

FACTORS AFFECTING THE DEVELOPMENT OF MSME BUSINESSMEN COMPETENCY IN THE USE OF INFORMATION AND COMMUNICATION TECHNOLOGY IN RURAL AND URBAN AREA OF WEST JAVA (CASE STUDY: MSME BUSINESSMEN IN BANDUNG AND BOGOR, WEST JAVA)

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ABSTRACT

This research aims to: (1) describe the level of MSMEs businessmen competency in the use of ICT in rural and urban areas of Bandung and Bogor, (2) to analyze the factors that influence the competence of natural businessmen to utilize ICTs for their business activities in rural and urban areas of Bandung and Bogor, and (3) to formulate strategies for developing competence of MSMEs businessmen, especially in the utilization of ICT in rural and urban areas of Bandung and Bogor, West Java, Indonesia. Competence in this research is personal competence that is personal ability and skill in effort and technical competence is technical ability in operational of ICT facilities in its implementation at every activity of MSMEs businessmen. This research was conducted in Kota Bandung, Kota Bogor, Kabupaten Bogor and Kabupaten Bandung from December 2016 to April 2017. The sample of respondents was 358 based on the total population selection of 3479. The data analysis method in this research used Structural Equation Modelling (SEM)-AMOS. Based on the results of this research indicate that the profile of MSMEs businessmen, the perception of MSMEs businessmen and the utilization of ICT facilities have a positive effect on the competence of utilization of ICT facilities, while the level of external environmental support has negative effect but not significant on the competence of MSMEs in utilizing ICT facilities.

Keywords: *Competence, Small medium enterprise (SME), Information communication and technology (ICT).*

1. INTRODUCTION

Micro Small Medium Enterprises (MSMEs) is the largest group of economic actors in the Indonesian economy. The Ministry of Cooperatives and Small Medium Enterprises in 2012-2013 shows the development of SME data reached 56,539,560 with 9.5 percent growth. In line with the development, the MSMEs sector faces an increasingly competitive competition, the swift flow of goods coming into the country due to the enactment of an open economy demanded businessmen should be able to face global challenges and adapt to it.

The research results of APEC shows that in global environment of SME in Indonesia still has a low competitiveness [1]. Based on APEC SME Innovation Center show that the index score of

Indonesian SME competitiveness performance data are in the low category. Products made by business groups at the domestic market level, have not been able to compete with imported goods. This is caused by the quality of goods that are not competitive, and its limited technology.

To support the competitiveness business required the application of information technology in business development. This is in line with the research by Tambunan, the data show that Indonesian MSMEs businessmen has a low competitiveness value, only businessmen who have the ability in utilizing information technology that be able to face competition[1]. The ability to utilize information technology is needed to face today's global challenges. This is in line with the research by Tambunan, companies that apply information

technology on the development of their business will increase the high competitiveness[1].

On the other hand the ability of businessmen in using ICT is still low. The data from BPS suggests that the low educated MSMEs businessmen is lacking in the mastery of information technology[2]. Based on the survey results of the Daily Tribune News show that the seventeen million MSMEs in Indonesia only 75,000 who have web[3]. Refer to the results of the research by The Asia Foundation shows the number of SME who utilize e-commerce in the area of Bandung and Bogor is only 18 percent[4]. According to the daily business of West Java shows that there is still lack capabilities in mastering ICT for MSMEs businessmen[5]. Beside that, the facts on the real situations showed a gap between conditions in the field with expected conditions in the utilization of ICT for businessmen in rural and urban areas of West Java province. This demands the need for awareness of the benefits of technological mastery abilities for the businessmen, in order to enhance sustainable competitiveness.

Increased awareness may arouse people's interest towards mastery of ICT in order to achieve the optimal ICT competency. One of them through public awareness as an empowerment act, as for the programs of empowerment act through ICT utilization by mentoring small business (SME). It is a step to enhance the capabilities of ICT competence for businessmen [6]. The mastery of information technology for the trade needs to be applied in any business activities. The competence of SME in utilizing the ICT facilities must continue to be improved, along with the growing technological development that is rapidly increasing, as well as the development of internet networks which have an impact on the rise of the information in the digital era.

The importance of the research is to be known by the related parties ie government agencies in order to provide support to the MSMEs businessmen, either in the form of facilities procurement technology tools, policies or regulations, training, mentoring programs that regulate the progress of MSMEs in the Indonesian country, especially the application of the use of ICT in every business activity. On the other hand can be analyzed further related to the obstacles faced by MSMEs businessmen, especially in the use of technology implementation and utilization. Another important aspect is the rapidly growing digital era in the business world as well as the digital economic opportunities and behavior of the main consumers in the utilization of technology today is

higher especially in using ICT on every business activity.

These conditions encouraged this research aims to (1) assess the level of competence of MSMEs trade in utilizing ICT and (2) analyzes the factors that affect the MSMEs trade competence in utilizing ICT facility, (3) formulating development strategies of MSMEs trade competence in utilizing ICT facility.

2. THE COMPETENCE OF MSMEs IN UTILIZATION OF ICT FACILITES

According to Spencer & Spencer, competence is any form of motives, attitudes, skills, behaviour and personal characteristics that are essential to carrying out the work or tell the difference between the average performance with superior performance[7]. Spencer & Spencer classify competences into two levels, namely the ability of the threshold and the ability to differentiate. According to Pary, competency is a set of knowledge and skills and attitudes relate to one another the effect on individual jobs that correlate with the performance can be improved through training[8]. Technical competence according to Government Regulation No. 19/2005, personal competence is competence according to personality and behavior attitude capable of developing potential, according to SANKRI technical competence is the individual ability in a particular technical field for each task[9].

Competence is required not only in business and management ability in basic, as the development of information and communication technologies, ICT revolution has marked the time when the information becomes a commodity or the power to control it, that the ability of technological competence is essential for improving the quality of products as well as taking opportunities and chances. The role of ICT gives significant benefits to all areas of social, economic and business. On the other hand, the role of ICT support the implementation of knowledge-sharing processes by sharing knowledge through ICT facilities that use virtual meetings such as email, mailing list, web conference[10]. According to Gaynor, the application of the technology in the business on distribution, administrative aspects, the rise of products and manufacturing[11]. Therefore, the mastery of skills in utilization of ICT facilities is required.

The technical competence of the utilization of ICT facilities that must be controlled by businessmen currently is as follows (1) a basic level

of competency in operating a computer both hardware and software, (2) competency in digital marketing, (3) the competency in using browser to access pricing information, access to information on raw materials and finding business partners, (4) competency in running the application of e-commerce/e-business, and (5) competency in understanding the seven elements of the media literacy [12][13][14]. This is becomes important due to the development of internet networks that affect the onset of the revolution of information in the digital age and have to adapt to the conditions of the digital economy.

3. RESEARCH METHOD

This research was designed as an explanatory research with quantitative approach research which aims to explain the pattern of relationships and influences between variables is done through hypothesis testing. The scope of this research was limited to examine on the relationship profile of MSMEs businessmen, external environment support, MSMEs businessmen perception and utilization of ICT facilities as well as its effect on the competence of MSMEs trade in utilizing ICT facilities. Justification the four sites as the subject of this research is based on the MSMEs that have a diverse range of creative and unique product, having a strategic tourism and area businessmen who have independent business starting with the procurement of raw materials, process and up to the finished product to market and distribute it and capable of utilizing ICT as a facilities of access to information.

The research was carried out in December 2016 to April 2017. The survey was carried out in four research locations in Kabupaten Bandung, Kabupaten Bogor, Kota Bandung and Kota Bogor. The population of the research is 3479 comprising Kabupaten Bandung consist of 3033; with a total of craft industry with 345, convection with 1726, and processed foodstuff with 962. Kabupaten Bogor consist of 253; 61 people in crafting industry, 138 people in processed food, 54 people in convection industry. Kota Bogor consist of 95; 8 people in convection businesses, 23 people in crafts industry and 64 people in processed food. In Bandung consist of 98; 17 people in craft industry, 23 people processed food, 58 people in convection industry.

The determination of the total sample is using Slovin's formula with (5%) standard error, a minimum of the samples of this research consist of 358 people of MSMEs businessmen. The number of samples in Kota Bogor consist of 9 people,

Kabupaten Bogor consist of 26 people, Kota Bandung consist of 10 people and Kabupaten Bandung consist of 313 people.

4. FRAMEWORK AND HYPOTHESIS

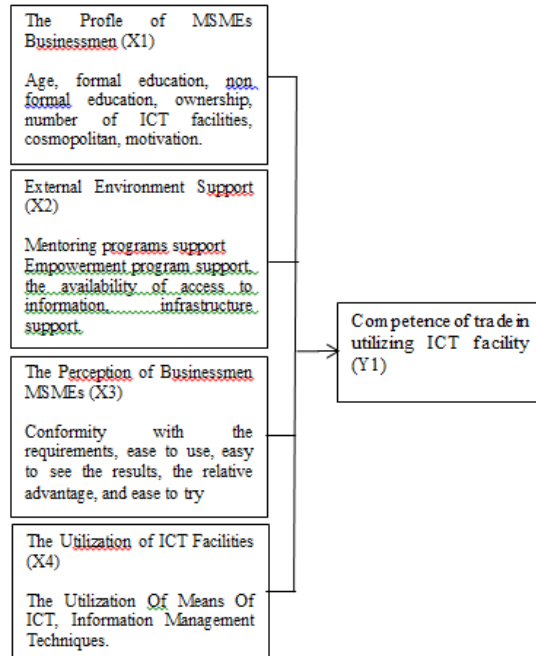


Figure 1. Relationships between variables and the competence of the MSMEs businessmen utilizing ICT

Based on the framework, research hypothesis used as follows: MSMEs trade level of competence in Kabupaten Bandung and Kabupaten Bogor, Kota Bandung and Kota Bogor in the utilization of ICT facilities which are influenced significantly by the businessmen's profile effort (X1), external environment support (X2), the perception of MSMEs businessmen (X3), and the utilization of ICT facilities (X4).

5. RESULT AND DISCUSION

5.1 Utilization rate of ICT Facilities by MSMEs Businessmen

Each individual MSMEs businessmen have different characteristics in using and utilizing ICT facilities. Characteristics of the businessmen efforts in utilizing ICT facilities is the reflection of businessmen in operating ICT facilities in each of its business activity. The description of the characteristics of MSMEs businessmen in utilizing the facilities of ICT hardware and software are presented in Figure 2.

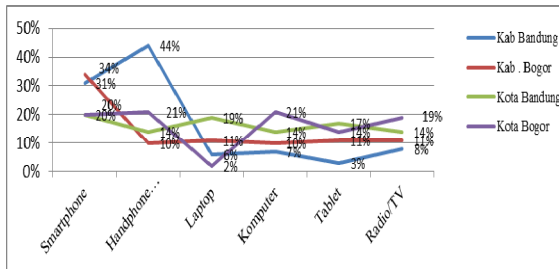


Figure 2. Utilization rate of ICT facilities

5.2. Profile of MSMEs Businessmen in Utilizing ICT Facilities

Profile of MSMEs businessmen based on composition in Kabupaten Bandung is the highest as much as 74 percent of the businessmen is categorized productive adulthood (20-46 years) followed by Kabupaten Bogor as much as 66.7 percent. The level of formal education of MSMEs businessmen mostly attended to secondary schools (junior-senior high school) with average duration ranges ≥ 12 years. Formal education in the advanced education category is 90 percent in Kota Bandung and 80 percent in Kota Bogor. Non formal education category owned by the businessmen mostly > 80 percent are rare, the training frequency < 3 can be seen in table 1. The low

intensity of counseling or mentoring from related Government in using ICT facilities application in business activities. Research results showed that the level of implementation of information and communication technologies greatly associated with age and education factors[15].

The total of ICT ownership is still in low categorized ie ≤ 6 unit. Cosmopolitan level of MSMEs businessmen on average have high category in Kota Bandung 80% and Kota Bogor 40%, especially in information finding activities through the ICT facilities or make cooperation with partners in the outside of the community for the sake of their business. On the other hand, Rukia states that motivation is the impulse that arises from one's self to a direction of behavior that begins the need that cause encouragement[16]. The level of motivation of MSMEs businessmen in the four research sites is mostly in medium category, since the average of the highest business actors is only using cellular means, the utilization of using the computer for business activities is low. This is supported by the results of research in the field that also shows the MSMEs businessmen in rural and urban are interested in using ICT cellular facilities caused by ease and speed in transacting.

Table 1. Descriptive Profile of SME Bussinessmen in Utilization of ICT Facilities

Sub-Variable	Category	Bandung Distric (%) n=178	Bogor Distric(%) n=26	Kota Bandung (%) n=10	Kota Bogor (%) n=9
Age (year)	Teen(<20)	0.0	0	10	0.0
	Adult(20-46)	74.1	66.7	40	40
	Older >47	25.9	33.3	50	60
Formal Education (year)	Basic(0-6)	20.9	11.1	0.0	20
	Medium(9-12)	18.7	11.1	10	0
	Advance>12	60.4	77.8	90	80
Non Formal Education(freq/year)	Rarely (<3)	94.6	85.2	90	100
	Medium(3-5)	3.8	3.7	10	0
	Often(>5)	1.6	11.1	0	0
Long Ownership of ICT facilities(year)	Very long (>16)	0	0	0	0
	Long enough(12-16)	0	0	0	0
	Long	100	100	100	100
Total number ownership of ICT facilities(unit)	Low(1-6)	100	100	27	80
	Medium(12-16)	0	0	0	0
	High(17)	0	0	0	20
Cosmopolitan (score)	Low	61.7	40.7	10	0
	Medium	24.7	22.2	10	60
	High	13.6	37.0	80	40
Motivation rate (skor)	Low	36.4	33.3	10	0
	Medium	44.9	44.4	60	100
	High	18.7	22.2	30	0

Source : data processed in 2017

This result is different from the results of research conducted by Kim et al. (2011) and Muliady (2000) that state the motivation to use ICT is only because of attention and interest in the world of IT and supported by high skill in using ICT [17][18].

5.3 External Environmental Support, Perceptions of MSMEs Businessmen in Utilization of ICT Facilities

External environment Support on the level of quality support mentoring and support programs empowering businessmen in utilizing ICT belongs to the moderate category, businessmen of Kota Bandung have the highest percentage of 80 percent and 70 percent for the level of support of empowerment.

Based on the results of field research on the intensity of extension or extension related to ICT knowledge and its application in the business world is low in one year <5 times the extension frequency. It is based on information, materials and extension methods related to the use of ICT materials that have been submitted is online marketing through the internet and the use of basic applications of computerized finance, while the support of empowerment programs in the form of facilitation of learning and procurement of ICT facilities only business actors who have groups or joined together with the business community group received priority support or assistance from the government. For access to information and availability of adequate infrastructure network in four research areas of Kabupaten Bandung, Kabupaten Bogor, Kota Bogor and Kota Bandung. Signal access, ICT facilities as a means of access to information in urban and rural areas in the Kabupaten is sufficient as indicated by the percentage of information access and infrastructure scores on average > 80 percent. The infrastructure network in the four research areas is also sufficiently available in the physical facilities of the building, transmitter towers, road facilities, and other physical facilities.

The level of perception of MSMEs businessmen toward the characteristics of ICT innovation, the average is high, on the perception of business actor to the suitability of the needs and ease to use of ICT facilities both businessmen in urban and rural areas in Bandung and Bogor, as indicated by the average Likert scale 3.97 categorized as high and likert scale 2.92. At the level of business actors' perceptions of the benefits of medium-sized ICT facilities with an average value of 2.5, ease of viewing results with a value of 2.4 and ease of use with a value of 2.3.

Based on the results of the research, the people of SME business community now has an assessment that the utilization of ICT facilities is required for business actors in each business activity, among business actors assessed that mobile cell phone, internet, computer and other ICT facilities that have been used by businessmen is suitable for all business activities such as marketing communications and accelerate customer service customers. The results of Gaynor's research show that the application of technology is widely utilized in the business world in aspects (1) distribution, (2) marketing, (3) administration, (4) product awakening, (5) manufacturing[11].

The results of field observations show that, in terms of the level utilization of ICT facilities both computer and mobile facilities MSMEs urban higher than the Kabupaten. This can be shown on the intensity score of the utilization rate and the management of ICT facilities of MSMEs businessmen of Kota Bogor by 60 percent and the information management level of MSMEs businessmen in Bandung 70 percent. The result of field observations show that its caused by the educational level of MSMEs businessmen in urban area is higher than businessmen in Kabupaten, so the level of awareness, assessment of the use and benefit of ICT is higher, whereas the utilization level of ICT facilities include the level of intensity of use and level of ICT information management on the businessman in the Kabupaten is moderate. Research results by Kemenkoinfo shows that people in the Kabupaten level understanding of ICT satisfaction is not optimal than the urban community[19]. Observation of field researcher most of MSMEs businessmen in Kabupaten do not routinely use computer facilities in every business activity, but as a whole for cellular facilities using ICT facilities such as Handphone with frequency of use it is > 10 times in one week. Hafsa in his research shows that the higher intensity of ICT utilization facilities influenced by the high competence of businessmen in applying ICT facilities[20]. Based on the result of field observations show that the average level of information management belongs to the MSMEs businessmen in the urban demographic of the population such as consumers have high mobility level on the use of ICT, the urban community tend to cosmopolite, so that the impact of most consumers of SMEs in urban areas tend to be very high in the management of information on ICT facilities, thus encouraging businessmen to actively use a variety of applications either through mobile facilities and computers either choose information,

manage and disseminate information. Suaib research results shows the ability to process data with basic processing into an information can be done more efficiently using computer. The result of field observations show that the application such as Whats App, Blackberry, SMS application is the most application that used on conventional Handphone, the social media application used by some respondents in the Kabupaten to interact with customers[21].

5.4 Personal Competence and Technical Competence of MSMEs Businessmen

Competence of ICT utilization is very important in the era of gitalitasasi because currently there is a shift from offline to digital or online economy. The importance of ICT control optimally in its utilization among business actors. The results of the previous research Eye et. al. and Aang research indicate that the skills of ICT use through the process of facilitation for MSMEs during ICT learning process is quite important[6][22].

The results of field observations showed that the level of personal competence of MSMEs businessmen in the urban areas and in the Kabupaten have high category with a percentage score > 70 percent. This shows the personal ability of MSMEs businessmen who have a persistent fighting spirit and high motivation spirit and have responsibility in the business activity pertained good. The technical competence rate of businessmen in the four areas of this research have moderate categorized with a percentage score > 75 percent. Because of business in Kabupaten Bogor, Kota Bogor, Kabupaten Bandung and Kota Bandung, have limitations in utilizing ICT facilities with a variety of software applications available in computer facilities and Handphone. On average, the MSMEs businessmen only have ability to use of cellular to communicate and manage information that is downloading images and copying images through Handphone media with certain applications. From field observations only Whats App applications and blackberry applications that can be mastered in managing information, while the computer very rarely used in addition to the reason too large and not easy to carry anywhere.

The results of previous research by Sree Devi show that female businessmen in India succeed in the sustainability of their business, by exploiting the potential of ICT[23]. Female businessmen increase the mastery of the use of ICT facilities, by trying to follow the skills of managing information and data by the facilities of computers, starting the process of data entry and managing data.

Rifki's research results indicate the skills or competence of ICT facilities should be controlled by MSMEs businessmen because skills the current managerial business must be integrated with the use of information systems on ICT in any business activity ie for the use of marketing or product promotion, communicating with customers transacting online with customers and business partners[24]. Based on the results of the previous research review above, it can be concluded that the sustainability of MSMEs businessmen can be achieved through the acquisition of ICT technology, for the successful application of ICT in business activities, it is necessary to assist the process. However, the results of field observations describes that the average of MSMEs businessmen in the West Java Province currently has not optimal competence in the mastery of various applications of ICT because of the low level of assistance and support intensity empowerment program related to the utilization of ICT facilities, where the level of intensity of mentoring less than <5.

5.5. Fulfillment of Assumptions, Validity and Reliability

The z value of the construct is known to be greater than the critical value (0.01) which is 2.58. This indicates that the assumption of normality is not met. Nevertheless, Bentler & Chou state that the estimation techniques in the SEM model use a maximum of likelihood estimation even if the normal distribution is not met is still yields good estimate[25]. The determinant value of the sample matrix which is 5.28 shows that the value far from the zero. This indicates that no multicollinearity and singularity in the data so that the assumption is fulfilled. The validity test shows the CFA value of each construct is largely declared good enough. The reliability test shows that the cronbach alpha value of each construct shows a good result of the cronbach alpha coefficient obtained largely to meet with the required by Tomb Rules which is 0.7 [26], with the value of Y1 (0.769). The internal consistency testing of cronbach alpha needs to be done with instrument reliability test with construct validity and extracted variance which obtained mostly shows value above 0.5. This means that all reliable instruments that is Y1 = Competence (0.829) indicates that the value of the MSMEs businessmen variable in Bandung and Bogor both technical and personal competence in utilizing ICT is quite reliable.

5.6. Analysis of Factors that Influences the Competence of MSMEs Businessmen

Factors affecting businessmen competence in utilizing ICT facilities are analyzed by SEM presented in Figure 3.

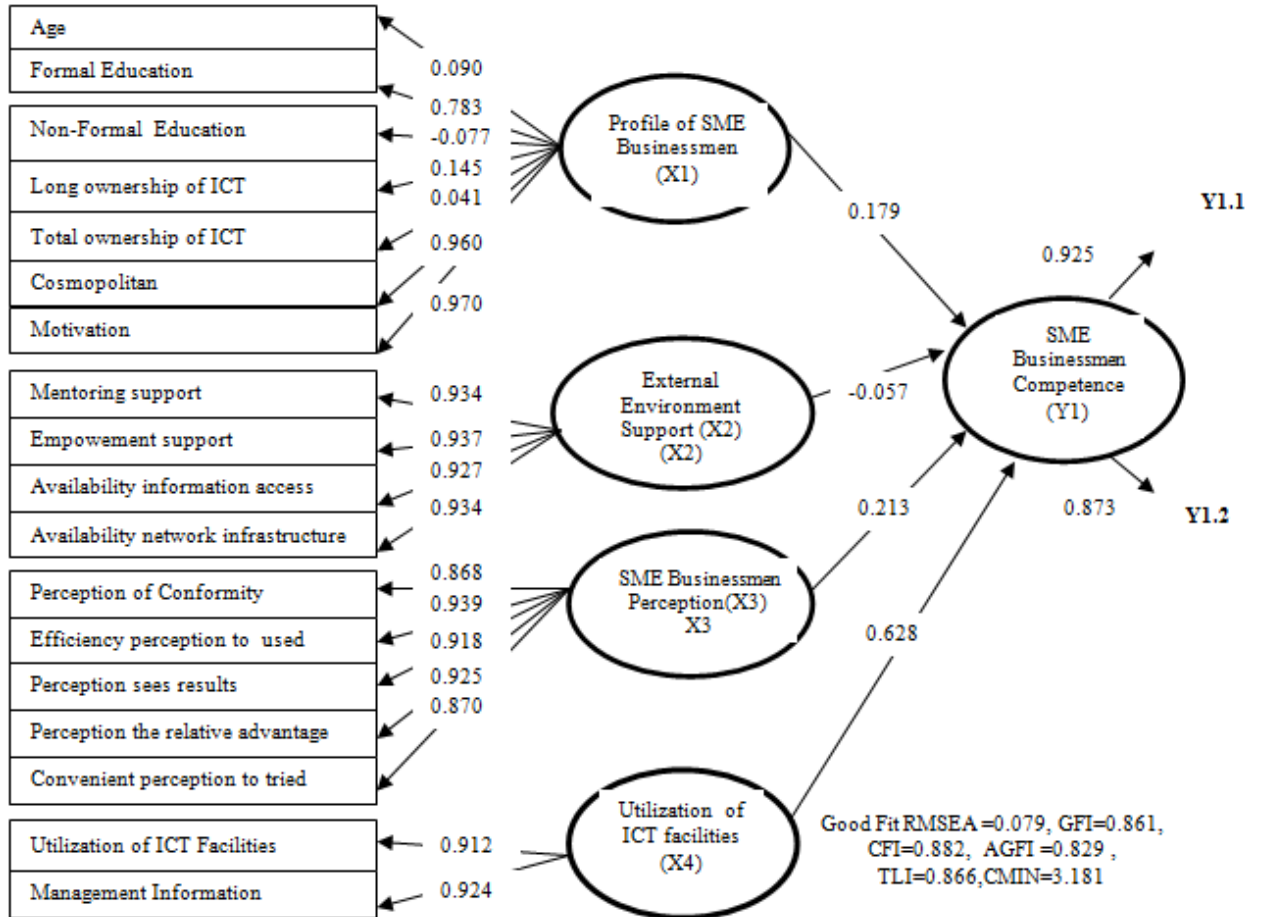


Figure 3 Estimation of Structural Model Parameters

Based on the results of hypothesis testing and the degree of probability of hypothetical causal relationships between each factor of sub variable X1-X4 to Y1. Variable (X1) profile of MSMEs businessmen have positive effect coefficient 0.179 but not significant equal to 0,071; external environmental support has a negative and insignificant effect on the competence of business actors in utilizing ICT facilities (-0.057), MSMEs businessmen perception variable (X3) to competence has a positive effect of 0.213; and variabel (X4) (0.628) the utilization rate of ICT facilities has a positive effect on the competence of MSMEs businessmen. The model in Fig. 3 shows the direct effect variable that can be identified through the decomposition of the effects between variables as presented in Table 2.

Table 2. Decomposition of influence between profiles of SME business actors, external environmental support, perceptions, utilization of ICT facilities, competence and business sustainability

Relationship between variables	The value of influence coef.	Sig. Value
	Direct	
X1 → Y1	0.179	0.071
X2 → Y1	-0.057	-0.536
X3 → Y1	0.213.	0.033
X4 → Y1	0.628	0.000

5.7. Factors Affecting the Competence of MSMEs businessmen in Utilizing ICT Facilities in Bandung and Bogor Region

Based on the value of standardized loading factor (λ), it is known that the 5 percent level of 0.05 factors that influence the competence of MSMEs businessmen is the profile of businessmen, the perception of MSMEs businessmen, the utilization of ICT facilities, through the confirmatory factor analysis of CFA obtained by the model produced good fit and supported by predictive indicators that are declared valid and can be used to measure latent variables, in Figure 3 shows that business actors' competence is more dominantly influenced by the utilization of ICT facilities followed by the magnitude of perception effect.

This is in line with Fatmariansi's research suggests that the intensity of ICT utilization affects the ability of individuals in utilizing ICT[27]. The positive influence shows that the higher competence of MSMEs businessmen, the higher the utilization rate of ICT facilities and the level of information management. Profile of MSMEs businessmen that will have a real effect on the competence of MSMEs businessmen is the motivation and the cosmopolitan level. Motivation is more important role that is seen from the value of weight 0.970 in shaping the profile of MSMEs businessmen in utilizing ICT facilities followed by cosmopolitan which is 0.960. Therefore, the higher the motivation of business actors, the more it affects the competence of MSMEs businessmen. Formal education establishes the supporting factor of businessmen profile by 0.783. The profile of MSMEs businessmen gives a significant influence in increasing the competence of MSMEs businessmen which is 0.179. The higher the formal education, will show the understanding of the concepts and practices in the utilization of ICT. The results of Hubeis show that individual competence factors are influenced by the education process[28]. MSMEs on the characteristics of ICT innovation have a significant influence in increasing the competence of MSMEs businessmen. The higher the influence of MSMEs businessmen perceptions on the characteristics of ICT in improving competence, the higher the perception it will show the higher understanding of businessmen against the character of ICT. The change of perception supporting factor is explained by perception indicators of conformity with requirement (0.868), then the supporting

factor of perception of ease used is (0.939), that is the strongest indicator in reflecting MSMEs businessmen perceptions of ICT innovation characteristics followed by relative profit perception (0.925) then perception of ease to seeing result (0,918) and perception of conformity with requirement and perception of ease to try equal to (0,870). This means the perception of ease of use and profit perception is relatively more dominant in forming the supporting factor variables ie MSMEs businessmen towards the characteristics of ICT innovation affect the competence of MSMEs businessmen in utilizing ICT facilities. This is in line with Heilman et al. shows that the process of perception is closely related to the competence of business actors in utilizing ICT facilities among small businesses[29].

The factors that support utilizing facilities can be explained in the indicator of the level of utilization of ICT facilities 0.912 and the information management level of 0.924. This means that the level of information management is more dominant in forming the supporting factor that is the utilization of ICT facilities to influence the competence level of MSMEs businessmen in utilizing ICT facilities. Audita's research result shows that ICT utilization influences business entrepreneur competence in utilizing ICT facilities[30]. Figure 3 shows that the three indicators explain the competence level. The variables supporting the utilization of ICT of MSMEs businessmen influence of each variable, 3 variables greater than the standard standard > 0.07 with positive sign. This means that the profile level of MSMEs businessmen, the level of perception and the utilization level of ICT facilities have a positive influence on competence of MSMEs businessmen in utilizing ICT facilities. One variable is the support of the external environment does not affect the competence of MSMEs in utilizing ICT

The facts in the field of external environmental support does not affect the competence, because high competence is not necessarily the level of support of external environment is also high, because the results of interviews and observations in the field shows the level of competence of MSMEs businessmen in using ICT is low, but the business continues because it already has a market access network since hereditary, the dominant business comes from family heritage, the ability of businessmen to be obtained from generation to generation, and raw materials are easy to obtain, and have a

regular customer. As in the review of the differences with previous research, competence of MSMEs businessmen are influenced by the creativity and innovation of MSMEs businessmen, with the result of the T value as much as 3.67 and 4.15.

5.8. Strategy of Competence Development of MSMEs Businessmen in Utilizing ICT Facilities

Based on the result of SEM analysis in Figure 3, the formulation of strategy to increase the competence of MSMEs businessmen in utilizing ICT facilities is done with two strategies, first strategy is the development of the first stage competence to increase the intensity of the utilization of ICT facilities is to hold an intensive training program through ongoing assistance, is done in cooperation with business motivation of business group; (2) strengthening perceptions on business actors so that they have an awareness of the importance of using ICT facilities; (3) reinforcement on the attitude of business actors to the use of ICT facilities; (4) awaken the intensity of daily use of ICT Means, intensive training on the use of ICT tools as instructed; (5) providing facilities for extension facilities for business actors; (6) assistance of training facilities supported by appropriate advisory program based on education program as needed, support of capital for procurement of equipment or business capital, support of

community groups. Related to this need to be accompanied and counseling in a sustainable and systematic manner, through appropriate facilitation methods, training materials tailored to the needs of businessmen, establish cooperation with higher education institutions and the availability of professional assistants in ICT field. The second strategy is to increase competence through the strengthening of perception, in this case improve the understanding of business actors related to the important role of ICT in business activities. The following strategy to develop competence of MSMEs businessmen in utilizing ICT facilities using input, process and output strategy is presented in Figure 4.

First stage competence development starts from profiding (1) encouraging and increasing empowerment program and availability of information access and ICT facilities infrastructure. The next stage is the development of business entrepreneur strengthening competence in the business community groups in raising the spirit and increasing participation to use ICT facilities, the availability of learning facilities, and strengthening the group, strengthening cooperation with private parties and universities and strengthening the campaign movement to increase awareness of the importance of the use of facilities ICT.

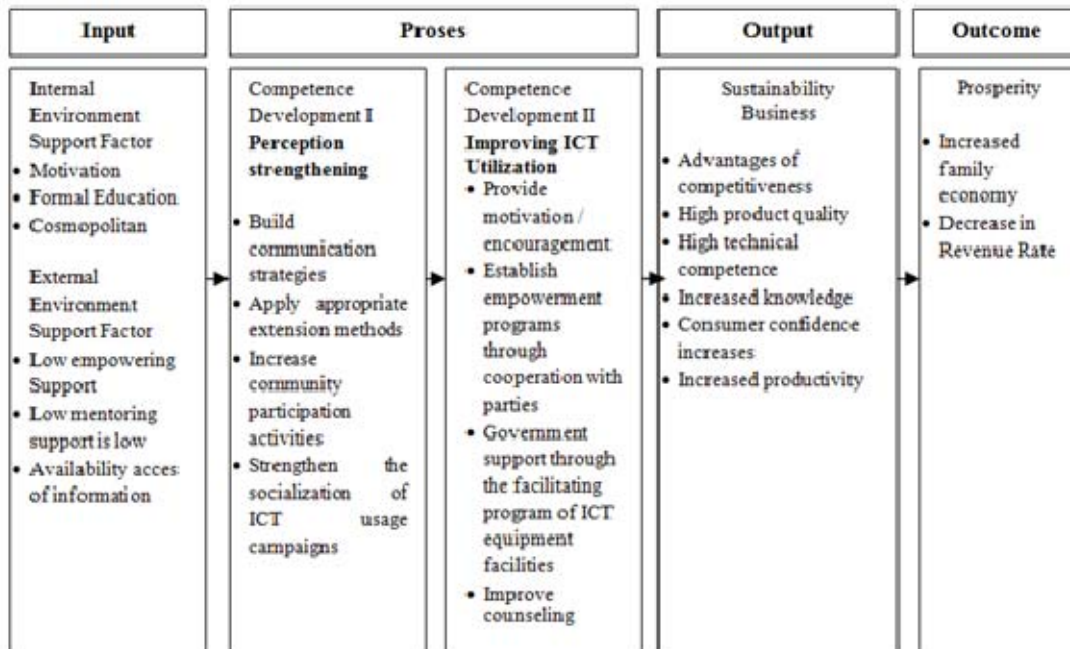


Figure 4. Competence Development Strategy for MSMEs

6. CONCLUSION AND SUGGESTIONS

- 1) The level of competence of MSMEs businessmen in utilizing ICT facilities include high average personal competency and average technical competency in category of Kabupaten Bandung, Kabupaten Bogor, Kota Bogor and Kota Bandung.
- 2) The profile of MSMEs businessmen, the perception of MSMEs businessmen and the utilization of ICT facilities have an effect on the competence of MSMEs businessmen in utilizing ICT facilities, and the factor of the utilization of ICT facilities is the dominant factor influencing business entrepreneur competence in utilizing ICT facilities, the support of the external environment has no effect.
- 3) Increasing the competence of MSMEs businessmen in utilizing ICT facilities is done by strategy: (1) improvement of ICT utilization through intensive program of counseling and mentoring as well as training related to the use of ICT facilities, (2) strengthening perception of the benefits of ICT use in business community groups

INOVATION AND CONTRIBUTION

The research contribution are :

- 1) Provide a general description of mapping the ability of businessmen in using technology to the Government in order to create policies that support for MSMEs businessmen related to the use of ICT for MSMEs businessmen.
- 2) Improving the ability of businessmen in utilizing the technology facilities, especially in developing a variety of software applications and hardware usage for MSMEs businessmen.

Technological innovation provided:

- 1) For businessmen there is effort of counseling process or accompaniment which is appropriate in the form of innovative and creative learning process related to counseling in the process of developing competence of MSMEs businessmen in utilizing ICT facilities.

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