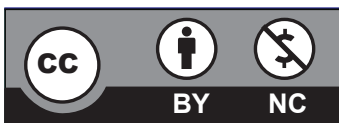


COVID-19 and Digitization of SMEs: The Impact and Way Forward

Aarashi Ghimire¹, Bikash Jaiswal², Jasmine Shrestha³, Kripa Shrestha⁴, Souhard Shrestha⁵

^{1,2, 3,4 & 5}BBA Scholar,

Kathmandu College of Management, Kathmandu, Nepal



New Perspective Journal of Business and Economics (ISSN: 2382-5391(P) & 2382-5405 (O)), Copyright © 2023 The Author(s): Published by Kathmandu College of Management, Kathmandu, Nepal. Distributed under the terms of the Creative Commons Attribution 4.0 International License (CC BY-NC 4.0)

INFO

Corresponding Author

Aarashi Ghimire

Kathmandu Medical College
Kathmandu, Nepal

Email

aarashi2023@kcm.edu.np

Orcid

<https://orcid.org/0009-0001-1022-3908>

Date of Submission

March 15, 2023

Date of Acceptance

July 02, 2023

ABSTRACT

The Covid-19 pandemic has brought significant changes to the global economy, particularly in terms of digitization. This study aims to examine the role of digitization in helping small and medium-sized enterprises (SMEs) survive during the pandemic in Nepal and assess its sustainability for the future. The sample for this study consists of 52 SMEs from various industries such as clothing, food, and retail businesses. A quantitative research approach is employed to analyze the data. The findings of this study indicate that there was little to no change in the adoption of digitalization among SMEs before and after the crisis. This suggests that the level of digitization in SMEs remains relatively unchanged in the post-Covid-19 period. However, in terms of sustainability, the study reveals that SMEs need to undergo digital transformation to ensure their long-term viability. This finding aligns with previous research that emphasizes the importance of digital technologies for SMEs in emerging markets.

The literature review supports the notion that social media advertising can increase brand loyalty and provide opportunities for direct interaction with potential customers. Additionally, studies have shown that social media influencers have a positive impact on the buying decision process of customers. Furthermore, research has demonstrated that social media marketing influences consumer decision-making processes.

It underscores the potential benefits of digitization in terms of survival and sustainability. The findings suggest that SMEs should prioritize digitalization efforts to adapt to the changing business landscape and enhance their competitiveness.

In conclusion, this study emphasizes the importance of digitization for SMEs in Nepal, particularly in the context of the Covid-19 pandemic. The findings indicate the need for SMEs to embrace digital transformation to ensure their long-term viability.

Keywords: social media marketing, policies, digitization, transformation, sustainability

Introduction

The Covid-19 pandemic has had an unexpected impact on the global economy, affecting individuals and businesses, including Small and Medium Enterprises (SMEs). According to the Industrial Enterprise Act 2020, SMEs are defined as an industry with a capital of one hundred and fifty million to five hundred million rupees. The crisis has led SMEs to change their business functions to remain sustainable. Throughout the pandemic, digitization has been the key for businesses to promote, sell, and maintain relationships with customers.

As the pandemic has continued to spread, governments around the globe have taken measures to stop the crisis, ranging from personal movement to the functioning of businesses and services. Due to this, digitization seems to be the factor to maintain the economy along with ensuring that citizens receive the necessary services for their daily purpose.

According to the Journal of Education and Social Sciences, SMEs are facing numerous challenges and uncertainties due to the pandemic. Therefore, they need to develop stimulation strategies for business operations during the pandemic. This is a timely and most appropriate period to recalibrate and reset their business model to incorporate digitization in their strategies. The crisis has encouraged SMEs to incorporate digital solutions to remain sustainable, be competitive, reach out and engage with more customers.

Further, SMEs should always remain the drivers of the national economy, according to Hamburg. SMEs are responsible for about 60% of the employment in EU 27 and UK along with 55% of value addition to the economy. They are the key drivers for providing opportunities for socio-economic participation and mobility with inclusivity.

Problem Statement

Many prior studies have been performed regarding the changes brought by the pandemic and revolution created by digitization. These studies were done in developed countries with stable economies where the adoption of technology is higher compared to

developing countries like Nepal. Our study aims to identify the digitization of the SMEs in Nepal post-Covid-19 crises. It further aims to study the difference in social media marketing, government policies, digitization, digital transformation pre- and post-Covid-19 crisis, along with the sustainability of digitization of SMEs in the future..

Objective

To analyze how SMEs performance has changed due to social media marketing, government policies, digitization, digital transformation before and after the COVID-19 crisis along with the sustainability of digitization in the future.

Literature Review

Merritt, Jeff, (2021) conducted a study to investigate the current state of digital technology adoption in SMEs following COVID-19 and identified the primary roadblocks to SMEs' digital transformation. The study found that many SMEs still have a low degree of technical maturity, with limited integration of digital technology. Lack of financial resources and technical know-how are among the constraints mentioned by SMEs, as is a lack of awareness, and inadequate ecosystem of digital solution providers, and infrastructure limits.

Ionescu, Crina; Iordache, Mihaela; Titan, Emilia,(2021) investigated the current situation of digitization, focusing mainly on the main transformations of recent months. The article concludes that the impact of digitization by comparing the findings from the Romanian economy with other EU countries. It notes that in places where the adaptation to conditions of COVID-19 was more and digitization was developed more, the impact of the crisis seemed significantly lower.

(Bai, Chunguang; Quayson, Matthew; Sarkis, Joseph, 2021) investigated how MSE management and stakeholders should rethink and redesign their business plans, embracing crisis scenarios to keep customers virtually and improve long-term sustainability. The article also includes theoretical perspectives to aid MSEs in their digital transformation efforts, particularly in the areas of circular, cost-effective, and sustainable supply chains, as well as sustainable consumption and production improvements.

Kala'lembang, Adriani, (2021) investigated how SMEs changed during the pandemic and how they were able to adapt their processes and business models. The findings reveal that, despite the decline, SMEs survived and benefited from digital modes by identifying and retaining potential consumers, improving communication, lowering expenses, and improving relationships with business partners.

(Khai, Kho Guan; Onn, Yap Wai; Zulkifli, Rozitaayu Bt; Kandasamy, Shamini; Ahmad, Azrina Bt, 2020) looked at how SMEs in Malaysia were able to quickly re-set their business models through digitization to survive the detrimental effects of the COVID-19 pandemic. The findings revealed that SMEs were able to thrive because the Malaysian government encouraged SMEs to adapt to e-commerce transactions through rules and incentives.

(Hamburg, 2021) investigated how digitization aids SMEs' rehabilitation and growth during and after a crisis. It outlines the abilities and competencies

that must be acquired. According to the report, the government should set goals and design policies to support businesses and individuals throughout this period. In presentations, articles, and projects, the employer must emphasize Lifelong Learning (LLL). Companies' internal mobility initiatives can benefit from lifelong learning to close skill gaps.

(Guo, Hai; Yang, Zhuen; Huang, Ran; Guo, Anqi, 2020) studied the link between digitization, public crisis, and SME responses during the COVID-19 crisis. It asserts that a mix of digitalization, digital technology adoption, and business mode enables them to better respond to public crises.

Overall, these studies focus on the changes, barriers, adoption, effectiveness, and improvements brought during COVID-19 through digitization. These studies were done in developed countries with stable economies where the adoption of technology is higher than in underdeveloped countries such as Nepal.

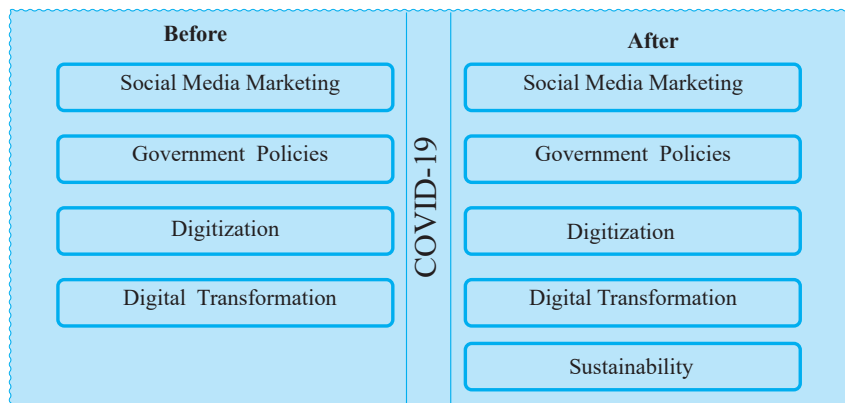


Figure 1: Conceptual Framework

Hypothesis

- H1 - There is change in SME's performance due to social media marketing after covid 19.
- H2 - There is change in SME's performance due to government policies after covid 19.
- H3 - There is change in SME's performance due to digitization after covid 19.
- H4 - There is change in SME's performance due to digital transformation after covid 19.

- H5- There is an effect of social media marketing on digital sustainability of SMEs.
- H6- There is an effect of government policies on digital sustainability of SMEs.
- H7- There is an effect of digitization on the digital sustainability of SMEs.
- H8- There is an effect of digital transformation on digital sustainability of SMEs.

Methodology

Research Design

The study examines the role of Covid-19 on digitization of SMEs all over Nepal. It is quantitative in nature. For data collection and analysis, a questionnaire has been developed using a Likert Scale. The study uses a descriptive and comparative research design for data analysis.

Unit of Analysis

The study focuses on the impact of Covid-19 on SMEs, and the unit of analysis for this study is Small and Medium-sized Enterprises (SMEs).

Population

This study includes SMEs operating in Nepal from various sectors, including Handicraft Shops, Restaurants, Bakeries, Franchises, Convenience Stores, Book Stores, Gift Shops, and Manufacturing SMEs.

Sampling Design

The SME samples are selected using a convenience sampling method. The information is collected through primary sources, and questionnaires on the main variables of the study are used. The responses are collected through physical modes as well as online methods. A total of 52 responses are collected for the purpose of this study.

Validity and Reliability

A set of questionnaires has been constructed for each variable in the research. Pilot testing is conducted to evaluate the feasibility of the research. Data cleaning is performed to ensure reliability. The gathered data is analyzed using SPSS software.

Administration of the Questionnaire

The questionnaire contains a total of 47 questions representing 5 variables. These questions are divided into two segments of pre and post-covid conditions. The Likert scale is used in the questionnaire. The data is collected through personal visits as well as online methods. A pilot test is also conducted. Mishra, A.K., & Aithal, P. S., (2021 a&b), Mishra.A.K., (2019), Mishra, A.K., & Aithal, P. S. (2021) and Sah,S., Mishra,A.K.,(2020) have

been adopting similar research methods in case of Nepal. The similar approach of methods applied in research gives validity for the methodology.

Variable Definitions

Social Media Marketing: (Kala'lembang, 2021) states that social media marketing refers to the use of social media platforms by SMEs to increase sales, reach more customers, and promote their products..

Government Policies: (Dangol, Chitrakar, & Yoo, 2020) have described government policies as the regulations or rules related to deferred payment of tax, interest payment delays, and utility payments that were placed during pandemics as an incentive to help SMEs survive in the economy during or post COVID-19.

Digitization: (Kala'lembang, Adriani, 2021) digitalization refers to the use of digital technology, such as mobile devices, websites, QR payments, e-wallets, online transfers, and online orders, to increase SMEs' performance post-COVID.

Digital Transformation: (Khair, Kho Guan; Onn, Yap Wai; Zulkifli, Rozitaayu Bt; Kandasamy, Shamini; Ahmad, Azrina Bt, 2020) describes digital transformation refers to the process of using technology within the business to drive and improve efficiency, competitiveness, and economies of scale.

Sustainability: (Khair, Kho Guan; Onn, Yap Wai; Zulkifli, Rozitaayu Bt; Kandasamy, Shamini; Ahmad, Azrina Bt, 2020) defines sustainability as the long-term survival of SMEs and their capacity to withstand the obstacles they face in a digitized environment.

Analysis and Interpretation

The Table 1 shows that about 57.7% of SMEs are in their infant stage of operation. Further, only about 7.7% have been established for over 30 years. The table also shows that about 32.7% of SMEs have only 1 outlet. Only about 21.2% operate through more than 2 outlets.

According to table 2, about 65.4% SMEs report having an online presence and 34.6% have no online presence till date. The table also shows that 40.4% SMEs serve customers only and 51.9%

SMEs serve both business and customers as a part of their business function.

Table 3, Social media marketing variance shows that the spread of social media usage was higher post crisis. The same can be seen with government policies, digitization and digital transformation. The range has increased after the pandemic meaning that the difference between the lowest and the highest value is greater as compared to before the pandemic. (Refer to annex table 1,2 and 3)

Table 1: Reliability Statistics

Cronbach's	
Alpha	N of Items
.947	46

Table 1 shows that Cronbach alpha is 94.7% which says that the data is internally consistent, and the items are grouped well together. It also ensures reliability.

Table 2: Paired Samples Test for Social Media

	t	df	Sig. (2-tailed)
Pai	Avg_SMB- .044	51	.965
r l	Avg_SMA		

Table 2, shows that, since the p-value is 0.965 > 0.05, we do not reject the null hypothesis. This indicates that social media marketing of SMEs before and after covid-19 are the same. This does not support our hypothesis H1.

Table 6: Model Summary Coefficients

Model 1		Unstandardized Coefficients		Standardized Coefficients		Sig.	F	Sig.	R2
		B	Error Std	Beta	t				
1	(Constant)	-.245	.248		-.984	.330	37.284	.000	.760
	Avg_SMA	.126	.164	.132	.767	.447			
	Avg_GPA	.098	.080	.116	1.236	.222			
	Avg_DA	-.056	.127	-.058	-.443	.660			
	Avg_DTA	.892	.203	.737	4.403	.000			

Dependent Variable: Avg_S

Table 3: Paired Samples Test for Government Policies

	t	df	Sig. (2-tailed)
Pai	Avg_GPB - .647	51	.520
r l	Avg_GPA		

Table3, shows that, since P value is 0.520>0.05, we do not reject the null hypothesis (Ho). This indicates that the government policy's impact, before and after covid-19 are the same. This does not support our hypothesis H2.

Table 4: Paired Samples Test Digitization

	t	df	Sig. (2-tailed)
Pai	Avg_DB- -.144	51	.886
r l	Avg_DA		

Table 4 shows that, since the p-value is 0.886 > 0.05, we do not reject the null hypothesis. This indicates that digitalization of SMEs before and after covid-19 are the same. The finding implies that the digitalization of SMEs did not change before and after COVID-19. This does not support our hypothesis H3.

Table 5: Paired Samples Test Digital Transformation

	t	df	Sig. (2-tailed)
Pair 1 Avg DTB	.850	51	.399
Avg DTA	Avg SMA		

Table 5 shows that, since the p-value is 0.399 > 0.05, we do not reject the null hypothesis. This indicates that digital transformation of SMEs before and after covid-19 are the same. This does not support our hypothesis H4.

Table 6 shows that, R square is 0.760 which indicates 76% variation in Digitization of SMEs is explained by digitization, digital transformation, government policies and social media marketing. The significance value of F is < 0.05. This indicates that the prediction made by regression is significant. It concludes that the overall regression model is fit for the data.

However, p-value for digital transformation is less than 0.05. This indicates that digital transformation is an explanatory variable for SMEs digitization. Thus, this does not support our hypothesis H5, H6, H7 but it supports H8.

Table 7: Demographic Variables

		Percent	df	Percent
	Under 5 Years	57.7	Branches None	32.7
	10-15 Years	23.1	1	30.8
SME	15-20 years	3.8	2	15.4
Establishment	20-30 years	7.7	More than 2	21.2
	Over 30 years	7.7	Total	100.0
	Total	100.0		

Table 8: Demographic Variables

		Percent		Percent
Online	Yes	65.4	Customer	Business
Presence	No	34.6	Segment	Customer
	Total	100.0		Both
				Total
				100.0

Table 9: Descriptive Statistics

							Avg_		
Avg_	Avg_S	Avg_	Avg_G	Avg_	Avg	Avg_	DTA		
SMB	MA	GPB	PA	DB	DA	DTB	A	Avg S	
Mean	2.500	2.4936	3.1058	3.0096	2.7404	2.75	2.5247	2.428	2.3750
	0					96		6	
Std. Error of Mean	.0926	.13241	.14159	.14883	.11670	.129	.10107	.1046	.12650
	8					71		1	
Median	2.500	2.2500	3.0000	3.0000	2.5000	2.50	2.2857	2.142	2.0000
	0					00		9	
Mode	2.50	2.00	4.00	4.00	2.00	2.25	2.14	2.00	2.00
Std. Deviation	.6683	.95484	1.0210	1.0732	.84157	.935	.72883	.7543	.91220
	0		4	5		36		4	
Variance	.447	.912	1.043	1.152	.708	.875	.531	.569	.832
Range	3.67	4.00	4.00	4.00	3.75	4.00	3.57	4.00	4.00

Conclusion

In conclusion, this study aimed to investigate the impact of COVID-19 on digitization of SMEs in Nepal and identify the factors necessary for the sustainability of digitization in the future. The study found that digitalization, digital transformation,

government policies, and social media marketing did not have much impact on the digitization of SMEs post-COVID-19. However, for digitization to be sustainable in the future, SMEs need digital transformation. The study also found that the difference in adoption of digitization is different in developed economies and developing economies.

The findings of this study were consistent with prior research that found SMEs' attitude toward digitization is low due to their low awareness, inadequate ecosystem, and lack of financial resources. The study recommends that SMEs need to focus on digital transformation to sustain digitization in the future. Further research can be conducted to explore the impact of COVID-19 on digitization in other developing countries. Additionally, future studies can investigate the role of government policies in promoting digitization in SMEs. Overall, this study provides insights into the challenges faced by SMEs in adopting digitization and the need for digital transformation for the sustainability of digitization in the future.

Authors Note

We are International BBA Program students at Kathmandu College of Management (KCM) Gwarko-16, Lalitpur Nepal. This article is based on our academic research report that we submitted to the institution to meet the requirement in marketing research for the sixth semester. We'd like to express our gratitude to Mr. Ritesh Thakur for reviewing and mentoring us through the development of this report.

References

- Bai, Chunguang; Quayson, Matthew; Sarkis, Joseph. (2021). COVID-19 pandemic digitization lessons for sustainable development. *Sustainable Production and Consumption*, 1-2.
- Dangol, J., Sunil, C., & Yoo, K.-S. (2020). Impact of COVID-19 on Nepalese Small and digitization lessons for sustainable development of micro- and small- enterprises.
- Elsevier, 1989-2001. Retrieved from entrepreneurship, trade and exchange activities, 104-106.
- Guo, Hai; Yang, Zhuen; Huang, Ran; Guo, Anqi. (2020). The digitalization and public crisis responses of small and medium enterprises: Implications from a COVID- 19 Survey. *Springer Open*. Retrieved from <https://fbr.springeropen.com/articles/10.1186/s11782-020-00087-1>
- Guo, Hai; Yang, Zhuen; Huang, Ran; Guo, Anqi. (2020). The digitalization and public crisis responses of small and medium enterprises: Implications from a COVID-19 survey. *Frontiers of Business Research in China*, 18-20.
- Ionescu, Crina; Iordache, Mihaela; Țițan, Emilia. (2020). The impact of digitization on economy in the. *Globalization and its Socio-Economic Consequences*, 4-5.
- Ionescu, Crina; Iordache, Mihaela; Titan, Emilia. (2021). The impact of digitization on economy in the context of the Coronavirus pandemic. *EDP Sciences*, 7-9.
- Kala'lembang, Adriani. (2021). Digitalization in Increasing SMES Productivity in the Post Covid-19 Pandemic Period. *Management and Entrepreneurship: Trends of Development*, 101-110. <https://management-journal.org.ua/index.php/journal/article/view/295/167>
- Khai, K. G., Onn, Y. W., Bt Zulkifli, R., Kandasamy, S., & Bt Ahmad, A. (2020). The Necessity to Digitalize SMES Business Model During the Covid-19. *Journal of Education and Social Sciences*, 1-4.
- Khai, Kho Guan; Onn, Yap Wai; Zulkifli, Rozitaayu Bt; Kandasamy, Shamini; Ahmad, Azrina Bt. (2020). The Necessity to Digitalize SMES Business Model During the covid-19 Pandemic Period to Remain Sustainable in Malaysia. *Journal of Education and Social Sciences*, 2289-9855. <https://www.jesoc.com/wp-content/uploads/2020/12/JESOC16-032.pdf>
- Merritt, Jeff. (2021). COVID-19 and Technology Adoption in Small and Medium-Sized Enterprises: The Impact and the Way Forward. *World Economic Forum*, 19-20.
- Merritt, Jeff. (2021). COVID-19 and Technology Adoption in Small and Medium-Sized Enterprises: The Impact and the Way Forward. *World Economic Forum*. Retrieved from <https://www.weforum.org/whitepapers/covid-19-and-technology-adoption-in-small-and-medium-sized-enterprises-the-impact-and-the-way-forward>

- Mishra, A.K., & Aithal, P. S. (2021). Factors and Features Influencing Laptop Users of Kathmandu, Nepal. *International Journal of Case Studies in Business, IT, and Education(IJCSBE)*, 5(1), 132-142.
<http://doi.org/10.5281/zenodo.4940049>.
- Mishra, A.K., & Aithal, P. S., (2021). Analysis of Laptop Users Purchase Behaviour: A Case of Kathmandu, Nepal. *International Journal of Management, Technology, and Social Sciences (IJMTS)*, 6(1), 226-240.
<https://doi.org/10.5281/zenodo.4966112>.
- Mishra.A.K., (2019). Influential Marketing Strategies by the Cement Industries. *International Journal of Research - Granthaalayah*, 7(10), 155-173.
<https://zenodo.org/record/3522195>
- Sah, Shayam and Mishra, A.K., Consumers' Brand Preference of Laptop in Kathmandu, Nepal (2020). *Nolegein Journal of Consumer Behavior & Market Research* ISSN: 2581-4400 Vol. 3: Issue 2.
<https://ssrn.com/abstract=3858284>

