

**IDENTIFICATION OF ENTREPRENEURIAL SUSTAINABILITY FACTORS IN
THE AREA OF THE EARTHQUAKE AND TSUNAMI IN WEST SUMATRA**

Emrizal, Politeknik Negeri Padang, Indonesia
Ermataati Hatta , Politeknik Negeri Padang, Indonesia
Primadona, Politeknik Negeri Padang, Indonesia
Eva Yoyet, Politeknik Negeri Padang, Indonesia
Reni Endang Sulastri, Politeknik Negeri Padang, Indonesia

ABSTRACT

This study aims to determine the factors that affect the sustainability of entrepreneurs in areas prone to earthquakes and tsunamis in West Sumatra. Not only West Sumatra is one of many potential areas of earthquake and tsunami in Indonesia but it is also categorized as red zone area. Despite that fact, the entrepreneurship's development actually extremely increased in that area. This research was conducted in 2016 with the amount of respondent reached 100 entrepreneurs which were analyzed quantitatively. The data were collected by using questionnaire and were analyzed by using factor analysis method called Exploratory Factor Analysis (EFA). This research was conducted in five locations in West Sumatera: Padang City, Pariaman City, Padang Pariaman Regency, Agam Regency, and Pesisir Selatan Regency. The reason to choose those mentioned locations was because those regions were categorized as the red zones of earthquake and tsunami-prone areas in West Sumatera. This research revealed 7 factors that affected the entrepreneurship's survival in the earthquake and tsunami-prone areas, the 7 factors were summarized 30 factors that have been found from the previous research that conducted in 2015. The limitation of this research was that the data sources in the amount of 100 respondents were still a minimum amount, the next research of this topic should be able to reveal the variables that affecting dominantly and also the indicators that contributed to the variable's formation, if it is possible the next research should also be able to deeply discuss the variables that have been discussed.

Keywords: entrepreneurship, earthquake, tsunami, zone

Introduction

Earthquake and tsunami are an old matter in the life of Indonesian people. Indonesia with its wide spread areas and also its geographic and geodynamic location has a probability to cause highly volcanic and earthquake activity, especially in the particular areas which included into red zone of earthquake and tsunami. The disasters that had stroke some areas in Indonesia such as earthquake and tsunami on Aceh in 2004, earthquake on West Sumatera in 2007 and 2009, and also earthquake on Yogyakarta in 2010 have proved that Indonesia is actually located in the earthquake and tsunami-prone zone. Indonesia lies between three huge tectonic plates which becomes the reason why this country has a great probability to be stroke by an earthquake. Indonesia is one of many countries that categorized as an earthquake and tsunami-prone countries. It is proven by the fact that Indonesia has been stroke by earthquake and also tsunami so many times which affected to people's lives, buildings, and also economic and social in those areas. Earthquake and tsunami have become world's issue because some other regions have also experienced the disaster such as Japan, Philippine, Chile, and California. Furthermore, people of the worlds and in the earthquake and tsunami-prone areas particularly should understand what to prepare to minimize the effect of earthquake and tsunami disaster.

West Sumatera is one of regions in Indonesia which included into earthquake and tsunami-prone areas. West Sumatera is a region that often got stoke by earthquake such as on 30th of September 2009, a 7,9 Richter Scale earthquake hit West Sumatera with its tsunami potential. The effect of that disaster was horrible as it could be seen by the uncountable amount of victims and the destruction of infrastructures such as offices, streets, and people's house. some amount of the people's enterprise and businesses which all this time have become their primary income were also experienced the effect.

Besides that, West Sumatera is also known by its entrepreneurial citizen. Minangnese citizen's entrepreneurship is not only covers regional and national selling, but also reaches countries overseas. Many of the businesses executed by Minangnese people influenced by its culture and social life which also influencing citizen's economy (Primadona, 2016). The damage and the financial loss from disaster in West Sumatera is really worrying because basically people in this region do not know generally about the effect of the earthquake and tsunami disaster. There have been so many damages by the disaster which caused approximately Rp. 21,6 trillion loss or equal to US\$ 2,3 billion. The amount of economic loss happened in West Sumatera can not be separated from the damages whether or not they have been discovered. It is estimated that almost 80% of the damage and loss are happened to infrastructure sectors (including citizen's housing), followed by productive sectors with 11% (BPBD, 2010). Housing is the sector that has been damaged hardly, with the loss in amount more than Rp. 15 trillion compared to another disaster. In the productive sector, entrepreneurship experienced the biggest effect as the earthquake gave a significant effect with a loss reached to Rp. 2,4 trilliun. (BPBD, 2010).

SMEs (small, micro, and medium enterprise) is one of the sectors that give a huge contribution to West Sumatera's economy. There are 968.225 labors who contribute in 501.410 SMEs in West Sumatera. Although the damage of the earthquake and tsunami to SMEs can still be seen and still distract citizen's economy, but the growth and existence of SMEs which located on the red zone of earthquake and tsunami is actually the better compared to another regions.

This research consists of four sections where the first section elaborates the important of this research, second section discuss the theory which relevant to the topic of this research, the third section discuss the method that is used on conducting this research that leads the result close

to the aims of this research, and the last section elaborates the conclusion and the effect of this research.

Review of Studies

General Description of West Sumatera Province

West Sumatera is located in 1° 54' North Latitude, 3° 30' South Latitude, and 98° 36' and – 101° 53' East Longitude. Not only has beaches and bays, West Sumatera also has high lands and mountain such as Talamau Mountain with height 2.913 meters above the ocean surface. West Sumatera with 42.012,89 km² wide, 5.383.988 people, and diverse characteristic of areas triggered the appearance of difference culture and language varieties. But the development of the province is stuck by the disaster such as earthquake and tsunami. By its location, this province located in the west of Sumatera island which close to the two tectonic plates (Eurasia plate and Indo-Australia plate) which until now always have tectonic movements (Edwiza & Novita, 2008; Kious & Tilling, 1996; Rohadi, 2009). The movements of these two plates have probabilities to raise some disaster such as tectonic earthquake that can trigger tsunami wave.

Refers to some regions in Indonesia and observe the movements of Eurasia and Indo-Australia plate during the year 2000 until 2016, the biggest disaster caused by these plates was in Aceh province on 2004. The effect was at least 131.066 persons died and 38.786 remains unfound or reported lost (Doocy, Gorokhovich, Burnham, Balk, & Robinson, 2007).

The other characteristic shows that this region is not only lies in between two plates, but also this province is crossed by Mediterranean Mountains Path which contains some numbers of active volcanic mountains such as Kerinci mountain, Talang mountain, and Marapi mountain that can treat the citizen in surrounding. History records that Marapi mountain showed its first activity in 1930, it was signified by the tumultuous sound and followed by greyish black cloud in 1.500m height. In 1979, the activity of Marapi mountain started to take lives, it was reported that more than 100 citizens died from that disaster (Telford, 2007). The material and non-material loss from the volcano was killed the economy of the people surrounds the mountain that expelled lava, rocks, muds, and volcanic dusts.

Earthquake and Tsunami

Citizens that live surround the earthquake-prone areas tend to be more ready to face disaster (Emrizal and Markolina, 2016). Earthquake is a vibration that happened in the surface of the earth. Most of the earthquakes were caused by the released energy of the moving earth's crust (earth's plate). When the pressure of the energy becomes stronger and reaches its climax, that is the time when the earthquake happens.

Earthquake and tsunami becomes a threatening issues for the citizen of West Sumatera because of the frequency of the earthquake itself which able to destruct citizen's life and often followed by tsunami. Earthquake and tsunami are two things that can not be separated nowadays. The question "What is tsunami?" and the citizen's readiness become the actual matter for the earthquake and tsunami-prone areas like West Sumatera (Emrizal, 2016). The word *tsunami* came from Japanese language where *tsu* means bay and *name* means wave (CIM, 2009). According to VSI (Indonesian Volcanological Survey) (2006:1), tsunami means a series of ocean waves which spread in the high speed more 1000km per hour.

Tsunami happens when there is a vertical movement on the earth's crust which cause the base of the ocean up and down immediately, the up and down movement of the ocean creates the disturbance to the water and the big wave in the surface happens. Most of tsunamis are caused

by earthquake that happened in the ocean's base. (VSI, 2006). However, not all great earthquakes can cause tsunami just like in Yogyakarta. Tsunami can only happens if (1) the earthquake's center point is in the ocean's base and (2) the depth of the earthquake's center point is less than 60km (VSI, 2006: 1-6). The rescuing procedure when the earthquake happens actually should be prepared by the citizen through socialization by BPBD. Citizens who live in the earthquake-prone areas should have been able to make decisions immediately in order to rescue themselves and their precious stuffs. The disaster that happened in Aceh on 2004 took so many victims caused by the leak of citizen's knowledge about earthquake and tsunami (Emrizal, 2016).

Entrepreneurship

Entrepreneurship can be seen as a process to create something new in the form of values by contributing the needed time and effort with an assumption of financial, psychic, and social risk which follows after them, receiving the resulted repayment that can be seen as a monetary and individual satisfaction to gain self-freedom (Hisrich, 2005). Entrepreneurship in Indonesia can be seen as a program of the government which lately is worked tightly. Developing citizen's entrepreneurship is one of government's targets so the citizen can live more independently and be the employer instead of the employee. Citizen's interest in entrepreneurship has intensified as it is showed by the increase of people who give positive responses to entrepreneurship (Wennekers, 2006). The people's interest is not an easy gaining matter for the government although many enterprises actually grow independently to be a success entrepreneur. Watson, Hogarth-Scott, and Wilson (1998) lately added attitudes that determine a motivation to start becoming an entrepreneur, growth orientation as a factor that forces someone to be a success entrepreneur is also emphasizes that an entrepreneur is a person who: (1) is clever and has analytical thinking, (2) is an effective risk manager and a hard worker, (3) has a moral, social, and business ethic strength, (4) can show a nature of the basic trader, and (5) has a dedication to learn in all knowledge for the rest of his life (Morrison, 1999).

Entrepreneurship is also appears inevitably such as a person who start a business because of his unemployed status (Brockhaus, 1980). External factor can force and cause someone to be an entrepreneur, another factors can also appear because there is opportunities in the market so becoming entrepreneur is an interesting choice and this is a factor which refers to the situation where someone interesting to run a business (Zahra, 2008).

Research Method

Research Location

This research conducted in West Sumatera and chose five regions as the objects of the research which all of them are located in the earthquake and tsunami red zone. The locations are Padang City, Pariaman City, Padang Pariaman Regency, Agam Regency, Pesisir Selatan Regency. Besides being areas that lies in the red zone, another reason is those areas were categorized as the worst-damaged areas from West Sumatera's earthquake.

Data Analysis Method

This research is conducted quantitatively by using questionnaire as a tool to collect data. The data are processed by using factor analysis which called Exploratory Factor Analysis (EFA). The writer chose EFA to shorten the amount of the factors.

Data Collecting Method

Some sources are used in order to achieve the goal of this research such as journals and books. Enterprise, enterprise group committee, finance institution, and BPBD are going to be the target in the process on collecting data. Here are some instruments that are going to be used: interview, questionnaire, observation, and FGD (Focus Group Discussion) between the authorities such as government, academicians, entrepreneurs, BPBD, and finance institutions to gain some result that can be suggested to make a policy.

Factors that have been found in previous studies

The place of business close to the consumer (X1), close to the city center (X2), feel comfortable (X3), because it has long been entrepreneurship in this place (X4), the place of business belongs to its own (X5), the location is a tourist place (X6), business tempau suitable to meet the needs of life (X7), many brothers in this place (X8), nice scenery (X9), beaches (X10), very many tourist visits to this location (X11), many loyal consumers in this location (X12), the location is not linked to the place of entrepreneurship (X13), lack of knowledge (X14), lack of socialization (X15), not linking the location with entrepreneurial opportunities (X16), close to transportation (X17), opportunities for other businesses (X18), moved (X19), accustomed to this place (X20), many other supporting efforts in this location (X21), this area has the potential to develop (X22), many brothers in this location (X23), the location is the development plan of the area (X24), the location of the tourism development (X25), do not believe in the earthquake and tsunami disaster (X26), economic center (X27), appeal to leave the business premises (X28), more dense construction pa da beach area (X29), the location of marine tourism destination (X30).

Discussion and findings

The Analysis of Entrepreneurship's Sustainability Factors in the Earthquake and Tsunami-prone Areas

In the first year's research, the writer has identified some factors that can make the entrepreneur sustained in the red zone of earthquake and tsunami-prone areas. The writer has explored and did *indepth-interview* and came out with 30 entrepreneurship's sustainability factors related to five regions in West Sumatera.

Factor analysis is an analysis whose aim is to find primary factors that influence more the independent variable from a series of tests on some independents variable as the factors. In this research, the writer wants to find the factors that become the reason of the entrepreneurship's sustainability in the earthquake and tsunami-prone areas. The writer does a grouping to find some factors from 30 factors that has been resulted.

In doing Factors analysis, these assumptions should be fulfilled (Santoso, 2006: 13)

1. The correlation between independent variables. The correlation amount or the correlation between independent variables should be strong enough, such as more than 0,5.
2. Partial correlation. The amount of partial correlation, correlation between two variables while considering the other variables are constant should be small. In the SPSS, the detection to partial correlation is given through Anti-image Correlation option.
3. The test to all of correlation matrix (correlation between variables) which measured by Barlett Test of Sphericity or Measure Sampling Adequacy (MSA). This test requires significant correlation between some variables.
4. In some cases, Normality assumption of the happening variables or factors preferably fulfilled.

Factor Analysis Assumptions Test

It is already said that factor analysis requires some assumptions to be fulfilled. The writer tests the factor analysis assumptions one by one before doing factor analysis test. First, the writer should see KMO and Barlett's value to know whether or not the research can be continued with the existing data. The result of the correlation between independent variables test is shown in the Table 1.

Table 1. KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		,757
Bartlett's Test of Sphericity	Approx. Chi-Square	1614,577
	Df	435
	Sig.	,000

The desired value of KMO and Bartlett's test for correlation between variables is $> 0,5$. The research's significance are 0,05. It is resulted a KMO value of 0,757 which means more than 0,5. While the resulted significance from Bartlett's Test of Sphericity is 0,000 (Santoso, 2006: 22).

With the result, it can be said that the research can be continued with the used variables and samples. Furthermore, to see the correlation between independent variables, it can be seen on the Anti-image Matrices table. The concerned value is MSA (Measure of Sampling Adequacy). The MSA value is in the rage between 0 to 1 with following regulations (Santoso, 2006: 20):

1. $MSA = 1$. The variable can be predicted without mistakes from other variables.
2. $MSA > 0,5$. The variable still can be predicted and analyzed further.
3. $MSA < 0,5$. The variable cannot be predicted and analyzed further, or it can be sent out from the other variables.

According to the data, all processed variables are more than 0,5 which means all of them can be analyzed further (the result of the data processing can be seen in the attachment).

Factors Grouping

The next step is to find whether the independent variables can be grouped into one or more factors. 30 factors in the independent variables will be seen whether or not they can be simplified into one or more factors. This step I would be easier if it is done with SPSS. The aims of the variable explanation by the factors are to know how big is the factor can explain variables. The clearer data is attached in Table 2 Commuality (Santoso, 2006: 41).

According the data, all of the variables (30) can explain the variables because the average explanation is more than 50% so then the factor would still be determined.

Tabel 2. Communalities

	Initial	Extraction
VAR00001	1,000	,664
VAR00002	1,000	,748
VAR00003	1,000	,704
VAR00004	1,000	,797
VAR00005	1,000	,703
VAR00006	1,000	,811
VAR00007	1,000	,787
VAR00008	1,000	,791
VAR00009	1,000	,717
VAR00010	1,000	,691
VAR00011	1,000	,803
VAR00012	1,000	,828
VAR00013	1,000	,802
VAR00014	1,000	,678
VAR00015	1,000	,761
VAR00016	1,000	,816
VAR00017	1,000	,549
VAR00018	1,000	,734
VAR00019	1,000	,587
VAR00020	1,000	,640
VAR00021	1,000	,728
VAR00022	1,000	,606
VAR00023	1,000	,759
VAR00024	1,000	,678
VAR00025	1,000	,758
VAR00026	1,000	,714
VAR00027	1,000	,700
VAR00028	1,000	,791
VAR00029	1,000	,746
VAR00030	1,000	,771
Extraction Method: Principal Component Analysis.		

Factors that May be Formed

To determine how many factors that might be formed, it can be seen on the table 3 Total Variance Explained as follows (Santoso, 2006: 42-3).

Tabel 3. Total Variance Explained

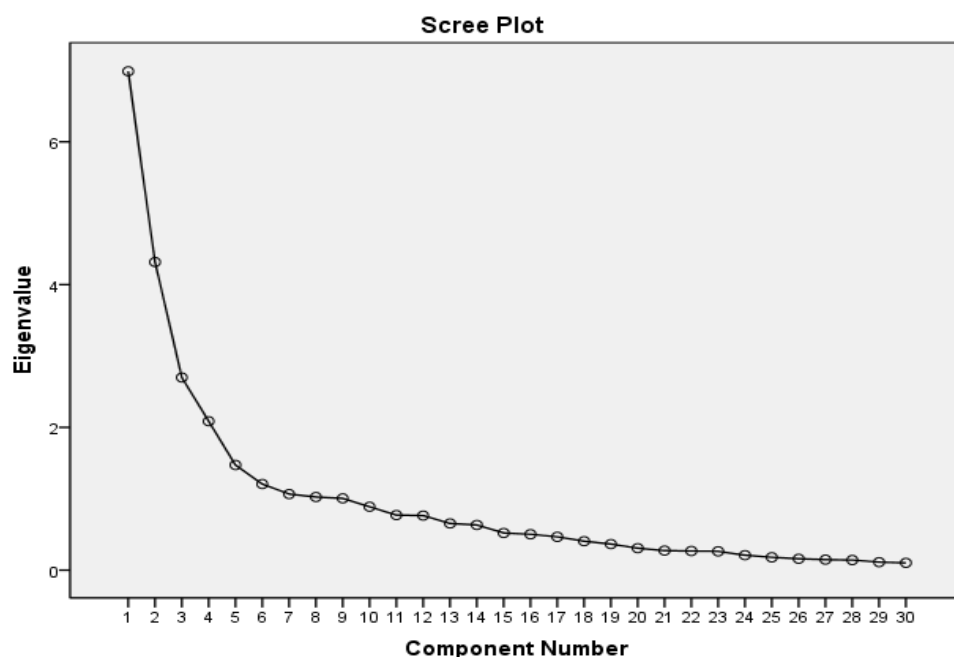
Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	6,988	23,293	23,293	6,988	23,293	23,293
2	4,316	14,386	37,679	4,316	14,386	37,679
3	2,699	8,996	46,675	2,699	8,996	46,675
4	2,086	6,953	53,628	2,086	6,953	53,628
5	1,473	4,909	58,537	1,473	4,909	58,537
6	1,206	4,021	62,558	1,206	4,021	62,558
7	1,066	3,553	66,111	1,066	3,553	66,111
8	1,025	3,415	69,526	1,025	3,415	69,526
9	1,006	3,352	72,879	1,006	3,352	72,879
10	,888	2,961	75,840			
11	,771	2,570	78,410			
12	,764	2,548	80,958			
13	,654	2,180	83,138			
14	,633	2,110	85,248			
15	,521	1,736	86,984			
16	,503	1,676	88,660			
17	,467	1,555	90,215			
18	,405	1,352	91,567			
19	,365	1,215	92,782			
20	,308	1,026	93,809			
21	,274	,912	94,721			
22	,268	,894	95,614			
23	,263	,878	96,492			
24	,209	,698	97,190			
25	,180	,599	97,789			
26	,159	,531	98,320			
27	,148	,492	98,811			
28	,141	,471	99,282			
29	,113	,375	99,657			
30	,103	,343	100,000			

Extraction Method: Principal Component Analysis.

According to the table above, the determined Eigenvalues is 1, thus the total value that is going taken is >1. Based on the result above, component 1 to component 9 will be taken. The first used criterion is Eigen value. Factors that have Eigen value less than 1 are not inserted in the

model. From the table above, it can be seen that the Eigen value more than 1 is in 1 factor until 9 factors.

The second criterion is the determining based on total variance percentage value that can be explained by the amount of the formed factors. From the table above, interpretation related to the sample cumulative total variance can be done. If those variables are simplified into some factors, the variance total value can be explained in the table Total Variance Explained. The third criterion is the determining based on Scree plot. *Scree* plot is an Eigen value plot to the amount of extracted factors. The point where Scree begins to happen shows the proper amount of factors. This point happened when Scree start to looked flat. From the image below, it can be seen that Scree plot starts to go flat in the extraction of early variables into 9 factors.



Loading Factors

The amount of the factor that is formed will be determined by doing combination of some criteria to get the most suitable factor's amount. After knowing that the maximum factor which can be formed is 9, the next step is to determine each independent variable into to be inserted into factor 1 to factor 9. The way to determine is by seeing table 4 Component Matrix (Santoso, 2006: 45).

According to the table 4., the value that is more than 0,50 will be formed into 7 factors. Thus the variable grouping into factors can be seen in the table 5.

Tabel 4. Component Matrix

	Component								
	1	2	3	4	5	6	7	8	9
VAR00025	0,783	0,165	-0,277	0,158					
VAR00030	0,768	-0,236	-0,153		0,140	0,261			
VAR00011	0,764	0,151	-0,275	0,250	-0,210				
VAR00006	0,730	0,182	-0,309	0,253	-0,153			-0,225	
VAR00022	0,704	0,234			0,138			0,158	
VAR00009	0,685		-0,303	0,115	-0,350				
VAR00010	0,683		-0,194	0,218	-0,256	-0,156		-0,186	0,109
VAR00024	0,679	0,201	-0,200		0,227	0,118		0,243	
VAR00008	0,627	-0,522	0,253	-0,191	0,122				
VAR00007	0,622	-0,479		-0,207	-0,111	0,124	-0,279		
VAR00023	0,552	-0,412	0,224	-0,450					
VAR00002	-0,109	0,728		0,288	-0,113		0,228		0,211
VAR00021	0,334	0,625	0,237	-0,209	0,204		-0,169	0,208	0,100
VAR00001		0,615	0,174	-0,105	-0,315	0,244		0,140	-0,239
VAR00017		0,608		-0,275		0,155		-0,268	
VAR00014	0,354	-0,591	0,191	0,254		0,227	-0,105		-0,187
VAR00027	0,340	0,538	-0,276		0,305	-0,221	-0,199	0,163	
VAR00019	0,108	-0,516	0,125	0,431	0,251				0,178
VAR00005	0,402	-0,411	0,293	-0,265	0,292	-0,194	0,153		-0,256
VAR00016	0,183	0,302	0,589	0,441	0,131		-0,264	-0,165	-0,165
VAR00004	0,188		0,567	-0,322	-0,353	0,106	0,333	-0,139	0,245
VAR00003	0,490	0,162	0,537		-0,276	-0,129	-0,198		
VAR00020	0,415		0,531				0,405		
VAR00013	0,186	0,302	0,522	0,251	0,170		-0,334	-0,427	0,108
VAR00015		-0,312	0,206	0,650	-0,106	0,396	0,139		
VAR00029	0,319	0,201	0,142	0,256	0,504	-0,120	0,492		
VAR00026	-0,378	0,174		0,105	0,207	0,679			
VAR00018	0,350	0,361		-0,256	0,353	0,398			0,365
VAR00028			0,478	0,319	-0,175		-0,109	0,630	
VAR00012	0,379	0,405	0,128	-0,178					-0,673
Extraction Method: Principal Component Analysis.									
a. 7 components extracted.									

Factors Naming

After the factors are formed which consists of the analyzed variables, the naming of the factors are needed based on the characteristics that suit to the contents.

Factor 1 is concluded that this area is a tourism region so the business prospect is higher. The people run business to fulfill the live needs. The mindset of the people is also like, “I have so many siblings in this area so I can not move to another area”, “the view in this area is good so

people often come visit this area”, “the chance to run a business here is better because it is close to the beach”, “the tourism in this area is so good”, “my families have activities near this area”, the regional developing plan is in this place”, and so forth. These factors can be called as this area is a tourism development area.

Table 5. Grouping Factors

Factors	Variabel
1	X6,X7,X8,X9,X10,X11,X23,X24,X25,X30
2	X1,X17,X21
3	X3,X4,X13,X16,X20
4	X15
5	X29
6	X26
7	X28

Source: Data processed in 2017

Factor 2 consisted with the factors surrounding the people’s mindset such as, “the area where I run the business close to the consumer”, “this business that I run is close to the public transportation and there are some supporting enterprises in this area”, and so on. This factors can be called as the business place is strategic because it is near to the consumers and close to the supporting infrastructures.

Factor 3 consisted by the factors in people’s mindsets such as, “I feel comfortable to run business in this area”, “I have been running business in this area for so long”, “I do not relate my business area to earthquake or tsunami”, “I am feeling used to the earthquake due to my business time”. And this factor can be called as this business place is an inheritance.

Factor 4 is Government’s socializations due to earthquake and tsunami-prone areas are not enough, Factor 5 is The area development lately pointing on the beach area, Factor 6 is The opinion that Earthquake and tsunami will not reach this area, and Factor 7 is There is no government’s announcement to move to another areas that are safe from earthquake and tsunami.

Based on the result of the factor analysis, it is concluded that there are 7 factors on considering to run a business. The 7 factors have been resulted quantitatively from 30 factors that are gained by exploration. Based on the data, it is still possible to do another grouping in the other research.

Conclusion and Implication

Conclusion

This research has been conducted for two years and resulted some desired outputs of this research. In the first year, the writer has found 30 factors of entrepreneurship’s sustainability in the red zone which involving 5 earthquake and tsunami-prone areas in West Sumatera, they are Padang city, Pariaman city, Padang Pariaman regency, Agam regency, and Pesisir Selatan regency.

In the second year, the research has resulted seven factors of entrepreneurship’s sustainability in the earthquake and tsunami-prone areas which conducted quantitatively to the five areas. The seven factors are:

1. Those areas are including to tourism development areas which make enterprises in those areas able to sustain although they are located in the red zone of earthquake and tsunami-prone areas.
2. Those areas are strategic to run businesses. It was because the locations are close to the public transportation and other supporting aspects. Basically, the five red zone areas are close to all access such as Padang city which is known as the center of the government and economic so the business's sustainability can be reached by this factor. The same goes to the other areas such as Pariaman city that also a center of government and economic although it is located near the beach which considered as a red zone of earthquake and tsunami-prone areas.
3. Another factor is that nearly all business locations are owned by the entrepreneur itself or even are inheritance location which means it is hard to move to another area. That is the reason why the sustainability is still there.
4. The next entrepreneurship's sustainability factor is the lack of socialization and announcement about earthquake and tsunami for entrepreneurs by the government in these areas. This makes the entrepreneurs not feeling aware of the disaster although they are located in the red zone areas.
5. The next factor is because the regional development lately is fast, the reason is not only because the areas are the center of the government activities but they are also the center of tourism development.
6. This factor is about the opinion which say that earthquake and tsunami are not going to reach these place, this mindset make the entrepreneurs still run the business.
7. The last factor is that there is very little announcement from the government to move to the other safe places. This makes the entrepreneurs intend to still run the business.

Suggestion

The seven factors can be recommended to the government in taking decisions and policies for the entrepreneurs.

- a. Tourism development in these areas causes the development of the regions continue and the government as the regulator should be able to create a clear regulation that can make the tourism development more aimed to protect entrepreneurs. The example is like creating a regulation for the entrepreneurs in these areas follows the rule about the building's endurance. The government should also be able to provide suggestions and simulation for entrepreneurs if the disaster strikes so they can be ready to safe themselves. Besides that, the balanced cooperation between the government and the entrepreneurs should be last longer and continue to make the development in plan and able to create the proper income for the entrepreneurs itself.
- b. These red zone areas have a fast development because of the great amount of business probabilities. The government should be able to create regulations that can support entrepreneurship so they can adjust properly based on the areas that have been decided by the government, this can make a dependence relation between the government and the entrepreneurs. The government should also provide trainings and motivation on entrepreneurship's mindset to the opportunity and service, also trainings on how to self rescue if the disaster happens.
- c. The Department of cooperatives and industry (trade, industry, and cooperation), The Department of Tourism, and BPBD (Regional Board for Disaster Management) should cooperate with the entrepreneurs to create enterprises which ready to face the disasters because the location of the enterprises is in the earthquake and tsunami-prone areas.

Implication

The results of the research will be able to provide the development direction for the long term and will impact on the economic community and entrepreneurs who are in the red zone prone to earthquakes and tsunamis. Development of tourism which is currently a priority in development in West Sumatra will be able to improve the economy of society in general because one factor of entrepreneurial sustainability in this area is tourism.

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