International Journal of Agricultural Economics and Extension Vol. 1 (1), pp. 001-009, February, 2013. Available online at www.internationalscholarsjournals.org © International Scholars Journals

Full length Research Paper

Analysis of the rural farmer entrepreneurship in non-agricultural sector Semarang Regency (Central Java Province - Indonesia): Case study

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Received 22 October, 2012; Accepted 03 February, 2012

Entrepreneurship development of industrial sectors beside the agriculture in the rural area as a support of agriculture entrepreneurship has an important role in increasing the additional value of product, employment creation and undertaking the product orientation into market orientation. The purpose of this study was to analyze the factors that influence farmers' decisions to work in the industrial sector beside the agricultural sector in Semarang Regency. This study was analyzed with logistic regression. Results of this research find the variables that influence the farmers' decisions to work in industrial sectors beside agriculture in Semarang Regency are the vast land tenure, land mastery, low income of agriculture sector, farmers experience and farmer's parent job. Innovation variable has a negative effect; this means more innovation done by farmers in the agricultural sector compared to industrial sectors beside agriculture sector.

Key words: Entrepreneurial market, the supply side, agricultural sector, industrial sector.

INTRODUCTION

The role of entrepreneurship in economic growth has been much discussed, butin some literature the theoritical framework of factors that influence personal decisions to work in the industrial sector is still a matter of discussion (Bwisa, 2010; Verheul et al., 2001). Verheul et al. (2001) describes the exit/entry of entrepreneurship in the industrial sector by analyzing how to take advantage of opportunities and risks, otherwise to explaining the role of government in encouraging entrepreneurship, but has not explained the role of agriculture and industry.

The demand side of entrepreneurship presents opportunities for entrepreneurship. In the demand perspective, the chances of the market demand are very important as an individual puller for entrepreneurship in a particular sector. The more opportunities of the demand, the greater the space created for the potential of entrepreneurship in the sector. In the aspect of demand (macro) is influenced by the structure of entrepreneurial industry (industry sector, outsourcing, networking). Business opportunities in the macro perspective are influenced by the development of market, technology and government policy. The macro perspective trying to measure and focus on the study of environmental factors, such as variable technology, culture and economics and government regulations (Carree et al., 2001).

Micro perspective contents to the study of individual decision-push factors in entrepreneurship that includes personal profiles of farmers, agricultural activity background, economic profile and socio-cultural environmental factors. Approach to empirical studies on which this micro level by: Bosma et al. (2000), Janvry et al. (2001), Berg and Kumbi (2006), Babatunde and Qaim (2007) and Dutta (2004). The research group as done by Wit and Winden (1991) and Bosma et al. (2000) conducted a study on entrepreneurial entry exit from certain sectors to other industries but not the focus of agriculture. Other research groups as done by Berg and Kumbi (2006); Babatunde and Qaim (2007) and Janvry et al. (2005) examined the factors that peasant background to work outside the agricultural sector, but has not focused on aspects of entrepreneurship. Theoretical framework and pull factors driving factors of entrepreneurship in agriculture and rural industries are not yet fit into a gap in the research. The development of the theory of personal decisions of farmers in rural self-employment in industrial sectors other than agriculture

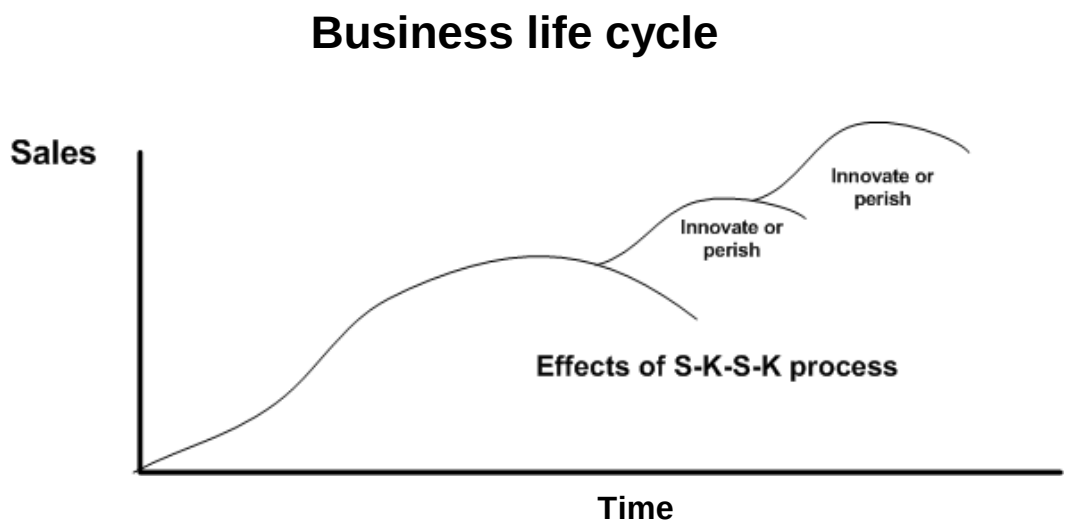

Figure 1. Role of Entrepreneurship to Economic Growth Sources: Bwisa (2010).

attractive investigated as a function of processing industry to increase the added value of the agricultural industry in the countryside.

This theory explains that the entry and exit of entrepreneurs in order to capture the business opportunities is a picture of the profile of income as return and risks that involved in the work. Entrepreneurship development in rural areas needs the stimulant (push) and fetching factors (pull) of the person as a personal decision to work or start a new business. Different concept between stimulant factor/push factor to fetching factor/pull factor is sometimes known as the difference between the perspective on the demand side (a macro perspective: the goods market; regarding the carrying capacity of market) (Bosma et al*.,* 2000) with perspective on the supply side (micro perspective: market labour).

This study analyzes the factors that motivate the decision of farmers working in the industrial sector beside the agricultural sector with the basic theory of exit/entry of entrepreneurship from the agricultural sector to the industrial sector beside the agricultural sector through the supply-side approach/ driving factors (supply side/ push factors). Decisions of farmers through the variable factor: personal profile of farmers, farm background activity, economic, social and cultural environment, innovation and risk by using logistic regression analysis.

Entrepreneurial market

Schumpeter theory said entrepreneurs disrupt the equilibrium, whereas Kirzner theory said otherwise was actually complementary, dialectical and even synergies. So the theory of Schumpeter saw the entrepreneur as an innovator. Innovators act in equilibrium, interfere with innovation and creating opportunities. Theory Kirznerian taken over when disequilibrium was created, while the role of competition for entrepreneurial maturity (through quality competition) in entering growth. An entrepreneurial captures the disequilibrium and act as in the return purpose. According Bwisa (2010), Theories of Schumpeter-Kirzner-Schumpeter-Kirzner (SKSK) was a process that affects the sustainability of economic growth (Figure 1).

The role of entrepreneurship is different from capital owners, managers and professionals. Managers oversee the efficiency of the process, is responsible for routine activities. In contrast, the function of the entrepreneur is creating opportunities and takes advantage of opportunities with a number of return and risk. Compared to the owners of capital, entrepreneurs do not have their own capital. Compared to professionals, professionals use their knowledge to facilitate economic transactions, entrepreneurial economy by providing opportunities to new ideas, products and ways of doing something

Dynamic equilibrium condition of entrepreneurship supply and demand can be seen in Figure 2. Q1 is the amount of resources needed for entrepreneurs to reach the level of profit (return) in the amount of (R1). Changes of exogenous variables (opportunity, deregulation, technology, demography, etc.) create a higher demand on entrepreneurship. The demand of entrepreneurship move from D1 to D2. The demand is higher than the supply to provide motivation to become entrepreneurs. At higher levels, individuals choose to become entrepreneurs, increase the supply of entrepreneurs and resources for entrepreneurial activity. The supply of entrepreneurship moves from S1 to S2. This competition increases the cost to be entrepreneur, reducing entrepreneurial profits in the short term, encourage

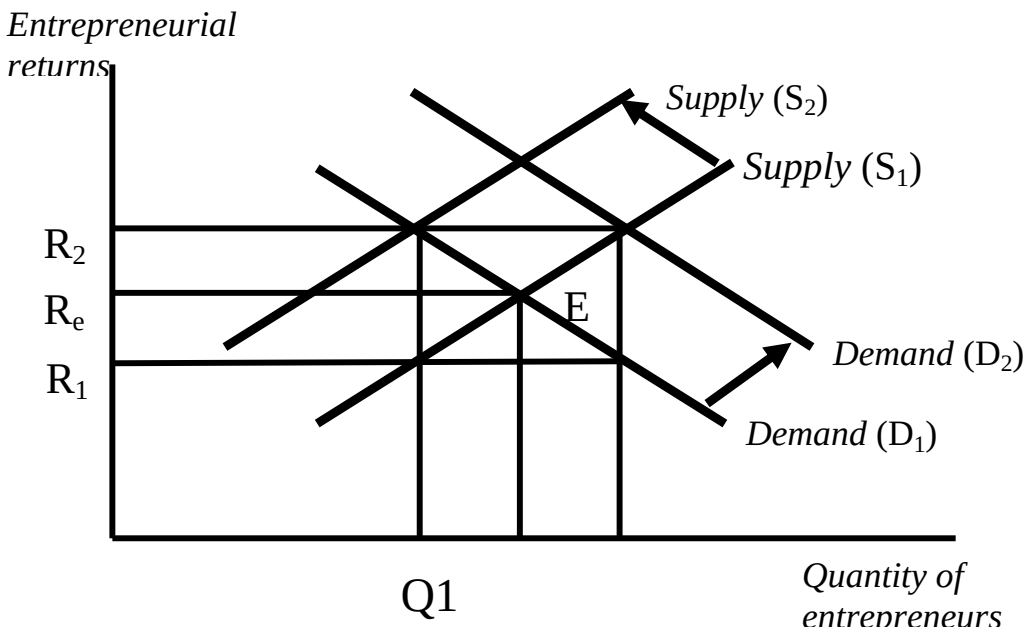

Figure 2. Demand curve, Supply and Balance of Market Entrepreneurship; Sources: Rock and Phan (2010).

individuals to stay away from the decision of choosing to become entrepreneurs and reduce the pressure on the excess supply of entrepreneurship. In the long term the technology drive to the transformation direction more dynamic to the economic carrying capacity, so that absorb the excess of entrepreneurship without having to make adjustments so it does not decrease (return).

By the same logic, one can explain the process in which the entrepreneurial market to balance demand and supply of entrepreneurship. With the assumption that if a decreased rate of return / be lower (R1), then the entrepreneur has a personal decision to stay away from the choice to be entrepreneurs. The result, new equilibrium occurs because there is a reduction in the number of entrepreneurs as a source of power available to perform its role as an entrepreneur. In these conditions, available resources such as the investor will eventually compete to increase entrepreneurship market by encouraging the entrepreneurs in the next period, causing a new equilibrium.

Factors which influencing farmers' decisions working in the industrial sector beside in the agricultural sector by approach of supply side

Factors that influence the entrepreneurial decision in a review of the supply side are the study of entrepreneurship development with an overview of the personal side of entrepreneurship. Model analysis of the factors that influence the personal decision to work in the industrial sector in terms of the supply side to assume that the offer (supply) following the request (demand). In a personal review, Rock and Phan (2010) adopted the theory of Schumpeter and Kitzner and explained that the changes in technology, globalization, and market structure conditions as the environmental factors captured as a business opportunity, in hopes of getting a number of advantages and consider the risks. Under certain conditions demand is greater than supply and it provides the opportunity to enter new businesses, and eventually creating a new balance in an increasingly competitive market. In the conditions of supply greater than demand, entrepreneurs have smaller profit margins and even some businesses tend to suffer losses. In this condition a lot of business will be out of the industrial sector, thus eventually creating a new balance. Decreased in the number of supply and demand may result to balance in both sides. In the market equilibrium conditions are relatively similar with demand and supply businesses in innovating, creating market opportunities and increase demand. Entrepreneurial innovators will enjoy growth in the beginning to the number of followers and will increase supply. Under some conditions mentioned before, entrepreneurs need the resources, ability, personal characteristics, preferences and culture in exploiting opportunities and create innovations (Verheul et al., 2001).

Verheul et al. (2001) in relation to the role of entrepreneurs here only describe the factors that influence personal decisions in the work and analysis has not focused on the agricultural sector. Dutta (2004)

Table 1. Classification of Factors driving entrepreneurship difference between Verheul et al. (2001) and Dutta (2004).

Stimulant factors of Entrepreneurship (Verheul et al., 2001)	Stimulant factors of entrepreneurship (Dutta, 2004)
Resources	Financial (economic) and background of agricultural activities
Ability	Ability experience was formed in psycho-psycho-socio-cultural profile
Personal characteristics	Personal characteristics
Preference	Innovation-risk
Culture	Psycho-socio-cultural

Sources: Verheul et al. (2001) and Dutta (2004).

describes the factors that influence farmers' decisions to work in industrial sector beside the agriculture sector in a review of the supply/stimulant factors (supply side/push factor). Dutta (2004) in his dissertation, entitled "Rural Industrial Entrepreneurship" to identify the driving factors (push factor) entrepreneurship by analyzing the influence of variable factors: personal profile, background agricultural activity, economic, psycho-socio-cultural as well as innovation and risk factors. Variables in the study of entrepreneurship (Dutta, 2004) is actually almost the same as the driving variable (push factor) is expressed by entrepreneurs (Verheul et al., 2001) which consists of: resources (resource), ability (ability), personal characteristics (personality characteristics), preferences (preferences) and culture (cultural). Difference lies in the classification performed (Table 1). Resource factors is one factor that is driving the entrepreneurial as explained by Verheul et al. (2001) consisting of physical and financial resources (economic) variables that are in the background consists of extensive agricultural activities such as, land tenure, access to irrigation, the level of family income and financial support as proposed by Dutta (2004). Factor capability is one of the factors driving entrepreneurship explained by Verheul et al. (2001) consists of learning the skills and capabilities as a talent of birth. Ability aspect of entrepreneurial learning outcomes obtained from the experience described by Dutta (2004). Factor of experience in Dutta's research (2004) is included in the variable group psycho-socio-cultural.

RESEARCH METHODS

This research is conduct with the use of the questionnaires in order to collect data – one questionnaire was for interviewing the farmers who were engaged in family farming with householder who only work in the agricultural sector and the other questionnaire was for interviewing the farmers who were engaged in family farming with householder who are working in the agricultural sector also work in industrial sector. Sample of this research is as many as 342 respondents drawn from four districts within eight selected villages consist of: Gogikand Branjangvillage (District of West Ungaran), Segiriand Terbanvillage (District of Pabelan), South Bergasand Gondoriyovillage (District of Bergas), Bejalen and Candi village (District of Ambarawa). Sampling was carried out through multi stage sampling. Data analysis was done through descriptive analysis of the univariate analysis and logistic regression model. Testing model fit is done using *enter and stepwise* technique based on *Cox and SnellR Square* value, *Nagelkerke R Square* and the *Hosmer and Lemeshow Test*. Logistic regression model used is a binary logistic analysis with the two criteria, namely the decision of farmers to work in industrybeside the agriculture (1) or a farmer's decision to work only on the agricultural sector (0). Formulation of logit model used is a modification of the Gujarati model (2005):

$$\text{Logit (pi)} = \text{Log } [pi/(1-pi)] \quad (1)$$

Perfection of the factors models that influence farmers' decisions to work in industrial sectors beside agriculture in the logistic regression function then can be written as follows:

$$\text{Log } [pi/(1-pi)] = \alpha + \sum_{1}^{n} \beta n Xn \quad (2)$$

Where: pi is the percentage chance of the farmer's decision work in industrial sector beside the agriculture; 1-pi is the percentage chance of farmer's decision work only in the agricultural sector; Xnare the factors that influence farmers' decisions to work in industrial sector beside the agriculture. If p denote the probability of individual, the i-th has a value of y = 1, then the logistic regression model i, with k independent variables, the model perfection of the factors that influence farmers' decisions to work in industrial sector beside the agriculture. In the further logit function can be written as follows:

$$\text{Log } [pi / (1-pi)] = \alpha + \beta 1AGE + \beta 2MARS + \beta 3CHILD + \beta 4GEND + \beta 5EDU + \beta 6LAND \beta 7WEALTH + \beta 8FSUP + \beta 9AGRI + \beta 10CROP + \beta 11EXPER + \beta 12PARENT + \beta 13FATE \beta 14INOV + \beta 15RISK \quad (3)$$

Where: AGE = age of farmer, MARS= Marital Status, CHILD = number of children, GEND = gender, EDU = education, LAND = large land tenure, WEALTH =

Table 2. Results of processing variables with logistic regression research.

		Farmer's decision			Farmer's decision		
		β	**Wald**	**p-value**	**β**	**Wald**	**p-value**
A.	Factors						
1	AGE	0.002	0.003	0.955			
2	MARS	1.490	0.564	0.453			
3	CHILD	-0.134	0.110	0.740			
4	GEND	0.482	0.230	0.631			
5	EDU	0.185	0.149	0.699			
7	LAND	-3.492	6.663	***) 0.010	-3.211	6.608	**) 0.010
7	AGRI	-2.153	4.292	**) 0.038	-2.000	5.016	**) 0.025
8	CROP	-3.311	3.363	0.067	-3.302	3.696	0.058
9	WEALTH	-0.001	4.440	**) 0.035	-0.001	3.609	**) 0.037
10	FSUP	1.829	3.360	0.060	1.661	3.313	0.069
11	MAREL	7.950	39.824	**) 0.000	7.611	47.962	***) 0.000
12	FATE	-10.276	0.141	0.707	-9.939	0.129	0.720
13	PARENT	1.250	4.303	**) 0.038	1.121	4.531	**) 0.033
14	INOV	-3.769	9.183	***) 0.002	-3.528	10.760	***) 0.001
15	RISK	0.036	0.001	0.973			
16	Constant	11.537	0.175	0.676	12.670	0.214	0.643
B.	Model Fit						
1	*Cox and Snell P square*		0.657			0.656	
2	*Negel-kerke Square*		0.929			0.928	
3	*Hosmernd Lemenhsow test*						
	Chi-Square		3.743			4,121	
	Significant Chi-square		0.880			0.846	

***) Correlation is significant at the 0.01 level (2-tailed); **) Correlation is significant at the 0.05 level (2-tailed). Source: Based on the results of the questionnaire.

economic status/income, FSUP=financial family support, AGRI= land ownership status, CROP= types of crops, EXPER= experience, FATE= work-effort or fate, INOV=innovation, RISK= risk taking.

Interpretation of the calculation results was performed using *odd ratio* or chance (probability). Logit model procedure will be used in predictions, if the probability > 0.5 and prediction does not happen but the reverse probability <0.5 (Gujarati, 2005).

$$\frac{Prob\ (happens)}{Prob\ (does\ not\ happens)} - e^{\beta 0+b1X1+\cdots+\beta nXn} \quad (4)$$

Estimate β_0, β_1, β_2, ... β_n thereby measuring the probability ratio of an event happening or does not happen. If the coefficient is positive then the probability of happening will increase, but if the coefficient is negative it would produce the opposite.

Comparison between an occurrence happens and does not happen call the odds $=\frac{p}{1-p}$

$$\text{Log odds} = \ln\frac{p}{1-p} = a + bX \quad (5)$$

So measuring the extent to which X can increase/decrease the log probability of an occurrence happening, in this study means the log probability of the farmer's decision to work in industrial sector beside the agriculture.

RESEARCH RESULTS

Based on logistic regression analysis that is processed by the SPSS program to develop a research model in Table 2. Based on the processing of research data in Table 2 can be performed as an interpretation on every variable. The first step performed estimation by enter

technique and the results obtained the Cox and Snell's R Square value = 0.657 and the Nagelkerke's R value = 0.929. This means that the variability of the dependent variable which can be explained by the variability of the independent variables in the amount of 65.7% is based on the Cox and Snell's R Square value and as big 92.9% based Nagelkerke's R value. Model fit analysis can also be used to analyse the Hosmer value and Lemeshow's Goodness of fit value. Hosmer-Lemeshow value = 3.743 (Significance = 0.880> 0.05). This means the model is avowed to fit (the empirical data equal to the model or the model is mentioned to fit or acceptable).

Based on the calculation of the logistic regression equation by including all variables (15 variables) in the research model obtained results in Figure 2 and included in the equation is as follows:

$$\text{Log [pi / (1-pi)]} = 11.537 + + 0.002\text{AGE } 1.490\text{MARS} - 0.134\text{CHILD} + 0.482\text{GEND } 0.185\text{EDU} - 3.492\text{LAND} - 2.153\text{AGRI} - 3.311\text{CROP} - 0.001\text{WEALTH FSUP } +1829 + + 7.950\text{EXPER} - 10.276\text{FATE} + 1.250\text{PARENT} - 3769\text{INOV} + 0.036\text{RISK} + \varepsilon \quad (6)$$

The result related to the dichotomous independent variable (0.1) found that the factor of land mastery status (AGRI) has a regression coefficient of -2.153. A negative coefficient has a meaning, the ownership status of arable land owned by himself (1) will encourage the farmer's decision to keep working in the agricultural sector (0), while the status of ownership of arable land non-owned (rental, cooperative, hodge = 0) will encourage the farmer's decision to work into industrial sector beside the agriculture (1). *Old ratio* (OR) for = $e^{\beta} = e^{-2.153\text{AGRI}} = 0.116$, meaning the farmer's probability of having own land than land non owned mastery status to get into the industrial sector as big 0.116 times, with a note the other variables are constant. These results mean that farmers with land ownership status will encourage farmers to keep working only in agriculture, while land ownership status is not owned will encourage farmers to decide to work in industrial sector beside the agriculture.

Factors of the farmer's experience outside of the agricultural sector (EXPER) had a regression coefficient of 7950. A positive coefficient meaning farmers who have experience working outside the agricultural sector (1) will drive the decision of farmers to work into industries beside the agriculture (1), while farmers who have no experience working outside the agricultural sector (0) tends to have a decision to works only in the agricultural sector (0). *Old ratio* (OR) for = $e^{\beta} = e^{7.950\text{EXPER}} = 2836.796$, has meaning in the probability of farmers who have experience compared to those who do not have the experience to get into the industrial sector at 2836.796 times (very large), with a note that the other variables are constant. This result means that farmers who work in the industrial sector beside the agricultural sector require experience. Farmers who do not have experience tend to stay in agriculture, while farmers who have experience outside the agricultural sector will encourage farmers to decide to leave the agricultural sector.

Farmer's parents work factors (PARENT) have regression coefficient of 1,250. Positive coefficient meaning farmers who have parents that are working in the agricultural sector (0) tends to have a decision to keep working only in agriculture (0), while the farmers who work in industrial sectors beside the agriculture (1) generally have parents who are also working in the industrial sector (1). Old ratio (OR) for = $e^{\beta} = e^{1.250\text{PARENT}} = 3.491$, meaning the probability of farmers who have parents working outside the agricultural sector compared to farmers who have parents working in the agricultural sector only get into the industrial sector by 3.491 times, with a note of other variables are constant. These results mean that farmers who work either in agriculture or in industry are in business for generations. Farmers working in the agricultural sector tend to have parents who are also farmers, while farmers who working in the industrial sector tend to have parents who also work in the agricultural sector beside the agricultural sector.

Farmer's interest factor on innovation (INOV) had regression coefficient of -3769. Negative coefficient meaning that farmers are interested on innovation (1) has a decision probability only works in the agricultural sector (0) than work in industries beside agriculture sector (1). *Old ratio* (OR) for = $e^{\beta} = e^{-3.769\text{INOV}} = 0.023$, has the meaning of the probability of farmers who are interested in innovation than the farmers who are less interested in innovation to enter the industrial sector by 0.023 times, with a note the other variables are constant. These results mean that the farmers who worked in the agricultural sector would have an interest in innovation is higher than the farmers working in the industrial sector. This can be caused by hereditary characteristics of the industry and farmers willing to produce rather than market-oriented, whereas in the agricultural sector, the knowledge of cultivation, production technology, management assistance, among others, many obtained through regular meetings of farmer groups and extension of local officials.

The results related to the continuous independent variables found large land tenure factor (LAND) has a regression coefficient of = -3.492. Negative coefficients have meaning and wider land tenure will encourage farmers to continue to work only in agriculture (0), while more narrow the land tenure will encourage farmers to work in industry sectors beside the agriculture (1). Coefficient value of -3492 have meaning in decrease in average of arable area 1 ha can increase the probability of farmers (*Old ratio* = OR) working in the industrial sector for $e^{\beta} = e^{-3.492\text{LAND}} = 0.03x$ (3%), with notes other variables are constant. These results mean that the farmers who worked in the industrial sector haven arrowed land tenure than the farmers who work only in agricultural sector.

Vastness of small land tenure encourages farmers' decisions to work in industrial sector beside the agriculture.

Income factor of farmers (WEALTH) have regression coefficients for = -0.001. Negative coefficient has a meaning of higher income of farmer will encourage farmers to continue to work only in agricultural sector (0), whereas much lower income of the farmers will encourage farmers to work in industrial sectors beside in the agriculture (1). Coefficient value = -0.001 has meaning in reduction of the farmer's income amounted to Rp 1,000, will only increase the probability of farmers working in the agricultural sector and also working in the industrial sector beside the agricultural sector for $e^{\beta} = e^{-.001WEALTH} = 0.999 \times (99\%)$, with other variables that are constant. These results have a meaningful lower income in agriculture and encourage the farmer's decision to work in industrial sectors beside agriculture. Farmers who work in industrial sectors beside agriculture have lower incomes in the agricultural sector than the farmers who work only in agriculture sector.

DISCUSSION

Related to entrepreneurship development policy in rural industrial sector (agroindustry) as a supporter of entrepreneurial agriculture (agribusiness) in Semarang regency is necessary to note especially in relation to the acquisition of agricultural land by farmers are increasingly limited, the increase of value-added agricultural products, job creation in the orientation agriculture sector and also agricultural orientation which start from product orientation to market orientation. In developing a modern agricultural sector and competitive, the field of agro-industries are expected to be the locomotive and at the same determinants of farm sub-sector that define the upstream agribusiness sub-sector (Ministry of Agriculture, 2008).

Within the framework of understanding and develop entrepreneurship in rural areas can be viewed from the push factors that consist of environmental factors both internal entrepreneurial demographic backgrounds, agricultural activities, economic, and social factors culture is a pull factor of entrepreneurship opportunities in the industrial sector in addition to the agricultural sector (Verheul et al., 2001). This study aims to determine the factors that influence the decision of a rural farmer entrepreneurship in other sectors than agriculture industry in Semarang District viewed from the push factors. The results of research found that the area of land tenure (LAND) and tenure (AGRI), income (WEALTH), experience outside the agricultural sector (MAREL), parental occupation farmer (PARENT) and innovation factors (INOV) are all factors that influence farmers' decisions to entrepreneurship in other sectors than agriculture industry. Farmers' incomes affect the farmer's decision to entrepreneurship in the industrial sector than the agricultural sector (p-value = 0.015 <0.05). Low returns to work in the agricultural sector are factors that influence farmers to abandon agriculture and move on or to diversify by working in non-agricultural sectors of both full-time and casual (Dutta, 2004; Janvry et al., 2005; Berg and Kumbi, 2006; Babatunde and Qaim, 2007). Low-income primarily owned by dryland farming areas, or rain-fed farmers with small land holdings and it is not own.

Agricultural land increasingly narrow (below 0.5 ha) and does not belong to themselves encourage farmers to become entrepreneurs in the industrial sector besides agriculture (Sig. wald-test <0.010 and <0.05). The results of this study support previous research as performed by Janvry et al. (2005) and Berg and Kumbi (2006) which found that the narrow land tenure is a factor affecting farmers' decisions to entrepreneurship than in the agricultural sector. Society prefers entrepreneurship in sectors other than agriculture industry rather than as a farmer because the rewards are better. Farmers earned wages in the industrial sector than the agricultural sector and the wages is greater than the work of farmers or farm laborers.

In general, rural areas of Semarang regency are a fertile area with irrigation access, and do not encourage the farmer's decision to work in industrial sectors beside the agricultural sector. In the agricultural sector, it already provides adequate income and economic welfare of farm households. While in the rural areas without irrigation access, though some areas are pocket of poverty, with low education level of the people, dependent on rain-fed land, and away from the trade and economic centre therefore the physical environment, society and culture aspect of the community does not yet support industrial entrepreneurship. Thus found significant effect between irrigation accesses to the decision of farmers to work in industrial sectors beside the agricultural sector.

Low incomes in agriculture are encouraging farmers to become entrepreneurs and to seek opportunities in other sectors of industry other than agriculture. Before deciding entrepreneurship in industries other than agriculture, farmers gain experience through: working on other people, explore the experience of friends/neighbors/family, knowledge and skills of agricultural extension or pursue a family business that has been handed down. Variables such experiences ultimately affect farmers entrepreneurship in sectors other than agriculture industry (p-value = 0.000 <0.05). Experience forming ability and the opportunity for individuals to practice, gain feedback and develop the skills that lead to personal efficacy and hope the results are satisfactory (Farzier and Niehm, 2008). Work experience is an important factor in the development of entrepreneurship (Segal et al., 2005). Work experience can influence career choices with the introduction of new ideas, build the necessary skills and provide access to role models (Farzier and Niehm, 2008).

Results of research also found that most of the farmers have father's farmers (> 56%). Occupational factors of

the parent's farmers is a factor that has a significant variable on farmers' decisions entrepreneurship in others sector than agriculture industry (Score wald-test 4303, sig. Wald-test = 0.038 <0.05). This finding is mainly due to agricultural and industrial activities in rural areas of Semarang District that have characteristics as a family business that has been done for generations. Parents give a strong impact on the formation of entrepreneurs; entrepreneurs usually have a parent who is also an entrepreneur (Farzier and Niehm, 2008).

Innovation variable is also an important factor that is needed in the entrepreneurial process. Variable interest in innovation is the important variable that is a characteristic of the entrepreneurial factor, a significant predictor (p-value <0.05). In contrast to the findings of previous studies (Dutta, 2004; Martin, 2004; Mittal, 2003), the results of this study found a negative effect. Negative effect indicates that there is in fact innovation in agriculture than in industry sectors other than agriculture. In general, a rural area of Semarang District is a fertile area, although there are some areas that are dry and rainfed land. The development of agricultural innovation through technology transformation done in group meetings, namely farmers through local agricultural extension and more advanced than the innovation in small and medium industries.

Agricultural products in rural areas not only rice and crops, but horticultural commodities such as vegetables, fruits and flowers thrive. This is supported by the condition of rural areas in the district of Semarang which is a fertile area with access to irrigation networks, and supported by a good farming system such as through intensification, innovation and use of technology in agriculture. In the group of farmers who decided to become entrepreneurs in the industrial sector are oriented, in addition to the agricultural production, processing of agricultural lands in ways that traditional farming only as a pastime rather than managing market-oriented agriculture. This causes the variable risk (risk taking) that is not a significant predictor affecting farmers' decisions in entrepreneuring of agriculture sector.

Judging from the risk profile, both self-employed farmers in the agricultural sector and in sectors other than agriculture industry together to avoid the risk. Farmers prefer to invest in savings deposits, time deposits and buy gold when the funds have more than earned income rather than invest it in the new venture. Conditions of uncertainty, low purchasing power due to the prolonged economic crisis in Indonesia encouraged the farmers to decide to pursue the business that occupied at this time than to start a new business.

The results of this study have not found effect of personal factors (age, marital status, gender, number of children and education level) against the decision of farmer entrepreneurship outside the agricultural sector. Marital status, if supported by sufficient revenue is not a motivating factor farmer entrepreneurship in industry than agriculture because agriculture remains attractive for farmers. The average age of farmers over 40 years, supported by low farmer education (educated SD = 64-65%) so that they remain reluctant to leave the agricultural sector. For them agriculture is tradition and is hereditary. While the high school-educated young farmers (28 to 31%) and undergraduate (1 to 2%) may not necessarily be looked at businesses in industry sectors other than agriculture, as there is uncertainty in the industry other than agriculture. Similarly, in terms of family dependents, the number of dependents is great, if supported by high income because of fertile arable land, and have access to extensive irrigation and high land rulership, not a self-employed farmer push factor in the industrial sector than agriculture because agriculture remains attractive for farmers. The number of dependents is small, but low income as a narrow land tenure, a motivating factor for farmers to become entrepreneurs in the industrial sector than the agricultural sector because industrial sectors other than agriculture remains attractive to them. Judging from the gender, although most managers of businesses in the industrial sector on the family business of farmers are women, but men as business manager still has a dominating role as the manager of the business (55.9%). Several explanations have caused personal factor which is not a variable farmers' decisions to entrepreneurship in others sector than agriculture industry.

Network access is not a significant predictor affecting farmers' decisions (Score wald-test 3.663, sig. Wald-test = 0.067> 0.05)). In some rural areas that do not have access to irrigation, are pockets of areas of poverty (low public education; depend on rain-fed dry land, and far from the city center). In this area a lot of farmers decided to become entrepreneurs in the industrial sector than the agricultural sector. In the area of entrepreneurship culture in both agriculture and non-agriculture sector did not grow. If there is a culture like that some people are less supported by the market due to low purchasing power because most of the people are working in the agricultural sector with low income. Farmers are self-employed in the industrial sector, but also a lot of their business is the business side of heredity.

In contrast to the rural areas in the district of Semarang is a fertile area with access to irrigation networks, in general, is an area with a developed economy. This will establish market share, both for agricultural and industrial commodities, here entrepreneurship grows more here. But this does not necessarily encourage farmers entrepreneurship in non-agricultural sector, because the system has been supported by the intensification of agriculture, innovation and use of technology in the agricultural sector which supports the welfare of farmers, farmers are not much interested in working in other sectors because agriculture itself has given adequacy of income and economic welfare of farm households. According to Verheul et al. (2001) in and out (entry / exit)

entrepreneurship within a business sector shows a picture of the risk profile and profitability of a business. In accordance with this study that the decision of farmer's entrepreneurship in sectors other than agriculture industry will give an idea of the opportunities in the industrial sector increase farmers' income. Farmers who remain self-employed in the agricultural sector will give a good overview of the market is still in the agricultural sector so that existing entrepreneurs in the agricultural sector remained only works in the agricultural sector.

Factors of hard work is not a factor that has a significant variables on farmers' decisions entrepreneurship in industries other than agriculture (Value wald-test 0.141, sig. Wald-test = 0.707> 0.05). This suggests that the culture of hard work is not necessarily a motivating factor for farmers to become entrepreneurs in the industrial sector than the agricultural sector. Both types of businesses that occupied the same demands work hard to obtain a favorable outcome.

This study provides a theoretical framework decision entry self-employment from agriculture to rural industry that entrepreneurial decisions are influenced by several factors in the economy (income), agriculture (extensive tenure and tenure), sociology (parents work and experience) and the psychology of decision making (innovation, but the risk was not significant).

Conclusion

This research result found no variables in the group of personal profile of farmers that affect farmers' decisions to work in industrial sectors beside agriculture in Semarang regency. Personal profiles of farmers who analyzed through variables of age, marital status, education, gender, number of burden is not a variable that affects the decisions of farmers working in industrial sectors beside agriculture.

Variable group of agricultural activities background factors that influence the decisions of farmers working in industry sectors beside the agriculture in the Semarang regency is the vast land tenure and land ownership status. Land tenure which is low and does not belong to the farmer will encourage farmers to work in industrial sectors beside the agriculture. Other factor in the group of agricultural activities background variables, are irrigation access which is not a variable that affects the decisions of farmers working in the industrial sector beside the agricultural sector.

Variables groups of the economic factors affecting farmer's decisions to work in industry sectors beside the agriculture in Semarang regency is the income level of farmers' which is low. The lower the income level of farmers in the agricultural sector will encourage farmers to work in industry sectors. Another group of economic factors that support families are not factors that influence farmers' decisions to work in industry sectors beside agriculture.

Factor in the socio-cultural variables that influence farmers' decisions of working in industrial sectors beside the agriculture in Semarang regency is a variable of farmers experience working outside the agricultural sector and parents job, while the other factors which is SWOT/ hard work is not a factor influencing farmers' decisions to work on industrial sectors beside the agriculture.

The study found that variable as an indicator of entrepreneurial innovation negatively affect farmers' decisions to work in industry sectors beside agriculture in Semarang regency, while the risk is not a variable that affects farmers working in industry sectors beside the agriculture in Semarang regency. Innovation variables based on logistic regression analysis showed a negative effect because innovation is not only needed in non-agricultural industries sector such as other non-farm job but in agricultural also need innovations in its processing. Agriculture in Semarang regency has potential to become the livelihood and well developed.

IMPLICATION

The findings in this study earn recommendation that the rural areas that have no chance of improving the welfare of farmers such as limited land, are encouraged to work in industrial sectors beside the agriculture sector to increase their income, such as through training, internships and market development. In some agricultural areas still presents a good opportunity in working in the agricultural sector as supported by the fertile land and enough land mastery, the government can encourage farmers to keep working in agriculture or working in other sectors, and improve farmers' understanding and skills that working in the agricultural sector is not only understood as the production process but also the entrepreneurial spirit needs to be invested in the agricultural sector.

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