

Determining Emergency Fund Ownership among the Millennial during the Era of Industry 4.0

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Abstract — This study is examining the influence of demographic factors and financial literacy on emergency fund ownership among the Indonesian millennials in the era of the industry 4.0. An emergency fund is needed in order to be able to survive in an emergency situation, so that normal life can resume. Since this is a quantitative research, the data were collected by using questionnaires from the millennial population. For this study, the number of sample was 401 Indonesian respondents. The data analysis technique was the binary logistic regression. The results showed that demographic factors and financial literacy have significant influences on emergency fund ownership among the Indonesian millennials during the industrial 4.0 era. Age has a significant influence on the ownership of emergency funds. The more mature the millennial, the more they will tend to try to have an emergency fund. Education has a significant influence on the ownership of emergency funds. The higher in education the millennial, the greater the opportunity to have an emergency fund. Income has a significant influence on the ownership of emergency funds. The greater a person's income, the tendency to allocate emergency funds will be greater.

Key words — **emergency fund, demographic factors, financial literacy**

INTRODUCTION

In Indonesia, the millennials belong to the age group of 21 to 36 year old (IDN Research Institute, 2020). Early adulthood is the age at which a person is expected to have completed university education and is ready to work. The millennials are faced with various choices and challenges in starting their careers. The dynamic and modern life in the digital era provides a wider range of professional opportunities. The era of industry 4.0, which offers a wide variety of job options, even gives rise to new types of work. The era of the industrial revolution 4.0 is synonymous with the word digitalization. This creates a stereotype that getting a job in the industrial 4.0 era is not easy, especially for those who are not ready to equip themselves with the specifications of the ability to work in that era.

The junior millennial generation has a variety job's options. The characteristics of the jobs are freedom of creativity, flexible working hours, and team working (IDN Research Institute, 2019). The characteristics of the work are in accordance with the various jobs that arise in the industrial era 4.0. Some of the jobs are *e-commerce manager*, *digital product manager*, *social media manager*, *UX/UI manager*, etc (Tempo.co, 2020).

The current group of senior millennial generations who are now 30 to 39 years old also have to deal with the possibility of facing the emergency situation. At the moment, these senior millennials are estimated to have high incomes and mature enough to build their own families. To raise a family will bring consequences to the emergence of financial burdens, because they are not only bearing the costs of the main family but also for the extended family. The pre-survey, which have been conducted, provides an illustration that only three respondents from the junior millennial group who claim to have funds in the event of job loss, sudden death, unexpected marriage, sick care and accidents. This research aims to examine whether demographic factors and financial literacy have a significant effect on the emergency fund that belongs to the millennial generation in the industrial era 4.0.

Montalto & Bi (2004) discovered that age had a significant effect on the ownership of emergency funds. The more mature a person's age, there is a tendency for that person to have a greater effort to own an emergency fund. Research conducted by Huston & Chang (1995) found that income had a significant effect on emergency fund ownership. If a person has an increasing income, he tends to be more able to meet his needs so that an emergency fund can be owned. The same research shows that education has a significant effect on emergency fund ownership.

PROBLEM STATEMENT

Industri 4.0

Technological advances which are an important part in the industrial era 4.0 have a major impact and change on social and economic conditions

(Prasertiantono, 2018). This change will certainly affect the availability of job opportunities. There are many types of jobs that have sprung up along with the increasing use of digitization in all industries. Data taken through IDN Times showed that there are various job opportunities in the industrial era 4.0. Some of these opportunities are website developers, SEO managers, or UI/UX managers, content creators, content writers or copywriters, social media strategists or social media managers, and digital marketers or digital product managers (IDN Research Institute, 2020).

The Millennial Generation

The IDN Research Institute explained that junior millennials are the generation born from 1992 to 1999 and senior millennials are individuals born in 1984 - 1991. The following is the composition of the Indonesian population in 2019.

Age (years)	IDN Category	Total (persons)
20		21,917,600
21-24	Junior	
25-28	Millennial	21,228,000
29	Senior	
30-34	Millennial	20,582,200
35-36		20,265,800
37-39		
Total		83,993,600

Source: BPS (2019)

The millennial junior is a generation that still has an obsession to realize the future through education (IDN Research Institute, 2019). After obtaining sufficient education, the next task is to find a job. The obtained job is expected to be a facility for self-development and provide appropriate rewards or salaries.

According to the IDN Research Institute (2019), work (career) is one of the worried foccuses. This work will be related to the economy or family income. Senior millennials show a different focus from junior millennials. Senior millennial are more oriented towards income to be able to meet the needs of not only individuals but also families.

Emergency Funds

Emergency funds are needed by everyone to survive an emergency situation, in order for normal life to resume (Kamarudin, Ramli, & Rasedee, 2018). Emergency funds are generally in the form of liquid assets. This asset can be in the form of cash or other assets that are very easily converted into cash (DeVaney, 1997). According to Johnson & Widdows,

an emergency fund is any financial holdings used to cover the emergency expenses. The requirements for the allocation of emergency funds are withdrawal, access, and security of funds (Manarung & Rizky, 2009).

According to Manurung & Rizky (2009), emergency funds are only used for emergency situations. These emergencies include Termination of Employment (PHK), sudden death costs, sudden marriage costs, sick costs and death costs.

Demographic Factors

Demography is a combination of two Greek words which are *demos* and *grafein*. *Demos* means people and *grafein* means writing. Demography means writing about the people or residents (Fitriani, Militina, & Effendi, 2012).

The first factor is income. Income is money earned from work (Cambridge Advanced Learner's Dictionary & Thesaurus, 2020). The second factor is age. Age is the period of time a person has lived. In this study, the age of the respondents was classified into two, which are junior millennials (21-28 years) and senior millennials (29-36 years). The third factor is education. Education is a teaching and learning process in schools or colleges. The referred education is formal education.

According to Ningtyas (2019), although the millennial generation has a high level of financial literacy, the millennial generation remains typically with consumerism and hedonism, even though the millennial generation has an awareness that financial behavior will affect the future. The majority of millennial generation expenditures are used for routine purposes, which is 51.1% (IDN Research Institute, 2019). Meanwhile, according to the Ministry of Finance, there are more than 50 million Indonesians who fall into the upper middle income category and 120 million people in the aspiring middle class category (a group that is no longer poor and is moving towards a more established middle class). These two groups are expected to be able to meet their daily needs and be able to set aside income to save or invest (Ministry of Finance, 2019). Based on these facts, this study wants to test whether the millennial generation already has an emergency fund to anticipate the emergency conditions.

RESEARCH QUESTIONS

- Do demographic factors significantly affect the emergency fund ownership of Indonesian millennials generation in the industrial era 4.0?
- Does financial literacy significantly affect the emergency fund ownership of Indonesian millennials generation in the industrial era 4.0?

PURPOSE OF THE STUDY

- Analyzing the influence of demographic factors on the emergency fund ownership of Indonesian millennials generation in the industrial era 4.0.
- Analyzing the influence of financial literacy on the emergency fund ownership of Indonesian millennials generation in the industrial era 4.0.

CONCEPTUAL MODEL



RESEARCH METHOD

This study is using an explanatory research approach. The research sample involved 401 respondents from the millennial generation who were in Indonesia, with criteria aged 20 to 36 years, and had a type of work related to the digital era. Data analysis was performed using a Binary Logistic Regression and Correspondent Analysis.

FINDINGS

This study is using the data collected from respondents using questionnaires which are distributed online by Google form. The respondents are the Indonesian millennials, with the age ranging from 21 to 36 years old, and work for the industry 4.0. The number of respondents are 401, based on the returned questionnaires. The content creator is the majority profession that dominates about 36.2% of the respondents. The digital marketing or digital product manager is the next profession, which comprises 19.7% of the respondents. The content writer or copy writer composes 19.2% of the respondents. Website developer, SEO manager, or UX/UI contributes 15% of the respondents' profession. Finally, social media strategist or social media manager constructs 10% of the respondents.

Another criterion of this study is the age group, which belongs to the millennial generation or age range of 21 to 36 years old. As noted earlier, there are two groups of the millennials, the junior millennials and the senior millennials. The junior millennials belong to the age group of 21 to 28 years old, and the senior millennials are ranging from 29 to 36 years old. The junior millennials comprises 55.1% respondents of this study, while the senior millennials 44.9 %.

In term of education, most of the respondents graduate from high school, with 37.4% of them, university undergraduate studies, with 32.7% of them, university graduate programs, with 20.4% of them, and others,

with 9.5% of them. This finding is in accordance to the fact that the millennials have just finished their studies and started to build their careers. Most of the job related careers in the industry 4.0 require skills and ability beyond high school graduates, therefore, most of the respondents pursue their education to university levels.

For the income, the respondents who earn up to Rp. 16,000,000 per month consist of 53.1% of the respondents. The respondents who earn between Rp. 58,000,001 and Rp. 80,000,000 per month consists of 24.9% of the respondents. The respondents who earn between Rp. 30,000,001 and Rp. 58,000,000 per month consist of 15.7% of the respondents. Finally respondents who earn from Rp 16,000,001 to Rp. 30,000,000 per month and those who earn above Rp 80,000,000 per month are only 6.3%. The current Covid-19 pandemic brings direct severe impacts to the income earning of the respondents, so the majority of the respondents earn up to Rp. 16,000,000 per month.

The results of the correspondence analysis between age and income are found that junior millennial respondents having an income of less than Rp. 16,000,000 per month are as many as 211 respondents. Meanwhile the respondents who have an income of more than IDR 80,000,000 per month are all respondents in the senior millennial category, which are 12 respondents. This indicates that the more mature the respondent is, the tendency to get a higher income will also increases.

Regarding the financial literacy, respondents who belong to the low category are 171 respondents (42.6%). Furthermore, there are 129 respondents (32.2%) who are in the high category, and there are 101 respondents (25.2%) who are in the medium category. The determined category is related to the score of questions regarding the financial literacy based on the category created by Chen & Volpe (1998). Low category if the respondent's calculation score is < 60, moderate score ranges from 60 to 79, and high if > 79.

Analysis of the correspondence between age and financial literacy level reveals that the junior millennial respondents tend to have a low level of financial literacy category of 161 respondents. The high level of financial literacy is dominated by senior millennial respondents, as many as 121 respondents. This means that the more mature the respondents are, the more literate the respondents to financial literacy are.

Respondents who have an emergency fund are as many as 201 respondents (50.1%). Then, respondents who do not have an emergency fund are as many as 200 respondents (49.9%).

From the results of the correspondence analysis between age and ownership of emergency funds, it is found that junior millennial respondents tend not to have emergency funds (197 respondents). Respondents who have emergency funds are dominated by the senior

millennial group, as many as 177 respondents. This means that as they get older, the tendency of respondents to have an emergency fund will also increase.

Fund allocation from respondents who have emergency funds reveals that the dominating instrument is deposito (bank saving) as many as 84 respondents (20.9%). Precious metal (gold) instruments are 77 respondents (19.2%). Other instruments used are savings and balanced mutual funds as many as 20 respondents (5%).

Analysis of the correspondence between age and emergency fund allocation shows that junior millennial group who owns emergency funds tends to allocate them through precious metals (gold). Meanwhile, the senior millennial group who owns emergency funds tends to allocate them through deposito. The senior millennial group who allocates emergency funds on deposito are 79 respondents.

The resulting binary logistic regression model is :

$$\ln \frac{p}{1-p} = -9,824 + 1,866 U + 0,967 PT + 1,204 Pe + 1,804 FL + e$$

Age has a significant effect on the emergency fund ownership. The coefficient value (β) is positive, meaning that age has a positive effect on emergency fund ownership. This means that the more mature the respondent is, the greater the opportunity to have an emergency fund. The odds ratio value of 6.464 indicates that respondents who have a higher age tend to have an emergency fund of 6.464 times.

Education has a significant effect on the emergency fund ownership. The coefficient value (β) is positive, which means that education has a positive effect on the emergency fund ownership. The higher the education level of the respondent, the greater the chance of having an emergency fund. The odds ratio value of 2.631 indicates that respondents who have a higher level of education tend to have an emergency fund of 2.631 times.

Income has a significant effect on the emergency fund ownership. The coefficient value (β) is positive, which means that income has a positive effect on the emergency fund ownership. The higher the income of 8.765 with a significance of 0.003. These results indicate that the income variable has a significant effect on the emergency fund ownership. Based on this test, the researcher's hypothesis that predicts demographic factors have a significant effect on the ownership of emergency funds in the millennial generation who work in industry 4.0 can be accepted as true.

From the results of the Wald test, it can be seen that the financial literacy variable on the emergency fund ownership produces a value of 20.515 with a

significant value of 0.000. This value is smaller than 0.05 so that the higher the individual's level of ability and knowledge regarding financial literacy, the higher the individual's emergency fund ownership will be. This shows that the higher the level of financial literacy owned by the individual, the greater the opportunity for the individual to have an emergency fund. Based on this test, the researcher's hypothesis that predicts financial literacy has a significant effect on the ownership of emergency funds in the millennial generation who work in industry 4.0 can be accepted as true.

The age variable has a significant effect on the millennial generation emergency fund ownership in the industrial era 4.0. This is because the older you are, the higher your awareness of unexpected events or circumstances. The level of maturity and dependability of junior millennials and seniors are different. The senior millennial group who is age range of 29-36 years old is expected to have a family life so that the millennial senior age group is expected to be more prepared and have an emergency fund. Senior millennials who have worked longer hours will also provide opportunities and capabilities for them to be able to set aside the fund to provide the emergency funds. Millennial juniors who still don't have dependents may still not think about having an emergency fund. The age variable which has a significant effect on the emergency fund ownership is in accordance with research conducted by Moltanto & Bi (2004).

Education is also known to have a significant effect on the millennial generation emergency fund ownership. This is because the higher the level of education of a person, the knowledge possessed will be wider. The higher a person's level of education means the longer the individual takes education. Through education, individuals can practice critical thinking so that they can be more alert to unexpected circumstances. Critical thinking skills will be further honed so that they can understand what events can increase the risk of life and become more aware of providing emergency funds. The total number of respondents who have the last educational level of undergraduate and postgraduate is 213 respondents. Respondents who dominate have a high school education. This result is in accordance with information made in the Indonesia Millennial Report (2020) which states that the majority of the millennial generation has the last education up to high school. This result is also supported by research conducted by Huston & Chang (1995) which states that education has a significant effect on the emergency fund ownership.

Beside of the age and education, income is also known to have a significant effect on the emergency

fund ownership. The greater the income of a person, the allocation of funds for emergencies will be more fulfilled. An unstable income will encourage a person to think critically, especially when an emergency occurs. At the time of the Covid-19 pandemic that hit the whole world, income is one of the most affected factors. This can be seen in the category of income per month less than and equal to Rp. 16,000,000 which is the category that dominates this research. Only 12 respondents have income of more than IDR 80,000,000 per month. Nevertheless, the ownership of emergency funds in the millennial generation is still dominated by respondents who have (50.1%). Respondents with low income will allocate more income to daily expenses. This fact is supported by a survey conducted by the IDN Research Institute (2019) which states that 51.1% of respondents use their income for their daily needs. The lack of income received and the high expenditure experienced by the millennial generation are some of the reasons that not all millennials have an emergency fund. For respondents who have greater income, the cost of daily needs has been fulfilled so that they have funds to be allocated as emergency funds. The results of this study are also supported by research conducted by Huston & Chang (1995) where income has a significant effect on emergency fund ownership.

Furthermore, it is known that the financial literacy variable has a significant influence on the millennial generation emergency fund ownership in the industrial era 4.0. The total respondents who have medium and high literacy levels are 230 respondents. This result means that respondents have a financial literacy variable score of more than or equal to 60. In line with the level of financial literacy, respondents who dominate are respondents who have emergency funds, as many as 201 respondents. If an individual has a higher literacy rate, the chances of having an emergency fund will be higher. The financial literacy variable which has a significant influence on the emergency fund ownership is also supported by research conducted by Babiarz & Robb (2014). In this study, it is stated that one of the significant influenced components is financial literacy.

CONCLUSION

The conclusions obtained are as follows:

1. Demographic factors (age, education, and income) have a significant effect on the millennial emergency fund ownership who work in the industrial era 4.0.
2. Financial literacy has a significant effect on the millennial emergency fund ownership who work in the industrial era 4.0.

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