

Analysis of the digital marketing communication strategies from a business perspective

Usama Mirani ^{1*}

¹Faculty of Business and Management, Iqra University, Karachi, Pakistan

*Corresponding email: usama.45456@iqra.edu.pk

Article History

Received: 14 March 2023

Revised: 12 February 2024

JEL Classification

M00

M30

M31

R41

ABSTRACT

Currently, customers are approached, informed, and offered products and services through traditional and digital marketing. However, companies have recently increased their inclination towards digital selling, which has proved to be at the forefront of the technology transition. Digital marketing is at the forefront of the technology transition, pioneering new capabilities to attain, teach, interact, distribute, and promote services and products to clients. This study reviewed previous research in Digital Marketing Communication (DMC) studies. A deductive approach following quantitative research with a survey questionnaire was used. Data was collected using convenient sampling. The findings were found consistent with the previous findings. Except for one hypothesis, all the hypotheses were supported. This research can benefit managers and academicians in enhancing their business marketing communication strategies.

Keywords: Regression analysis, Business strategy, Digital marketing, Business success, Structural equation modeling

Citation of this article:

Mirani, U. (2024). Analysis of the digital marketing communication strategies from a business perspective. *South Asian Journal of Operations and Logistics*, 3(2), 168-179. <https://doi.org/10.57044/SAJOL.2024.3.2.2436>

Analysis of the digital marketing communication strategies from a business perspective

1. Introduction

Currently, customers are approached, informed, and offered products and services through traditional and digital marketing. However, there has been an increased inclination of companies towards digital selling recently, which has proved to be at the forefront of the technology transition (Rashid et al., 2022a; Rashid et al., 2023). The utilization of social media platforms in digital selling has exploded because an overwhelming majority of people spend most of their time on these social sites, and based on their behaviours and values, digital marketing strategies can be customized to target specific consumer segments, which often results in the formation of solid customer relationships.

Digital advertising and promotions have improved companies' personalized interactions with shoppers by suggesting and guiding them regarding products and services based on the consumers' tastes, ultimately increasing product sales. Several marketing scholars and practitioners are studying the rapid development of digital technology, social media, and mobile marketing and the technical advances resulting from their evolution. Digital marketing has evolved from promoting products and services to using digital platforms for spreading knowledge about events, organizations, and processes. The exploitation of social media now integrates different platforms, like cell networking, tweeting, and image/video sharing, to cater to the varied needs of purchasers. Along with social media, emerging technologies, such as artificial intelligence, augmented reality (AR), and virtual reality (VR), also tend to be incorporated into Digital Marketing Communication (DMC), establishing new opportunities for potential studies. This research provides a cross-disciplinary review of academic work's contribution to the revolution. It monitors the evolution of main works over 17 years (2004–2020) by scholarly researchers who have cited DMC studies. When Facebook was launched in 2004, companies and customers started using it on a large scale, paving the way for the quick growth of social media worldwide. Individuals now use social media for amusement and business purposes, which has become a famous communication channel. Therefore, citation and co-citation analysis of DMC studies has seen considerable change in how social media has influenced the domain of DMC since 2004. It has an exceptional capability to keep up with however social media has formed and keeps converting DMC to a social media-oriented amount. This type of research also looks at the effectiveness of different assessment techniques. This study aims to gauge the current progress of DMC studies and show how digital media has affected marketing communication evaluations (Wright & Caudill, 2020).

1.1 Background of the Study

The extensive use of various social media platforms has increased customer awareness of products and services, resulting in more business interactions than ever (Hashmi et al., 2020b). We all know that traditional marketing strategies are being phased out in favour of new marketing tactics, which include branding as a critical component. It is possible to specify marketing methods as well as branding. A way of marketing a product or service in which a company creates a logo, symbol, name, and design that is easily recognized and reflects their company to attract customers. Most items are rare buyers on the Internet marketplace, which is one of the three primary drawbacks (Baloch & Rashid, 2022; Rashid & Rasheed, 2023). However, we must work on performance measures that will help us enhance and promote the digital marketing phenomenon, and companies are more willing to invest in it, particularly in the service sector, to grab market share. The word "digitization" refers to those who are brand loyal because they perceive positive marketing and bring others into their loyalty circle only because of their positive experience with the market. They consistently encourage their audience to purchase the goods digitally with the best quality performance and experience (Rashid & Rasheed, 2024).

1.2 Problem Statement

Changes in consumer behaviour require a rethinking of organizations' digital marketing tactics. A large part of the linked research focuses on the customer rather than the business (Rashid et al., 2022b). To address this gap, this study focuses on the company's perception of using social media and digital marketing. The progress in internet-based applications has improved marketing strategies by adapting the new means of communication to collaborate with their shoppers to create the required content. The survey analysis shows that organizations are under tremendous internal and external pressure to devise new ways to utilize digital platforms best. The perceived benefits of social media use by corporations are often accompanied by their involvement in digital marketing. Entrepreneurs should handle courting-based engagements with their shoppers to extend digital selling participation. This publication explores how bound firms do that currently. Our analysis indicates that brand supporters have higher relationships than non-fans, which suggests that patron delight is the biggest issue in loyalty (Rasheed & Rashid, 2023). This presents advertising marketers with think tanks to gain client pride. Marketers must focus on relationship-based engagements with their customers to boost digital marketing engagement. This study explains how some businesses are currently doing so. Our finding shows that the firm's relationship with fans is more vital than with non-fans and that happiness leads to loyalty towards the brand. However, the relationship between these two generated by social networking sites and corporate performance has yet to be explored. An empirical test of our framework reveals that a firm's value is positively influenced by 'following' and 'likes', but only up to a certain number of followers. Businesses have typically pursued a brick-and-mortar strategy with little regard for the electronic retail channel. However, rising competitive pressures and using web technologies as a source of information require managers to implement an integrated click-and-mortar approach (Rashid et al., 2020).

1.3 Purpose of the Study

The purpose of this research is to determine how digital marketing impact has affected consumer buying behaviours, how much traffic is rising on online platforms from various social media sources, and where firms are more in need of brand exposure to improve sales and stay in the market since it has become more critical for both sides to stay in the market, whether it is a developed market or an underdeveloped market (Aqeel et al., 2020; Hashmi et al., 2021a). The current focus is on elucidating how COVID-19 influences customers' online purchase decisions, how these aspects are interlinked, and how these aspects change conventional buying habits over time. They might use the energizing approach of social media to engage clients and promote their brand on a broader scale. This research uses a quantitative technique that combines precise and reliable digital marketing strategy indicators, including content and keywords (SEO). The paper's primary purpose is to see if digital media improves brand buying and online sales and if people are more engaged with traditional marketing tactics. Our study's primary goal is to inspire deeper intellectual inquiry into the challenges of social media and business contacts, all while utilizing well-known and valuable social media content available on Facebook, Twitter, Instagram, and other digital platforms such as company websites that are relevant to our research. In several ways, our study adds to knowledge, promotes awareness, and encourages involvement in social media. First and foremost, the study classifies the key communication tactics businesses use on social media platforms such as Facebook, Twitter, and Instagram, among others. Second, we need to find relevant information and trends concerning brand Facebook page engagement rates that both consultants may use. On the other hand, we must look for patterns and multiple interaction patterns over some time. Finally, it suggests seven core future research themes and future study agendas (Aqeel et al., 2020).

1.4 Significance of the Study

This research will establish a point for the evolving DMC discipline by analyzing key texts, allowing students to determine their impressions and speak ability analysis pointers. This study offers an abstract and theoretical basis for DMC-associated articles and an analysis of the latest DMC scholarship to contextualize and spotlight critical works. This bibliometric analysis reveals that

between 2004 and 2020, the Elaboration Probability Model (ELM) and electronic word-of-mouth (eWOM) marketing have shaped the domain of DMC. Three critical consequences and implications for DMC measures are recognized with these evaluations: eWOM, interactivity, and DMC. Those findings and implications include thematic views and implications for researchers and clinicians attempting to search out strategies to produce prime DMC. The preeminent works in citation examination can clarify essential standards, hypothetical underpinnings, and relevant rising developments that propel a discipline. Bibliometric mental image studies significantly help the mental image of social networks amongst profound communications within the DMC as a space. Moreover, the foremost quoted pupils are also willing to outline how United Nations agencies influence the world. A co-quotation summary presents an overview of a field's educational structure, taking into consideration a more extensive interpretation of the most influential books, pupils, topics, and faculties of thought (Wright & Caudill, 2020)

2. Literature Review

Bibliometric studies, citation, and co-citation analysis of the studies help examine the trends and attributes of what has been written and promote the exploration of a particular subject. Bibliometric assessments will facilitate direct assessment in classifying institutional scholarship strengths and understanding citation and co-citation trends, among different matters, in addition to deciding the constructs in the study area. A logical examination of composed sources (e.g., journal articles, conference articles, books) and analytical techniques for inspecting distinct features of a scientific field is brought up as bibliometric analysis. Deep-down examination centred on the quotation and co-quotation analyses assists in exploring rising phenomena and current traits in an exceedingly broad sense, in addition to the impact of diverse journals and faculties of notion.

The best works that researchers will find area unit cited, and therefore, the contents of a cited article area unit compared to the substance of the citing work. In the quotation survey, the preeminent cited works will clarify essential thoughts, hypothetical underpinnings, and key rising improvements that move to teaching. Moreover, the most quoted students will be given a summary of how the World Health Organization is influencing the sector. This analysis states that writers and publications are valuable to alternative students. Co-citation links papers that are documented in the style of alternative works. The number of students for whom the World Health Organization has cited two documents will be enough to test the strength of co-citation relationships. Co-citation analysis summarizes a pursuit area's intellectual framework as a field, improving the interpretation of the foremost authoritative texts, writers, subjects, and faculties of thought. The authors used quotation and co-citation examinations to review all citations in every publication. Quotation examination may be a procedure of following distribution designs that uphold the thought that an intensely cited creator, article, or book is genuine and imperative to numerous understudies in a challenging field. To deal with study queries one and a couple, a citation analysis was done to justify the foremost within the DMC. Names inside the creator arrangement, the title of the cited works, and each citation's beginning, moment, and third origin were conjointly coded inside the quotation investigation of the number of documents that quoted any given combination. Victimization Gephi tools, Associate in Associate Examination of the foremost cited works to illustrate the writers' and works' impact on different researchers. Co-citation representation: To wear down a look question, we have got an inclination to verify the number of co-citations and their networks. Co-citation analysis may be necessary for evaluating a domain's composition and evolution path. Citation network analysis is also a form of citation network analysis technique. To wear down a look question, we are inclined to verify the number of co-citations and their networks (Rashid et al., 2024a).

2.1 Underpinning and Supporting Models (Local and Global)

Thanks to a quickly growing technologically educated population and a significant increase in small and medium businesses, Pakistan is a fast-growing digital country. With SMBs, a deluge of international investments and a population of 202 million people, Pakistan has a rapidly growing digital market, with thousands of new users joining each month. Pakistan is expected to expand. As

smartphone prices continue to plummet, users are expected to grow faster, and the world's lowest internet data rates are contributing to this phenomenon. The China-Pakistan Economic Corridor, Pakistan's most significant foreign investment, will see 820 kilometres of optical fibre cables installed, putting more Pakistanis online. As a result, more research in this area is needed. McKinsey Global Institutes predicts that increased digital service delivery could boost Pakistan's GDP by 7%, or \$36 billion, and create 4 million new jobs between 2016 and 2025, even though the lesson examines the current state of study into our understanding of the effects of the coronavirus pandemic in its early phases on nourishment-providing behaviour. As a result, it comprises an overview and explanation of the discoveries and preferences for all types of consumption. Following the indiscriminate hoarding of food that occurred in numerous realms following the introduction of the lockdown, the impact of COVID-19 (Coronavirus Disease-2019) occurring buyer traditions has been observed in the wrong way around in the occupation of insolences. In order to analyze the study regarding the coronavirus pandemic and food-purchasing behaviour, explicit conditions, as well as the fiscal, profitable, and logistical lifestyles of these settings, must be decided to be relevant. Some global trends have evolved in concert with the pandemic, such as the revival of home-cooked meals, which has increased demand. Despite pricing arbitrariness and the threat of looming daily pay, many buyers have switched to buying healthier, more organic food. Similarly, the number of individuals suffering from food scarcity has decreased significantly. In order to meet this end-user requirement, companies and suppliers must purposely leverage such an incident. Finally, the COVID-19 accident provides an unrivalled opportunity to reclaim the agro-food market by switching to more organic resource and fabrication models. As a result, more significant and more objective cooperation between agronomists, growers, merchants, and inhabitants is likely to continue the concept of digital marketing channels by adding additional features and the benefits to be gained (Aqeel et al., 2020

; R

ashid et al., 2024b; Hashmi et al., 2020a).

Following Table 1 is a list of some of the differences:

Table 1: Difference between Traditional Marketing and Digital Marketing

Traditional Marketing	Digital Marketing
Traditional marketing includes print, broadcast, direct mail, and the telephone network.	Digital marketing includes online advertising, email marketing chains, social media channels, text messaging SEO, etc.
Here, the interaction of the audience is very low or negligible.	High interaction with the audience
Results are straightforward to measure.	Results are easy to measure.
Advertisement campaigns are planned for a more extended period.	Advertisement campaigns are said to be planned for a short period.
It is said to be an expensive and time-consuming process.	As compared to other reasonably cheap and rapid ways to promote
Traditional marketing strategies are celebrated when completed with a large local audience.	Hare Success is celebrated when a targeted audience is achieved.
Online campaigns last for a more extended period.	Campaigns are short-term
24/7 exposure is not available.	24/7 exposure is available.
One-way conversation is possible.	A two-way conversation is possible.

Source: Literature

Further, Table 2 summarizes the various elements of digital marketing.

Table 2: Various Elements of Digital Marketing

Digital Marketing Strategy	Set of planned actions performed online to reach the specific goals of the business
Social Media Marketing	It is the use of social media websites and platforms to promote a service or product
Search Engine Optimization	It is the process of optimizing the number of visitors to a specific website
Content Marketing	It involves creating and sharing online material like videos, blogs, etc.
Digital Advertising	It is the method of using electronic devices to convey promotions

Email Marketing	Use of email within the marketing efforts to promote the product
Strategic Website Development	It is the method of using the software to develop the strategies

Source: Literature

3. Research Method

We employed a deductive approach to analyze the link and influence of the dependent variable on the independent variable (Khan et al., 2023a). Using regression analysis, we will show how independent factors affect dependent variables, such as the upper lead, nurturing, and the value proposition, leading to positive impacts. In the thesis, we will use correlation to examine the effects of different factors on one another and the relationship between two dependent variables. The research is a cross-sectional study because it explains the consequences for a specific time period that may vary in the future (Rashid et al., 2021). Moreover, the methodology is the systematic and empirical study of approaches to determine the applicability of one approach to a particular research subject (Alrazehi et al., 2021; Haq et al., 2023; Khan et al., 2023b). An essential source could be an area where we can get firsthand data or unique proof. A questionnaire was used to gather primary data (Das et al., 2021; Hashmi et al., 2021b; Rasheed et al., 2023). Convenient sampling was used to collect data (Rashid & Rasheed, 2022; Haque et al., 2021). The general method is used, like the most convenient is the best way to get results. A sample design is a method for choosing a representative sample from a given population. It refers to the researcher's process or protocol for selecting items for the survey (Agha et al., 2021; Hashmi & Mohd, 2020).

3.1 Sampling Technique and Data Collection

A nonprobability sampling technique was used in this study. Respondents make their decisions based on convenience sampling. Owing to time constraints, a lack of knowledge of the whole cosmos, and the difficulty of obtaining data from all of the customers who worked on this project, this sampling technique would be used (Khan et al., 2021; Kim et al., 2019; Rashid et al., 2019). Purpose sampling, in which the correct target with the most effective results is selected. The questionnaires can be either adopted or, after reviewing multiple comparable studies and consulting with their supervisors, the questionnaires can be created. The poll starts with standard questions on respondents' gender, age, occupation, and educational background. To validate the variables, a Likert scale can be used on a 5-point scale (Rashid et al., 2024b). The scales go from solid agreement to neutral, then neutral to solid agreement (Khan et al., 2022; Rashid & Amirah, 2017).

4. Discussions on the Found Results

Our structural model, which is based on our regression model analysis (SEM), is the set of statistical techniques used to measure and analyze the relationship between the observed and given latent variables. Some of them are independent, while our primary subject depends and by nature, this model is said to be similar but more powerful than the simple regression analysis that explains the linear and the multi-factor correlation and the casual relationship among all the variables. At the same time, this model also focuses on the accountability of some significant errors in our study.

As we know, the result has been extracted from the data gathered from published sources. The conclusion drawn and mentioned in detail below, "The Digital Marketing Forum", was consistent with the result generated by the Value Proposition. The Sig value of the variables is more significant than 0.000, leading to the acceptance of H1. So, this results in our value proposition directly impacting our digital marketing communication, which leads to the data that all the sources have some strong impacts, either direct or indirect relationships. The findings were taken from nearby sources such as direct communication and surveys through business journals, and the data was checked and measured through the software. The data was related through the proportion of the frequency percentages that ultimately added to the probability proportion.

SPSS and SmartPLS produced the result based on the empirical data inserted into it. The

result shows the Sig value, which is also more significant than the critical value (Hashmi, 2022; 2023; Rashid, 2016). The standard error of the variable and T-value are both significant. The conclusion is that digital marketing forums do marketing messages. Nevertheless, how much of the market share is held by this business? Here are some findings that are proven with the results of which category in the demographics had the major impact on our digital marketing communication channel.

Table 8: Outer Loadings

	CP	DMC	LN	PP	VP
CP_1	0.915				
CP_2	0.889				
CP_3	0.883				
CP_4	0.869				
CP_5	0.883				
DMC_1		0.841			
DMC_2		0.843			
DMC_3		0.909			
DMC_4		0.845			
LN_1			0.881		
LN_2			0.843		
LN_3			0.842		
LN_4			0.907		
LN_5			0.882		
PP_1				0.839	
PP_2				0.748	
PP_3				0.900	
PP_4				0.869	
PP_5				0.898	
VP_1					0.837
VP_2					0.922
VP_3					0.914
VP_4					0.805
VP_5					0.766

Source: SmartPLS output

Based on the result of Table 8 generated by the software, the variables taken are either rejected or accepted because the sig value is significant. Both the Standard error and T-statistics values fall out of the domain, leading us to reject some factors like local channel marketing communication and accept factors like value proposition channels in the H1 and Accept the H0. This proves that some factors significantly impact our subject, and some do not.

Table 9: Discriminant Validity Fornell-Lacker Criterion

	CP	DMC	LN	PP	VP
CP	0.888				
DMC	0.939	0.86			
LN	0.885	0.95	0.871		
PP	0.979	0.912	0.885	0.853	
VP	0.904	0.884	0.945	0.937	0.851
R-Square					
	R Square	R Square			
DMC	0.969	Adjusted			
		0.968			

Construct Reliability and Validity

	Cronbach's Alpha	rho_A	Composite Reliability	Average Extracted (AVE)	Variance
CP	0.933	0.933	0.949	0.788	
DMC	0.882	0.884	0.919	0.739	
LN	0.921	0.924	0.94	0.759	
PP	0.905	0.913	0.93	0.727	
VP	0.903	0.911	0.929	0.724	

Path Coefficient - Hypothesis Testing

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values	Results
CP -> DMC	0.523	0.574	0.177	2.962	0.003	Supported
LN -> DMC	0.92	0.898	0.102	8.994	0.000	Supported
PP -> DMC	0.116	0.071	0.207	0.559	0.576	Not Supported
VP -> DMC	-0.567	-0.549	0.101	5.596	0.000	Supported

Source: SmartPLS output

As in Table 9, the findings of the r-squared a way to demonstrate how well the model runs, so here the regression analysis of r-squared is 97%, which means that 97% per cent of the data is fitted in this model that shows that more excellent the value of r-squared the greater the chances of our variable to show the correct results with this the quality of the measures were also under the observations with the multiple factors that comes in the domain like Value Proposition email marketing local TV. With the proper quality analysis of these models, the actual results are proudly said to be near about in an effective percentage. The Cross-Sectional Model also confirmed that the model varies with some significance with some factors and is insignificant with the rest because the sigma value is less than and more significant than the variables' context. The chi-square value is also less than the threshold, which means that the H0 will be rejected, and an alternate hypothesis will be accepted in this scenario.

In our questionnaire, some questions were like the ones mentioned above. The positive growth complete coefficients indicate that if the value of our independent variable increases with the increasing rate, it shows that the value of our independent variable will also increase with the increasing rate and vice versa, as mentioned in Figure 1. The percentages that the values positively correlate with our dependent variable show the digital marketing communication channel to be increased with the increase of all other factors and vice versa with the negative factors. Here in the model, the frequencies show the results of how much the people are involved in our model to give the actual results, and from the frequencies, the rest percentages are taken, which are the final findings of our conclusive results.

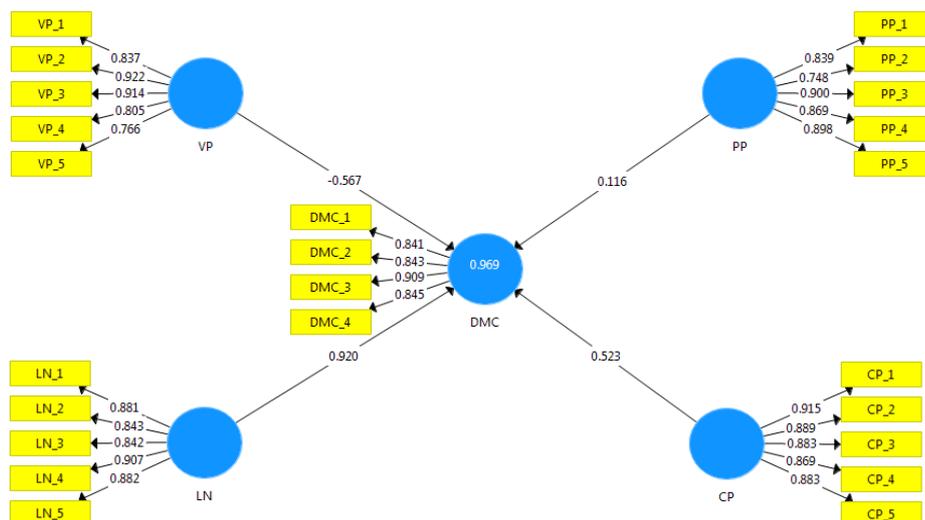


Figure 1: Regression model analysis

Source: SmartPLS output

5. Discussions, Implication and Conclusion

5.1 Discussions

The result was obtained by extracting the data from different reliable sources for the different independent and dependent variables for the firm's performance from 2012–2020. The panel regression models produced a result inconsistent with the variable studied. The result also aligns with the study done earlier. The research examines the evolving state of emerging media assessment reviews and how they have influenced advertising evaluations. A quotation examination could be a procedure for tracing publication trends based on the preface that, as often as possible, a cited creator, paper, or book is significant and notable to many scholars in a field. With the aid of the Gephi scheme, co-citation analysis visualizes facts regarding document pairing by counting the number of documents that cite each pair of documents. We determined the sum of co-quotations and their systems by utilizing co-citation visualization to reply to a research query. Co-citation investigation could be a valuable tool for evaluating the structure and advancement of a theme.

5.2 Conclusion

Based on the results generated by the software, it is concluded that most independent variables do not significantly impact the DMC. Except for the value proposition, This variable positively and significantly impacts DMC. The older the firm, the more beneficial it is in a general context. The sig value of the value proposition was found to be less than the threshold. The sig value of all other variables is significant.

5.3 Implications of the Study

The DMC also needs to analyze the channel with the proper growth set and exposure so that, in the long run, it will benefit them to improve and enhance the DMC at its maximum level. The organization must be reachable via their chosen channels and offer a personalized and predictive experience to meet their demands. This company has to restructure its strategy to attract, engage, and provide more customer-centric experiences.

5.3.1 Organizational implications

It is a method of sending data about items and services from cellular and smartphone gadgets. The company may yield data in content (SMS), pictures, video, or sound utilizing phone gadgets (MMS). SMS (short message service) marketing became common in Europe and a few parts of Asia in the early 2000s. Further, due to the rules set by the media, the DMC and Tough period have been analyzed by them, and their performance has been dramatically affected by different parameters. The corrective measures should be taken so that firm performance can be increased and improved. In this regard, the government should also have introduced flexible policies that help the firms operating in the country invest more and benefit more from their investments.

5.3.2 Theoretical implications

Bibliometric studies, citation, and co-citation analysis of the studies help examine the trends and attributes of what has been written to promote the exploration of a particular subject. Bibliometric assessments will facilitate direct assessment in classifying institutional scholarship strengths, understanding citation and co-citation trends among different matters, and deciding the constructs in the study area.

5.4 Future Research

The authors can extend this research by taking different independent variables and other time horizons. The result of the same study may differ when we take other independent variables and different time horizons. This research will allow future researchers to carry forward similar research work with different variables and periods. Previously, most of the population needed more interest in that digital marketing channel, which reflected the lack of technological impacts in their minds.

References

- Agha, A. A., Rashid, A., Rasheed, R., Khan, S., & Khan, U. (2021). Antecedents of Customer Loyalty at Telecomm Sector. *Turkish Online Journal of Qualitative Inquiry*, 12(9), 1352-1374. <https://www.tojq.net/index.php/journal/article/view/5873/4175>
- Alrazehi, H. A. A. W., Amirah, N. A., Emam, A. S., & Hashmi, A. R. (2021). Proposed model for entrepreneurship, organizational culture and job satisfaction towards organizational performance in International Bank of Yemen. *International Journal of Management and Human Science*, 5(1), 1-9. <https://ejournal.lucp.net/index.php/ijmhs/article/view/1330/1399>
- Aqeel, K., Mubarak, H. A., Amoako-Attah, J., Abdul-Rahaim, L. A., Al Khaddar, R., Abdellatif, M., Al-Janabi, A., & Hashim, K. S. (2020). Electrochemical removal of brilliant green dye from wastewater. *IOP Conference Series: Materials Science and Engineering*, 888(1), 012036. <https://doi.org/10.1088/1757-899x/888/1/012036>
- Baloch, N. & Rashid, A. (2022). Supply chain networks, complexity, and optimization in developing economies: a systematic literature review and meta-analysis. *South Asian Journal of Operations and Logistics*, 1(1), 1-13. <https://doi.org/10.57044/SAJOL.2022.1.1.2202>
- Das, S., Ghani, M., Rashid, A., Rasheed, R., Manthar, S., & Ahmed, S. (2021). How customer satisfaction and loyalty can be affected by employee's perceived emotional competence: The mediating role of rapport. *International Journal of Management*, 12(3), 1268-1277. <https://doi.org/10.34218/IJM.12.3.2021.119>
- Haq, Z. U., Rasheed, R., Rashid, A., & Akhter, S. (2023). Criteria for Assessing and Ensuring the Trustworthiness in Qualitative Research. *International Journal of Business Reflections*, 4(2), 150-173. Available at: <http://journals.pu.edu.pk/journals/index.php/ijbr/article/view/7358>
- Haque, I., Rashid, A., & Ahmed, S. Z. (2021). The Role of Automobile Sector in Global Business: Case of Pakistan. *Pakistan Journal of International Affairs*, 4(2), 363-383. <https://doi.org/10.52337/pjia.v4i2.195>
- Hashmi, A. (2022). Factors affecting the supply chain resilience and supply chain performance. *South Asian Journal of Operations and Logistics*, 1(2), 65-85. <https://doi.org/10.57044/SAJOL.2022.1.2.2212>
- Hashmi, A. R., & Mohd, A. T. (2020). The effect of disruptive factors on inventory control as a mediator and organizational performance in health department of Punjab, Pakistan. *International Journal of Sustainable Development & World Policy*, 9(2), 122-134. <https://doi.org/10.18488/journal.26.2020.92.122.134>
- Hashmi, A. R., Amirah, N. A., & Yusof, Y. (2020a). Mediating effect of integrated systems on the relationship between supply chain management practices and public healthcare performance: Structural Equation Modeling. *International Journal of Management and Sustainability*, 9(3), 148-160. <https://doi.org/10.18488/journal.11.2020.93.148.160>
- Hashmi, A. R., Amirah, N. A., & Yusof, Y. (2021b). Organizational performance with disruptive factors and inventory control as a mediator in public healthcare of Punjab, Pakistan. *Management Science Letters*, 11(1), 77-86. <https://doi.org/10.5267/j.msl.2020.8.028>
- Hashmi, A. R., Amirah, N. A., Yusof, Y., & Zaliha, T. N. (2020b). Exploring the dimensions using exploratory factor analysis of disruptive factors and inventory control. *The Economics and*

Finance Letters, 7(2), 247-254. <https://doi.org/10.18488/journal.29.2020.72.247.254>

- Hashmi, A. R., Amirah, N. A., Yusof, Y., & Zaliha, T. N. (2021a). Mediation of inventory control practices in proficiency and organizational performance: State-funded hospital perspective. *Uncertain Supply Chain Management*, 9(1), 89-98. <https://doi.org/10.5267/j.uscm.2020.11.006>
- Hashmi, R. (2023). Business Performance Through Government Policies, Green Purchasing, and Reverse Logistics: Business Performance and Green Supply Chain Practices. *South Asian Journal of Operations and Logistics*, 2(1), 1–10. <https://doi.org/10.57044/SAJOL.2023.2.1.2301>
- Khan, S. K., Ahmed, S., & Rashid, A. (2021). Influence of social media on purchase intention and customer loyalty of generation Y with the mediating effect of conviction: a case of Pakistan. *Pakistan Journal of International Affairs*, 4(2), 526-548. <https://doi.org/10.52337/pjia.v4i2.207>
- Khan, S. K., Rashid, A., Benhamed, A., Rasheed, R., & Huma, Z. (2023b). Effect of leadership styles on employee performance by considering psychological capital as mediator: evidence from airlines industry in emerging economy. *World Journal of Entrepreneurship, Management and Sustainable Development*, 18(6), 799-818. <https://doi.org/10.47556/J.WJEMSD.18.6.2022.7>
- Khan, S., Rasheed, R., Rashid, A., Abbas, Q., & Mahboob, F. (2022). The Effect of Demographic Characteristics on Job Performance: An Empirical Study from Pakistan. *Journal of Asian Finance, Economics and Business*, 9(2), 283-294. <https://doi.org/10.13106/JAFEB.2022.VOL9.NO2.0283>
- Khan, S., Rashid, A., Rasheed, R., & Amirah, N. A. (2023a). Designing a knowledge-based system (KBS) to study consumer purchase intention: the impact of digital influencers in Pakistan. *Kybernetes*, 52(5), 1720-1744. <https://doi.org/10.1108/K-06-2021-0497>
- Kim, H. J., Hong, A. J., & Song, H.-D. (2019). The roles of academic engagement and digital readiness in students' achievements in university e-learning environments. *International Journal of Educational Technology in Higher Education*, 16(1). <https://doi.org/10.1186/s41239-019-0152-3>
- Rasheed, R., & Rashid, R. (2023). Role of service quality factors in word of mouth through student satisfaction. *Kybernetes*, In press. <http://dx.doi.org/10.1108/k-01-2023-0119>
- Rasheed, R., Rashid, A., Amirah, N. A., & Afthanorhan, A. (2023). Quantifying the moderating effect of servant leadership between occupational stress and employee in-role and extra-role performance. *Calitatea*, 24(195), 60-68. <https://doi.org/10.47750/QAS/24.195.08>
- Rashid, A. & Rasheed, R. (2022). A Paradigm for Measuring Sustainable Performance Through Big Data Analytics–Artificial Intelligence in Manufacturing Firms. Available at SSRN 4087758. <https://doi.org/10.2139/ssrn.4087758>
- Rashid, A. (2016). Impact of inventory management in downstream chains on customer satisfaction at manufacturing firms. *International Journal of Management, IT and Engineering*, 6(6), 1-19.
- Rashid, A., & Amirah, N. A. (2017). Relationship between poor documentation and efficient inventory control at Provincial Ministry of Health, Lahore. *American Journal of Innovative Research and Applied Sciences*, 5(6), 420-423.
- Rashid, A., & Rasheed, R. (2023). Mediation of Inventory Management in the Relationship between Knowledge and Firm Performance. *SAGE Open*, 13(2), 1-11. <https://doi.org/10.1177/21582440231164593>
- Rashid, A., & Rasheed, R. (2024). Logistics Service Quality and Product Satisfaction in E-Commerce. *SAGE Open*, 14(1), 1-12. <https://doi.org/10.1177/21582440231224250>
- Rashid, A., Ali, S. B., Rasheed, R., Amirah, N. A. & Ngah, A. H. (2022a). A paradigm of blockchain and supply chain performance: a mediated model using structural equation modeling.

Kybernetes, 52(12), 6163-6178. <https://doi.org/10.1108/K-04-2022-0543>

- Rashid, A., Amirah, N. A., & Yusof, Y. (2019). Statistical approach in exploring factors of documentation process and hospital performance: a preliminary study. *American Journal of Innovative Research and Applied Sciences*, 9(4), 306-310.
- Rashid, A., Amirah, N. A., Yusof, Y., & Mohd, A. T. (2020). Analysis of demographic factors on perceptions of inventory managers towards healthcare performance. *The Economics and Finance Letters*, 7(2), 289-294. <https://doi.org/10.18488/journal.29.2020.72.289.294>
- Rashid, A., Baloch, N., Rasheed, R., & Ngah, A. H. (2024a). Big Data Analytics-Artificial Intelligence and Sustainable Performance through Green Supply Chain Practices in Manufacturing Firms of a Developing Country. *Journal of Science and Technology Policy Management*, In press, <https://doi.org/10.1108/JSTPM-04-2023-0050>
- Rashid, A., Rasheed, R., & Amirah, N. A. (2023). Information technology and people involvement in organizational performance through supply chain collaboration. *Journal of Science and Technology Policy Management*, In press. <https://doi.org/10.1108/JSTPM-12-2022-0217>
- Rashid, A., Rasheed, R., & Amirah, N. A., & Afthanorhan, A. (2022b). Disruptive factors and customer satisfaction at chain stores in Karachi, Pakistan. *Journal of Distribution Science*, 20(10), 93-103. <https://doi.org/10.15722/jds.20.10.202210.93>
- Rashid, A., Rasheed, R., & Ngah, A. H. (2024b). Achieving Sustainability through Multifaceted Green Functions in Manufacturing. *Journal of Global Operations and Strategic Sourcing*, In press. <https://doi.org/10.1108/JGOSS-06-2023-0054>
- Rashid, A., Rasheed, R., Amirah, N. A., Yusof, Y., Khan, S., & Agha, A., A. (2021). A Quantitative Perspective of Systematic Research: Easy and Step-by-Step Initial Guidelines. *Turkish Online Journal of Qualitative Inquiry*, 12(9), 2874-2883. <https://www.tojqi.net/index.php/journal/article/view/6159/4387>
- Wright, J. H., & Caudill, R. (2020). Remote Treatment Delivery in Response to the COVID-19 Pandemic. *Psychotherapy and Psychosomatics*, 89(3), 1-3. <https://doi.org/10.1159/000507376>