



Digital Innovations in MSMEs During Economic Disruptions: Experiences and Challenges of Young Entrepreneur

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ABSTRACT

The spike in COVID-19 cases all over the world poses a major impact on all sectors of society. In this view the global economy was no exception, for it has been severely affected by the unprecedented public health crisis leading businesspeople to shutdown commercial establishments and shifting businesses into digital platforms. Immense challenges brought by the pandemic have turned into great opportunities among entrepreneurs from different parts of the globe. In pursuing of the recovery path, they considered digital tools to be instrumental to surviving the crisis and even thriving in the long term. This study explores drivers and barriers to digital innovations in micro, small, and medium enterprises (MSMEs) during economic disruptions from the perspective of Filipino young entrepreneurs. Researchers employed a qualitative method for the conduct of in-depth interviews with 46 online entrepreneurs in the Philippines and transcribed them for Inductive Content Analysis to generate themes. Results found the adverse effects of the pandemic, which reinforce entrepreneurial innovations of shifting businesses to digital platforms, categorized into intrinsic (e.g., personal and professional growth) and extrinsic (e.g., mobility restrictions, market conditions, and household economic status) motivations. Participants described the barriers to digital entrepreneurship, including skills needed for doing online business, market-related problems in digital platforms, availability of quality internet infrastructures, and the pandemic restrictions. The findings of this study contribute to the entrepreneurship literature and areas for an empirical investigation to develop programs that support entrepreneurs during economic disruptions. This would serve as a guidepost in the formulation of government policies and strategies for economic recovery through digital entrepreneurship while considering the perspectives of young entrepreneurs. This further recommends future related researches to empower entrepreneurs, particularly those in the developing economies during the pandemic and beyond.

Key Words: in COVID-19 cases, public health, digital innovations and MSMEs

1. INTRODUCTION

The Pandemic has brought drastic disruptions in every sector of society. According to the World Health Organization (WHO), there have been over 255.5 million

confirmed cases of globally, including More than 5 million deaths as of November 2021 (WHO 2021). To prevent the spread of the virus, various governments imposed several societal and economic restrictions that

limited the mobility and physical interactions of the people. The reduction of face-to-face contact abruptly increased the shift of societal and economic activities into digital platforms, including digital entrepreneurship (Dannenberg et al. 2020). In recent years, several studies argued about circumstances and reasons that facilitate the digital transformation of businesses and public policies that support this phenomenon given its impacts on job creation and economic growth (Sahut et al. 2019). Among the identified enablers are the technologies including social media, open educational resources, crowdsourcing, 3D printing, digital imaging, and data mining, which empower young entrepreneurs in reducing the barriers between invention and the creation of a new venture (Steininger 2019). Another enabler is the COVID-19 pandemic which changed the consumers' habits and organizations' innovation programs leading to accelerated digital transformation of micro-, small, and medium enterprises (MSMEs) as well as large firms (GavrilaGavrila and De Lucas Ancillo 2021; del Olmo-García et al. 2020). With the lockdowns becoming the new normal, businesses and consumers increasingly shift to digital platforms, providing and purchasing more goods and services online, and increasing e-commerce's share of global retail sales from 14% in 2019 to 18% in 2020 and expected to reach 22% by 2024 (UNCTAD 2021; Coppola 2021). This economic disruption has a polarizing effect on both large firms and MSMEs: some enterprises experienced failures and permanent closure of operations; others demonstrated resilience, enabling them to adapt their operations and cope up with the crisis. Several critical factors in the internal and external business environments relate to the resilient MSMEs' successes such as financial literacy, savings culture, and technology adaption. On the other hand, unsuccessful MSMEs experienced financial challenges and a lack of online presence (Igbinkhase 2021). The successes of MSMEs can be one of three paths: those with a high level of digital maturity accelerate the transition toward digitalized firms. Those experiencing liquidity issues but a low level of digital maturity digitalize the sales operations only. Lastly, those that have very limited digital literacy find support from partners with excellent digital capabilities (Priyono et al. 2020). Since MSMEs constitute the backbone of the economy in many developed and developing countries, more research is needed to discuss the sustainable

development of MSMEs in the globalized and digitalized world. Recent studies analyzed the digitization of MSMEs in different sectors and territories. For instance, Muhamad et al. (2021) conducted an online survey among industrial sectors (services, retail, manufacturing, and tourism) in Malaysia and presented a significant increase in digital use by enterprises during the pandemic in contrast to the pre-pandemic situation. Another study in the manufacturing sector found that the importance of digital technology during the pandemic has gained customer satisfaction in the industries, hence, the various ways in solving the pandemic problem in the customer find confidence in the solution in the digital technology (Mohapatra et al. 2021). In the European Agri-Food Cooperative Sector, Jorge-Vázquez et al. (2021) identified that the digitalization of business structures constituted an indisputable element of interest as a catalyst phenomenon of a set of disruptive processes that lead to profit in terms of efficiency, productivity, and business competitiveness. Moreover, Massaro (2021) found that digital transformation could help solve challenges in medical practice by offering new value development patterns, such as blockchain technology that reduces some difficulties in data management. In the Philippines, MSMEs account for about 99.5% of all registered businesses, which employ over 63% of the working population. While several studies across the world have shown the impacts of the COVID-19 pandemic on MSMEs (Kim 2021; Herrera 2020; Sahoo and Ashwani 2020), the investigation of this pertinent issue in the Philippines is limited. For instance, Parilla (2021), Hidalgo et al. (2021), and Tudy (2020) investigated the influence of the pandemic mobility restrictions on the digitalization of small businesses. A more in-depth study by Reyes (2021) took the perspectives of the executives and directors of the country's top business firms to assess the economic impacts of the pandemic and the government's policies and interventions. Hence, this research aims to contribute to the literature by exploring the drivers and barriers of digital transformation of MSMEs during economic disruptions from the perspective of young entrepreneurs in the Philippines. Looking at the perception of young entrepreneurs is crucial as they are considered as catalysts for innovation and economic growth, and because of their eagerness to create a positive difference in their societies (Damoah

2020). Furthermore, since the Philippines is considered the social media capital of the world, it makes young entrepreneurs potential contributors to the success of the socio-economic agenda of the Philippine government for MSMEs (Agoot 2015). The main objective of this study is to analyze how economic disruptions drive business innovations for MSMEs. Specifically, this aims to (1) explore the lived experiences of young entrepreneurs in doing business during the Pandemic crisis, (2) investigate the challenges of shifting businesses into digital platforms, and (3) evaluate their implications as bases for government policies and strategies for economic recovery through online entrepreneurship while considering the perspectives of young online entrepreneurs. Using the Philippines as a case study, interviews were conducted with young entrepreneurs to share their perspectives and experiences with the research questions. The collected data were analyzed using Qualitative Inductive Content Analysis. The analysis results identified the drivers (intrinsic and extrinsic motivations) and challenges of digital innovation of MSMEs during economic disruptions such as the pandemic. The findings of this study serve as bases for recommendations to the government and other stakeholders to support entrepreneurship as one of the means to economic recovery during the pandemic and beyond. The structure of this article is as follows. Section 2 reviews the literature on the theoretical foundations of entrepreneurship and its digitalization during the pandemic. Section 3 discusses the step-by-step procedure for the inductive content analysis. Section 4 presents the results of the analysis, the summary of findings, and the relevant responses of the participants. Section 5 discusses the findings in relation to existing studies, as well as the theoretical, managerial, and policy implications. Section 6 concludes the research and presents the limitations of the study that provide a basis for future research directions.

2. LITERATURE REVIEW

Theoretical Foundations of Entrepreneurship

Entrepreneurship is the process of offering goods and services with added ingenuity to fulfill the growing needs of a community. The core of any entrepreneurial activity lies in the ability to act on opportunities that lead to new services, products, and methods. (Frederick et al. 2016). Entrepreneurship is the action of an entrepreneur

to create, accept risk, and invest in new economic endeavors. Thus, it is considered an effective means of addressing youth unemployment and self-sufficiency, which could be a source of economic growth and innovation in any country. We adopt these theories to explain the basis of our investigation on the drivers and barriers of digital innovation in MSMEs during the pandemic. First, the Effectuation Theory as described by Sarasvathy (2001) suggests that under conditions of uncertainty, entrepreneurs adopt a decision logic that is different from that explained by a traditional, more rational model of entrepreneurship. A recent study by Haneberg (2021) shows that entrepreneurs responded in the second “wave” of COVID19 based on their perceived uncertainty as well as the eventual learning from the “first wave” of the virus outbreak. The results further show that uncertainty primarily leads to the managers’ focus on affordable losses, while learning from a crisis primarily leads to experimentation behavior. In highly uncertain and dynamic environments, the target customers are defined by whoever buys a product or service. Instead of focusing on goals, entrepreneurs exert control over the available set of means (Fisher 2012). The entrepreneurship bricolage can be related to the Theory of Dynamic Capabilities (Teece et al. 1997) defined as the firm’s ability to integrate, build, and reconfigure internal and external competencies to address rapidly changing environments. It refers to the absorptive capacity as the antecedent organizational and strategic routines by which entrepreneurs change their resource base (acquiring and shedding resources, integrating them, and recombining them) to generate new value-creating methods (Belitski et al. 2021). For instance, small firms cope with environmental changes due to the pandemic by pursuing the business model transformation with the change in dynamic capabilities related to the adaptation of digital technologies and digital skills (Priyono et al. 2020).. This digital transformation includes various business functions, such as sales, marketing, human resources, operations, finance, research and development, and customer support service (Antonizzi and Smuts 2020). The contribution of digital entrepreneurship to the economy has brought about a great demand from the academe and various industries in the field of research. The concept is multi- and interdisciplinary between the ecosystem and technology-related practices (Sussan and Acs 2017).

Despite being at its prime, digital entrepreneurship has brought a monumental change in how entrepreneurs operate their businesses (Kraus et al. 2018). Digital technology has transformed how entrepreneurs operate their businesses. New ventures and processes were developed and applied by the digitally equipped enterprises (Nambisan 2017). This paved the way to the acceleration of the digital transformation of MSME, where the direct initiative of the entrepreneur comes from its strong social network and managerial cognition (Li et al. 2018).

2.2. Research Framework and Propositions The above discussions of the theoretical foundations of entrepreneurship and the digitalization of MSMEs during economic disruptions provided us the basis for the research framework and propositions (Pr) in this study as shown in Figure 1. The six propositions include: Pr 1. Economic disruptions would serve as drivers for young entrepreneurs to continue business operations.

Pr 2. Economic disruptions would serve as challenges for young entrepreneurs to continue business operations.

Pr 3. Challenges caused by economic disruptions would initiate the shutting down of business operations.

Pr 4. The drivers will lead to the digitalization of MSMEs.

Pr 5. The challenges will lead to the digitalization of MSMEs.

Pr 6. Digital innovation would bring about productivity in MSMEs

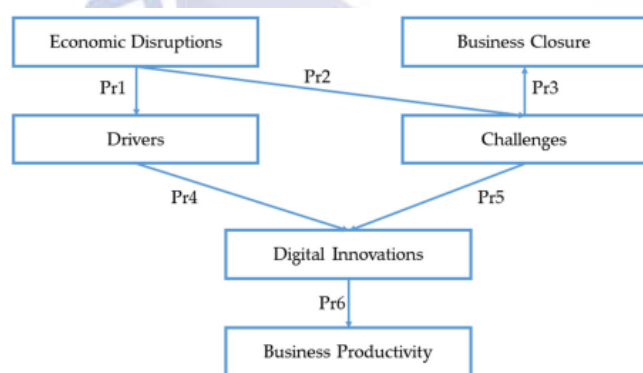


FIG.1. Research Framework and Propositions of the Study

Economic disruptions, such as those caused by the COVID-19 pandemic, would serve as drivers (Pr1) or challenges (Pr2) for the young entrepreneurs to continue business operations. These drivers and challenges will lead to the digitalization of MSMEs (Pr4/Pr5) to prevent the spread of the COVID-19 virus and recover quickly

from the setbacks caused by the disturbances in business activities, especially if the owners have sufficient resources for this transition. Consequently, this digital innovation would bring about the productivity of entrepreneurial operations as the young entrepreneurs demonstrate resiliency (Pr6). On the other hand, the challenges caused by economic disruptions would initiate the shutting down of business operations if the entrepreneurs lack any means to adapt and prevail (Pr3). The framework developed in this study allows the holistic investigation of the preposition enabling more noteworthy results.

3. METHODOLOGY

3.1. Research Design This study described the lived experiences of young entrepreneurs in doing online business at the time of the pandemic. It was not concerned with numerical representativeness nor with making inferences from the sample of a population, but with deepening of understanding a given problem. Hence, we used the qualitative method as it seeks to employ phenomenology to understand the context, describe the behavior and beliefs, recognize the processes, and explore the participants' lived experiences.

3.2. Data Analysis This research applied the Inductive Content Analysis, which is suitable in qualitative research with an inductive beginning or with loosely defined themes following an open data collection method. Inductive content analysis is a qualitative method used to develop theory and identify themes by studying documents, recordings and other printed and verbal materials. The advantages of this method include content sensitivity, applicability to highly flexible research designs, and flexibility to analyze several types of qualitative data. Furthermore, inductive content analysis was applied in this study to create concepts, categories, and themes from data as the deductive content analysis are usually applied either to a constrained or unconstrained matrix of analysis depending on the study aim.

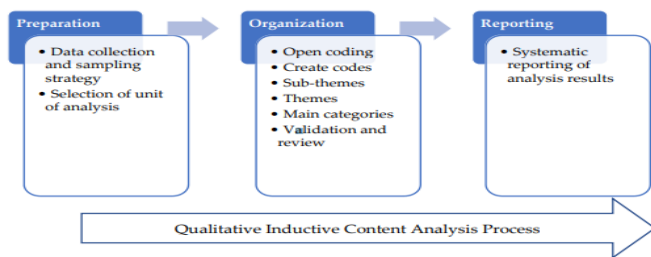


Figure 2. Step-by-step Procedure of Qualitative Inductive Content Analysis

Second, the organization step involved the categorization and abstraction of the data, interpretation, and checking the representativeness of the collected sample data. In this step, open codes were identified from raw data, which were expressed in words identical to the raw data or coded slightly changed.

4. RESULTS.

We divided the content analysis into three parts. The first part analyzed the experiences of young entrepreneurs that drove them to start an online business during the pandemic.

4.1. Lived Experiences of Young Entrepreneurs to Start-Up Digital Entrepreneurship The abstractions of this data for participants' lived experiences on digital entrepreneurship at the time of pandemic define a total of 25 codes, 7 sub-categories, 2 generic categories, and 1 main category as presented in Table 1. Participants described the two generic categories as extrinsic and intrinsic motivations that drive digital innovations in MSMEs during economic disruptions. Table 1. Abstraction results of young entrepreneurs' lived experiences on digital entrepreneurship during the pandemic (see Appendix B Table A2 for the Summary of Generated Codes and the Significant Responses).

Main Category	Generic Categories	Sub-Categories	Codes (Frequency of Statements)
		Strict Observance of Health Guidelines	Travel Restrictions (3) Prohibition Face-to-Face Transactions (3)
	Observed Societal Changes	Change in Market Conditions	Business Operation Shutdown (4) Sudden Shift to Online Marketing (12) Growing Demand of E-Commerce (5) Struggles on Digital Marketing (4) Changing

			Preferences of Customers (2) Rivalry among Companies Offering the Same Products/Services (2) Engage in Various Social Media Platforms (4)
Drivers of Digital Innovations in MSMEs during the pandemic		Change in Household Income	People Lost their Jobs (4) Financial Hardships (8) Experience Income Loss (10)
		Personal Driving Force	Maximizing free time (4) Earn Additional Income (22) Support the Needs of the Family (3) Get Fund for Education (1) Reduce Stress (2)
	Personal Motivation to Startup Online Business	Professional Motives	Gain e-Commerce Experience (2) Showing Off Skills, Talents, and Capabilities (1) Concrete Application of Academic Knowledge (2) Turn into Productive Individuals (2)
		Concerns on Welfare of Fellow Citizens	Creation of Job Opportunities (3) Convenience in Online Purchasing (1)

Extrinsic motivations are societal issues that enable young entrepreneurs to enter the digital platforms of MSMEs during the pandemic. These issues include the sudden changes in mobility restrictions, market conditions, and household economic status which are along with the fourth and fifth prepositions (Pr4 and Pr5) presented. To limit the spread of the COVID-19 virus, the government imposed various community quarantine measures including face-to-face contact and travel restrictions. This greatly affected various societal and economic activities. Participants described the market conditions as shutting down businesses, a

sudden shift in demand to online platforms, and strong competition in innovations of companies offering the same products and services. These conditions are consonant with the third, fourth, and fifth preposition (Pr3, Pr4, and Pr5). As businesses shut down partially, and completely, numerous workers lost their jobs, which affected the economic status of households. On the other hand, participants described intrinsic motivations to startup online business including personal motivation, professional growth, and caring for the welfare of others, which agree with the first preposition (Pr1). Personal driving forces are driven by the need to earn extra income to help the family, mental health, and personal development. Despite the young age, entrepreneurs perceived the pandemic and digital entrepreneurship as venues for professional growth. Remarkably, young entrepreneurs exhibit the “Bayanihan” spirit, a Filipino value meaning “helping one another, community spirit, or solidarity” while starting up online businesses. This communal work is in keeping with the sixth preposition (Pr6). Participants described digital entrepreneurship as a venue to help fellow Filipinos who were greatly affected, financially, by the pandemic as well as provide safer delivery of goods and services.

5. DISCUSSION

This study examined the young entrepreneurs’ lived experiences in shifting business to digital platforms during the pandemic. The findings show three interesting points for discussion. The first point summarizes the main results and highlights the novelty of the findings in relation to existing studies. The second point proposes the policy implications of the study on digital innovations during economic disruptions. The last point describes the business industry as well as the managerial implications of the findings.

5.1. Drivers and Barriers to Digital Innovations in MSMEs Applying the qualitative inductive content analysis of young entrepreneurs’ lived experiences, the results found two interesting results: both extrinsic and intrinsic motivations drive digital innovations during economic disruptions. Extrinsic motivation involves exhibiting a behavior, doing something, completing a task to attain some external goal, or meeting some externally imposed constraint such as avoiding punishment or receiving a reward.. The responses of young entrepreneurs to these extrinsic drivers to digital

innovations reflect various entrepreneurship theories: effectuation, bricolage, resilience, and dynamic capabilities. Intrinsic motivation, on the other hand, involves doing something for its own sake as people become more creative when they feel motivated primarily by the interest, enjoyment, satisfaction, and challenge of the work itself and not by external pressures or inducements. Participants in this study described these factors as personal motivation to digital entrepreneurship, professional growth as young entrepreneurs, and the opportunity to help fellow citizens, particularly those severely affected by the pandemic

5.2. Policy Implications of the Study With the digitalization era, innovations in products and services are crucial in attracting new customers while retaining existing ones. However, young entrepreneurs encountered several barriers to digital innovations. The findings of this research provided several policy implications that could address these challenges and help them start up online businesses during and beyond economic disruptions. First, the government must provide support for start-up MSMEs in terms of financing, technical capacity, marketing, and all business registration requirements. Financial incentives, such as tax reductions/credits, grants, subsidies, and other similar instruments have been used by governments to stimulate technological innovations in MSMEs, which can help firms improve productivity.

5.3. Business Sector and Managerial Implications of the Study Besides policy implications, the findings of this study also provided business industry as well as managerial implications. Understanding the dynamics of the digitalization of MSMEs helps organizations and the industry to make better decisions in navigating the new norm of doing business. To prosper in a rapidly changing business environment, entrepreneurs must acquire the roles of two IT capabilities that affect firm performance, namely, (1) flexible IT infrastructure, which is a carefully planned and developed technological foundation for present and future IT applications, and (2) IT assimilation, or the ability to diffuse and routinize IT applications in business processes.

6. CONCLUSIONS

6.1. Summary of the Study

The pandemic accelerated the digital transformation of MSMEs and created a landscape that encourages entrepreneurs to adopt technological innovations to stay in the business. Numerous studies discussed entrepreneurship using various theoretical frameworks. This paper focused on entrepreneurship theories that address innovations during economic disruptions such as effectuation, resilience, bricolage, and dynamic capabilities. This research aimed at applying qualitative inductive content analysis to explore the drivers and barriers to digital innovations of MSMEs at the time of pandemic from the perspective of young entrepreneurs. The findings revealed that digital innovations during this economic disruption were driven by extrinsic (restrictions and market demand) and intrinsic (personal and professional development, concern for others) motivations. MSMEs were mostly affected by the pandemic restrictions as, in comparison to large firms, they were usually lacking sufficient resources in terms of financing, management, and technology, and were unprepared for such disruptions that took longer and graver than expected. Despite the minimal government support for MSMEs, young entrepreneurs found ways to survive in the business through digital innovations, along with the increasing online demands for goods and services during the community lockdowns. These digital innovations have reflected theories of effectuation, resilience, bricolage, and dynamic capabilities at times of uncertainties and economic disruptions. On the other hand, young entrepreneurs faced challenges in terms of skills needed for doing online business, market-related problems in digital platforms, mobility restrictions, and availability of quality internet infrastructures.

6.2. Contribution and Implications The results of this study provided two major contributions. First, both extrinsic and intrinsic motivations drive digital innovations in MSMEs. Second, economic disruption acts as an external enabler and at the same time, a barrier to digital innovation if the infrastructure, market, entrepreneurs, and other stakeholders are not ready for the transformation. To address these challenges, the government should provide interventions in terms of (a) giving financial support to young entrepreneurs; (b) encouraging public-private partnerships to reduce financial and technical barriers to MSMEs; (c) upskilling

young entrepreneurs to improve technical competencies and financial literacy; (d) start-up support for marketing and all business requirements; and (e) improving the country's information technology infrastructures that accelerate the digital innovations in MSMEs as well as the whole economy

Conflict of interest statement

Authors declare that they do not have any conflict of interest.

REFERENCES

- [1] Baker, Ted, and Reed E. Nelson. 2005. Creating Something from Nothing: Resource Construction through Entrepreneurial Bricolage. *Administrative Science Quarterly* 50: 329–66.
- [2] Batac, Kenneth Ian Talosig, JonnedelAzucenaBaquiran, and Casper BoongalingAgaton. 2021. Qualitative Content Analysis of Teachers' Perceptions and Experiences in Using Blended Learning during the COVID-19 Pandemic. *International Journal of Learning, Teaching and Educational Research* 20: 225–43
- [3] Braun, Virginia, Victoria Clarke, EliciaBoulton, Louise Davey, and Charlotte McEvoy. 2020. The online survey as a qualitative research tool. *International Journal of Social Research Methodology* 24: 641–54.
- [4] Charlebois, Sylvain, Mark Juhasz, and Janet Music. 2021. Supply Chain Responsiveness to a (Post)-Pandemic Grocery and Food Service E-Commerce Economy: An Exploratory Canadian Case Study. *Businesses* 1: 72–90.
- [5] Dannenberg, Peter, Martina Fuchs, Tim Riedler, and CathrinWiedemann. 2020. Digital Transition by COVID-19 Pandemic? The German Food Online Retail. *TijdschriftVoorEconomische en SocialeGeografie* 111: 543–60.
- [6] Hennessey, Beth, Seana Moran, Beth Altringer, and Teresa M. Amabile. 2015. Extrinsic and Intrinsic Motivation. In *Wiley Encyclopedia of Management*. London: John Wiley & Sons Ltd., pp. 1–4. Herrera, Diego. 2020. MSME Financing Instruments in Latin America and the Caribbean During COVID-19. Discussion Paper N° IDB-DP-771. Washington, DC: IDB.
- [7] Hung Kee, Daisy Mui, YusmaniMohdYusoff, and SabaiKhin. 2019. The Role of Support on Start-Up Success: A PLS-SEM Approach. *Asian Academy of Management Journal* 24: 43–59.
- [8] Liu, Hefu, WeilingKe, Kwok Kee Wei, and ZhongshengHua. 2013. The impact of IT capabilities on firm performance: The mediating roles of absorptive capacity and supply chain agility. *Decision Support Systems* 54: 1452–62.
- [9] Meurer, Marie Madeleine, Matthias Waldkirch, Peter KalumSchou, ElianeLéontine Bucher, and KatrinBurmeister-Lamp. 2021. Digital affordances: How entrepreneurs access support in online communities during the COVID-19 pandemic. *Small Business Economics*.
- [10] Muhamad, Suriyani, SuhaiKusairi, Mustafa Man, NurFatmaHasniMajid, and Wan Zulkifli Wan Kassim. 2021. Digital adoption by enterprises in Malaysian industrial sectors during COVID-19 pandemic: A data article. *Data in Brief* 37: 107197.

- [11] [PubMed] Mukhoryanova, Oksana, Larisa Kuleshova, Nina Rusakova, and Olga Mirgorodskaya. 2021. Sustainability of micro-enterprises in the digital economy. E3S Web of Conferences 250: 06008.
- [12] Lavinia Javier Cueto April Faith Deleon Frisnedi, Reynaldo BaculioCollera , Kenneth Ian TalosigBatac , and Casper BoongalingAgaton,Digital Innovations in MSMEs during Economic Disruptions: Experiences and Challenges of Young Entrepreneurs Published: 5 January 2022

