

The growth of cyber entrepreneurship in the food industry: virtual community engagement in the COVID-19 era

Cyber
entrepreneurship
in the food
industry

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Received 30 June 2020
Revised 2 November 2020
Accepted 10 November 2020

Abstract

Purpose – The sustainable development goals are the plans to accomplish a recovering and more sustainable future for all. However, with the COVID-19 pandemic, the challenges are more for achieving these goals by entrepreneurship. With the pandemic challenges, new technological advancements have become the foundation of an emerging form of entrepreneurship known as cyber entrepreneurship. Although a small segment of burgeoning literature on this topic has been recently tended to study cyber entrepreneurship, it offers only a partial understanding of those concepts, especially for community engagement in the food industry during the pandemic. This paper aims to explore cyber entrepreneurship in the food industry and its opportunities for entrepreneurs in epidemics such as COVID-19.

Design/methodology/approach – This study using a case study approach identifies and explores the fundamental aspects of cyber entrepreneurship. This study employs empirical research with a holistic overview of the existing literature to define the different forms of entrepreneurship in the current digital age, focusing on COVID-19 implications for cyber entrepreneurship.

Findings – The result of this paper provides a better understanding of a new form of entrepreneurship in cyberspace as innovative practice for firms. This study reveals that cyber entrepreneurship can develop community engagement during pandemic circumstances, such as COVID-19 in the food industry.

Originality/value – This research demonstrates entrepreneurial processes around sustainable business behaviours by focusing on community engagement. It opens a window into the exploration of cyber entrepreneurship in the food industry.

Keywords Cyber entrepreneurship, COVID-19, Food, Sustainable entrepreneurship, Technological entrepreneurship, Online entrepreneurship, Virtual community

Paper type Research paper

Introduction

Technological advancements created massive opportunities for entrepreneurs to develop their businesses. Communication technologies have led to underlying structural changes in the global economy (Pohjola, 2002). They are known as the most significant elements of economic well-being and social shifts since the industrial revolution (Kleis *et al.*, 2012). Given the advancement of computing technologies and business innovations, knowledge is considered as a main strategic source for a new economy which is defined with various labels such as “knowledge economy”, “online economy” and “digital economy” (Cohen *et al.*, 2000). A new economy creates new social and economic systems based on an intelligent structure that is changing a great number of working practices thus forcing firms to move from traditional routines into new age information (Carrier *et al.*, 2004). To be able to operate in techno-based systems and identify new business opportunities and enhance their capability of innovation, they have to take advantages of new information processing tools and equip themselves with new technologies (Carley, 1999; Malone and Laubacher, 1999).

The advancement of recent technology in information system and e-commerce has obviously changed the way entrepreneurs market their products and services (Deans *et al.*,



2003). Changes in marketing practices with the advancements of technologies in social networks have opened new windows with full opportunities for entrepreneurs (Nakara *et al.*, 2012). Social media is considered as a new marketing tool for business, especially for entrepreneurship and start-ups. The most prominent features of social networks are the changes in interaction degree between customers and firms (Ghose and Dou, 1998; Nakara *et al.*, 2012). Customers now engage in online communities and react and share their opinions, consumption experiences and reviews of peers' comments and rates. Online communities also create opportunities for social media users to express their needs and expectation (Nakara *et al.*, 2012). In this sense, customers are co-creating value with firms (Tapscott and Williams, 2006).

Because access to new technological advancement in recent years has been available to the public, many individuals are using new technologies for their entrepreneurial activities. Therefore, developing technology has created different forms of entrepreneurship and influenced the way that entrepreneurial activities are conducted. On another note, the evolution of technology, along with creating innovative entrepreneurial ideas, has made great changes to the entrepreneurship concept. According to Harris and Gibson (2008), focusing on the studies of information technology (IT) innovativeness and its association with entrepreneurship has made changes in the common understanding of entrepreneurial activities. It highlights that the association between entrepreneurship activities and IT introduces cyber entrepreneurship, which is called a new type of entrepreneurship.

Cyber entrepreneurship provides opportunities in the food industry to know the target audience and potential customers who can benefit online businesses to capture community member's attention. Nowadays, food firms, particularly, start-ups and micro-small companies are using multi-channels to communicate with customers. The businesses' Apps and Facebook/Instagram pages are very user-friendly and easy to navigate. Social media platforms are good places for entrepreneurs to introduce their new ideas, products or services to customers at a low cost and attract customers. However, cyber entrepreneurship through a virtual community enhances engagement between customers and entrepreneurs. Today, most food companies try to use social media platforms which are very straightforward for customers (e.g. place an order, make payment and real-time tracking such as pizza shops, home-made foods or organic food firms). Customers can rate and provide reviews in all communication channels related to the business.

Existing literature mainly reviews entrepreneurship in a traditional way and rarely focuses on entrepreneurial activities in an online environment, specifically in cyberspace (Goss, 2005; Shane, 2008; Zahra, 2008). To address this gap, this research explores cyber entrepreneurship in the food industry and the opportunities that it has for entrepreneurs in epidemics such as COVID-19. The most notable contribution of this paper is the focus on the differences of entrepreneurship from the traditional form to entrepreneurship in the digital age by explaining cyber entrepreneurship and its benefits. Therefore, the research questions of this study are (1) what is cyber entrepreneurship, and how can it help people to develop their entrepreneurial activities and (2) how social media can help entrepreneurs to develop their community engagement.

We develop the paper with a literature review. This is followed by empirical research using a case study. Results and discussion go after that. Using the case study approach, we make some practical implications and theoretical implications in the area of cyber entrepreneurship. We finish the paper by discussing future research direction.

Literature review

Technology-based entrepreneurship

In the last decade, technology-based entrepreneurship has been posed as an important phenomenon and lies at the heart of many debates. Technological entrepreneurship-related

activities play a significant role in economic growth and industrial modernization as well as the revitalisation of transition economies (Antonic and Prodan, 2008; Ferto, 2007; Ozcelik and Taymaz, 2004). Knowledge and technology-based companies have grown rapidly in comparison with traditional sectors. It has been argued that transformation from traditional manufacturing activities towards innovative and knowledge-based activities is considered an industrial technology revolution (Dahlstrand, 2007).

The interest in techno-based entrepreneurship and net new jobs has increased since 1970. The finding of Birch (1981) stated that US small firms were successful in creating and extending net jobs (about 81%). Along the same line, Davidsson *et al.* (1994) studied Swedish firms that had a similar result and asserted that 70% of small and medium-sized enterprises (SMEs) created “net new jobs”. Storey (1994) found that in the UK, although only a few firms expanded, these had a main role in sustainable growth. Dahlstrand (2007) called those firms “Gazelles” because those technology-based firms lead to fast growth in countries’ economies.

Based on the importance of technological development and its significant role in economic growth, technology-based industries play an intensively major role in international trade (OECD, 2001). In view of the interest in technology and entrepreneurship, it has enhanced more focus on technology-based entrepreneurship. Early research on this topic was carried on in the United States at Purdue University in 1970, and later other studies were conducted in Europe and other regions during the next 20 years (Keeble *et al.*, 1999; Shane and Venkataraman, 2003). In literature, technology-based entrepreneurship still is an unexplored topic. The nature of techno-entrepreneurship needs to be investigated, and the outcomes and the effect of technological entrepreneurship on firm performance and economic development need to be identified.

Although new technology-based firms (NTBFs) have common features with other firms, they have specific characteristics that distinguish them from other enterprises. There is no accepted definitions of the two concepts “technology-based” and “entrepreneurship” in literature. Despite the wide acknowledgment of entrepreneurship as a vital element in national wealth and economic development, there is no common consensus and a single definition of entrepreneurship (Dahlstrand, 2007).

Entrepreneurship has different definitions, and there are various ideas about it. The comprehensive meaning of it deals with the willingness to turn innovative ideas into a profitable business. In one picture, entrepreneurship includes coming up with an idea for one’s own small business or risk-taking tech-based start-up. Since entrepreneurship is a multidimensional concept, it does not have a commonly accepted definition (Gartner, 2001). One of the earliest definitions of entrepreneurship dates back to the eighteenth century as the process of risk-bearing and trading in an uncertain situation (Newman, 2007). Various definitions have been developed during the decades so that each of them reflects a particular emphasis on economical or managerial approaches. Therefore, entrepreneurship is a “multidimensional concept” (Bula, 2012). Both approaches are interrelated and frequently used to indicate the performance of entrepreneurial activities (Badaruddin *et al.*, 2015). Cantillon (1959) considered entrepreneurship as a main economic factor. He asserted that entrepreneurs are in charge of all exchanges in the economy. Also, he believed that entrepreneurs bear risk in uncertain situations to equilibrate supply and demand (Praag *et al.*, 1995). Say (1855) provided a managerial approach entrepreneurship. He mentioned the role of entrepreneurs as managers of firms and stated that entrepreneurs are the key agent and input in the production process in the economy.

The common definition of a technology-based firm depends on technology for its survival. More specifically, some scholars, for example, Zahra (1993) and Antonic and Prodan (2008) emphasised the development and innovation in technology and considered technology-based entrepreneurship as “the innovative aspects of manufacturing firms”. Some researchers have

used different expressions for technological entrepreneurship such as “technology entrepreneurship,” “technical entrepreneurship,” “techno-entrepreneurship” and “technopreneurship” based on specific criteria and measurement such as “investment in R&D” and “proportion of employees in R&D” to explain the technology-based firms. Dorf and Byer’s (2005) defined “technological entrepreneurship as a business leadership style” that emphasises the correlation of science and technology to achieve profitable business and growth. Moreover, it facilitates accessing the resources and figuring out new technology-based potential opportunities.

Shane and Venkataraman (2003) characterized technology-based entrepreneurship as a process of accumulating the organizational strategies and resources with technological systems to achieve organizational goals. According to The Canadian Academy of Engineering (1998), technological entrepreneurship deals with being innovative in making use of both scientific and technological knowledge to start a new venture. This innovativeness facilitates the rapid achievement of organizational vision and objectives. A person who takes the responsibility of operating this type of business should have the technical knowledge and business and entrepreneurial skills.

Technological entrepreneurship often has a high potential for growth and mainly focuses on niche markets. They tend to make a cluster with other technological firms in a specific region to use complementary resources and knowledge sharing within technological business networks. Furthermore, they have a close relationship with science parks and universities, and they are established by highly educated entrepreneurs. These characteristics make them different from other types of entrepreneurship.

Cyber entrepreneurship

The new type of entrepreneurial activity was introduced in the twenty-first century based on technology and particularly the Internet. Cyber entrepreneurship is a modern and emerging concept in entrepreneurship studies. The term “cyber” for the first time is defined by William Gibson which is referred to as an environment in which business activities are conducted (Holeton, 1998). Cyber entrepreneurship is an Internet-based business practice in which entrepreneurs attempt to establish their companies via an Internet platform (Matlay, 2004). Kollmann (2008) indicated that cyber entrepreneurship is establishing a new online company based on innovative business ideas and IT within a digital economy. Cyber entrepreneurs are investing in online IT-based projects to identify and explore innovative business opportunities (Shane and Venkataraman, 2000). Moreover, cyber entrepreneurs strain to use IT for the business to gain more profit (Badaruddin *et al.*, 2015). Furthermore, any business transactions and exchange of data via an electronic network by using IT refers to cyber entrepreneurship.

Scholars have attempted to study a comparison of different characteristics between traditional entrepreneurship and cyber entrepreneurship. A summary of the research findings is shown in Table 1.

Cyber entrepreneurship has two distinct manifestations. The first refers to the traditional firms, which have a physical presence but use cyberspace for a distribution channel or technological extension for their business, for instance, launching an online shop for a traditional retailer or an online ordering system for a restaurant. Second is IT-based business ventures, Internet start-ups or cyber-traders, specifically operating in the digital environment with the whole business dependent on technology (Serarols *et al.*, 2006).

Hull *et al.* (2007) introduced three types of cyber entrepreneurship. First is a *mild digital entrepreneurship* that means establishing the Internet-based economy as a supplement or complement to traditional forms of business. The second type is *moderate digital entrepreneurship* that deals with entering into the digital economy with great emphasis on

Criterion of difference	Description
Easy entrance and easy exist	Cyber entrepreneurship is an easy way to create and establish small business ventures rather than a traditional one Badaruddin et al. (2015)
Low cost	Venturing business in a digital world is very low cost Hull et al. (2007)
Re-entering	Cyber entrepreneurs can re-enter into business, and it is not time-consuming and costly compared to traditional entrepreneurship Badaruddin et al. (2015)
Distributional in the market place	Cyber entrepreneurship enjoys the benefits of cheaper and quicker product distribution Carrier et al. (2004)
Workplace	Cyberspace makes it possible to hire employees and make partnerships throughout the world effortless. There is no geographical limitation. However, in comparison to traditional entrepreneurship controlling cultural diversity, hiring talents, flexibility and responsibility of the virtual team is very challenging in cyber entrepreneurship Walker (2006)
Information Technology (IT)	Knowledge of IT is a must and essential for business in cyberspace but is not necessary for traditional ones. Entrepreneurs and employees also need higher levels of IT knowledge to work in digital workplaces Colombo and Delmastro (2001)
Products and services	Modification and fundamental innovation of digital products are easy and could be established in any process of production and selling. Besides, it is a great value for customers Hull et al. (2007)
Commitment	Developing commitments in a virtual company is more ambiguous and challenging than in traditional physical firms Hull et al. (2007)

Table 1.
Comparison of cyber
entrepreneurship and
traditional
entrepreneurship

digital-based products and delivery or other businesses' digital components. The third kind of cyber entrepreneurship is *extreme digital entrepreneurship* when the business entirely operates in cyberspace for production, good and services, marketing, advertising, delivery, distribution and also customers.

Technology-based entrepreneurs vs cyber entrepreneurs

Internet-based entrepreneurs are called cyber entrepreneurs who create firm based on electronic commerce and run the business depending on e-networks ([Bret and Champeaux, 2000](#)). They are exploiting business networks through the Internet, intranets and extranets. Although a large growing body of literature on entrepreneurship studies has focused on traditional entrepreneurs, a few researchers have attempted to examine new types of entrepreneurship, which are based to IT and cyberspace ([Carrier et al., 2004](#); [Fillis et al., 2004](#); [Martin and Wright, 2005](#)).

The specific characteristics of different types of entrepreneurs have been reviewed in previous studies (see [Table 2](#)). For example, [Kisfalvi \(2002\)](#) asserted that personal characteristics impact entrepreneurs' choices in establishing their business. [Blais and Toulous \(1992\)](#) indicated that technopreneurs usually are young and educated people who are familiar with technology and acquired enough experience for running IT-based businesses. While Internet-entrepreneurs are generally young but less educated people in comparison with technopreneurs nevertheless, they are well equipped with a better knowledge of marketing than traditional entrepreneurs. Young online-entrepreneurs are more passionate to run their business in cyberspace and the main purpose of business is making a profit and income ([Colombo and Delmastro, 2001](#)). Moreover, they are very interested in self-directed and independent working time.

Also, the result of [Siu's \(2002\)](#) study of small online firms in Taiwan indicated that cyber entrepreneurs have high more knowledge and marketing background than traditional entrepreneurs. In addition, the findings reveal that cyber entrepreneurs were very planning-

Criterion	Technology-based entrepreneurs	Cyber entrepreneurs
Personal characteristics	<ol style="list-style-type: none"> (1) Young, postgraduate students (2) Extensive experience, and Familiar with sectors (3) Enthusiasts technology and diligent innovators (4) Stubborn in making innovation and very enthusiastic in regards to new technologies Blais and Toulouse (1992) 	<ol style="list-style-type: none"> (1) Younger less educated Colombo and Delmastro (2001) (2) First professional experience Colombo and Delmastro (2001) (3) Higher marketing knowledge and background Siu (2002) (4) Mostly male Serarols et al. (2006)
Experiences	<ol style="list-style-type: none"> (1) The success depends on previous similar experiences 	<ol style="list-style-type: none"> (1) The first professional experience for most of entrepreneurs Colombo and Delmastro (2001)
Aims and motivations	<ol style="list-style-type: none"> (1) High motivation is very vital to satisfy a need for achievement, alternative way to unemployment Roure and Keeley (1990) 	<ol style="list-style-type: none"> (1) A desire for innovation, autonomous time management and higher income, Colombo and Delmastro (2001)
Business creation and development processes	<ol style="list-style-type: none"> (1) Strategic-oriented Finkelstein (2001) 	<ol style="list-style-type: none"> (1) Operate the firm as an “extended enterprise” in business networks Tovstiga and Fantner (2000) (2) Market-oriented, plan-oriented Siu (2002)

Table 2.
A comparison of entrepreneurs' characteristics

oriented, which means they are periodically conducting marketing planning. They are carrying out marketing activities professionally.

[Carrier et al. \(2004\)](#) analysed five case studies of cyber entrepreneurs in Quebec and Montreal, Canada. The result showed that the business owners were not as young as it was expected before. The average age was 37.2, and they were very experienced and specialists in their business area. Furthermore, they had a high educational level with a master's or bachelor's qualifications. It was interesting that four entrepreneurs had an extensive IT background. This finding was completely different from [Colombo and Delmastro's \(2001\)](#) findings. Based on their research of 241 Internet-based entrepreneurs in Italy, Internet-based entrepreneurs were younger with the average age of 28.5 and less experienced and educated.

However, the literature on cyber entrepreneurs is very limited and needs more investigation and empirical studies in this area ([Bouwman and Hulsink, 2002](#); [Carrier et al., 2004](#); [Serarols, 2008](#)).

Food industry during the coronavirus pandemic

Consumption patterns have changed dramatically as a result of the outbreak of Coronavirus. One such significant change is a reduction in service consumption, such as the food and travel industries due to avoid physical contact. According to [Statista \(2020\)](#), spending on eating out has decreased significantly. The COVID-19 pandemic is leading to increasing damage to the global restaurant industry. Due to social distancing measures to reduce the transmission of the virus, consumers have been eating out less. The annual decrease in seated dining in worldwide restaurants was a staggering 27.19% in October 2020. Additionally, following the first and second lockdowns in the UK due to the coronavirus pandemic, people were advised to avoid venues such as bars, restaurants and cafes. This has led to a decline in the number of seated diners in British restaurants by around 45% which is still going down. Consequently, measures to diminish the spread of the Coronavirus were detrimental to the restaurant industry. Due to the widespread ban on eating inside restaurants, the demand for restaurant

food has dropped dramatically since the outbreak. Restaurants that are unable to provide online or take away services have to close (Mohammed, 2020). The result is a shift in demanding from dining out toward eating in-home. It leads to replacing meals typically purchased at restaurants with home-cooked meals (Chang and Meyerhoefer, 2020). These demands are likely to continue to keep social distancing. Consumers are fascinated by delivery brands by chefs who deliver high-quality, fresh food in the kitchen and home. Food quality and hygiene are very crucial.

Home-made food businesses should take on even more stringent norms to ensure the quality of food that is cooked in good hygienic kitchens or homes because any laxity in adhering to hygienic issues might be causing them unconquerable losses in both income and reputation (Lakshmi and Shareena, 2020). The chefs should be instructed to wear protective gear such as mask and gloves and should ensure their kitchen and stuff's disinfection before and after each cook shifts. Customers should be treated with the superlative consideration of hygiene and safety.

Cyber entrepreneurship and digital platforms in the food industry

Knowledge exchange and experience among individuals creates potential value (Lin, 2007). Knowledge exchange is now accelerated by digital collaborative tools that play an important role in online communities. These online communities, where people interact from a common interest and experience and intend to exchange information and knowledge, have an important value on which companies' strategic actions are based (Brodie *et al.*, 2013; Tsimonis and Dimitriadis, 2014). Online communities show an attractive platform for entrepreneurs as they can enhance their community engagement. Online communities' members can access easily shared experience and knowledge in comparison with traditional networks (Constant *et al.*, 1996). The findings of Fait *et al.* (2019) indicated that pro-social behaviours that are demonstrated through a knowledge-based exchange are reinforced by the interaction of members of the online community.

The food industry is considered a significant part of the European economy (Costa *et al.*, 2016). In the food industry, especially for micro and start-ups and with considering social and environmental aspects, the development of a sustainable business model innovation is significantly important because it is inherently related to nature and human (Franceschelli *et al.*, 2018). The current epidemic, the socio-economic issues that have taken place, the increasing competition and the acquisition of new technologies and digitalization are posing challenges for the food industry and companies (Bresciani *et al.*, 2016; Santoro *et al.*, 2017).

Nowadays, customers can access product information and customers' experiences easily through social media platforms, and they expect more variety of products and healthier and customized food (Costa *et al.*, 2007). These factors have increased the pressure on food companies, especially food start-ups and micro-small firms (Franceschelli *et al.*, 2018). Therefore, food companies should develop an innovative and suitable business model to enable them to compete in the competitive market and environmental turbulence (Sebastiani *et al.*, 2013). It is highlighted more in micro and small food companies which do not have sufficient financial or human sources or capabilities to grow (Franceschelli *et al.*, 2018).

In the age of technology and connectivity, having an informative social platform for any entrepreneur is a must. Online social platforms allow all individuals to be involved and contribute in their chosen communities without any physical, geographical or timing barriers. Within online platforms, everyone has a voice and can share ideas within their networks. Technology has enabled and facilitated entrepreneurs to capture communities attention to their business. There is no doubt that online communications play an

imperative role in the success of any cyber business. However, people in this environment have been bombarding us with an immense amount of information by many communication channels.

Cyber entrepreneurs need to be very keen on how their message is going to get through. Nowadays, especially in a tough situation like the COVID-19 pandemic, people are confused, disappointed, busy and scrolling down all social media pages very quickly. Therefore, a simple and straightforward design of communication channels, using more visual features than texts, makes that channel more memorable and easy to react to and engage. It is important to provide all essential information for customers and recognise what they might need. An informative platform associates with customers' decisions for staying and finalizing their purchase or leaving the platform.

Additionally using multi-dimensional communicational channels by e-businesses is likely to reduce the uncertainty and build trust in regard to cyber-entrepreneurial firms (Lounsbury and Glynn, 2001). It is very important how online entrepreneurial firms are constructing value and meaning for their business via communicational platforms. Given that skilled entrepreneurs in creating effective and innovative communications are more expected to encourage their audiences to react and respond to the posts which lead to confidently positioning their firm in the market (Fischer and Reuber, 2014).

In this regard, motivating consumers to purchase from an online platform is crucial for home-made food businesses. The development of online retailing, particularly in the food industry, means a wide selection of products and services such that the consumer benefits from food customization, real-time interactive communication and fast delivery. Several studies indicate a positive relationship between attitude and behavioural intention (Chen *et al.*, 2012; Yeo *et al.*, 2017). Consumers prefer online services due to convenience, usefulness, time-saving or previous online experiences (Kimes, 2011; Jeng, 2016; Saarjärvi *et al.*, 2014). Recent literature has shown that the values and pleasures can also drive purchasing motivations that consumers seek (Alavi *et al.*, 2016). Utilitarian and hedonic values are considered as two main motivational factors in online food consumption (Yeo *et al.*, 2017).

Additionally, online communication technologies increase the ability of companies to communicate continuously with their customers and use valuable knowledge. However, there is little research on virtual customer communities in the food industry. This paper aims to offer new insights on cyber entrepreneurship roles and business benefits of virtual customer community in the food industry. We present a case study from the food industry that represents how digital platforms and interactions with customers have been integrated into a form of a virtual customer community, supporting continuous service and product development with a large base of paying customers.

Methodology

We have developed our research based on qualitative research. The qualitative method provides comprehensive and illustrative data to deeply understand the research problem under analysis. Unlike quantitative research which is concerned with numerical data and analysing ranks and counts, qualitative data are concerned with unquantified reality, illustrating a detailed picture to build-up the reasons behind individuals' feelings, attitudes and reactions in certain ways (Lee and Saunders, 2017). Qualitative research has been seen as "an umbrella" incorporating a collection of interpretive practices to define, decode and transform social phenomena (Van Maanen, 1979). We have used qualitative research to dive deeper into the research problem and uncover underlying reasons, opinions and thoughts in regard to cyber entrepreneurs. Moreover, this method is very flexible in structure and has corresponded to holistically understand the relationships and processes related to individual

cases which couldn't be accomplished by the operationalization of variables in the quantitative method.

Case study

We use a case study to investigate our research questions. The case study is an effective method that allows researchers to study and investigate individual cases in specific and unique circumstances (Stake, 2008). It enables researchers to collect an enormous amount of data, unlike other research designs that have limitations on obtaining data easily. Collected qualitative data by case study is rich, detailed and in-depth (Merriam, 2009). The case study method offers empirical context-specific and unique data analysis related to a single case. One of the advantages of using this method over other types of research is its key benefit for allowing the researcher to capture the reality of complex issues in a real-life context (Harrison *et al.*, 2017). This method is likely to be conducted on cases where a large sample size is not accessible easily. Additionally, it is inexpensive, accessible and can be conducted remotely by the researcher (Berg and Lune, 2012).

Case of this research

The case of this research is an online home-made food company located in the UK. This company is an online platform that offers home-cooked meals cooked by professional cooks to customers. This platform enables customers to choose a variety of cuisines and home cooks. It also provides great quality ingredients which enable users to purchase a fresh meal and enjoy healthy, tasty and genuine home-cooked food. High-quality dishes and "high standards of hygiene" are very important when preparing food at this company. In fact, the vision of this home-made food company is to provide healthy and fresh meals for those who have not the time or skill to prepare home cook meals. Talented chefs prepare high quality and delicious home-made food. This platform also creates an opportunity for all cooks who have specialised in preparing a cuisine (e.g. African, British, Middle East, Italian, Mexican) to join this entrepreneurial platform. The business App and Facebook/Instagram pages are very user-friendly and easy to navigate. It is very straightforward for placing orders, making payments and real-time tracking. The company has been selected as one of the top 20 companies in the 2018 start-up program.

We developed the conceptual framework below to explain the entrepreneurial process in a cyber entrepreneurship platform (see Figure 1).

Case analysis: The entrepreneurial process based on cyber entrepreneurship model:

- (1) The mobile app of home-made food company allows customers to order their fresh food by browsing a multitude of home-made meals cooked by professional home Cooks.
- (2) Once the users select a home-made meal, it can be delivered straight to their doorstep.
- (3) The customers can share their experience by providing their comments, reviews and rating meals and chefs. In addition, chefs are required to provide what the ingredients are for the dishes they cook, but if the customer needs more information, they can contact the relevant chef via the chat function in the app. It creates a community for chefs and customers to engage and create co-creation value.

Results

The firm employs a mobile app to help customers to buy fresh home-made food. This app also allows those who are very interested in cooking to sell their authentic home-cooked food to

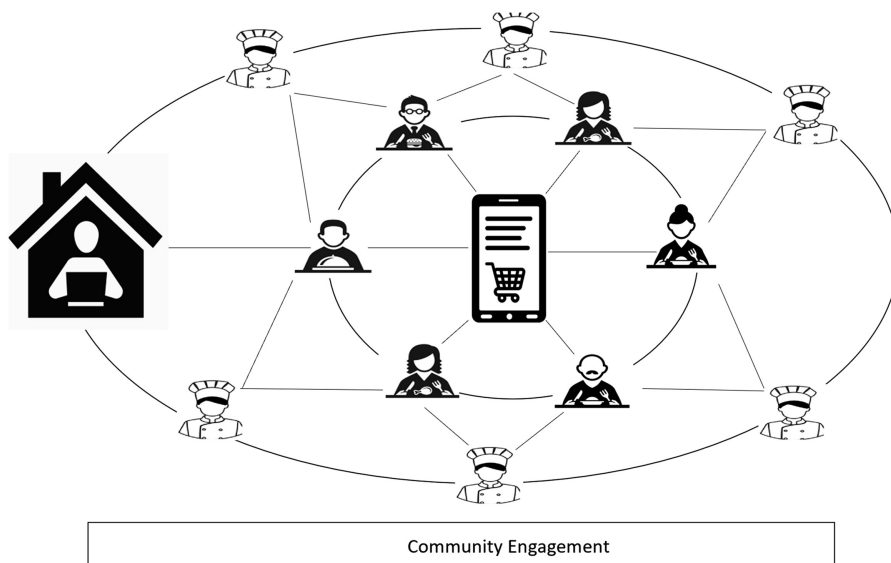


Figure 1.
The conceptual
framework of this
research

customers. This is a co-creation platform which encourages hungry customers who enjoy fresh and healthy foods but no time or skill to cook for themselves. Also, this firm provides an opportunity for its customers (chefs) to cook their unique recipes from their kitchen and sell their dishes to customers nearby. The firm can reach its customers, and customers also can contact with chefs and their peers through this app. Even if they need further information regarding the ingredient of meals, they can chat live with the chef to ask their concern or any questions. The program also allows members to employ a recommendation system where users can rate the provided dishes or get a recommendation for their ordered dishes. Besides the app functionality, the company also has various social media platforms such as LinkedIn, Instagram, Twitter and Facebook pages in order to reach its customers. Members are supported by the internal community (chefs and staff) and external community (customers and professional chefs).

Online communities have a significant impact on motivating and encouraging members to interact with each other by conducting discussion through those discussion boards and engage in messages exchange with community members. Members can provide their feedback either by using the firm's mobile app or share their ideas in the discussion forums of social networking sites (e.g. Instagram or Facebook). It helps the firm to get its customers' idea about their products and services, which leads to continuous development and improvement. The members play as co-creators, not solely buyer or seller and it requires an intense customer-firm relationship. They contribute by rating, reviewing, suggestion and submitting messages or photos of ordered food to the online discussion board. The members also are active in the company's social media platforms (e.g. Facebook, Instagram, LinkedIn and Twitter) with commenting, sharing and liking the posts make the communities more valuable and inviting. During the Coronavirus pandemic, the firms are unable to reach the customers physically; virtual customer communities assist businesses to retain their relationship with their customers.

Discussion

The sustainable development goals are the plans to accomplish a recovering and more sustainable future for all. Using technological advancements, entrepreneurs are able to have

more community engagement to develop their entrepreneurial activities. In this study, we developed the literature of cyber entrepreneurship to look at the opportunities that entrepreneurs have to have more community engagement and work on sustainable development goals while they are developing their business. We developed a conceptual model to show that entrepreneurial activities can enhance community engagement. Using the case study approach, we found that people can use social media platforms such as Instagram or online communities to develop their entrepreneurial activities. Our research shows an entrepreneur can use social media platforms such as the Instagram page or Facebook page to interact with community members. This implies to enhance consumer collaboration in virtual communities (Hajli *et al.*, 2017; Yu *et al.*, 2020). In addition, the findings of this study confirm the previous argument that the virtual community can be effective cyberspace for sharing and accessing reliable information (Tajvidi and Karami, 2017). The results of our study are aligned with the findings of other recent research (Kadam and Ayarekar, 2014; Tajudeen *et al.*, 2018), using social media platforms has a positive effect on the entrepreneurial performance.

This finding is also supported by the study of Nakara *et al.* (2012) that social media platforms are considered as affordable channels for entrepreneurs to market their products and engage with customers through online communities. Customer engagement with a brand can take many forms in a virtual community. For instance, reviewing and recommending a product or service, sharing the experiences and feeling about a brand. Customer engagement will foster brand growth and loyalty. Recent research emphasizes the importance of consumer engagement, such as liking and commenting (Rietveld *et al.*, 2020). Therefore, social media channels are appropriate tools for start-ups and entrepreneurs with limited resources to keep their marketing efforts at the lowest cost (Dutta, 2010). Social media platforms are a valuable tool and useful sources of market information to closely hear customers' voices, interact and communicate with current customers, improve the relationship and exchange knowledge with them (Constantinides *et al.*, 2008).

This will engage not only the customers but also other businesses to participate in the business process, which this new style of entrepreneurship using social media technologies called cyber entrepreneurship. Our analysis shows that entrepreneurs can use social media platforms to attract people, customers and other businesses to co-create value. Our findings show entrepreneurs do not require to expend more financial, time or marketing resources to gain competitive advantages. Our results show entrepreneurs can build relationships with consumers and encourage community members to share their opinions, experiences and view of points to add value to the community. Our findings confirm the previous argument that social media platforms and online communities allow firms to establish a more intimate and interactive relationship with consumers (Tajvidi *et al.*, 2018).

Implications for theory and practice

The result of this paper provides a better understanding of a new form of entrepreneurship in cyberspace that is expanding more with the advent of the new economy. This research demonstrates entrepreneurial processes around sustainable business behaviours by focusing on community engagement. The contribution of this study lies in the distinguishing of cyber entrepreneurship and technology entrepreneurship and demonstrating the importance of cyber entrepreneurship in challenging situations such as COVID-19. The other contribution of the current research is that it has opened a window onto exploration and identification of entrepreneurship in cyberspace, which has difficulty existing in the literature. The paper aimed to learn more about how entrepreneurs can develop their entrepreneurial activities through community engagement on social networking sites such as Instagram.

Conclusion

New technological advancements have become the foundation of emerging forms of entrepreneurship, known as cyber entrepreneurship. This form of entrepreneurship provides better opportunities for entrepreneurs to have community engagement to grow their platforms. With the challenges of epidemics such as COVID-19, entrepreneurial activities are relying on new technological advancements. In this paper, the entrepreneurship concept has been reviewed with a special focus on technological entrepreneurship and cyber entrepreneurship. Cyber entrepreneurship is an emerging form of entrepreneurship using technologies to drive entrepreneurial activities. We developed a conceptual framework to see how people can use social media platforms to develop their entrepreneurial activities by engaging in communities. This research demonstrated the potential of virtual communities as a source of information for marketing purposes. It also prospected how communication content can assist companies to a better understanding of consumers' perceptions or reactions to their products and services. It helps companies to develop innovative strategies for products. This study also revealed that cyber entrepreneurship is as an innovative practice for start-ups, which take advantage of lower operating costs than traditional business models. Our contribution is to develop the concept of cyber entrepreneurship and introduce a model to explain an entrepreneurial process based on cyber entrepreneurship. Using a sustainable development lens, we believe this study shows how cyber entrepreneurship can develop community engagement.

Limitations and future research direction

This research has limitations like other studies. The first issue is that we focus only on one entrepreneurial activity to explain our conceptual model. Future research needs to expand the research and find other cases in other countries to have a better position for the generalisability of the findings. Future research can also examine the conditions of cyber entrepreneurs in discovering opportunities in cyberspace. Also, more work needs to be done in the field of recognition and exploration of cyber-based business opportunities.

Further investigation should focus on the nature of start-ups and how it can affect the creation of the venture. For instance, how personal characteristics of entrepreneurs, their aim and motivation can impact venture creation. One more avenue for the future is to investigate the relationship between cyber entrepreneurship and firm performance.

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