Proceeding

International Workshop on Agribusiness

Entrepreneurship and Innovation for Food Security and Rural Development

IPB International Convention Center, Bogor - Indonesia,
5 - 6 December 2012

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University of Kent

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GEORG-AUGUST-UNIVERSITÄT GÖTTINGEN

Department of Agribusiness
Faculty of Economics and Management
Bogor Agricultural University

PROCEEDING

International Workshop on Agribusiness
"Entrepreneurship and Innovation for Food Security and Rural Development"

**IPB International Convention Center, Bogor - Indonesia,
5 - 6 December 2012**

Organized by
Bogor Agricultural University – Indonesia
Maastricht School of Management – The Netherlands
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Wageningen University – The Netherlands

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FOREWORD

With deep satisfaction I was writing this foreward to the Proceedings of International Workshop on Agribusiness that brought forth an interesting topics of **Entrepreneurship and Innovation for Food Security and Rural Development** held in IPB International Convention Center, Bogor Agricultural University, Indonesia, on 5 -6 December 2012. Planned to be held annually in the future, the workshop has been conducted with the support of NICHE – a project at Department of Agribusiness Bogor Agricultural University funded by NUFFIC, the Netherlands.

Diverse papers and discussion represent the thinking and experiences of mixed and various scholarship, students and professors of their particular interest and fields. Of valuable was the presence of prominent scholars from the Netherlands, Germany, Australia, England, and Asian countries, including Indonesians who brought their newest findings out of their research works. Their contributions helped to make the Workshop as outstanding as it has been.

Special thanks are due to the invited speakers Prof. Onno Omta of Wageningen University and Research Netherlands, Prof. Stephan von Cramon Taubadel of Goettingen Unversity Germany, Prof. Peter Warr and Dr. Budy Resosudarmo, of Australian National University, Dr. Luca Cacciolatti of Kent Business School England for their valuable contributions and shared knowledges. We would like to also to thank the editor of the proceeding, Dr. Amzul Rifin, Dr. Suharno, Yanti N. Muflikh. Siti Jahroh PhD, and Hamid Jamaludin for the layout of the proceeding.

It is my hope that this proceeding will contribute to the development of entrepreneurship in agribusiness and rural development in the world and in Indonesia especially.

Dr. Nunung Kusnadi
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INFLUENCE OF ENTREPRENEURIAL CHARACTERISTICS TO THE PERFORMANCE OF SMALL AND MEDIUM SCALE AGRIBUSINESS ENTERPRISES IN WEST JAVA

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ABSTRACT

Small and medium scale enterprises (SMEs) play an important role on national economic development. They contribute to 55.6 percent of Gross Domestic Product and they provide 93.7 percent of national employment. However SMEs face problems related to entrepreneurial development. Thus, this research aims at identifying personal characteristics and characteristics of entrepreneurship and analyse value added and performance of small scale businesses in West Java. This study analyses the influence of characteristics of entrepreneurship to performance of SMEs in West Java. Value added is also analysed based on proposed method by Hayami et.al. (1987).This study involves 302 owners of SMEs in West Java. This research uses mix method approach of qualitative and quantitative. Meanwhile, the influence of entrepreneurial characteristics to the performance is analysed using Structural Equation Modelling (SEM). This research found that added value of several products is in the medium category. It is found that characteristics of entrepreneurship influences positively to its competences and its overall business performance.

Keywords : *entrepreneurial characteristics, added value, performance of entrepreneurship*

INTRODUCTION

BACKGROUND

Small scale businesses play an essential role to support national economic development. According to BPS (Central Bureau of Statistics) (2010), SMEs contributed to about 55.6 percent of gross domestic product (GDP) in 2009, 97.33 percent of employment absorption and 20 percent of non oil and gas export. About 51.4 percent of the total contribution of SMEs was contributed by SMEs of agricultural sector.

SMEs have both strengths and weaknesses. SMEs have self determination and flexibility to do what they want to do, and are quite tough, have no or lack of liability to the financial institution due to the perception of *unbankable* and use local input. However, SMEs have both structural (management, organization, quality control and adoption of technology) and cultural weaknesses which result in structural weaknesses. Theses weaknesses are also contributed to the lack of entrepreneurial characteristics.

At present, Indonesian government promotes SMEs as national development agenda. In order to support this agenda and minimize weaknesses, the study of characteristics and competency of entrepreneurship is very crucial. Entrepreneurial competency of SMEs is an important aspect to maximize the use of economics competitiveness development factors efficiently, to encourage positive mindset, to develop market sensitivity and to improve creative thinking, as a result SMEs have ability to acquire business opportunities, to increase their business performance and being independence in running their business.

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RESEARCH OBJECTIVES

To identify entrepreneurial characteristics of SMEs of agro industry in West Java Province

1) To analyse added value of SMEs of agro industry product in West Java Province as one of business performance indicators
2) To analyse influence of entrepreneurial characteristics to the performance of SMEs through entrepreneurial competencies

LITERATURE REVIEW

Suryana (2003) claims that entrepreneurship describes an ability to create added value in the market by organizing production factors with either new or different approaches/methods though: (1) developing new technology; (2) inventing scientific knowledge; (3) modifying current product and services; and (4) developing new approaches and methods to produce product efficiently. Furthermore, Hisrich and Peters (2000) states that entrepreneurship is a process of creativity by providing all their time and effort with the willingness to take financial risks, souls, socials and derived incentives in term of financial and self satisfaction. Drucker (1996) points out that entrepreneurship is illustrated as enthusiasm, capabilities, attitudes and behaviour in running business or an activity in finding, creating applying new approaches and new products through improving efficiencies in order to achieve higher consumer satisfaction and then higher profit. In addition to that, Meredith et.al, (1996, h.9), states that entrepreneurship is ability to comprise personal characteristics, financial and other resources. Moreover, As'ad (2003, h.146) defines that entrepreneurship is an ability and attitudes towards independency, creativity, innovativeness, hardworking, focus on vision, risks taking without ignoring others desires. Thus, from these definitions of entrepreneurship reveals that there are main characteristics of entrepreneurship as follows, self confidence, risk taking, tolerant of uncertainty, innovativeness, enthusiasm and hardworking.

Suryana (2003) states that there are five basic competencies of entrepreneurship which are described as follows (1) managerial capability including capability to manage information system, manage production, marketing, human resources and financial; (2) Conceptual competency including orientation to tasks and outcomes, focus on long term business and leadership; (3) Social ability including communication skills, ability to cooperate and ability to consult to the experts; (4) Decision making capability; and (5) time management capabilitiy. Entrepreneurial competencies are closely related to managerial capability (Boyatzis 1982, cited in Bautista et.al. 2007). Competencies may describe fairly or may become a bridge between individual characteristics of entrepreneurship with business performance (Bautista, et.al. 2007). Furthermore, Suryana (2003) claims that entrepreneurial competencies directly influence to the performance so as the entrepreneur is a person who always focus on outcome. Thus, overall achievement of entrepreneurs is determined by their attitudes and behaviour (Meredith 1996).

RESEARCH METHODS

RESEARCH SITE AND TIMELINES

The study was conducted in five Regions in West Java Province including Bogor, Bandung, Cianjur, Garut and Ciamis. These locations are chosen purposively considering that SMEs in agro industry have grown in term of quantity and types of business. The study was held from March 2012 until November 2012. Data collection was carried out in July 2012.

RESPONDENTS SELECTION METHODS

Respondents of this research are SMEs practitioners in agro industry, particularly in food industry. Respondents were elected purposively with regard to their willingness to be interviewed and also considering the availability of data of SMEs.

However there are several considerations to select respondents. 1) Respondents are categorised as SMEs according to UU N0 20 in 2008, 2) Respondents are the owners of the SMEs and had operated business for about 2 years thus the business performance could be analysed. All the interviewed SMEs in West Java are 302 respondents. From the total of respondents there are 60 respondents in Bogor, 61 respondents in Cianjur, 61 Respondents in Garut, 60 respondents in Bandung and which are 60 respondents in Ciamis.

DATA COLLECTING METHODS

The study uses both primary and secondary data. Primary data includes characteristics of respondents, characteristics and business of SMEs and characteristics of entrepreneurship and inputs for added value. The data was collected through survey to the respondents. Questionnaires are used in conducting both structure and semi-structure interview. Structure interview utilizes questionnaire with 4 *likert* scale to derive information about characteristics, competencies and performance of SMEs. Each scale is interpreted clearly and consistently in order to have consistent answer from the respondent. Validity and reliability of the questionnaire was tested first before it was used as an instrument of the survey. Meanwhile, secondary data was derived from the previous relevant research papers, articles and books.
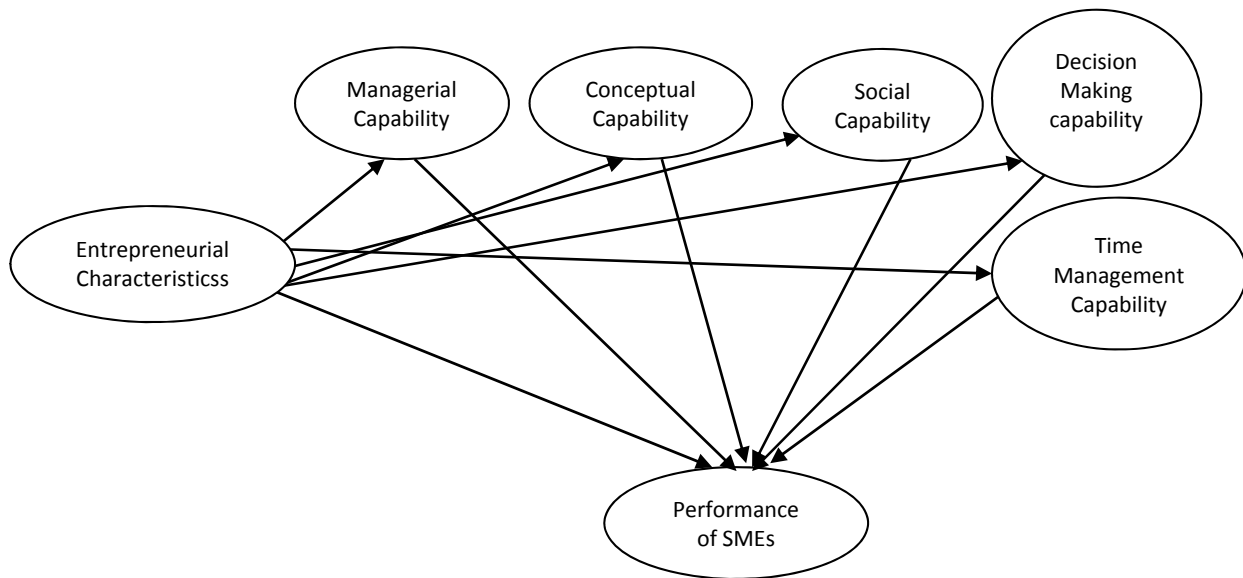
METHOD OF ANALYSIS

Data is analysed qualitatively and quantitatively. Characteristics of demography and business profile are described and analysed qualitatively. Influence of entrepreneurial characteristics to the performance of SMEs through entrepreneurial competencies is analysed using SEM (*Structural Equation Model*). Furthermore, value added of several SEMs product is also measured to support the explanation of SMEs performance.

Structural Equation Modelling (SEM)

The model consists of one exogenous latent variable (entrepreneurial characteristics), 25 manifest variables, 5 endogenous variables of competencies (managerial capability, conceptual capability, social capability, decision making capability and time management capability) and 1 endogenous variable of SMEs performance (Figure 1). Entrepreneurial characteristic is constructed by self confidence, ability to take risks, innovativeness, hard working, enthusiasm, and tolerance of ambiguity.

Managerial capability is described by the ability to manage information system, production system, marketing, human resource and financial. Conceptual capability is represented by the ability to focus on task, leadership, focus on vision. Meanwhile, Social capability is illustrated by communication skills, ability to cooperate, and consultation to experts. Decision making ability is described by problem formulation, and decision making. Meanwhile performance of SMEs is manifested by profit growth, access to financial sources, access to knowledge and skills, access to market and appreciation.

Based on the model, it is hypothesised that (1) entrepreneurial characteristics influence positively to the entrepreneurial competencies (2) Entrepreneurial of competencies influence positively to the performance of SMEs.

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Figure 1. Path Diagram of SEM to Show The Influence of Entrepreneurial Characteristics to the SMEs Performance Through Entrepreneurial Competence

Added Value Analysis

Added value analysis is conducted using method of *Hayami et.al.* (1987). The analysis is limited to several products of which the majority of SMEs produce. If the ratio of added value is less than 15 %, it is categorized as low added value. If the ratio is between 15% and 40%, it is categorized as medium added value. If the ration is higher than 40%, it is categorized as high added value.

RESULTS AND DISCUSSION

CHARACTERISTICS OF DEMOGRAPHY AND BUSINESS ACTIVITIES

The majority of interviewed SMEs in West Java are men (72,8%), in beetwen 43-64 year old (56,6%), graduated from elementary and secondary high schools (59,3%) and with main occupation as entrepreneurs (96%), married (98%) and Sundaness (90,7%). The majority of SMEs have operated their business for less than 20 years (76, 1%). The majority of their business are sole-proprietorship (97%), and employ less than 20 labours (94%). The majority of SMEs in Garut produce tofu, tempe (traditional soy fermented product) and *dodol*. In Bogor, the majority of SMEs produce tofu. In Bandung many of SMEs produce cassava chips. In Cianjur many of SMEs produce *tempe* and *nata de coco*. Meanwhile in Ciamis many of SMEs produce *kerupuk* (traditional crackers).

ENTREPRENEURIAL CHARACTERISTICS

The characteristics of entrepreneurship reflect psychological characteristics that describe characters and attitudes of entrepreneurs. The result shows that the majority of SMEs in West Java are good in self confidence, enthusiasm and tolerance to the ambiguity. However, the SMEs are lack of innovativeness and ability to take risks, thus these dimensions are required to be improved.

ENTREPRENEURIAL COMPETENCIES

The result indicates that the majority of SMEs (75%) show the overall managerial capability, although there are few managerial aspects need to be improved. It also indicates that the majority of SME have lack of leadership ability and focus to the vision, although the majority of have a good focus on tasks and outcomes. The majority of SMEs are good in communication skills and ability to cooperate with either employee or their business partners. However they seldom do consultation to the experts. About 60% of SMEs are good in decision making and about 71,5% of SMEs are usually able to implement plans, tasks and other business responsibility.

PERFORMANCE OF SMES

It is found that the majority of SMEs demonstrate inadequate performance for several aspects, although they show good performance for few aspects. In term of business profits the majority of SMEs (89,7%) reveal that their business has gain profit growth each year. However, few of them (43,1%) confess that it is relatively easy for them to have loan. On the other hand the majority of SMEs (61,6%) declare that they usually face trouble-free to have access to the loan institution. Meanwhile only few of them (30%) have access to follow trainings and seminars/ workshops. Furthermore, few of them (29-30%) have few difficulties to engage in Bazaar or other market festivals and have access to market information. Only very few of them (14%) declare that their business performance is appreciated.

INFLUENCE OF ENTREPRENEURIAL CHARACTERISTICS TO THE PERFORMANCE OF SMES THROUGH ENTREPRENEURIAL COMPETENCIES
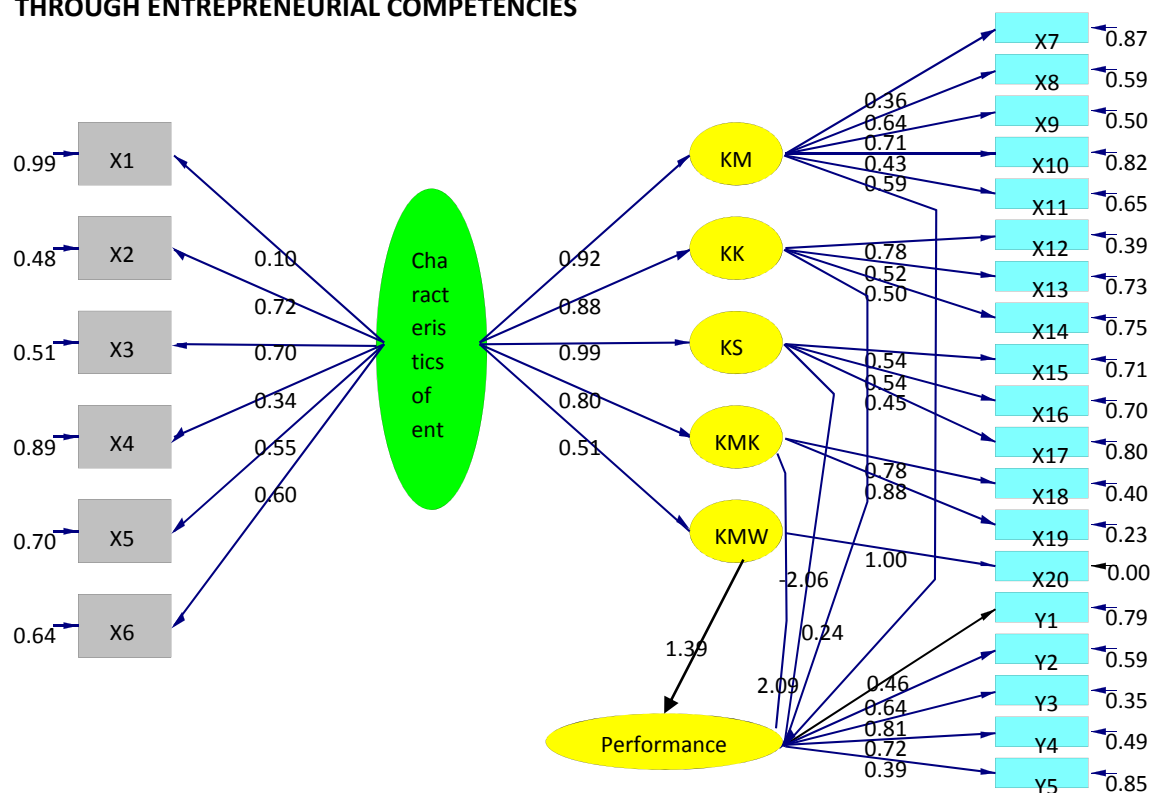
Chi-Square=438.77, df=186, P-value=0.00000, RMSEA=0.067

KM=Managerial Capability, KK=Conceptual Capability, KS=Social Capability, KMK= Capability to make decision, KMW= capability to manage time
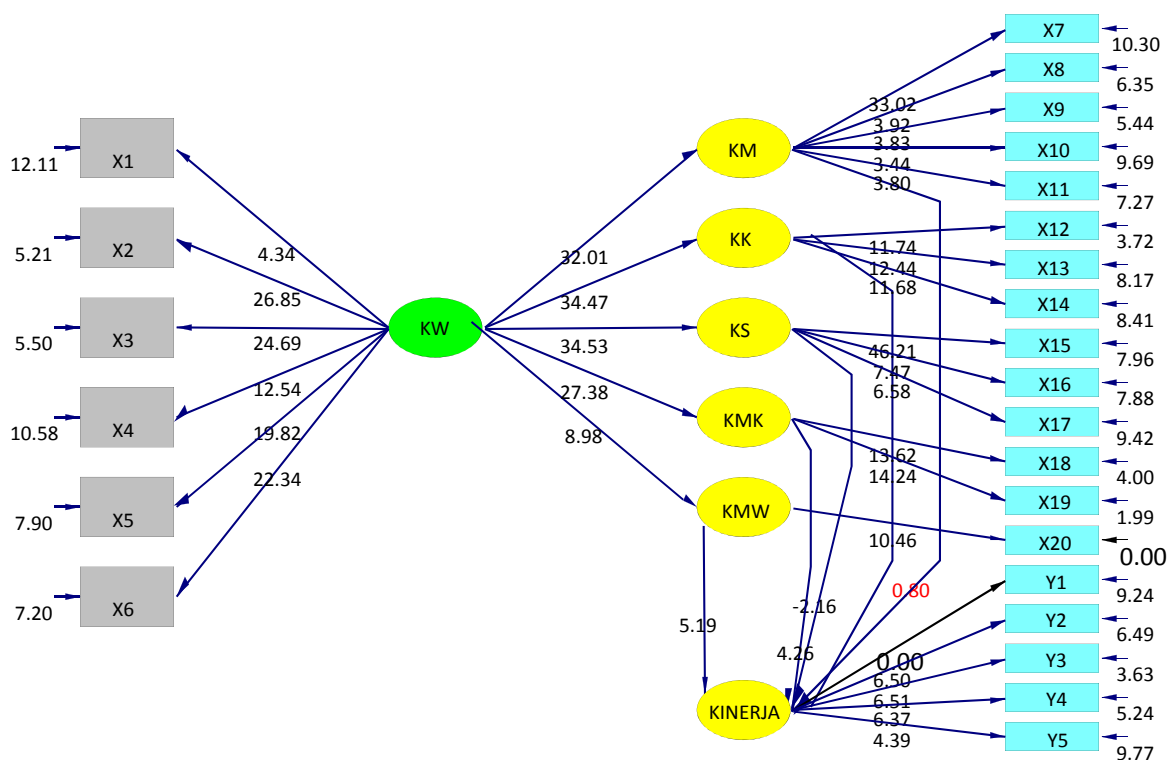
Figure 2. *Loading Factor* **in The Model of Influence of Entrepreneurial Characteristics to the SMEs Performance Through Entrepreneurial Competencies Based on The** *Standardized Solution*

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GOODNESS OF FIT MODEL

The model is estimated to fulfil goodness of it criteria including RMR, RMSEA, GFI, AGFI, CFI and NFI.

Table 1. Goodness of Fit Criteria

Goodness-of-Fit	Cutt-off-Value	Results	Category
RMR(Root Mean Square Residual)	≤ 0,05 atau ≤ 0,1	0.049	Good Fit
RMSEA(Root Mean square Error of Approximation)	≤ 0,08	0.067	Good Fit
GFI(Goodness of Fit)	≥ 0,90	0.98	Good Fit
AGFI(Adjusted Goodness of Fit Index)	≥ 0,90	0.97	Good Fit
CFI (Comparative Fit Index)	≥ 0,90	0.99	Good Fit
NFI (Normed Fit Index)	≥ 0,95	0.97	Good Fit

SIGNIFICANCE OF VARIABLES

Chi-Square=438.77, df=186, P-value=0.00000, RMSEA=0.067

Figure 2. Significant of Variables in The Model of The Influence of Entrepreneurial Characteristics to The SMEs Performance through Entrepreneurial Competences

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ENTREPRENEURIAL COMPETENCIES

The result indicates that entrepreneurial characteristics influence positively and significantly to all variables of entrepreneurial competencies.

Thus, it is relevant to the theory that entrepreneurial characteristics influence positively to the entrepreneurial competencies. It can be interpreted that developing entrepreneurial characteristics is very important to help improve entrepreneurial competencies.

It is found that managerial competency is contributed significantly by all its attributes. Ability to manage marketing is the biggest contribution to the managerial capability (its *loading factor* is 0,71). Meanwhile Conceptual Capability is contributed by ability to focus on tasks and outcomes, leaderships and focus on vision. The highest contribution results from ability to focus on tasks and outcomes. Communication skills, ability to cooperate and ability to consult to the expert give a significant contribution to the social capability. Furthermore, ability to make decision and to formulate problems have high and significant contribution to the overall decision making Capability. The similar result is indicated by time management capability. Therefore, all variables of entrepreneurial competencies can be interpreted precisely by all given attributes.

INFLUENCE OF ENTREPRENEURIAL CHARACTERISTICS TO THE SMES PERFORMANCE THROUGH ENTREPRENEURIAL COMPETENCIES.

It indicates that performance of SMEs is contributed significantly except for financial achievement. There are two variables of entrepreneurial competencies influence positively and significantly to the performance of SMEs, time management capability and decision making capability. Meanwhile managerial capability and conceptual capability have also positive impact to the performance of SMEs although it is not significant. However, there is a variable that has negative influence and significant to the performance of SMEs, that is social capability. This result is not relevant to the hypothesis. It can be explained that the SMEs who have ability to communicate and to cooperate with and to discuss with the expert would not automatically show good business performance. The result reveals that entrepreneurial characteristics influence indirectly to the performance of SMEs significantly through entrepreneurial competence in terms of time management capability and decision making capability. Thus, time management and decision making capability should be crucial aspects to be improved in order to develop SMEs business performance.

ADDED VALUE ANALYSIS

It is found that several products which are produced by the majority of SMEs contribute to the medium added value which are ranged from 20% to 40 %. The average added value of tofu production in Garut is about 20, 80 %. However, the average added value of tofu produce by SMEs in Bogor is about 27, 33%, which is higher than that in Garut. This is due to several differences in the factors o added values. For example output priceses in Bogor per unit is higher than that in Garut although input price is relatively similar. The average added value of cassava crispy chips which are produced by SMEs in Bandung is about 38,28 %. The average of tempe production in Cianjur is about 41,11 % and the average added value of *kerupuk* (chips/ crackers) in Ciamis is approximately 22 %. The average level of profits for each product ranges from 21 % to 41 % that is relevant to added value. However, distribution of profit margin to direct labour, other input and owner profits is unequal. The highest contribution is for the owners' profit except for *Kerupuk* in Cianjur which is contributed to other inputs. And the lowest contribution is for direct labours. Table 2 illustrated added value of Tofu production is about Rp 2 341 per Kg of input for the period of production per month. Added value ratio is about 20, 80%, it indicates that soy bean

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processing to result in tofu gives medium added value. It can be illustrated that the performance of business of tofu has resulted in higher revenue that its costs, although it still need to be improved.

Table 2. Added Value of Tofu Production in Garut

No.	Items of Added value	Unit	Symbol	Value
	Output, Input and Prices			
1.	Output	Kg/month	A	2,575
2.	Input	Kg/month	B	3,174
3.	Labour	HOK/month	C	128
4.	Conversion Factor	Ratio	D = A/B	0.81
5.	Labour Coefficient	Ratio	E = C/B	0.04
6.	Output prices	Rp/kg	F	13,875
	Revenues and Profits			
7.	Labour wages	Rp/Kg	G	82
8	Input prices	Rp/Kg	H	7,171
9.	Contribution of other inputs	Rp/Kg	I	1,745
10.	Output value	Rp	J = D x F	11,257
11.	ADDED VALUE	Rp	K = J − H − I	2,341
12.	Added value ratio	%	L = (K/J) x 100%	20.80
13.	Revenue of direct labours	Rp	M = E x G	3.29
14.	Share of labours	%	N = (M/K) x 100%	0.03
15.	Profit	Rp	O = K − M	2,338
16.	Level of profit	%	P = (O/K) x 100%	20.77
	Retribution of production factors'owner			
17.	Profit Margin	Rp	Q = J − H	4,087
18.	(a) revenue of direct labours	%	R = (M/Q) x 100%	0.08
19.	(b) Contribution of other inputs	%	S = (I/Q) x 100%	42.70
20.	(c) Owners' profit	%	T = (O/Q) x 100%	57.22

CONCLUSION AND RECOMMENDATION

CONCLUSION

Based on the results, there are several conclusions as follows:

1. The majority of SMEs on agro industry in West Java demonstrate superior entrepreneurial characteristics and proficient entrepreneurial competencies. However, ability to take risks and innovativeness are revealed to be the weakest characteristics of the majority of SMEs. The majority of SMEs are lack in ability to document financial activities and business plan/ agenda and lack of technological adoption and also are not able to ask to the expert. The majority of SMEs shows poor business performance, except for profit growth and information access to financial sources. It indicates that SMEs performance is not determine only by entrepreneurial characteristics through the entrepreneurial competences but also may be influenced by other factors are not included in this model.

2. It indicates that the entrepreneurial characteristics influence positively and significantly to the five dimensions of entrepreneurial competencies. It also reveals that entrepreneurial characteristics have an indirect positive impact to the overall

performance of SMEs through whole entrepreneurial competencies, except for social capability.
3. It shows that the majority of agricultural based product produced by SMEs result in medium added value. It means that the business performance run by the majority of SMEs has resulted in higher revenue than cost of input per unit.

RECOMMENDATION

Improving performance of SMEs should be started by improving their entrepreneurial characteristics and then improving their competencies. There are two crucial characteristics that should be improved: innovativeness and ability to take risks. One of several ways to develop innovativeness and developing their capabilities is providing trainings related to building creativity and innovation. Ability to take risks should be developed by entrepreneurs through simulation and providing them routine consultation either by the government of by the other stakeholders such as big firms. Process of production should be run in the very efficient manner in order to result in higher added value and may give higher contribution to direct labours.

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