). As a determinant of customer satisfaction, the process of value creation implemented by many companies triggers a greater part of the existing academic literature to coincide and highlight the positive role or effect that the customers participation have on value creation in the services delivery. Therefore, in this context the research studies stand out as the studies of the customers' role as a valued contributor in this services industry (Vega-Vazquez et al., 2013). However, the studies that address the relationship between value creation and customers satisfaction in the services industry with involving the predictor of digital marketing are few and there is a need for a such these studies to fulfill the research gaps in this area and stand with relevant previous studies to provide new insights and understanding of this possible relationship (Kurdi et al., 2020; Al-Dmour et al., 2021). Theoretically speaking, the current study will not develop a new theory, it expands the implications of the value co-creation theory and analyze the consequences of digital marketing on co-creation behaviors from the customers perspectives. In addition, the awareness of the business leaders about the situations makes them to think to integrate the digital marketing applications in the services delivery, thus the current research aims to address the effects of digital marketing on value creation and customer satisfaction in telecommunication industry in Jordan, and analyze the perceptions of the customers in this sector about the role of digital marketing in creating lasting value can positively improve the customers behaviors.

2. Literature Review and Hypotheses Development

The process of digital transformation to create lasting value for various stakeholder particularly the customer in the nowadays markets enables the modern companies to provide advanced tools for creating and sharing knowledge which easily accessed using various modern marketing methods to pave the ways for values creation and engaging the customers' while designing new services or products (Garrido-Moreno et al., 2020). Furthermore, the sharing economies demonstrate a rapid growth and success because of the digital transformation and the created modern platforms among the business models (Parker, Van Alstyne, & Choudary, 2016), and includes the company's website, social media, blogs, and smart phones apps. The common channels used through the digital marketing are the social media platforms like Facebook, Twitter, YouTube, as well blogs like Blogger which provide cost-efficient tools used widely to reach the target customers and contribute to spread out online the brands information. The role played by social media not only shares the contents among the target groups of the customers but also, they are mostly available in the forms of texts, photos, and audio that use two-way communication to create word-of-mouth (Gerasimenko, 2019).

The key purpose of developing the modern mobile applications is creating more connection with the customers and branding attachment by providing key brands information and promotion. The features commonly traced to these applications are developing trust, increasing the products and services quality as well the users' experiences, and this led to enhancing their ability to pay more premium and repurchase actions (Melović et al, 2020). On other hand, the literature reviews the possible benefits come from the different digital technologies which allow the companies firms to establish and maintain the online customer experience and conceptualize this issue by some factors or dimensions as stated by (Bleier, Harmeling, & Palmatier, 2019) such as informativeness which capture with objective manner and cognitive the aspects that value of the customers experience. Also the entertainment factor which has affective features and prompt pleasures that are provided by the experiences regardless the ability to facilitate a particular shopping function. Further, the social presence which indicates the warm and social feelings of the human communication that the social media channels offer (Gefen & Straub, 2003). The experiences of the customer in the digitalized world are created by the customers that have more active roles and contribute by their mutual contacts in different processes of production and contents.

Digital technologies and implications like social media platforms and means can stimulate a continuous dialogue with various kinds of the customers and influence the branding image and meanings, and this will dictate the services development (Kenney, Rouvinen, & Zysman, 2019). They also involve user generation contents and connect with the groups and individuals through several many approaches rather than the traditional approach that allows the customers to be active in these approaches (Boratyńska, 2019). The nature of the interactive digital media also allows the suppliers and sellers to share and exchange the key information with the customers and give them the opportunity to share their preferences and expectations.

The literature in this context (Pfister & Lehmann, 2022) has evidenced that plenty of the innovative virtual technologies are central for communications development and improve this issue with the customers throughout the relationship with them to influence their brand preference (Lemon & Verhoef, 2016). The prior phase of the awareness acquisition, evaluation, and search, the companies have some opportunities to identify, interact and engage with the existing and potential customers which they note and evaluate a particular brand. Therefore, the study formulates the research hypothesis as follow:

H_1 . There is a positive significant effect of digital marketing on value creation of the telecommunication firms' customers in Jordan.

The customers behaviors in the advanced E-commerce contexts are mainly influenced by some factors like the satisfactory level of the customers that obtained from their online experience and digital transactions, and they certainly lead to improve their satisfaction and repeat further the purchases transactions (Mahalaxmi & Ranjith, 2016). The previous relevant literature showed that the customers satisfied with the different technological tools and methods used to promote or deliver different services, this will motivate the consumers to repeat their purchases and have a satisfactory level, also this might lead to more greater positive attitudes like customer loyalty (Hasanat, Hoqueb, & Hamid, 2019). The customer's satisfaction of consuming a product or service is mainly reflected in numerous forms of repurchase of these products and conveys a positive word of mouth for others. Further studies also found that the promotion by the social media platforms in general significantly influence the consumers satisfaction (Ahmed, 2021). Therefore, the relationship between services and digitized applications is essential to maintain customer satisfaction. In addition, digital marketing can enrich the services offered, the specialty, volume, and effectiveness which all influence the reasons for improving the satisfaction levels for the customers. In the same vein, the results of the empirical research have concentrated the role of the digital tools which they showed positive and causal relationships of the elements of the digital approach such as usability and timeliness as well the customers purchase intentions through the digital online applications (Al-Weshah, Kakeesh, & Al-Ma'aitah, 2021). However, the influence of digital tools used by the marketing departments of the companies meet some of the customers' expectations which have grown during the last pandemic of COVID-19 that create constraints and boom the online transactions. The literature also found that the digital transactions conducted by online customers had a positive and significant effect on the customer satisfaction. They also stated that satisfied customers tend to defend the products and services to others and recommend them to others through digital channels which may take text assessment or ranks on the website and social media online platforms (Kitsios et al., 2021). The effective and interesting avenues for the current and further research recommend integration of the new marketing technologies and innovative methods which can increase the knowledge of the customers' experience as well as satisfaction. The ways that can attain satisfied customers also might include providing appropriate information and schemes and detect the problems encountered by the customers and suggest proper services and solutions. Therefore, the study states the following research hypothesis:

H₂. There is a positive significant effect of digital marketing on satisfaction of the telecommunication firms' customers in Jordan.

In the digital era, the relationship between value creation and customer satisfaction lead contemporary companies to allocate critical key resources to maximize the business value which this call the management to increase the budgets of online marketing than ever before. On other hand, the companies have tried to motivate and satisfy the customers through producing new services or products for value creation (Rahmani, Ranjbar, & Gara, 2017), therefore, the economics digital-based currently involves new modern opportunities for a value creation and proposition. Although some values look to be hard and impossible compared to the old traditional perspectives and they can't be easily made, the companies through these opportunities that arise tend to offer several the projects to find out new values for the digital customers (Flores & Vasquez-Parraga, 2015). The literature related to this relationship (e.g Mahmoud, Hinson, & Anim, 2018) confirmed a significant and positive relationship between value creation and customer satisfaction, the study also has stated a positive intention of the customers to repurchase again through maintaining the processes of innovation development to create value for the customers. Similarly, the arguments and debates supported the hypothesized relationship between these two variables and indicated that the customers' value creation is viewed as a significant factor and driver for customer satisfaction (Oyner & Korelina, 2016). The global business and economies which are influenced by the rapid and dynamic changes enable the companies to largely address the links and results that can be used by the companies to create greater value (Clauss, Kesting & Naskrent, 2019). The value proposition can also impact the core value of the companies and make dramatic changes to the overall performance. The different reasons that trigger the companies to develop processes of value proposition and maintain the market position motivate them to increase their various value creation approaches for desirable performance (Woratschek, Horbel, & Popp, 2020). Also, the studies stated that innovation refers to the offerings of the companies which should be adapted and provide solutions to the customer and meet their needs in a way which can add value as seen and expected by the customers. The customers define value by different perspectives, and they differ from customer to customer and from time to time. This definition indicates the customer satisfaction indicates the response to the evaluation of the performance of the perceived product or service, according to the customer's experiences and judgements of the values that they received (Carlson et al., 2019). Also, the customer satisfaction can be addressed through the positive attitudes related to the consumption experience and purchase decisions in the future, which the customers can perceive greater levels of the value received. Therefore, the study postulates the research hypotheses as follow:

H3. There is a positive and significant relationship between value creation and customer satisfaction of the telecommunication firms in Jordan.

Accordingly, the suggested research conceptual framework illustrates the respective relationship between all research variables as shown in Fig. 1.

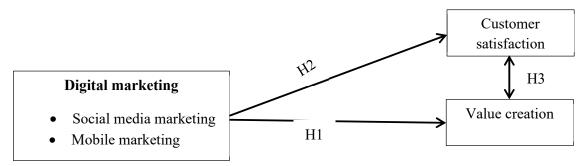


Fig. 1. Conceptual Research Framework

3. Method

The current research has applied and interest to conduct a quantitative study-based method to achieve the objectives of the study and collect as well analyze the hypothesized framework. This type of research method is widely used among the modern studies due to the benefits that can be provided for scholars such as easy to conduct and reach the target sample with little difficulties (Saunders, Lewis, & Thornhill, 2009). The justified arguments for those scholars of applied these types of research supported the common research trends in the social science fields. However, in this work, the researcher goes with the most appropriate and favorable research approach to conduct this study as well collect the needed data from the target population which is the customers of the telecommunication firms operating in Jordan namely Zain, Orange, and Umniah. The importance of the telecommunication industry in Jordan comes from the higher economic contribution in the national economy, the statistics indicate around revenue of \$1,400,000 in 2017 with 4,000 employments. The sector also is predicted with an imminent growth that will fuel due to the rapid diffusions of the smartphone deployment and other many emerging technologies (Alzoubi & Alzoubi, 2019). The reasons that play a role to smoothly conduct any study is the level of cooperation of the sample which also encourages the scholars to properly collect the data. The study sample involves various experiences with the telecommunication firms in Jordan which can understand the status quo of their digital marketing strategies to increase the value and satisfaction of the customers. Further, the contributions of the study implication in a developing telecommunication industry certainly enhances the vitality of this sector and offer better knowledge about the factors that might influence the development of this sector.

The researchers created an electronic survey questionnaire and distributed it to the target sample which included measurements of the respective variables involved in this study to explore the perceptions of the sample. The instrument was adapted based on some relevant literature and valid studies conducted in different contextual settings but hold similar objectives with the current study. For example, the measurement items of the dimensions of the digital marketing were adopted and adapted from selected previous works e.g Mohammadpour et al. (2014) to measure social media marketing using dimension, and Kim et al., (2015) to measure mobile marketing. The measurements of the customer satisfaction were adapted from Bailey & Pearson (1983), and the value creation measurements adapted from O'Cass & Ngo (2011). The survey questionnaire of this research used a five-point ranking interval scale to meet the parametric analysis requirements, it ranges from 1, "strongly disagrees", to 5, "strongly agrees". The instrument was reliability checked and assessed of its content as well structure in order to ensure a valid measurement scale and tool through sending it to some of experts in the research topic. Some amendments were considered and made for further development of this instrument like deleting items irrelevant to the study construct, and editing others to fit the objectives of this study and suitable for the involving sample and sector in Jordan.

For data analysis, the study has used various statistical analyses that include sample characteristics and testing the hypothesis by using both of Social Package of Social Sciences SPSS and Smart PLS3 which the purpose of using this software examining what extent the digital marketing strategies used by the telecommunication firms can create value and increase their satisfaction levels. As the study population has infinite numbers and millions of customers as distributed over the country, the study has used a convenient sampling technique which it commonly suggested to conduct the studies with huge numbers of population and mostly all people (>18 year-old) consider target sample and can be a participant in this work (Springer & Mcclure, 1988). The study also screened the secondary sources and screened the databases including relevant articles to review the related literature and address the interesting constructs included in this research such as Google scholar. A total of 315 valid and completed responses were used for further analysis which represent around (70% responses rate) of the overall distributed numbers of the questionnaire (450). Hence, this sample size is appropriate and adequate to carry out Structural Equation Modeling SEM approach (Raykov & Widaman, 1995).

4. Results

By using the technique of the Partial Least Squares (PLS-SEM), the study has conducted series of analytical procedures due to the advantages of this method which some stated by Sarstedt et al. (2016) who though the ability of the PLS-SEM to handle complicated models holding numerous types of latent constructs such as mediator or moderator which they used to measure indirectly the interested constructs. Also this approach can handle non normal distribution data which give it advantage and it can be used to examine a model with many regression equations (Hair et al., 2017). Further, the approach of PLS also aims to test the suggested hypothesized statements using procedures like bootstrapping which enable the researcher to judge whether the hypotheses are accepted or rejected. The results gained from this approach help this study to assess two different types of models called measurement and structural model which they used to assess the measurements and model validity and hypothesis testing.

4.1 Measurement model assessment

The study has assessed the measurement model of the suggested conceptual framework through some of critical and required tests suggested by Hair et al. (2017), which they include analyzing the factor loading of the indicators for all latent constructs, the constructs' reliability using the common procedures of this analysis namely Average Variance Extracted AVE and Composite Reliability CR. The justification of using these important tests is that they can evaluate the ability of the measurements to measure the intended constructs, and this enables the study to give a decision and make judgment while assessing the respective measurement model (Afthanorhan, Awang, & Aimran, 2020). Construct reliability is the most important aspect and features of the process of validity assessment of the model constructs which is often called internal consistency by using the popular measure in this context namely Cronbach alpha. To achieve this purpose, the research conducted this type of analysis to meet the reliability issues of the indicators and check their ability to measure the factors. In addition, the technique of PLS-SEM offers additional important tests for this aim called Composite Reliability (CR) (Hair, Howard, & Nitzl, 2020). The results provided of these tests are given in Table 1 which shows the tests values that they mostly achieved satisfactory levels and exceed the threshold and acceptable ranges. For instance, the convergent validity through both Average Variance Extracted (AVE) and Composite Reliability (CR) are assessed to take a clear picture about the convergent validity of the measurement model. The results mostly exceed the cut-off level of 0.50 and 0.60 respectively of these two elements of the convergent validity (Fornell & Larcker, 1981). Hence, the research measurement model has met a satisfactory level associated with the constructs' reliability and validity. The first run of the measurement model revealed a poor convergent validity and after check the overall indicators, it found that two indicators (DM and DM8) have influenced the results of this validity and they got lower factor loadings (< 0.70), therefore the study to improve the convergent validity AVE and CR remove these two items from further analysis, but some of indicators still had lower factor loadings after this process but the validity was not badly influenced, thus the study keep the remaining items with no further items deletion.

Table 1

Constructs	Items	Mean	SD	FL	VIF	CR	Alpha	AVE
Social media marketing	DM1	3.91	0.830	0.656	3.11		0.716	0.539
	DM2	4.17	0.813	0.694	1.67			
	DM3	4.16	0.766	0.747	1.71	0.824		
	DM4	4.15	0.726	0.742	1.71			
	DM5	3.92	0.831	0.752	2.17			
Mobile marketing	DM6	4.08	0.825	0.767	1.92			
	DM7	4.04	0.836	0.679	1.56		0.776	0.601
	DM8	3.93	0.799	0.598	1.56	0.857		
	DM9	3.98	0.887	0.807	2.92			
	DM10 4.05 0.723 0.838 2.34							
Value creation	VC1	3.97	0.896	0.795	2.89	0.896	0.859	0.591
	VC2	4.23	0.774	0.779	1.95			
	VC3	4.01	0.746	0.807	2.13			
	VC4	4.05	0.885	0.806	2.61			
	VC5	4.15	0.791	0.795	2.36			
	VC6	4.08	0.818	0.610	1.31			
Customer satisfaction	CS1	3.83	0.768	0.763	1.80			
	CS2	4.07	0.692	0.653	1.45	0.882 0.839		
	CS3	3.97	0.801	0.749	1.69		0.839	0.556
	CS4	4.18	0.718	0.790	1.82			
	CS5	4.01	0.725	0.711	1.69			
	CS6	4.09	0.729	0.799	2.02			

Descriptive Statistics, Validity, & Reliability

FL: Factor loading; SD: Standard deviation; VIF: Variance inflation factor

The research has also evaluated another type of this validity namely discriminant validity. (Henseler, Ringle, & Sarstedt, 2015) suggested evaluating analysis called cross-loadings to check this validity, the study provided both of the Fornell-Larcker criterion as well Heterotrait-Monotrait (HTMT) which used to check the constructs correlations as presented in Table 2 and Table 3. The results showed that the most values of this kind of research validity that calculated through the square root the

AVE and they indicated in bold off-diagonal cells were greater than the construct correlations itself as shown in the respective columns and rows (Fornell & Larcker, 1981). Further, the research measurement model supported good acceptable findings of the discriminant validity. However, the research study has also utilized another procedure to screen the discriminant validity using the HTMT approach as suggested by (Henseler et al., 2015). The results given in Table 3 revealed that the HTMT achieved a greater cut-off (≤ 0.90). This result achieves the procedure of HTMT ≤ 0.90 (Kline, 2015), this result also meets a satisfactory indication of the discriminant validity for all constructs included in the research study.

Table 2

Fornell-Larcker Criterion

	Constructs	1	2	3	4	5
1.	Customer satisfaction	0.746				
2.	Digital marketing	0.483	0.711			
3.	Mobile marketing	0.459	0.650	0.775		
4.	Social media marketing	0.437	0.635	0.770	0.734	
5.	Value creation	0.633	0.602	0.571	0.552	0.768

Table 3

Heterotrait-Monotrait (HTMT) Ratio

monoreman	e monorate (minit) ratio					
	Constructs	1	2	3	4	5
1.	Customer satisfaction					
2.	Digital marketing	0.558				
3.	Mobile marketing	0.575	0.555			
4.	Social media marketing	0.549	0.547	0.696		
5.	Value creation	0.748	0.617	0.645	0.691	

4.2 Structural model assessment

The next step of PLS-SEM after analyzing the overall measurement model is going to test the structural model. The process of evaluating the structural model is commonly in the studies to test the hypothesized proposed model. As stated by Hair and others (2020), there are some required analytical tools and findings should be checked in order to make a fully evaluation of the structural model like path estimates, the corresponding t-value and p-value by using the approach of bootstrapping available in this analysis as given in Figure 1. The findings shown in Table 4 revealed that digital marketing had a positive and significant effect on value creation ($\beta = 0.602$, t = 13.792, p < 0.001). Therefore, the gained results support H1. The results also indicated that digital marketing has a positive and significant effect on the customer satisfaction ($\beta = 0.146$, t = 2.797, p < 0.001). Therefore, the gained results support H2. Similarly, the findings also revealed that value creation has a significant relationship with customer satisfaction ($\beta = 0.562$, t = 11.100, p < 0.001), thereby the result also supports H3.

Table 4

Hypotheses Testing

	Hypotheses	Beta	T-value	P-value	Result
H1	Digital marketing \rightarrow value creation	0.602	13.792	0.000	Supported
H2	Digital marketing→ customer satisfaction	0.146	2.797	0.000	Supported
H3	value creation \rightarrow customer satisfaction	0.562	11.100	0.000	Supported
R ² for value creation				0.362	
R ² for customer satisfaction				0.436	
Q^2 for value creation				0.208	
Q ² for customer satisfaction				0.125	

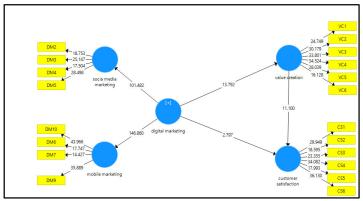


Fig. 1. Structural Research Model

1562

Furthermore, Hair et al. (2017) stated that the coefficient of determination of which symbol (\mathbb{R}^2) and the cross-validated redundancy (\mathbb{Q}^2) need to be evaluated to check the quality of the model for prediction. The findings of this model explained 36.2% and 43.6% of the variance in value creation and customer satisfaction respectively. Because the findings are ranged from 0 to 1, the model data suggests a good explanatory power (Shmueli et al., 2019). In addition, to confirm that the predictability of the model is good, the values of \mathbb{Q}^2 for the dependent variables should be greater than zero as presented in Table 4, the values of \mathbb{Q}^2 of this study revealed this assumption and got greater than zero criteria and confirmed this issue.

5. Discussion

The main objective of this research is examining the effect of digital marketing on value creation and customer satisfaction in the telecommunication industry in a developing context of Jordan. The findings stand with the existing relevant literature which showed similar evidence which studies the same variables over many different contextual settings, but none of these studies take all them together in a single conceptual model in the mentioned context. The research results with considering the paucity of such these studies mainly in a developing context and addressed key interrelation variables contribute to the current literature in two folds, firstly it developed the model based on the previous studies but consider the gap issues in this topic in order to cover this gap and to be a unique and valued for the future studies. Secondly, the current research through the results suggests a need for decision makers of the marketing strategies and plans to be updated with the emerging technologies which have become more vital to reach customers and meet their expectations. Though the insights have been provided by the essential findings which they mostly revealed significantly and positively variables interrelationships, this would support the future trends associated with the developed and advanced marketing methods and tools which state originality in the process of value creation for customers. In terms of both practical and theoretical implications extracted in this study, they will provide helpful avenues for the future interested studies and provide them more research paths. Empirically, these results have also asserted that digital marketing can as well predict customer satisfaction and create a value for them in the Jordanian telecommunication industry. This indicates that the telecommunication industry with various digital marketing applications and implementation significantly lead to further satisfactory levels among the customers which might in turn lead to long term Customer Relationship Marketing CRM which aims to establish strategic relationships with customers to achieve the key business. Further, the research findings also demonstrated that while the digital marketing impacts positively value creation and thus, it will increase the organizational concerns to focus more on the new practices of the marketing such as involve within integrative marketing ways using the modern technological channels like social media which they easy to access and browse as well attainable for all people. In general, the findings are in line with other new studies results conducted in Jordan (e.g., Ahmed, 2021). They stated that the telecommunication sector in Jordan is highly competitive and attributed with intensive competition which require more innovative solutions for the challenging factors and traditional methods of the marketing. The empirical findings on other hand supported the significant relationship between the value creation and customer satisfaction, and this confirmed in the previous studies (e.g Woratschek et al., 2020) which stated a positive relationship between these variables. This may trigger the assumption that stated value creation is a prerequisite requirement of customer satisfaction and further loyalty. It can infer from the results also the urgent need of the private competitive sectors to include more advanced tools in their key operational activities and operations to ensure desirable outcomes, and this definitely include continuous and updated knowledge with the technology development to increase their capacity to handle the changing aspects in the customers attitudes and expectations. Accordingly, the gained results pinpoint the prevalence of using social media platforms and mobile marketing methods to meet the changes in the marketing field that rapidly transformed into the technological side due to the larger benefits might gain from this issue. Importantly, the topic of customer satisfaction factors increasingly takes more interest from the current scholars and this indicates a key indicator for the successful companies which compete to create a value for their services and products. The perspectives of the sample involved in this study stated the traditional marketing ways have become ineffective and less motivated for them, therefore this maximizes the need for creative adoption of marketing tools and methods for this purpose. Moreover, the modern economies are characterized with the technology-based sectors which become reality, and the companies' management lately considers the outcomes and less cost and effectiveness of adopting the emerging technology within their marketing campaigns and plans. Also it can note from the results the evidence that applied digital marketing practices made good results including loyal and trust customers and in general less this enabled the organizations to forward to the suggested emerging application. This also encourages the marketers to control the less engagement and failure resulting from the traditional marketing forms. The results correspond to the idea that the contemporary businesses are still further developed and continue to discover new business directions and requirements that influence the key performance of the companies and accelerate their competitive capabilities to maintain a competitive edge for the business.

6. Conclusion

The theoretical implications of the current research summarized through the results that provided new insights and research field contributions for the body of related literature. Since the aim of it is examining the impact of digital marketing and prediction of the value creation and customer satisfaction for customers in telecommunication firms in Jordan, the study would contribute to give a better understanding of the different outcomes that digital marketing can offer. Further, the theoretical proposed model of this study has been developed according to the conceptualization of the related theories like value creation theory which applies to all market sales. The results also extend this research with the relevant studies that discussed the same concepts of this study and asserted a positive impact. The model has been contextualized through a unique framework

including essential proposed relationships and address the role of digital marketing method applied within the telecommunication firms in Jordan as a developing context, and this is a novel contribution of the current research. This may also increase the importance of digital marketing as a strategy can achieve greater business outcomes. On other hand, the managerial implications for this research are centered around the results that stated some practical implications and suggest for the firms' management to consider a diverse tool for their marketing strategy. The study also supports the hints that competitiveness might be increased once the management adopts a developed digital approach in the marketing plans. As the findings suggest value creation leads to greater customer satisfaction and positively correlated, it also supports this assumption and encourages marketing policy makers to modernize on the marketing plans and tools and incorporate social media channels to increase the competitive advantage through dynamic marketing activities. The valued contributions of this study are also based on the target involved sample that include different characteristics customers in Jordan which present well the overall population and provide more perceptions towards the research issue.

The study struggles with some limitations and provides some directions for future studies. It has suggested establishing a new direction for future research that considers the founding empirical results and models. As a limitation, the study examined the perceptions of the customers experienced with the only three telecommunication firms working in Jordan, therefore the results will differ in other sectors and public sector services due to the variations in the management activities and practices. The future study suggestion may select another different sample and industries with new concepts suggestions (e.g., consumer purchase behavior). Further, the sampling approach used to conduct this work was a convenient method which may make some biases during the sample selection process. Also the results will be limited to the generalizability issue. The research scope also did not explore the role of the respective variables influencing other different concepts like loyalty therefore, the future research is importantly needed to cover this issue. The future studies also suggested performing and using other different methodological methods like multi-group analyses to study groups differences in different industries e.g hotels that can provide new implications and help more understanding of other critical issues across this field. Lastly, the study has concentrated on examining general customers' views towards the constructs of the study with no addressing specific individual's perceptions like marketing managers, however, the future research recommends proposing mediated-moderated models to examine the different role of concepts over a particular suggested relationship. Besides, the potential future academic works would also include some various interesting control variables like company size, and this will support and increase the importance of the digital marketing dimensions and factors that contribute to achieve greater competitive market edge.

References

- Afthanorhan, A., Awang, Z., & Aimran, N. (2020). An extensive comparison of CB-SEM and PLS-SEM for reliability and validity. *International Journal of Data and Network Science*, 4(4), 357-364.
- Ahmed, E. (2021). The Relationship between Digital Marketing and SMES in Creating Value for Customers in Light of the Corona Pandemic in Jordan. Saudi J Bus Manag Stud, 6(9), 389-393.
- Ahmed, A., Alshurideh, M., Al Kurdi, B., & Salloum, S. A. (2020, October). Digital transformation and organizational operational decision making: a systematic review. In International Conference on Advanced Intelligent Systems and Informatics (pp. 708-719). Springer, Cham.
- Ahmad, A., Alshurideh, M. T., Al Kurdi, B. H., & Alzoubi, H. M. (2021b). Digital Strategies: A Systematic Literature Review. In The International Conference on Artificial Intelligence and Computer Vision (pp. 807-822). Springer, Cham.
- Ahmad, A., Alshurideh, M. T., Al Kurdi, B. H., & Salloum, S. A. (2021c). Factors Impacts Organization Digital Transformation and Organization Decision Making During Covid19 Pandemic. In The Effect of Coronavirus Disease (COVID-19) on Business Intelligence (pp. 95-106). Springer, Cham.
- Ahmad, A., Alshurideh, M., Al Kurdi, B., Aburayya, A., & Hamadneh, S. (2021a). Digital transformation metrics: A conceptual view. Journal of Management Information & Decision Sciences, 24(7), 1-18.
- Akerman, A., Gaarder, I., & Mogstad, M. (2015). The skill complementarity of broadband internet. The Quarterly Journal of Economics, 130(4), 1781-1824.
- Al-Dmour, R., AlShaar, F., Al-Dmour, H., Masa'deh, R., & Alshurideh, M. T. (2021). The Effect of Service Recovery Justices Strategies on Online Customer Engagement Via the Role of "Customer Satisfaction" During the Covid-19 Pandemic: An Empirical Study. The Effect of Coronavirus Disease (COVID-19) on Business Intelligence, 334, 325-346.
- Almaazmi, J., Alshurideh, M., Al Kurdi, B., & Salloum, S. A. (2020, October). The effect of digital transformation on product innovation: a critical review. In International Conference on Advanced Intelligent Systems and Informatics (pp. 731-741). Springer, Cham.
- Alshurideh, M. (2016). Scope of customer retention problem in the mobile phone sector: a theoretical perspective. *Journal of Marketing and Consumer Research*, 20(2), 64-69.
- Alshurideh, M., Al Kurdi, B., Abu Hussien, A., & Alshaar, H. (2017). Determining the main factors affecting consumers' acceptance of ethical advertising: A review of the Jordanian market. *Journal of Marketing Communications*, 23(5), 513-532.
- Alshurideh, M. (2022). Does electronic customer relationship management (E-CRM) affect service quality at private hospitals in Jordan?. Uncertain Supply Chain Management, 10(2), 325-332.
- Alshurideh, M. T., Hassanien, A. E., & Ra'ed Masa'deh. (2021a). The Effect of Coronavirus Disease (COVID-19) on Business Intelligence. Springer.

- Alshurideh, M. T., Kurdi, B. A., AlHamad, A. Q., Salloum, S. A., Alkurdi, S., Dehghan, A., ... & Masa'deh, R. E. (2021b). Factors affecting the use of smart mobile examination platforms by universities' postgraduate students during the COVID 19 pandemic: an empirical study. *Informatics*, 8(2), 1-21. Multidisciplinary Digital Publishing Institute.
- Alwan, M., & Alshurideh, M. (2022) The effect of digital marketing on purchase intention: Moderating effect of brand equity, International Journal of Data and Network Science, 10 (3), 1-12.
- Al-Weshah, G. A., Kakeesh, D. F., & Al-Ma'aitah, N. A. (2021). Digital marketing strategies and international patients' satisfaction: an empirical study in Jordanian health service industry. *Studies of Applied Economics*, 39(7), 1-14.
- Alzoubi, H., Alshurideh, M., Kurdi, B., Akour, I., & Aziz, R. (2022). Does BLE technology contribute towards improving marketing strategies, customers' satisfaction and loyalty? The role of open innovation. *International Journal of Data and Network Science*, 6(2), 449-460.
- Alzoubi, M., & Alzoubi, A. (2019). An Investigation of Factors Affecting E-Marketing Customers' Behavioral Intention to Use the Telecommunication Industry in Jordan. *International Journal of Marketing Studies*, 11(3), 125-130.
- Awadhi, J., Obeidat, B., & Alshurideh, M. (2021). The impact of customer service digitalization on customer satisfaction: Evidence from telecommunication industry. *International Journal of Data and Network Science*, 5(4), 815-830.
- Bailey, J. E., & Pearson, S. W. (1983). Development of a tool for measuring and analyzing computer user satisfaction. Management science, 29(5), 530-545.
- Bleier, A., Harmeling, C. M., & Palmatier, R. W. (2019). Creating effective online customer experiences. *Journal of market*ing, 83(2), 98-119.
- Boratyńska, K. (2019). Impact of digital transformation on value creation in Fintech services: an innovative approach. *Journal* of Promotion Management, 25(5), 631-639.
- Carlson, J., Wyllie, J., Rahman, M. M., & Voola, R. (2019). Enhancing brand relationship performance through customer participation and value creation in social media brand communities. *Journal of Retailing and Consumer Services*, 50, 333-341.
- Clauss, T., Kesting, T., & Naskrent, J. (2019). A rolling stone gathers no moss: the effect of customers' perceived business model innovativeness on customer value co-creation behavior and customer satisfaction in the service sector. *R&D Management*, 49(2), 180-203.
- Flores, J., & Vasquez-Parraga, A. Z. (2015). The impact of choice on co-produced customer value creation and satisfaction. *Journal of Consumer Marketing*, 32(1), 15-25.
- Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of marketing research*, 18(1), 39-50.
- Garrido-Moreno, A., García-Morales, V., King, S., & Lockett, N. (2020). Social Media use and value creation in the digital landscape: a dynamic-capabilities perspective. *Journal of Service Management*, ISSN: 1757-5818.1-43.
- Gefen, D., & Straub, D. (2003). Managing user trust in B2C e-services. e-Service, 2(2), 7-24.
- Gerasimenko, V. (2019). Value creation through digital technologies in product development on Russian telecommunications markets. In *Innovation Management, Entrepreneurship and Sustainability (IMES 2019)* (pp. 220-228). Vysoká škola ekonomická v Praze.
- Gobble, M. M. (2018). Digitalization, digitization, and innovation. Research-Technology Management, 61(4), 56-59.
- Gonçalves, M. J. A., Rocha, Á., & Cota, M. P. (2016). Information management model for competencies and learning outcomes in an educational context. *Information Systems Frontiers*, 18(6), 1051–1061.
- Hair Jr, J. F., Matthews, L. M., Matthews, R. L., & Sarstedt, M. (2017). PLS-SEM or CB-SEM: updated guidelines on which method to use. *International Journal of Multivariate Data Analysis*, 1(2), 107-123.
- Hair Jr, J. F., Howard, M. C., & Nitzl, C. (2020). Assessing measurement model quality in PLS-SEM using confirmatory composite analysis. *Journal of Business Research*, 109, 101-110.
- Hamilton, M., Kaltcheva, V. D., & Rohm, A. J. (2016). Social media and value creation: the role of interaction satisfaction and interaction immersion. *Journal of Interactive Marketing*, 36, 121-133.
- Hasanat, W. M., Hoqueb, A., & Hamid, A. B. A. (2019). Effect of customer relationship management in digital marketing for customer satisfaction and loyalty. In *International Conference on Business, Accounting, Finance and Economics*. (BAFE, 2019). Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 4th Oct, 2019.167-176.
- Henseler, J., Ringle, C. M., & Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling. *Journal of the academy of marketing science*, 43(1), 115-135.
- Hess, T., Matt, C., Benlian, A., & Wiesböck, F. (2016). Options for formulating a digital transformation strategy. *MIS Quarterly Executive*, 15(2), 123-139.
- Ilyas, G. B., Munir, A. R., Tamsah, H., Mustafa, H., & Yusriadi, Y. (2021). The Influence Of Digital Marketing And Customer Perceived Value Through Customer Satisfaction On Customer Loyalty. *Journal of Legal, Ethical and Regulatory Is*sues, 24, 1-14.
- Kenney, M., Rouvinen, P., & Zysman, J. (2019). Employment, work, and value creation in the era of digital platforms. In Digital Work and the Platform Economy (pp. 13-30). Routledge.
- Kim, M. J., Chung, N., Lee, C. K., & Preis, M. W. (2015). Motivations and use context in mobile tourism shopping: Applying contingency and task-technology fit theories. *International Journal of Tourism Research*, 17(1), 13-24.
- Kitsios, F., Kamariotou, M., Karanikolas, P., & Grigoroudis, E. (2021). Digital marketing platforms and customer satisfaction: Identifying eWOM using big data and text mining. *Applied Sciences*, 11(17), 8032.
- Kline, R. B. (2015). Principles and practice of structural equation modeling. Guilford publications.

- Kurdi, B., Alshurideh, M., & Alnaser, A. (2020). The impact of employee satisfaction on customer satisfaction: Theoretical and empirical underpinning. *Management Science Letters*, 10(15), 3561-3570.
- Lee, K., Azmi, N., Hanaysha, J., Alshurideh, M., & Alzoubi, H. (2022a) The effect of digital supply chain on organizational performance: An empirical study in Malaysia manufacturing industry. Uncertain Supply Chain Management, 10(2), 1-16.
- Lee, K., Ramiz, P., Hanaysha, J., Alzoubi, H., Alshurideh, M. (2022b) Investigating the impact of benefits and challenges of IOT adoption on supply chain performance and organizational performance: An empirical study in Malaysia. Uncertain Supply Chain Management, 10(2), 1-14.
- Lemon, K. N., & Verhoef, P. C. (2016). Understanding customer experience throughout the customer journey. Journal of marketing, 80(6), 69-96.
- Mahalaxmi, K. R., & Ranjith, P. (2016). A study on impact of digital marketing in customer purchase decision in Trichy. *International Journal for Innovative Research in Science & Technology*, 2(10), 332-338.
- Mahmoud, A., R. E. Hinson, P. A. Anim (2018). Service innovation and customer satisfaction: The role of customer value creation. *European Journal of Innovation Management*, 21(3), 402-422.
- Melović, B., Jocović, M., Dabić, M., Vulić, T. B., & Dudic, B. (2020). The impact of digital transformation and digital marketing on the brand promotion, positioning and electronic business in Montenegro. *Technology in Society*, 63, 101425.
- Mohammadpour, A., Arbatani, T. R., Gholipour, T. H., Farzianpour, F., & Hosseini, S. (2014). A survey of the effect of social media marketing on online shopping of customers by mediating variables. *Journal of Service Science and Management*, 7(05), 368-376.
- O'Cass, A., & Ngo, L. V. (2011). Examining the firm's value creation process: a managerial perspective of the firm's value offering strategy and performance. *British Journal of Management*, 22(4), 646-671.
- Oyner, O., & Korelina, A. (2016). The influence of customer engagement in value co-creation on customer satisfaction: Searching for new forms of co-creation in the Russian hotel industry. *Worldwide Hospitality and Tourism Themes*, 8(3), 327-345.
- Parker, G. G., Van Alstyne, M. W., & Choudary, S. P. (2016). Platform revolution: How networked markets are transforming the economy and how to make them work for you. New York, NY: W.W. Norton & Company Inc.
- Pfister, P., & Lehmann, C. (2022). Digital value creation in German SMEs-a return-on-investment analysis. *Journal of Small Business & Entrepreneurship*, 1-26.
- Rahmani, Z., Ranjbar, M., & Gara, A. A. N. (2017). The study of the relationship between value creation and customer loyalty with the role of trust moderation and customer satisfaction in Sari hospitals. *Electronic physician*, 9(6), 4474-4478.
- Raykov, T., & Widaman, K. F. (1995). Issues in applied structural equation modeling research. Structural Equation Modeling: A Multidisciplinary Journal, 2(4), 289-318.
- Redjeki, F., & Affandi, A. (2021). Utilization of Digital Marketing for MSME Players as Value Creation for Customers during the COVID-19 Pandemic. *International Journal of Science and Society*, 3(1), 40-55.
- Sarstedt, M., Hair, J. F., Ringle, C. M., Thiele, K. O., & Gudergan, S. P. (2016). Estimation issues with PLS and CBSEM: Where the bias lies!. *Journal of Business Research*, 69(10), 3998-4010.
- Saunders, M., Lewis, P., & Thornhill, A. (2009). Research methods for business students. Pearson education.
- Shmueli, G., Sarstedt, M., Hair, J. F., Cheah, J. H., Ting, H., Vaithilingam, S., & Ringle, C. M. (2019). Predictive model assessment in PLS-SEM: guidelines for using PLSpredict. *European journal of marketing*, 53(11), 2322-2347.
- Springer, J. A., & Mcclure, F. D. (1988). Statistical sampling approaches. Journal of the Association of Official Analytical Chemists, 71(2), 246-250.
- Štreimikienė, D., Navikaitė, A., & Varanavičius, V. (2019). Company's value creation via customer satisfaction and environmental sustainability influence. *Montenegrin Journal of Economics*, 12(4), 19-28.
- Tariq, E., Alshurideh, M., Akour, E., Al-Hawaryd, S. and Al Kurdi, B. (2022b) The Role of Digital Marketing, CSR Policy and Green Marketing in Brand Development at UK. *International Journal of Data and Network Science*, 6(3), 1-10.
- Tariq, E., Alshurideh, M., Akour, I., & Al-Hawary, S. (2022a). The effect of digital marketing capabilities on organizational ambidexterity of the information technology sector. *International Journal of Data and Network Science*, 6(2), 401-408.
- Vega-Vazquez, M., Revilla-Camacho, M. A., & Cossío-Silva, F. J. (2013). The value co-creation process as a determinant of customer satisfaction. *Management Decision*, 51(10), 1945-1953.
- Wijaya, A. P., Bernarto, I., & Purwanto, A. (2020). How to achieve value creation in digital world? the influence of IT response on value creation and customer satisfaction. *International Journal of Advanced Science and Technology*, 29(03), 6705-6715.
- Woratschek, H., Horbel, C., & Popp, B. (2020). Determining customer satisfaction and loyalty from a value co-creation perspective. *The Service Industries Journal*, 40(11-12), 777-799.



© 2022 by the authors; licensee Growing Science, Canada. This is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC-BY). license (http://creativecommons.org/licenses/by/4.0/).