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Pandemic Covid-19, Revolution Industry 4.0 and Digital Entrepreneur Trending

This study aims to analyze the factors of business success on the contemporary challenges that include; (i) Wants and needs from the communities; (ii) Pandemic Covid-19 (iii) Revolution Industry 4.0 and VUCA era. Furthermore, the results of this study are that the majority of the composition of the current population of Indonesia is Gen Z and Millennials. Therefore, they need digital-based products and services so that entrepreneurs can capture these needs and turn business processes and

business models into digital entrepreneurs. Therefore, the implication of this

research is to provide information to entrepreneurs and all stakeholders

related to the field of entrepreneurship. In addition, the novelty of this

research is to connect the needs of the majority of society at this time with

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Introduction

The dynamics of the business and business world today are faced by three conditions that cause rapid changes in the needs and desires of consumers. Therefore, entrepreneurs must have a quick response to make changes and quickly know the changes in the needs and desires of the market (L. Nugroho, 2021). The three challenges faced by the business world include:

digital entrepreneurs.

- The Covid-19 pandemic;
- The era of VUCA (volatility, uncertainty, complexity, and ambiguity);
- The Industrial Revolution 4.0.

In addition, the existence of the business world has a high dependence on financial institutions, especially banking, to support payment facilities in buying and selling transactions. Furthermore, Indonesia is one of the countries with the largest population globally. In 2021 is estimated to have 274.9 million people, making Indonesia ranked four out of ten emerging markets (A. C. Nugroho, 2019). An emerging market is a country that has excellent market potential so that it becomes an attraction for economic and business actors and has good economic growth (Masoud & Hardaker, 2012; Puatwoe & Piabuo, 2017). The emerging market countries are as follows:

Table 1. Ten Emerging Market Countries in the World					
No	Country	No	Nama Negara		
1	China	6	Brazil		
2	India	7	Egypt		
3	USA	8	Russia		
4	Indonesia	9	Japan		
5	Turkey	10	German		
Source: A	. C. Nugroho (2019))			

Referring to table 1 above, countries included in the emerging market are large populations such as China, India, and Brazil. In addition to countries with large populations, countries that fall into the emerging market category

Zamzami, A.H., Mahliza, F., Ali, A.J., & Nugroho, L., (2021). Pandemic Covid-19, Revolution Industry 4.0 and Digital Entrepreneur Trending. Journal of Islamic Economics & Social Science, Volume 2 (2), 132-140. DOI: http://dx.doi.org/10.22441/jiess.2021.v2i2.007. have good economic growth (Masoud & Hardaker, 2012). Thus, based on the large population and tremendous economic growth, emerging market countries have a huge potential demand for products and services (Cui & Liu, 2000). The impact is that these countries become target markets of producers to sell their goods and services (Ahmed & Zlate, 2014; Brouthers et al., 2005).

Post Gen Z = Gen Z = Milenial - Gen X = Baby Boomer = Pre Boomer

Furthermore, of the 274.9 million population based on data BPS (2020), the composition of the Indonesian population can be illustrated as follows:

Figure 1: Composition of The Indonesian Population-based on The Period of Birth Source: BPS (2020)

According to figure 1 above, the criteria for population composition can be explained as follows:

- Post-Gen Z, a resident of Indonesia born in 2013 and after that year with an estimated age of now ±7 years, and the composition is 10.88%;
- Gen Z, a resident of Indonesia who was born in 1997-2012 with an estimated age of now ±8 years to 23 years and The composition is 27.94%
- Millennials, a resident of Indonesian born in 1981-1996 with an estimated age of ±24 years to 39 years and the composition is 25.87%;
- Gen X, a population of Indonesia born in 1965-1980 with an estimated age of ±40 years to 55 years. And the composition is 21.88%;
- Baby Boomers, a population of Indonesia born in 1946-1964 with an estimated age of ±56 years to 74 years, and the composition is 11.56%;
- Pre Boomer, a population of Indonesian born in 1945 and previously with an estimated age ± 75 years and the composition is 1.87%.

Therefore, based on table 1 above, the most significant component of the entire population in Indonesia is gen Z and millennials, where more than half of Indonesia's population is 53.81%. Thus, based on the composition of the population, entrepreneurs must understand the needs, wants, and characteristics of the Gen Z group and millennials who are currently ± 8 years old to 39 years old to create products and services that suit their wants and needs.

The condition of entrepreneurs is currently experiencing disruption from external conditions, namely the occurrence of the Covid 19 pandemic, which has resulted in limiting community mobility to mitigate the spread of the virus. As a result, according to the survey results of the Indonesian central bank (Bank Indonesia), there were 30 million entrepreneurs throughout Indonesia during 2019-2020 who experienced bankruptcy. Also, 93.3% of micro, small and medium entrepreneurs, experienced a decline in sales turnover (Jelita, 2021). Therefore, in the current external conditions where there are external challenges, namely the Covid 19 pandemic, the VUCA era, the industrial revolution 4.0, and also the market opportunity in Indonesia, namely the Gen Z community and millennials, then based on these phenomena, the formulation of the problems in this study is as follows:

- What are the characteristics of consumers of Gen Z and Millennials?;
- What are the challenges for entrepreneurs in the era of the Covid-19 Pandemic, the VUCA era, and the era of the Industrial Revolution 4.0?;
- How can entrepreneurs retain the consumers in the era of the Covid-19 Pandemic, the VUCA era, and the era of the Industrial Revolution 4.0?.

Based on the formulation of these problems, the purpose of this research is to conduct a conceptual study related to the current condition of entrepreneurs where there are external disturbances, namely the Covid 19 pandemic and also the opportunity for a large market in Indonesia, especially the Gen Z and Millennial community, so entrepreneurs must be able to survive by utilizing the opportunities that exist. The implication of this research is to provide information to entrepreneurs and stakeholders, academics, practitioners, investors, and regulators related to the needs of goods and services of the majority of the population today. The novelty of this research is

to conduct research studies related to the characteristics of today's society that are associated with entrepreneurs' ability to meet them.

Method

Referring to the composition of Indonesian society, the majority of which are group Z and millennials, entrepreneurs must be able to understand the behavior and characteristics of the community, especially now there is a phenomenon of the Covid-19 pandemic and the occurrence of the industrial revolution 4.0 (Kiranti & Nugroho, 2022). The occurrence of the Covid-19 pandemic when it has shaken all sectors of the economy due to limited mobility from the community so that trade and business activity has decreased significantly (Nugroho et al., 2020; Safitri et al., 2020). Therefore, strategies are needed from entrepreneurs to be able to survive the Covid-19 pandemic and also the industrial revolution 4.0. The framework of thought in this journal is as follows:



Figure 2: Research Conceptual Framework

Furthermore, this study is a literature review that conducts in-depth analysis based on scientific and academic sources in articles, journals, and reports that the competent authorities have published. The method used is qualitative descriptive that aims to analyze the formulations of problems in this study that include:

- What are the characteristics of consumers of Gen Z and Millennials?;
- What are the challenges for entrepreneurs in the era of the Covid-19 Pandemic, the VUCA era, and the era of the Industrial Revolution 4.0?;
- How can entrepreneurs retain the consumers in the era of the Covid-19 Pandemic, the VUCA era, and the era of the Industrial Revolution 4.0?.

Results and Discussion

Characteristics of Gen Z and Millennials.

Group Z, when viewed from the year of birth, the population born in 1997 to 2003, so it is estimated that the oldest age is ± 23 years old. On the other hand, Gen Z is still just finishing school or college at that age, so it can be said that the majority of their sources of income come from their parents (Gaidhani et al., 2019; Schlee et al., 2020). In addition, it can be said that at the age of ± 23 years, they are still in the early stages of work, so their income is still relatively limited to meet basic needs (McCoy et al., 2021; Turner, 2018). Therefore, demand for their products and services is still limited for consumptive purposes. Furthermore, the Gen Z group with Millennials have a very close relationship because of intense interaction. Therefore, the age gap between the Gen Z group and the Millennial group is not too far away, between 23 years to 39 years old. Nevertheless, according to Schroth (2019), the characteristics of Gen Z include the following:

- Limited experience;
- It is not easy to adapt to across ages, ethnicities, and economic classes;
- Relatively lacking communication skills;
- Easy anxiety and easy depression;
- Low motivation to move forward.

However, Gen Z's ability to use information technology is much better than Millennials'. This is because they were born when information technology and digital-based tools have developed well. Therefore, they have become accustomed to using and mastering these digital-based tools early (Hoque, 2018). However, the impact for Gen Z on limited social interaction is due to their use of digital tools and the intense use of information technology (Roblek et al., 2019).

Moreover, Millennials born in the era of 1981 to 1996 who at this time their age ± 24 years to 39 years became the primary target market of product manufacturers and service providers (Bahari et al., 2021; Nadanyiova & Das, 2020; Nugroho et al., 2020). This is because are not only a large number of them but also the Millennials among the middle class (Fasa et al., 2020). In addition, the characteristics of the middle class are as follows:

- Have adequate work experience;
- The middle class has an established profession;
- Use careful consideration to decide on a purchase;
- Relatively good communication skills.

Millennials also can use information technology and computers, and digital-based tools. This is because the period of the birth of Millennials in 1981-1996 coincides with the development of Personal Computer (PC), so Millennials are familiar with the existence of digital-based tools and information technology (Amaro et al., 2019; Fitri & Wulandari, 2020).

Challenges in the Era of the Covid-19 Pandemic, VUCA and the Industrial Revolution 4.0

The Covid-19 pandemic that hit the world and Indonesia since the end of 2019 has disrupted all joints of human life. The massive spread of Covid-19 caused significant fatalities worldwide, leading to the mitigation of health protocols and restrictions on physical mobility in the community (Dryhurst et al., 2020; Silva et al., 2020). In addition, the Covid-19 pandemic has caused the global economy to slow. Some businesses experience the closure of operations if they cannot manage the business properly during the Covid-19 Pandemic (Bhuiyan et al., 2020). However, many businesses can still survive the Covid-19 Pandemic because they can adapt and change to business processes and business models that are by the wants and needs of the community during the Covid-19 Pandemic.

Today, the business and business world is surrounded by VUCA (Volatility, Uncertainty, Complexity, Ambiguity), where the abbreviation VUCA was first used by the American military (Whiteman, 1998). The meaning of VUCA is as follows:

- Volatility is the environment faced by the business world is that change occurs so quickly and often the frequency of such changes (Bennett & Lemoine, 2014);
- Uncertainty is the environment faced by the business world today is an event in the future that can not be estimated and predicted (Drucker, 2012);
- Complexity is environment faced by the business world is an environment of chaos or chaos, where it is caused by the intervention of new technologies and globalization (Deepika & Chitranshi, 2020);
- Ambiguity is an environment faced by the business world that is not directed, where it is caused by conditions that suddenly change and chaos (Horney, Pasmore, & O'Shea, 2010).

In addition to the Covid-19 Pandemic and the external environment of the business world, VUCA, there are challenges of the industrial revolution 4.0. According to Sudirman et al. (2020), Industrial Revolution 4.0 was a change in human activity resulting from the invention of the internet that combined computer technology with mechanization. There were discoveries related to computer applications that could replace human activities. Some examples of inventions in the industrial revolution 4.0 are: Go Jek, Traveloka, etc. This impacts changes in human behavior that rely on applications in daily activities and work. Furthermore, when traced chronologically, the industrial revolution can be shown in figure 3 below:

Industrial Revolution 1.0, where industrial development was characterized by mechanization innovations such as the invention of steam engines, the invention of textile machinery, etc.

Industrial Revolution 2.0, where industrial development was characterized by electrical innovation, and mechanization in production shifted to mass products. Industrial Revolution 3.0, where the development of industry was characterized by the innovation of computers and robots. Thus, computers have replaced humans as operators. Industrial Revolution 4.0, where the development of the industry is characterized by innovations in cyber or internet technology so that at this stage automation technology and computers and robots are combined with internet technology such as tokopedia applications, go-jek, etc.

Figure 3: The Journey of the Industrial Revolution Sources: Özüdoğru et al. (2018)

Contemporary Entrepreneurship

The continuity of business and entrepreneurship is their ability to survive by adapting to existing conditions (Hidayah et al., 2019; Kaczmarek, 2019; Suryo et al., 2019). According to the Indonesian context, during the industrial revolution 4.0, it is currently known that internet access in Indonesia has reached 202.6 million. In addition, there are 345.3 million cellular telephone numbers (cell phones) and 170 million people who actively use social media (Kemp, 2021). In addition, data on the growth of digital transactions in Indonesia based on information from Bank Indonesia can be shown in table 2 as follows:

Table 2: Digital	Transaction	Growth	in 2020	

Types of Digital Transactions	Digital Transaction Volume	Growth year on year digital transactions
E- Commerce	Rp266,3 Trillion	29,6%
E- Money	Rp22,1 Trillion	30,4%
Source: Sahara (2021)		

Furthermore, based on the composition of the population in Indonesia, namely the Millennial group (internal environment) and the external environment (Covid-19 Pandemic, VUCA, and Industrial Revolution 4.0), the business model of business actors (entrepreneurs) can be illustrated as follows:



Source: Author

Referring to figure 4 above, what can explain that the current business actors who can survive and compete are entrepreneurs based on information technology and computers and are digital-based call Techno-Preneurs or Digital-Preneurs. Furthermore, the explanation from Figure 3 above, there is a disruption in the business world and business, namely:

- The needs and wants of the Millennial group must be the focus of product and service providers because the Millennial group in Indonesia has a large number, and they are the middle class who has better purchasing power and financial ability. Thus, the Millennial group can significantly demand these products and services. Therefore, entrepreneurs must access business transactions through digital platforms and social media so that Millennials are interested in accessing the information on these goods and services. This easy access to information is one of the starting points in determining the purchase of goods and the use of services. In addition, if the digital business platform collaborates with digital financial services, it will make it easier for consumers and the public to make sales and purchase transactions;
- The conditions of the Covid-19 Pandemic era, forcing entrepreneurs to change their business processes in an
 online sales system. This makes it easier for business and financial transactions to occur through the help of
 digital business platforms and digital financial services without the parties, both sellers and buyers, meeting;
- VUCA conditions, namely a very dynamic, unpredictable external environment, market irregularities, and also market directions that can change at any time, have an impact on every entrepreneur having the ability to change based on innovation;

• The Industrial Revolution 4.0 caused most people today to access the internet. In addition, the development of information and computer technology impacts people who prefer to conduct business and financial transactions using internet access.

In addition to business models based on digital and information technology and the internet, excellent business processes are needed to ensure quality products and services at affordable prices. The business processes that need to be improved by entrepreneurs include several aspects, which are shown in Figure 5 below:



Source: Author

Following Figure 5 above, what can explain that the ideal business process for entrepreneurs is to digitize three core aspects of the production process. The three core aspects include:

- Production Aspect, namely improving the process of raw materials, semi-finished materials into a product automatically so that it can accelerate the production process and have quality standards;
- Marketing Aspect, namely improving the marketing process using online social media and also providing online payment processes (marketing and sellers using internet platforms) to facilitate the buying and selling process and speed up the payment process;
- Financial Aspect: improving the recording and reporting process by using applications to improve financial management monitoring, efficiency, and effectiveness.

Conclusion

The increasing complexity of business in the Covid-19 pandemic era and also other external factors, namely the era of the industrial revolution 4.0 and VUCA, caused entrepreneurs to make changes, including:

- Entrepreneurs must be able to analyze the internal challenges of the majority of society, especially the characteristics of Millennials;
- Entrepreneurs must be able to analyze external challenges consisting of the Covid-19 pandemic, industrial revolution 4.0, and VUCA;
- Entrepreneurs must survive in overcoming internal and external challenges through the Digital-Preneur concept.

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