

Innovation as Part of the Strategy for Microbusinesses During COVID-19

Yara A. Elkhalil

Department of Management and International Management
Colorado State University – Global Campus
Greenwood Village, CO 80111
Yara.elkhalil@csuglobal.edu

Abstract

The Spanish flu had a direct effect on the GDP, and it served as a perfect benchmark to anticipate the outcomes and implications of COVID-19 on the economy. Multiple waves of layoffs, permanent business closures, social unrest, and the virus's extended duration had devastating effects on the economy. Government funding in the form of PPP (Paycheck Protection Program), CARES (Coronavirus Aid Relief and Economic Security Act), and state-funded grants for small businesses are just a few examples of reliefs injected into the economy to help small businesses. However, these initiatives had little effect in helping the financially fragile small businesses. The purpose of this paper is to discuss the effects of COVID-19 on micro-businesses in the service industry and provide innovative industry practices and ideas that have helped micro-businesses remain open during the pandemic. This paper aims to promote innovative knowledge and practices for managers to implement during the pandemic to keep the business open and operational. This quantitative research included almost 5562 micro-businesses surveyed between May 1st and August 30th, 2020, along with extensive relevant literature research in this field. The main question aimed to be answered: have innovative processes been successful in helping micro-businesses stay operational and open during the pandemic. The six dimensions of innovation of Hertog, Den, and de Jong (2010) were utilized to define innovative processes and procedures that micro-businesses can implement. Data findings in this research indicate that micro-businesses need to implement out of the box innovative thinking for providing their services to customers to stay operational and avoid permanent closure.

Keywords

COVID-19, microbusinesses, PPP Act, CARES Act, Innovation in Business

1. Introduction

It is not surprising to see large chain stores that have been in business for decades are now closing due to the booming online business on sites such as eBay, Overstock, Amazon, and many others. Stores that have not been able to accommodate online demand are fading out and going out of business; such stores include Bed Bath & Beyond, JC Penny, and Sears, to name a few. The new challenge now is not only providing a wide selection at lower prices with the convenience of home delivery but also being able to stay profitable, especially with the emergence of the global pandemic the COVID-19, which has triggered businesses to shut down, forcing companies to implement layoffs to reduce costs to stay operational.

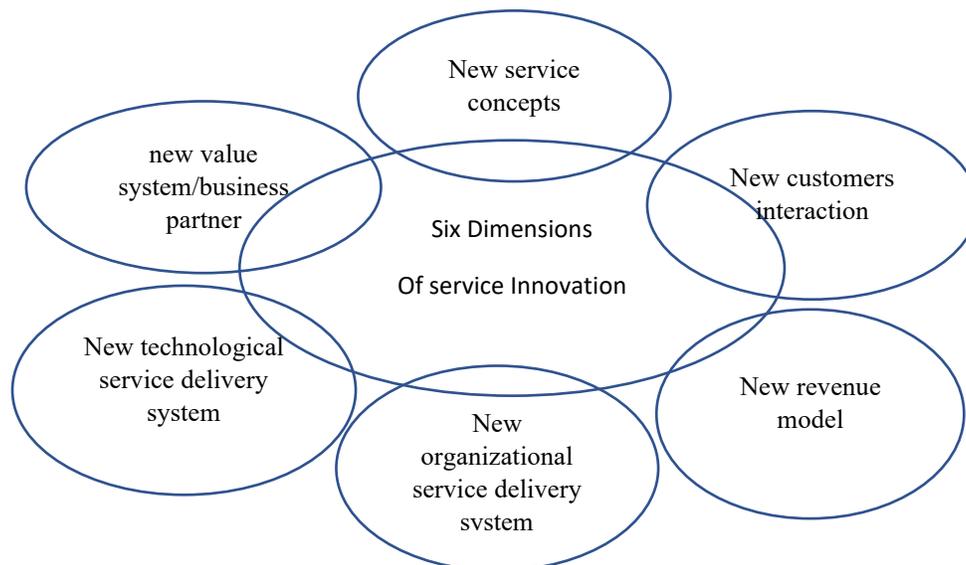
COVID-19 has had a global impact on large and small businesses alike and has continued to push business owners to be more creative and innovative in the way they operate. Much research was done on small and medium-sized businesses and how the pandemic has affected them, but none have in-depth investigated microbusinesses during the 2020 pandemic (Barro et al., 2020; Bartik et al., 2020; Heinonen and Strandvik, 2020). Pfitzner and McLaren (2018) discussed the vital role micro-businesses play in the local community they operate in, considering the close ties to the community. Moreover, they provide employment opportunities and are locations for social interaction (Pfitzner & McLaren, 2018). Micro-businesses are those businesses with five or fewer employees, as defined by Gherhes, Vorley, and Brooks (2020).

Yelp.com announced that as of June 15th, 2020, more than 140,000 businesses listed on their site have permanently closed due to COVID-19 (Yelp, Sept 5, 2020). Several quantitative research studies were conducted on the number of closed businesses due to the COVID-19 pandemic (Bartik et al., 2020; Barro et al., 2020; Yelp 2020; Heinonen & Strandvik, 2020). The U.S. government at the federal and state level have implemented several initiatives to assist small businesses, such as the PPP act and the CARES act at the national level and state-sponsored grants for small businesses at the state level. Nevertheless, all this was not enough for some small businesses to stay afloat and operational. Some businesses were able to think outside the box and come up with innovative ideas to keep customers coming and ultimately keeping the business open. The purpose of this paper is to discuss the effects of COVID-19 on micro-businesses in the service industry and provide innovative industry practices and ideas that have helped micro-businesses remain open during the pandemic. This paper aims to promote innovative knowledge and practices for managers to implement during the pandemic to keep the business open and operational and fulfill a literature gap identified by Heinonen and Strandvik (2020).

Internal innovation activities, which are the innovative ideas created from within the organization, are the primary motivating force that pushes further growth and expansion (Hipp and Grupp, 2005). Innovation in the service industry is perceived as “one of the main value-added means,” which can boost the organization’s bottom line, thereby helping it survive (Kiani and Gillani, 2020). Meigounpoory, Rezvani, and Afshar (2015) pointed to innovation as the critical factor for creating a competitive advantage, boosting growth, profitability, and prosperity. Cheng and Huizingh (2014) indicated that having a detailed strategic orientation improves the efficacy of innovation.

When it comes to the service industry, managers need to realize the differences between service industry business strategy and any other industry strategy (Thomas, 1978; Hipp, and Grupp, 2005). Innovation in the service industry allows businesses to swiftly adapt to changes in the market and protect themselves from the volatile environment (Ratny, Arshad, and Gaoliang, 2017). Sunbo and Gallouj (2000) referred to service innovation as “innovations in services are a mix of reproduced innovations and ‘small’ non-reproduced changes to solve single customers’ problems.” Meigounpoory, Rezvani, and Afshar (2015) stated that “innovation is a key factor for creating competitive advantage and even for the survival of the enterprises and as a propellant for business growth and prosperity and maintain more profitability for an organization, as a result of market needs and technology push.” Innovation is essential in fulfilling customer's needs while maintaining a high level of quality while creating value for both the customers and the organization (Toivonen & Tuominen, 2006). There are six dimensions for service innovation, and those are: 1) new service concepts, 2) new customers interaction, 3) new revenue model, 4) new organizational service delivery system, 5) new technological service delivery system, and 6) new value system/business partner (Meigounpoory, Rezvani, and Afshar, 2015; Hertog, Den, and de Jong, 2010).

Figure 1. Six Dimensions of Innovation Hertog, Den, and de Jong (2010)



2. Literature Review

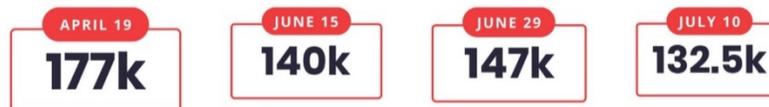
Bartik et al. (2020) conducted a quantitative research which included 5,819 small businesses spread across a wide array of industries. Businesses targeted for this research had less than 500 employees. Of this sample size, 64% of the businesses responding to the survey had less than 500 employees on the payroll (Bartik et al., 2020). According to this study, over 70% of the businesses surveyed were expecting to take full advantage of the government aid programs to stay in business (Bartik et al., 2020). The study found that 43.2% of the businesses surveyed were nonoperational, of which 41.4% were temporarily closed due to shutdowns enforced, and another 1.8% were permanently closed (Bartik et al., 2020).

The effects of the pandemic lockdown had many benefits of slowing down the virus infections and significantly reducing the spread, but it did have a devastating and long-term adverse effect on business. It was important to note that not all businesses were equally devastated by the shutdown, considering that some businesses deemed essential were allowed to open sooner than others that have remained closed for an extended period (Bartik et al., 2020). Businesses that reported having extra cash were more optimistic in their ability to survive the pandemic and anticipated reopening by December 2020, while others fear the worst of having to permanently go out of business (Bartik et al., 2020). The research finally concludes that a dramatic government initiative further support is desperately needed for small businesses to reopen and stay operational; otherwise, an inevitable permanent closure and even bankruptcies are on the horizon for the American small business industry (Bartik et al., 2020).

Another significant qualitative research conducted during the COVID-19 pandemic was by Barro et al. (2020). This research aimed at investigating the commonalities between the Spanish flu of 1918 -1920 and the novel COVID-19 of 2020. The main goal is to identify the far-reaching effects of the virus on the country's economic well-being in general. Barro et al. (2020) provided a theoretical reflection for the death rate, which reached 2.1% with the Spanish flu in 1920; this rate would reach roughly 7.5 billion people of 2020's world population. This significant death rate was predicted in this research to negatively reduce the country's GDP by 6% to 8%. Barro et al. (2020) went further to describe that the significant anticipated reduction of the nation and global GDP is like that experiences globally in the 2008-2009 recession and is capable of reducing the size of significant economies bringing with it a "decline in stock and short-term government bonds."

Yelp is an online site that provides users a directory of local businesses from various industries. It is a publicly traded company on the New York Stock Exchange. Yelp currently has 5.2 million active business listings on their website (Yelp, Sept 8, 2020). In Yelp's local economic impact report for the second quarter of 2020, the site discussed factors that continue to impact small businesses forcing them to close. The causes of these closures included social unrest, pandemic shut down, and continued fear of the pandemic. Figure 2. shows the number of business closures on Yelp.com since March 1, 2020. As cases of COVID-19 started to decrease in May, people began to increase their social activities and slowly returned to a somewhat normal lifestyle (Yelp, Sept 6, 2020). This caused the virus to spread again among Americans, thereby raising the number of infections. Yelp claimed that there was a direct correlation between this event and the rise of additional business closures in June (Yelp, Sept 6, 2020).

Figure 2: Yelp Monthly Permanent Business Closures for 2020



Total Business Closures Since March 1

The economic downturn in most sectors had driven public and private companies to reevaluate and reconfigure their service contingencies (Heinonen & Strandvik, 2020). In their research, Heinonen and Strandvik (2020) conducted an experimental research in which 11 innovative categories were identified for delivering services to customers during the COVID-19 pandemic. Data for this research was obtained from crowdsourced information tendered through TrendWatching and Business with Purpose via www.covidinnovations.com. This research indicated that both short-

term and long-term innovative changes need to be made to services within businesses to maintain stability and linear development. Innovative implementations need to portray added value to the customers to maintain them as returning customers.

3. Methodology

A quantitative empirical research was conducted using surveys that were sent to 7500 micro-businesses. The study utilized convenience sampling, and surveys were sent out using direct mail, email, and websites such as Alignable, LinkedIn, and Facebook some surveys were collected onsite in the businesses in the Metro area. Businesses targeted for this survey were organized into five categories and included the businesses that fall into each category, as seen in table 1 below, along with the response rate to our survey.

Table 1 Business Categories

Business Category	Business Practices	Response %
Business Services	Accountant, consultant, architect, gyms, dance studio	28%
Retail	Clothing shop, craft shop, florist,	11%
Construction and Contracting	Construction services	17%
Residential and Commercial Services	Landscaping, plumber, electrician, carpenter	20%
Food Services	Restaurant, Café, grocery store	24%

The responses received came from metropolitan areas in 6 states hit hardest by the pandemic in the first six months in 2020. The states included in the study were Michigan, New York, Florida, Texas, California, and Arizona. The demographics of the business owners who responded to the survey were 73% males and 27% females.

The total responses collected and deemed applicable to include in this research were 5562, as they fit the predetermined profile of micro-business for this research. This research identifies micro-businesses as those with five employees or less and at least \$10,000 in cash on hand to cover business expenses (payroll, bills, insurance, taxes, supplies) for two months. A Pearson correlation analysis was performed using a two-tail test of significance with a p-value < 0.01; outliers were omitted from these calculations.

The survey questions used a Likert scale system and applied the six dimensions of innovation of Hertog, Den, and de Jong (2010), which was mentioned earlier and can be found at the end of this paper. The items used in the questionnaire were originally developed from an empirical study of Janssen, Castaldi, and Alexiev (2016). Some modifications were made in the questionnaire design to suit the industry and economic situation experienced during the 2020 pandemic by the businesses surveyed. The survey utilized was validated by practitioners in the field at two local universities. The dependent variable in this survey was service innovation subcategories, and those are (1) new service concepts, (2) new technology service delivery, (3) new customer interaction, (4) new value system/business partner, (5) new organization service delivery, and lastly (6) new revenue model. The independent variable in this survey is the business's current operation status (business still open and operational). This variable is proposed to help identify the dependent variables' effectiveness on the likeliness of the business remaining open and operational during the pandemic.

4. Data Analysis

Data collected from the surveys gathering were entered, defined, evaluated, and examined using SPSS. Statistical analyses and methods such as sample sizing, hypothesis testing was administered to review and explain the relationship between factors studies statistically. Data collected over three months resulted in a 79% response rate for a total of n=5562 valid surveys used. This research utilized the six dimensions of innovation of Hertog, Den, and de Jong (2010) (dependent variables) and defined them as presented in table 2 below.

Table 2. Six Dimensions of Innovation Description

Innovation Dimension	Description
New Service Concept	New service offerings that create value for the customer. These can be new services created or the combination of existing services to create a bundled new service.
New Technology Service Delivery	New technological systems that are implemented to help serve the customers better. This could be the use of web applications, email, website, or robotics to make ordering, paying, getting information, or products easier for the customers.
New Customer Interaction	New ways of communication with customers while ensuring their safety and the safety of the service provider. Such value is created through the use of masks, social distancing, innovative processes to render services.
New Value System / Business partner	This dimension is concerned with creating value for customers through the use of technology or business partners. Technology that can be implemented can be in the form of online applications, company websites, etc.
New Organization Service Delivery	New ways of delivering the service to the customers using human intervention. It is an innovative way of using humans to deliver a service experience to the customers.
New Revenue Model	Using new and innovative ways to create revenue for the business. This could be in the form of other companies on the business web application or website, providing free delivery or free installation for products sold or even free products with a purchase of any installation, just to name a few ideas.

In this research, innovation was defined as new innovative processes, settings, and means of reaching and serving customers. The six dimensions of innovation of Hertog, Den, and de Jong (2010) were used as the independent variable in the statistical test. The dependent variable was the organization's operation status during the first six months of the 2020 COVID-19 pandemic. The means of delivering the services vastly differed between businesses. Based on observations while collecting surveys onsite, the following are a few examples:

- Gyms set up their equipment in parking lots.
- Dance and yoga studios set up their sessions in nearby parks.
- Restaurants expanded to blocked off streets outside their location with the help of the cities they are located to allow for tables and chairs to be placed in the streets.
- Some businesses opted for curbside delivery, and others reduced the number of customers served within their building.
- Some plumbers, for example, offered free installation services with purchases of products or replacement parts.
- Other businesses accepted third party advertisements in their locations, on their web application, or on their websites to raise additional capital for the business.

Wearing masks and social distancing are practices that many individuals and businesses have adopted as the new way of life during the pandemic. Wearing a mask remains optional in many states, while laws mandated it in other states. Even within the states that mandate the wearing of masks, this law is loosely followed and loosely enforced by authorities as many law enforcement agencies lack the resources and capabilities to fully implement the law when many are disobeying it (Carlton, 2020; Hermann and Brice-Saddler, 2020). Social distancing was a national, and an international advocated means to reduce the spread of COVID-19 in 2020. The World Health Organization (WHO) and the CDC, along with many renowned healthcare and infectious disease experts, pleaded for people to keep a 6 feet social distance to reduce the risk of spreading the virus.

The hypothesis developed for this research is as follows:

H_0 = There is a strong positive relationship between management use of innovative processes and the business ability to remain operational during the 2020 pandemic.

The data for this research was coded into SPSS v.26 and from which a Pearson correlation was calculated to find the answer to the question asked in this research: have innovative processes been successful in helping microbusinesses stay operational and open during the pandemic? A Pearson correlation resulted in $r(5662) = .85, p < 0.01$. This indicated a strong relationship between microbusinesses implementing the innovative dimensions and practices and the business ability to remain open during the pandemic.

5. Findings

To continue operating and keep customers coming back, many businesses that have so far survived the pandemic have been forced to think out of the box and provide services to customers in innovative ways. Restaurants have moved to serve customers by placing dining chairs and tables outside using adjacent parking lots and even streets. Some restaurants surveyed were able to get permits from the city to move their dining experience outside, and the city helped through the closure of some side streets to allow such businesses to operate safely. Gyms had also moved some equipment outside their facilities, while Yoga and dance studios also moved their classes to parks and open-air spaces to continue serving their members. According to this, research and based on the statistical data implementing innovative ways when providing services to customers had a direct positive effect on businesses remaining open and continuing to remain profitable and operational during the pandemic.

Innovative procedures implemented yielded an $r = .85$, indicating that at a confidence level of 99%, a strongly positive relationship exists between the independent variables (six dimensions of innovation) and the business ability to stay open and operational during the pandemic. As discussed by Hertog, Den, and de Jong (2010), innovative dimensions presented the cornerstone of what businesses can and should do to ensure innovation implementation in their business operation activities. Further research into the effects of the COVID-19 on micro-businesses is needed in order to further understand what microbusinesses have done to maximize their chances of continued success and ability to survive over an extended period of lock-down time. A pandemic “playbook” or manual can be very helpful for micro-businesses to use during future pandemics.

References

- Barro et al. (2020). *The coronavirus and the great influenza pandemic: Lessons from the “Spanish flu” for the coronavirus’s potential effects on mortality and economic activity*. Working Paper 26866, The National Bureau of Economic Research. April 2020
- Bartik et al. (2020). *How are small businesses adjusting to COVID-19? Early evidence from a survey*. Working Paper 26989, The National Bureau of Economic Research. April 2020
- Carlton, Jim (2020). Mandatory Mask Laws Aren't Enforced as Coronavirus Continues to Spread. *The Wall Street Journal*, Dow Jones & Company. Retrieved from www.wsj.com/articles/mandatory-mask-laws-arent-enforced-as-coronavirus-continues-to-spread-11594978200.
- Chand and Huizingh (2014). When is open innovation beneficial? The role of strategic orientation. *Journal of Product Innovation Management*, 31(6), 1235-1253.
- Darius Pfitzner, & John McLaren. (2018). Microbusinesses in Australia: a Robust Definition. *Australasian Accounting, Business and Finance Journal*, 12(3), 4–18. <https://doi.org/10.14453/aabfj.v12i3.2>
- Gherhes, C., Vorley, T. and Brooks, C. (2020). "The “additional costs” of being peripheral: developing a contextual understanding of micro-business growth constraints". *Journal of Small Business and Enterprise Development*. <https://doi.org/10.1108/JSBED-03-2019-0091>
- Heinonen and Strandvik (2020). Reframing service innovation: COVID-19 as a catalyst for imposed service innovation. *Journal of Service Management*. ISSN: 1757-5818
- Hertog, P. den, van der Aa, W. & de Jong, M.W. (2010). Capabilities for managing service innovation: towards a conceptual framework. *Journal of Service Management*, 21 (4), pp. 490-514.
- Hipp, Christiane & Grupp, Hariolf. (2005). Innovation in the Service Sector: The Demand for Service-Specific Innovation Measurement Concepts and Typologies. *Research Policy*, 34, pp.517-535. [10.1016/j.respol.2005.03.002](https://doi.org/10.1016/j.respol.2005.03.002).
- Janssen, M. J., Castaldi, C., & Alexiev, A. (2016). Dynamic capabilities for service innovation: conceptualization and measurement. *R&D Management*, 46(4), 797–811. <https://doi.org/10.1111/radm.12147>
- Kiani, M. N., & Gillani, S. H. M. (2020). Exploring Missing Link Among Innovation Capabilities and Service Innovation: An Evidence from Mobile Banking Sector of Pakistan. *Abasyn University Journal of Social Sciences*, 13(1), 194–209. <https://doi.org/10.34091/AJSS.13.1.14>
- Meigounpoory, M. R., Rezvani, M., & Afshar, M. (2015). Identification of Service Innovation Dimensions in Service Organizations. *International Journal of Management, Accounting & Economics*, 2(7), 737–748
- Peter Hermann, Michael Brice-Saddler (2020). Police Struggle to Enforce Social Distancing, Mask Orders as Mass Gatherings Flout Rules. *The Washington Post*, WP Company. Retrieved from www.washingtonpost.com/local/public-safety/police-struggle-to-enforce-social-distancing-mask-orders-as-mass-gatherings-flout-rules/2020/08/17/7c2e18c2-de3c-11ea-b205-ff838e15a9a6_story.html.
- Ratny, S., Arshad, A. M., and Gaoliang, T. (2017). The effect of service-driven market orientation on service innovation: Literature review and new research framework. *The Journal of Applied Business Research*, 33(5), 999-1011.
- Sundbo, J. & Gallouj, F. (2000). Innovation as a loosely coupled system in services. *International Journal of Services Technology and Management*, 1(1), pp. 15-36.
- Thomas, D. R. E. (1978). Strategy is different in service businesses. *Harvard Business Review*, 158.
- Toivonen, M., Tuominen, T. (2009). Emergence of innovations in services. *The Service Industries Journal*, 29, 887-902.
- Yelp. *Local economic impact report*. Available: <https://www.yelpeconomicaverage.com/yelp-coronavirus-economic-impact-report.html> . June 25, 2020
- Yelp. *Q2, 2020 Increased consumer interest in May correlates with COVID-19 hot spots in June, according to the Yelp economic average*. Available: <https://www.yelpeconomicaverage.com/yea-q2-2020.html> . September6, 2020
- Yelp. *Investor relations*. Available: <https://www.yelp-ir.com/>. September 8, 2020

7-Management actively seeks innovative idea

1 _____ 2 _____ 3 _____ 4 _____ 5 _____
Strongly Disagree Disagree Neutral Agree Strongly Agree

8- Our organization experiments with new service concepts

1 _____ 2 _____ 3 _____ 4 _____ 5 _____
Strongly Disagree Disagree Neutral Agree Strongly Agree

9- Innovation proposals are welcome in this organization.

1 _____ 2 _____ 3 _____ 4 _____ 5 _____
Strongly Disagree Disagree Neutral Agree Strongly Agree

10 - We require everyone (employees and customers) to wear masks in our facility

1 _____ 2 _____ 3 _____ 4 _____ 5 _____
Strongly Disagree Disagree Neutral Agree Strongly Agree

New Value System / Business Partner

11- We collaborate with other organizations to reach existing or gain new customers

1 _____ 2 _____ 3 _____ 4 _____ 5 _____
Strongly Disagree Disagree Neutral Agree Strongly Agree

12- We partner with other organizations deliver our services

1 _____ 2 _____ 3 _____ 4 _____ 5 _____
Strongly Disagree Disagree Neutral Agree Strongly Agree

New Organization Service Delivery

13- We maintain social distancing in delivering our services

1 _____ 2 _____ 3 _____ 4 _____ 5 _____
Strongly Disagree Disagree Neutral Agree Strongly Agree

14- We require everyone (employees and customers) to social distance in our facility

1 _____ 2 _____ 3 _____ 4 _____ 5 _____
Strongly Disagree Disagree Neutral Agree Strongly Agree

15- We provide a no contact delivery system

1 _____ 2 _____ 3 _____ 4 _____ 5 _____

Strongly Disagree Disagree Neutral Agree Strongly Agree

New Revenue Model

16-Our organization is actively engaged in promoting its new services

1 _____ 2 _____ 3 _____ 4 _____ 5

Strongly Disagree Disagree Neutral Agree Strongly Agree

17- The way we get paid is altered

1 _____ 2 _____ 3 _____ 4 _____ 5

Strongly Disagree Disagree Neutral Agree Strongly Agree

Current Operation Status

18- The business operations over the past three month have

1 _____ 2 _____ 3 _____ 4

Increased Still the same Decreased Business closed