

Challenges and strategies to encourage women to be entrepreneurs in the industrial revolution era

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Abstract: Entrepreneurship sector is one of the business sectors that become choice for women. Nowadays, living in the global era and in line with the improvement of gender equality will create the opportunity for women to play a role in economy are getting larger. In economy industry of Indonesia, women are actively contributed in small, medium and large enterprises. The government of Indonesia supports women entrepreneur as to increase the economy welfare of the country. Unfortunately, Indonesia has entered a digital revolution called Industrial Revolution 4.0. One of technological advancement today which integrates with the physical, digital and biological world make fundamental changes into everyday human activities and life. However, this development era is still often hampered due to constraints for women to be an entrepreneur. This research aimed to know if the Educational Factors, Dual Role Factors and Socio – Cultural Factors be main challenges for women entrepreneur. This research used Structural Equation Modelling method and using AMOS 26 program. This research also obtained Strategies to encourage woman to be entrepreneur.

Keywords: Woman Entrepreneur, Constraint and Challenges, Strategies, Industrial Revolution 4.0

INTRODUCTION

As the times had increasingly developed, economic growth became a central issue which is an economic development is the priority in the future. One economic development foundation is in focusing an attention on entrepreneurship development. Today's life, entrepreneurship is not only owned by men but women have also taken this field. The role is increasingly evident from the increasing number of business people from among women. The entrepreneurship sector is one of the business sectors that becomes choice for women to prove their inner abilities attempted. There have been many women who prove themselves capable to become entrepreneurs that can be seen from the small level, medium and large businesses.

Different things have happened in the world today. Society has entered a revolution that is often heard with the Industrial Revolution 4.0. The Industrial Revolution 4.0 is the latest technological advancement today that integrates the physical, digital and biological world, causing a fundamental change in the way of human life. This revolution, known as the digital revolution, happened because of the proliferation or rapid development of computers that brought advanced connectivity and record automation in almost all fields.

Unfortunately, this development era is still often hampered due to constraints for women to be an entrepreneur. According to the prior research by (Alma: 2019, Winn: 2005). The author chose Educational factors, Dual Role Factors and Socio – Cultural factors as the main constraints for woman entrepreneur. But with the Industrial Revolution 4.0 in Indonesia, women can become an entrepreneur by considerate on using technology to face those challenges. Based on the background described above, it is interested in conducting research with the title “Challenges and Strategy for Women to be Entrepreneur in Industrial Revolution 4.0”

LITERATURE REVIEW

1. Woman Entrepreneur

Women entrepreneurs can be defined as a woman or a group of women who start, organize and operate a business company. The development of women entrepreneurs in developing countries such as Indonesia is very potential as the main driving process of women's empowerment and social transformation (Tambunan: 2012).

2. Educational Factors

Entrepreneurs who have the potential for success are those who understand the use of education to support activities, and are willing to learn to increase knowledge. The educational environment is used by entrepreneurs as a means to an end. Education here means understanding an issue that is seen from the standpoint of science or theory as a basis for thinking (Bandura: 2016).

3. Dual Role Factors

A dual role is two or more roles that are carried out in the same time simultaneously, in this case the role of a woman as a wife for their husband, a mother for their children, and a role as a career woman. This dual role means women as wife and mothers in the family, such as being partners for husband in taking care of the household, providing household needs, and educate children (Suryadi: 2004).

4. Socio – Cultural Factors

The socio-cultural environment is broadly composed of social and cultural systems of people. This refers primarily to the intangible elements created by humans that influence behavior, relationships, perception and way of life, and their survival and existence. In other words, the socio-cultural environment consists of all elements, conditions and influences that create a person's personality and potential influences attitude, disposition, behavior, decisions and activities. These elements include beliefs, values, attitudes, habits, forms of behavior and lifestyle of people developed from culture, religion, education and social conditioning, (Bennett and Kassarian: 1972; Adeleke et.al: 2003).

5. Strategy

Strategy is a tool to achieve goals. In its development, the concept of strategy continues to develop. This can be shown by the different concepts of strategy over the past 30 years. Strategy is a tool to achieve company goals in relation to long- term goals, follow-up programs, and priority allocation of resources (Chandler: 1962).

METHOD(S)

Research Design

This research used quantitative design.

Setting and Participants

This research was conducted at Desa Adat Kuta, Badung Regency, Bali. Desa Adat Kuta is a potential of the dominant industrial sector and tourism services. These conditions influenced the Kuta local people especially women to create business. The numbers of respondents are 100 women entrepreneurs in Desa Adat Kuta. In this study, the data were directly obtained from the results of the questionnaires to women entrepreneurs in Desa Adat Kuta, Badung Regency.

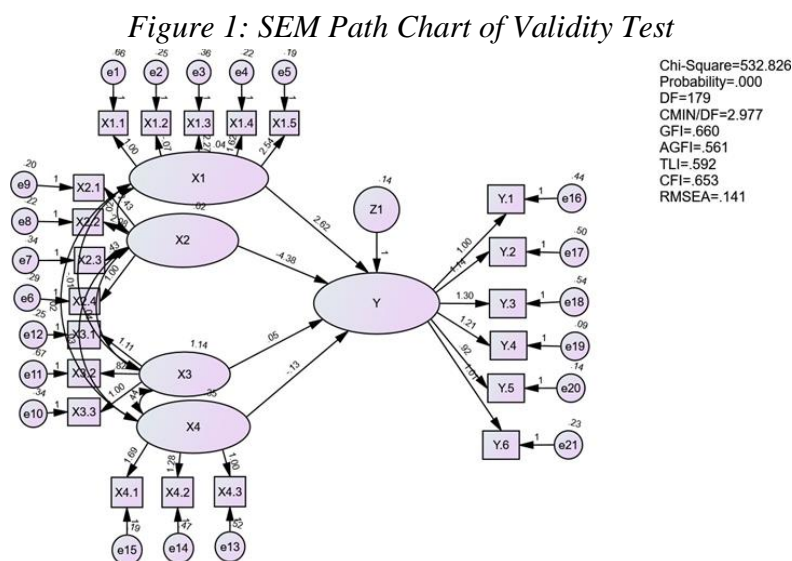
Data Collection Method(s) and Analysis

Data in this study were analyzed using validity and reliability, descriptive statistics and SEM (Structural Equation Modeling).

FINDINGS AND DISCUSSION

Validity Test

A valid instrument means that the instrument can be used to measure what should be measured. This instrument used to get the data was valid. To test this instrument the validity of using product moment correlation. Validity testing can be done using AMOS 26 for Windows. Validity Test is testing the construct (indicator) whether it has a high proportion of variance or not. Meet the criteria if the value of C.R. > 1.96, while "Loading Factor" or "Standardized Loading Estimate" > 0.5.



The diagram consists of five variables in the research. Where the X1 is Woman Entrepreneur variable, X2 is Educational Factors, X3 is Dual Role Factors, while X4 is Socio – Cultural Factors to find the effect to Y variable which is Strategy for Woman Entrepreneur. Which the variables above are consists of several indicators to measure.

Table 1: Validity Test

Regression Weights		Estimate	Standardized Regression Weights	S.E	C.R.	Label
X1.1	<--	Woman Entrepreneur 1	0.241			Invalid
X1.2	<--	Woman Entrepreneur -0.067	-0.027	0.285	- 0.236	Invalid
X1.3	<--	Woman Entrepreneur 2.267	0.608	1.118	2.028	Valid
X1.4	<--	Woman Entrepreneur 1.624	0.57	0.808	2.009	Valid
X1.5	<--	Woman Entrepreneur 2.539	0.763	1.227	2.069	Valid
X2.1	<--	Educational Factors 2.425	0.583	1.249	1.942	Valid
X2.2	<--	Educational Factors 2.078	0.507	1.094	1.9	Valid
X2.3	<--	Educational Factors 0.432	0.097	0.56	0.77	Invalid
X2.4	<--	Educational Factors 1	0.238			Invalid
X3.1	<--	Dual Role Factors 1.108	0.921	0.093	11.86 7	Valid
X3.2	<--	Dual Role Factors 0.821	0.731	0.096	8.582	Valid
X3.3	<--	Dual Role Factors 1	0.876			Valid
X4.1	<--	Socio - Cultural Factors 1.686	0.915	0.255	6.621	Valid
X4.2	<--	Socio - Cultural Factors 1.277	0.742	0.21	6.093	Valid
X4.3	<--	Socio - Cultural Factors 1	0.635			Valid

Y.1	<--	Strategy for Woman Entrepreneur	1	0.6			Valid
Y.2	<--	Strategy for Woman Entrepreneur	1.139	0.628	0.221	5.149	Valid
Y.3	<--	Strategy for Woman Entrepreneur	1.296	0.662	0.242	5.35	Valid
Y.4	<--	Strategy for Woman Entrepreneur	1.213	0.9	0.187	6.476	Valid
Y.5	<--	Strategy for Woman Entrepreneur	0.916	0.774	0.154	5.963	Valid
Y.6	<--	Strategy for Woman	1.007	0.726	0.176	5.713	Valid

Based on the analysis results in the table above, there are indicators that show good results with a value of C.R. > 1.96 and the estimate standardize value > 0.5 are (X1.4, X1.5, X3.1, X3.2, X4.1, X4.2, Y.2, Y.3) and indicators that are not good or invalid in the standardize estimate is < 0.5, are (X1.1, X1.2, X2.3, X2.4).

Reliability Test

Reliability Test with the Construct Reliability Test tests the reliability and consistency of the data. It would be based on the criteria if Construct Reliability > 0.6. Construct Reliability values between 0.6 to 0.7 still can be accepted if it is provided that the construct validity (indicator) in the model is good. The results fulfilling the required requirements are presented in the following table:

Table 2: Recapitulation of Research Instrument Reliability Test Results

No.	Variable	Cronbach's Alpha	Information
1	Woman Entrepreneur (X1)	0.735	Reliable
2	Educational Factors (X2)	0.660	Reliable
3	Dual Role Factors (X3)	0.834	Reliable
4	Socio – Cultural Factors (X4)	0.817	Reliable
5	Strategy Woman Entrepreneur (Y)	0.905	Reliable

The reliability test results presented in Table 2 show that all research instruments have a Cronbach's Alpha coefficient of more than 0.6. So it can be stated that all variables meet the reliability or reliability requirements so that they can be used to conduct research.

Structural Equation Modeling (SEM)

The Structural Equation Modeling is a second generation of multivariate analysis technique that allows researchers to examine the relationship between complex variables both recursive and non-recursive to obtain a comprehensive picture of the whole model (Ghozali: 2008). Structural equation modeling (SEM) is carried out with the help of the AMOS program. The AMOS program shows measurements and structural problems, and is used to analyze and test hypothetical models.

Measurement Model (Confirmatory Factor Analysis)

Goodness of Fit Test

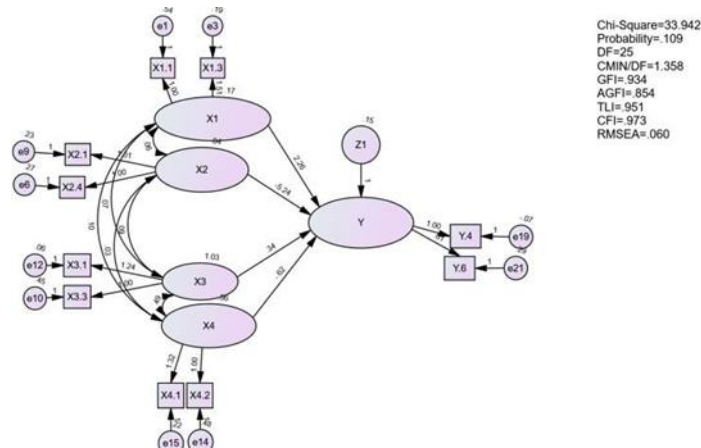
The results of data recapitulation are included in the AMOS program 26 which is access data entry from SEM then processed, The chi-square value of 33.942 was obtained; the probability value is 0.109; the CMIN / DF value is 1.358; RMSEA value is 0.060; the GFI value is 0.934; the AGFI value is 0.854; TLI value is 0.951 and the CFI value is 0.973. These results are done evaluation based on Goodness of Fit Indices as in Table 3.

Table 3: Goodness of Fit Results

Goodness of Fit	Indicies Results	Cut off value	Information
X ² Chi Square	33.94 2	*small value	Good
Probability	0.109	≥ 0,05	Good
CMIN/DF	1.358	≤ 2,00	Good
RMSEA	0.060	≤ 0,08	Good
GFI	0.934	≥ 0,90	Good
AGFI	0.854	≥ 0,90	Not Good
TLI	0.951	≥ 0,95	Marginal
CFI	0.973	≥ 0,95	Marginal

According to Table 3, all criteria of the Goodness of fit in this model are good and Marginal. It means the model can be further continued. The accumulation of the Goodness of Fit based on the research by rejecting the invalid construct of indicators. After modified the first path chart model in AMOS Program 26, the indicators and errors who produced huge estimates covariance are removed so, the path chart will be as the figure 2.

Figure 2: Path Chart after modified



Hypothesis Test

After modifying to fit model of the research, the next step is to test how the hypothesis in this research based on the hypothesis that have been listed on Chapter 2. By using AMOS 26 program, testing this hypothesis is based on data processing research using SEM analysis, by analyzing the regression values shown in Table 4.9 (Regression Weights Structural Equation Modeling Analysis). Testing this hypothesis is to analyze the value of the Critical Ratio (CR) and the Probability (P) value of the results of data, compared with the statistic restrictions required, namely above > 1.978 for the value of CR 0.05 for the value < P.

Table 4: Regression Weights after Modified

	Estimate	S.E.	C.R.	P	Label
Y <--- X1	2.625	3.510	5.713	***	
Y <--- X2	1.007	.176	.748	.455	
Y <--- X3	.916	.154	5.963	***	
Y <--- X4	.821	.096	8.582	.654	

As the table above shown the hypothesis I are rejected because the Critical Ratio (CR) and the Probability (P) value of the results of data of X2 is 0.748 and 0.455, compared with the statistic restrictions required, below 1.978 for the value of CR higher than 0.05. It means in Desa Adat Kuta, the woman entrepreneur rejected the first of factors that may be constraint and challenges for them. According to the X1 variable that has positive effect to solve the challenges with strategy, the strategy can be applied. According to the results of the questionnaires, there are a lot of women who still do not understand what is Industrial Revolution 4.0 and how to face it based on the economic field. There are several strategies that can be conducted which are improving skills to understand Internet of Things technology. It is

also encouraging that the workforce in Indonesia should continue to improve its skills in understanding the use of Internet of Things technology. IoT can also be integrated with production capabilities to create an easy access (Airlangga: 2019).

Second one is utilizing digital technology to improve productivity and competitiveness the use of digital technology to spur productivity and competitiveness for the small and medium industries. Third strategy, women can utilize e-commerce as a place for creating a business. The last strategy was women should be active participating in entrepreneurship seminar or event. It would be able to face industrial revolution 4.0 because if women do not want to learn and know the development of the current era, they will certainly remain a woman who has only one role without being able to prove that women can also have a huge positive impact to the country's economy.

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