

# Entrepreneurial Skills and Characteristics Analysis on the Graduates of the Department of Administrative Sciences, FISIP Universitas Indonesia

RACHMA FITRIATI AND TUTIE HERMIATI

*Department of Administration Science,*

*Faculty of Social and Political Sciences, Universitas Indonesia, rachma.fitriati@ui.ac.id*

**Abstract:** This research aims to study the skills and characteristics (attributes) of entrepreneurship required of the graduates of the Department of Administration Science, Faculty of Social and Political Sciences, Universitas Indonesia. This research used a quantitative approach; the data collection techniques are questionnaires and in-depth interviews. The results show that each study program in the Department of Administration Science needs to acquire entrepreneurial skills and characteristics. This research suggests that the lecture material provision be equipped with entrepreneurial skills and characteristics in order that the graduates of Administration Science Department have added value in the labor market. Entrepreneurship becomes an interesting study, especially since it is closely related to the concept of building entrepreneurial process, required of the graduates of the Department.

**Keywords:** *entrepreneurial skill, entrepreneurial characteristics, entrepreneurial education*

## INTRODUCTION

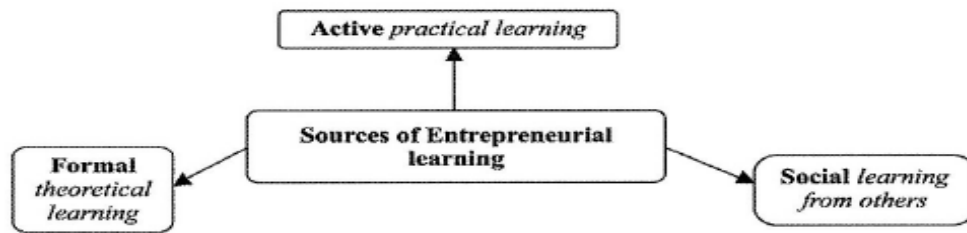
Entrepreneurial education has rapidly developed in the last decade and continues to expand dynamically. Entrepreneurial education itself refers to activities intended to develop people who want to try or become entrepreneurs and enhance the understanding and knowledge about entrepreneurship and business (Garavan and O’Cinneide 1994, Kyrp 2003a). In its development, Entrepreneurial education is driven by a commitment to the idea that all levels of education can contribute to the growth of entrepreneurial culture in society. This is based on the premise of Jack and Anderson (1999) who said that “... entrepreneurship is the engine of the economy” (Edwards and Muir 2005). In addition, most world entrepreneurial experts endorse the idea that education and entrepreneurship contribute to economic development since they play significant role. Therefore, many entrepreneurs have similar characteristics and are generally associated with universities and professional education.

Along with the increasing number of education/training and seminars offered by practitioners and universities, as well as a variety of emerging academic literature and entrepreneurship articles, there has been an active interest in the study of entrepreneurship (Vesper and Gartner 1997, Klofsten 2000, Solomon et al. 2002, Katz 2003, Henry et al. 2003). The fact is what makes the university the highest education levels possessing the opportunity to develop

the entrepreneurship of the people who have extra competence and analytical skills, so as to create highly-valued small medium enterprise (Edwards and Muir 2005).

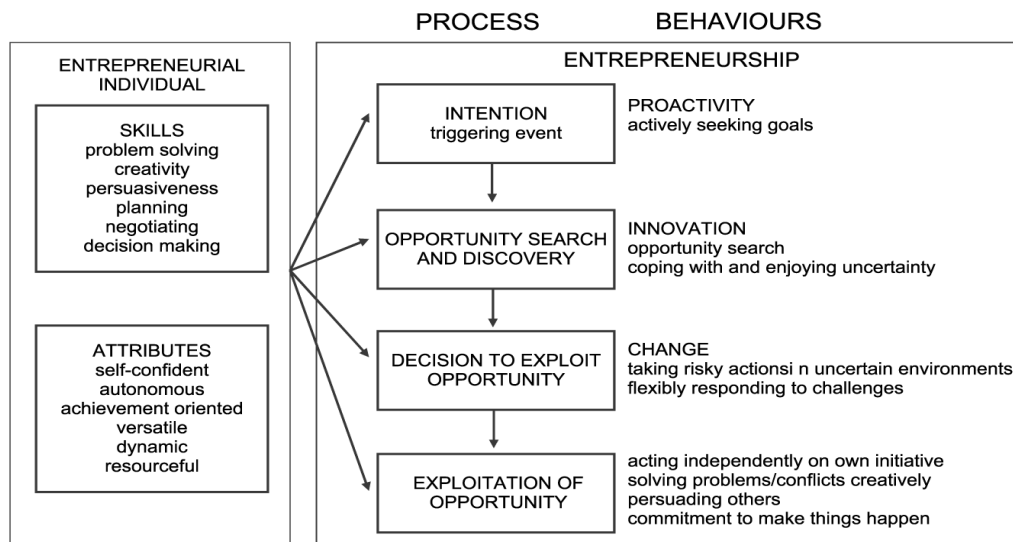
However, the extent to which entrepreneurial education influences students is still a matter of debate in various circles (Fiet 2000a, Hynes 1996). Such is related to how appropriate and effective the entrepreneurial teaching methods itself (Westhead et al. 2001, Henry et al. 2005). Another debate is on whether entrepreneurship is taught-able and/or an entrepreneur can be born or created at all (Garavan and O’Cinneide 1994, Fiet 2000a, Timmons 2003, Kuratko 2003, Henry et al. 2004, Matlay 2005, Henry et al. 2005). Miller (1987) further states that not all aspects of entrepreneurship can be taught. This has also influenced entrepreneurship education.

The aim in teaching entrepreneurship is to integrate science (such as business and management competencies) and arts (e.g. creative and innovative thinking) (Rae 1999, Jack and Anderson 1999). This suggests a shift from teaching-learning environment as to be close as much as possible to real life. The shape of the experience gained through students’ active participation must be part of the entrepreneurial education curriculum (Solomon and Fernald 1991, Gorman et al. 1997). Given the agreement and understanding of the essence of entrepreneurship, and the confidence to teach students to become entrepreneurs, the next step is then to identify open opportunities and obtainable objectives through relevant



**Figure 1. Sources of Entrepreneurial Learning**

Source: Rae (1999) in Edward and Muir (2005)



**Figure 2. The Process of Entrepreneurship: Behaviours, Skills, and Attributes**

Source: Gibb (1993) and Shook et al (2003), in Heinonen and Poikkijoki (2006)

education (Gorman et al. 1997). The next goal identified in the teaching of entrepreneurship education, are learn to understand entrepreneurship, learn to become an entrepreneur, and learn to become a businessman. The three goals seem to be overlap, but all three have implications in terms of teaching approaches (Klofsten 2000, Hytti and O’Gorman 2004).

Meanwhile, Rae (1999) identified three sources of entrepreneurship education, i.e.: active, social and formal learning.

Entrepreneurial learning, in the academic context -- particularly at the university, is based on the theoretical aspects and practical knowledge (Heinonen and Poikkijoki 2006). This will require students to have an active role in the entrepreneurial learning process. Kyrp (2003b) proposed that the bridge between entrepreneurship and education (pedagogy) should be stronger so it later becomes relevant to the process of entrepreneurial learning. Furthermore, Shook et al. (2003) focuses on research related to the

role of individuals in the process of entrepreneurship. The process of entrepreneurship includes behaviors, skills and attributes belonging to a person in Entrepreneurial education (Gibb 1993). Gibb study results indicate that in developing the entrepreneurial behavior we require a process that includes the identification of traits associated with entrepreneurship, either in the form of skills and attributes that are inherent in entrepreneurship (see Figure 2). In accordance, Gibb (1993), Hisrich et al. (2008) also explained the need of business management skills to become an entrepreneur.

Kuratko and Hodgetts (2001) explains there are common characteristics (attributes) that are often inherent in an entrepreneur, such as commitment, determination and perseverance, need for achievement, opportunity orientation, initiative and responsibility, persistent problem solving, seeking feedback, internal locus control, tolerance for ambiguity, risk taking propensity, integrity and reliability, tolerance for failure, high energy level, creativity and in-

novativeness, vision, self-confidence and optimism, independence, and team building. In line with Kuratko and Hodgetts, Gürol and Atsan (2006) in their studies on university students in Turkey presents six characteristics of entrepreneurship that includes needs for achievement, locus of control, risk taking, tolerance for ambiguity, innovativeness, and self-confidence. Zimmerer et al. (2008) describes that an entrepreneur should, among others, desire of responsibility, prefer medium-risk, believe in his ability to succeed, desire to get immediate feedback, possess high level energy, be future oriented, have organizing skills, value achievements higher than money, possess high commitment, and display tolerance for ambiguity, flexibility, and tenacity.

This study aims to describe the entrepreneurial skills and characteristics on the graduates of the Department of Administration Sciences, Faculty of Social and Political Sciences, University of Indonesia. The Department itself is aware that entering an era of global competition and labor markets, its graduates will have to compete in the labor market, both locally and internationally. The study will hopefully give academic and practical contribution to the Department of Administration Sciences by providing inputs for the Department's entrepreneurial teaching - either directly (in the form of entrepreneurship courses) or indirectly integrated on a subject, to develop a curriculum appropriate to the future needs in preparing, improving and equipping its graduates with excellent academic knowledge, i.e. the more applicable knowledge and skills required in the era of regional and international competitions.

## METHODOLOGY

This study uses a quantitative approach. The population of this study is the graduates of the Department of Administration Sciences, FISIP UI, while the sample is an individual alumni of the Department. The data collection technique used is a survey using a questionnaire. The sampling technique used is quota sampling technique. Furthermore, respondents were selected by accidental selection.

This study classifies respondents into three groups of Administration Science study programs, i.e.: Business Administration Science, Fiscal Administration Science, and Public Administration Science. This division is not intended to differentiate each study program with others; rather, to describes the needs for entrepreneurial skills and characteristics (attributes) required for each study program. From each study

program we selected samples of 35 alumni, bringing the total number of 105 samples. But in the end, it is selected 100 questionnaires with complete data.

The vision of the Department of Administration Science, FISIP UI, is to be the leading center for education and research in the field of Administration Science, Business, and Taxation, and the main element of the development of an international research university. The mission of the Department are to produce graduates who have mastered the theory and methodology as well as apply administration science and are able to interpret the government's macro policies and micro organization policy in an integrated system, produce high-quality researches in the field of Administration Science, Business, and Taxation and to develop concepts and theories of Administration Science, and implement public services in the field of Administration Science, Business, and Fiscal. Considering the visions and the missions, this study differentiates entrepreneurial skills and characteristics based on a number of dimensions and indicators by combining studies and literature derived from Gibb (1993), Kuratko and Hodgetts (2001), Gürol and Atsan (2006), Zimmerer et al. (2008) and Hisrich et al. (2008).

For entrepreneurial skills, this study differentiates three-dimensional skills, i.e. Technical Skills, Business Management Skills, and Personal Entrepreneurial skills. Technical skills are to measure the extent to which technical skills required for an Administration Science graduate. Business management skills are skills for measuring one's skills in business management. And personal entrepreneurial skills are the skill to measure the personal skills of a graduate in being an entrepreneur.

Meanwhile, to measure the entrepreneurial characteristics, the study then used 23 dimensions whose indicators are in accordance with the definition of each dimension. The 23 dimensions are Commitment, Clearness of the purpose, Perseverance, Need for Achievement, Opportunity Oriented, Initiative, Responsibility, Persistence in Solving Problems, Seeking feedback, Locus of control, Tolerance for ambiguity, Risk Taking Propensity, Integrity, Reliability, Tolerance for failure, High Energy Level, Creativity, Innovativeness, Vision, Self-confidence, Optimism, Independent, and Team building.

Thus, the operational process of entrepreneurial concept in this study is as figured in the table 1.

## RESULTS AND DISCUSSION

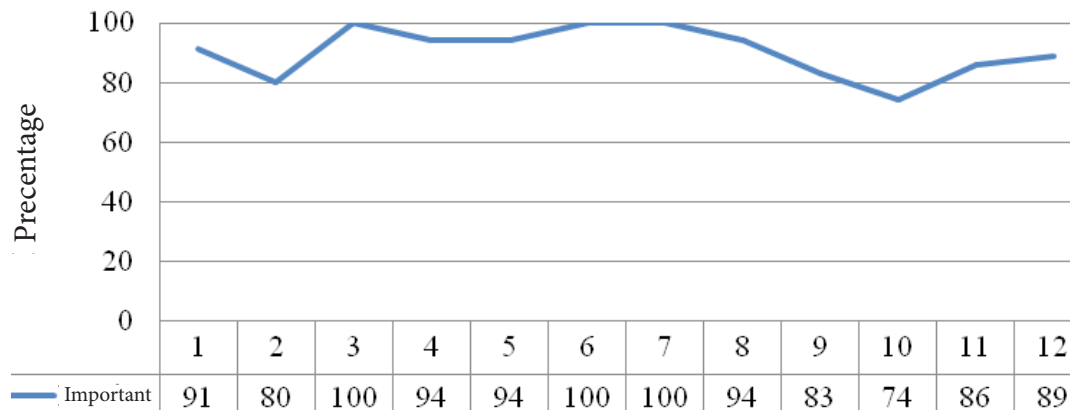
In analyzing the data, this study divides the discussion on the entrepreneurial skills and on the en-

**Table 1: Operational Process of the Concept**

Concept	Variable	Dimension	Indicator
Entrepreneurial skills	Entrepreneurial Skill Level	Technical Skills	<ol style="list-style-type: none"> <li>1. Writing Communication</li> <li>2. Oral communication</li> <li>3. Environmental changes</li> <li>4. Technological development</li> <li>5. Interpersonal relationships</li> <li>6. Listening</li> <li>7. Work organizing skills</li> <li>8. Building networks</li> <li>9. Technical business management</li> <li>10. Situational Leadership</li> <li>11. Motivation</li> <li>12. Team Work Listen Read phonetically</li> </ol>
		Business Management Skill	<ol style="list-style-type: none"> <li>1. Goal setting</li> <li>2. Work planning</li> <li>3. Decision Making</li> <li>4. Relations with other people</li> <li>5. Marketing Program</li> <li>6. Financial management</li> <li>7. Accounting</li> <li>8. Organization Management</li> <li>9. Supervision on organizational work</li> <li>10. Negotiation</li> <li>11. Starting a business</li> <li>12. Business development management</li> </ol>
		Personal Entrepreneurial Skills	<ol style="list-style-type: none"> <li>1. Self-control</li> <li>2. Discipline</li> <li>3. Risk taking</li> <li>4. Innovativeness</li> <li>5. Changes oriented</li> <li>6. Working persistence</li> <li>7. Future-oriented leader</li> <li>8. Change management Skills</li> </ol>
Entrepreneurial Characteristics	Entrepreneurial Characteristic Level	Commitment	<ol style="list-style-type: none"> <li>1. Commitment</li> <li>2. Dedication</li> </ol>
		Clearness of purpose	<ol style="list-style-type: none"> <li>1. Clearness of purpose</li> <li>2. Determination</li> </ol>
		Perseverance	<ol style="list-style-type: none"> <li>1. Perseverance</li> <li>2. Confidence</li> </ol>
		Need for Achievement	<ol style="list-style-type: none"> <li>1. Having a strong need for achievement</li> <li>2. Making improvements for each mistake or failure.</li> <li>3. Developing skills by pursuing training</li> <li>4. Developing skills by continuing education</li> <li>5. Having a need for affiliation</li> <li>6. Having a strong urge to connect with other family members</li> <li>7. Having a strong need for social relationships</li> <li>8. Being able to manage time</li> <li>9. Having time to do activities outside the work</li> <li>10. Having a desire to compete with other people</li> <li>11. Setting challenging goals</li> </ol>
		Opportunity oriented	<ol style="list-style-type: none"> <li>1. Seeing opportunities</li> <li>2. Seeing the opportunity of the resources</li> </ol>
		Initiative	<ol style="list-style-type: none"> <li>1. Having initiatives</li> <li>2. Taking action during uncertain job situation</li> </ol>
		Responsibility	<ol style="list-style-type: none"> <li>1. Having responsibilities</li> <li>2. Doing the best to finish the work</li> </ol>
		Persistence in Solving the Problem	<ol style="list-style-type: none"> <li>1. Persistence in solving the problem</li> <li>2. Not easily giving up</li> </ol>
		Seeking feedback	<ol style="list-style-type: none"> <li>1. Evaluating past actions</li> <li>2. Seeking input from other sides</li> </ol>
Locus of control	<ol style="list-style-type: none"> <li>1. Being able to control one's self</li> <li>2. Not easily dictated by emotion</li> </ol>		

	Tolerance for ambiguity	1. Tolerating ambiguity 2. Finding the best way amid ambiguity
	Risk taking propensity	1. Ability to calculate risks 2. Being cautious for each risk
	Integrity	1. Integration 2. Upholding the principles
	Reliability	1. Reliability 2. Being a reliable person
	Tolerance for failure	1. Skills to tolerate failure 2. Being able to cope with failure
	High Energy Level	1. Possessing a high energy level 2. Doing medical check up 3. Doing exercises 4. Eating healthy foods
	Creativity	1. Possessing creativity 2. Thinking easier alternative ways when doing job
	Innovativeness	1. Creating new working methods 2. Creating a new working breakthrough
	Vision	1. Having a vision 2. Having the concept of a job
	Self Confidence	1. Self Confidence 2. Trusting one's own skills
	Optimism	1. Being optimistic 2. Assuming that failure is a pending success
	Independent	1. Freedom 2. Ability to do the best for the job
	Team building	1. Building a team 2. Skills in mingling with teammates

Source: Gibb, 1993; Kuratko and Hodgetts, 2001; Gürol and Atsan, 2006; Zimmerer et al., 2008; Hisrich et al., 2008.

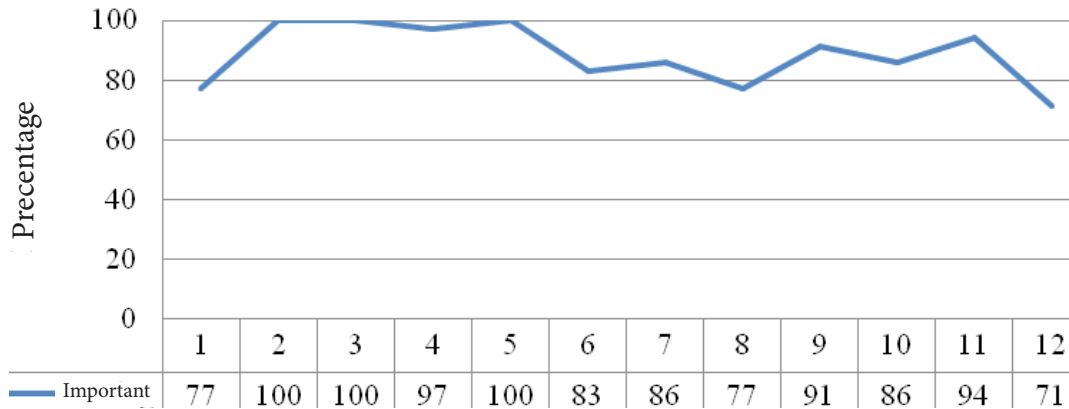


**Figure 3. Comparison Percentage on Each Indicator of Technical Skill Dimensions**  
 N = 100

trepreneurial characteristics on the three graduates study program in the Department of Administration Science, FISIP UI, which are Business Administration, Fiscal Administration and Public Administration.

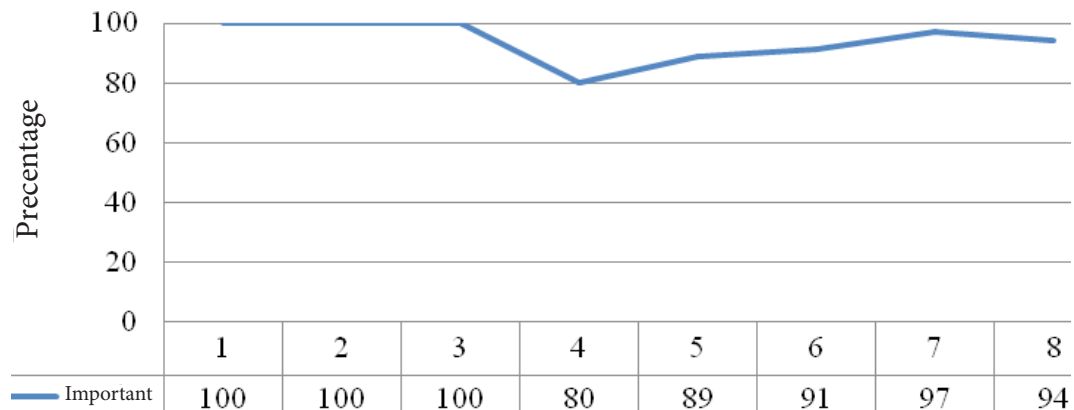
The study on the technical skill dimension shows that business administration graduates chose priorities of three main indicators of technical skill, i.e. the skills to keep up with the environmental development, listening skill and work organizing skills (see Figure 3). The importance of technical skills in

keeping up with the environmental development is to ease adaption on a rapidly changing environment. According to respondents, these skills also help create a useful analysis for business or employment. While listening skills and work organizing skills are required for an entrepreneur. Listening skills are related to learning process and self-improvement in order to promote the company's development (Tobias and Fitriati, 2009). Work organizing skills are related to how all the available work must be done systematically so as to run well.



**Figure 4. Comparison Percentage on Each Indicator of Business Management Skill**

N = 100



**Figure 5. Comparison Percentage on Each Indicator of Personal Entrepreneurial Skills**

N = 100

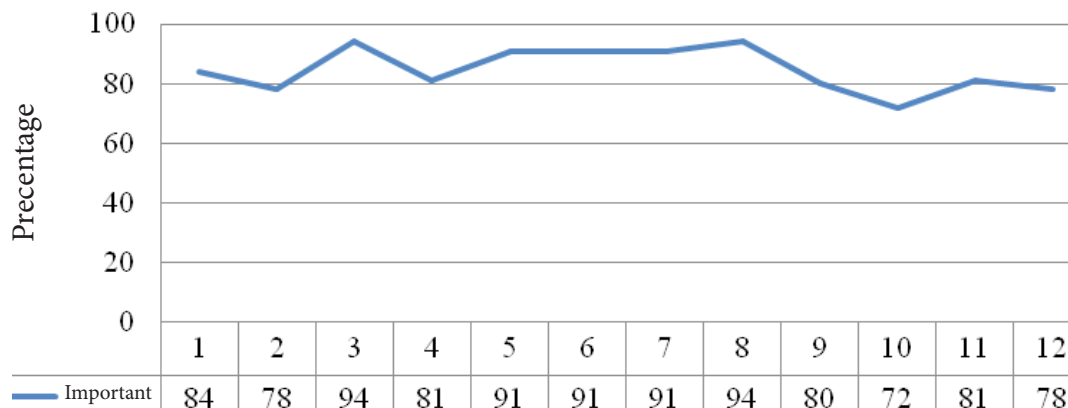
On the dimension of business management skill (Figure 4), indicators of work plan skill (planning), decision-making skill, and the skill to plan and implement marketing programs (marketing management) become the highest priority choices of respondents.

According to respondents, the skills of making plan are necessary because in entrepreneurship we need to construct an on-built-business plan in order to direct the business on track. Then, the entrepreneurial decision-making skills are considered important because the entrepreneur must be able to make decisions that influence the course of business. Another skill that entrepreneurs consider important is the skill to plan and implement marketing programs. This is related to the concept of entrepreneurship, i.e. the activities which satisfy the needs of consumers in the form of products or services. By having plan making skills and implementing marketing programs, the entrepreneurs are able to perform the entrepreneurial strategies to market their products or

services. If entrepreneurs do not have these skills it will be difficult to reach their target markets.

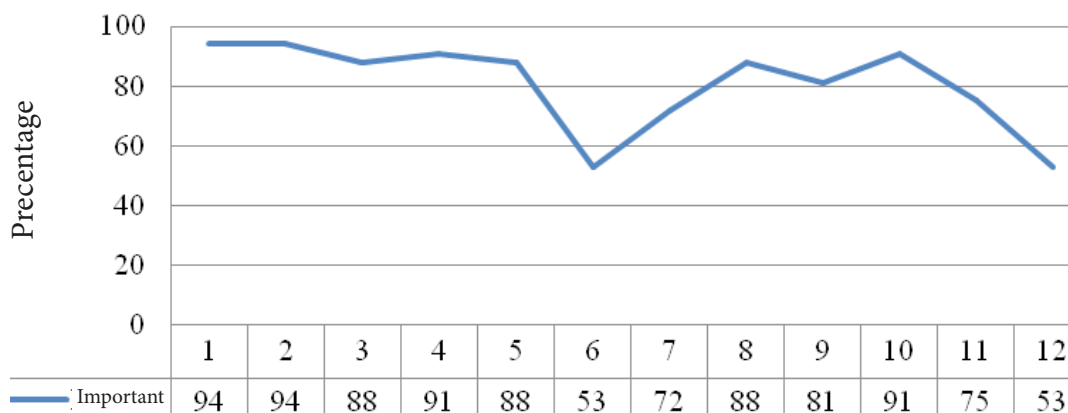
The lowest indicator in the dimension of business management skills, however, is the business development management. This happens because, according to respondents, in business administration, entrepreneurs no longer need to think of something technical, instead something strategic. Usually entrepreneurs delegate technical job to their subordinates.

Based on the dimension of personal entrepreneurial skills (Figure 5), respondents chose three highest indicators as priority on the dimensions of personal skills, which are inner-control skills, self-discipline skills, and risk taking skills. Respondents considered inner-control skills important because in the working world one must be able to control oneself to cope with any situation. According to respondents' opinion, these skills are associated with the skills to deal with individuals with different characteristics, so that each person should have the inner-control



**Figure 6. Comparison Percentage on Each Indicator of Technical Skills**

N = 100



**Figure 7. Comparison Percentage on Each Indicator of Business Management Skills**

N = 100

skills to handle any problem in any situation. In addition, it is also necessary to have skills in managing emotions in the workplace as they are related to teamwork.

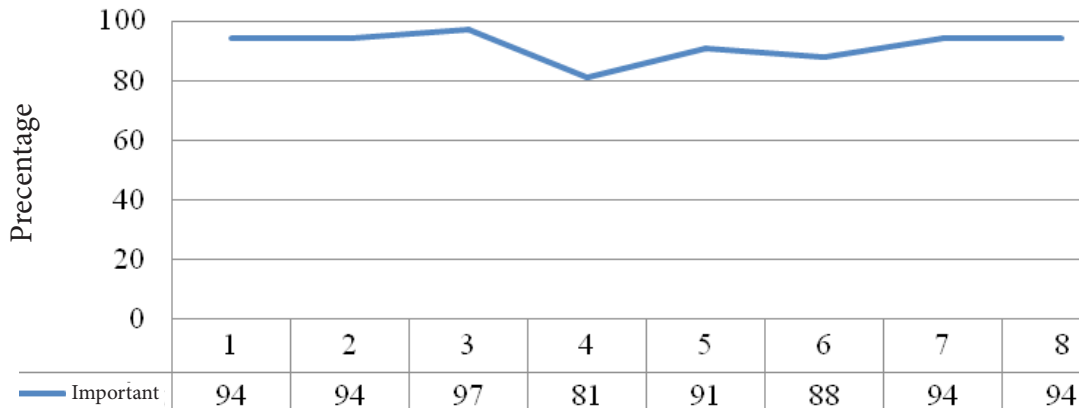
Skills in self-discipline are also important because these skills can lead a person to work professionally. When one is able to discipline oneself, all prearranged activities will be done systematically. Risk taking skills are also important, because one cannot count on intuition, a sort of trial and error. Any action must be accompanied by calculations or exact measure of risk taking by which any taken decision is carefully based on. By having these entrepreneurial skills, entrepreneurs will be encouraged to continuously improve their business operations.

All three indicators have the highest percentage in the dimension of personal entrepreneurial skills because, according to respondents, in entrepreneurial there are many activities that require full self-control; self-control in dealing with different individual characters. Nevertheless, for self-discipline dimension, the respondents consider discipline as the gate

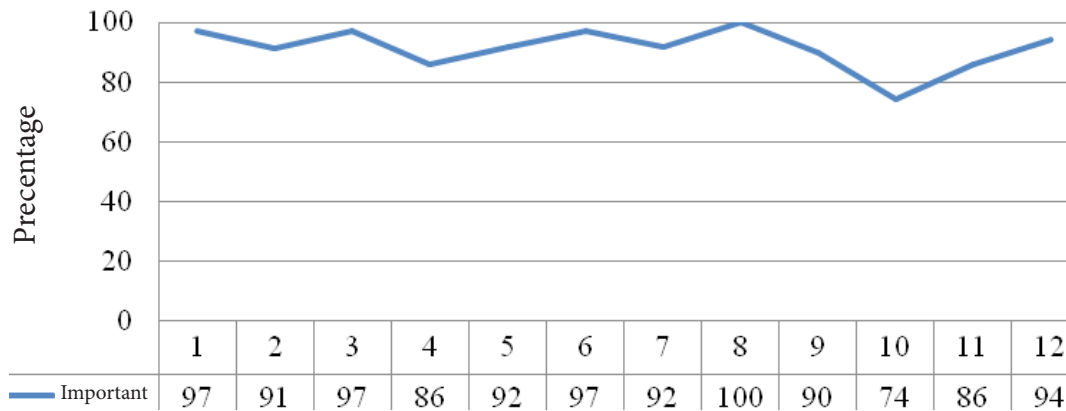
to success, since self-discipline causes one have certainty about the time, appointments, jobs, etc. While for risk taking skills dimension; these skills are needed by entrepreneurs because they cannot always be in comfort zone to achieve a success.

However, the lowest indicator according to respondents on the dimension of entrepreneurial personal skills is an indicator of discovering new methods and things. This means that these skills are considered most unimportant by Business Administrations Science graduates. According to respondents, the skills in finding new things are related to more advanced skills and education. These skills require particular expertise and experiences, because one has to think “out of the box” in creating something innovative.

Based on the dimension of technical skills (Figure 6), it is shown that indicators of environmental change diagnosing skill and network building skills have the highest priority. According to respondents, a fiscal administrator must be sensitive to the environment, particularly since fiscal is closely related



**Figure 8. Comparison Percentage on Each Indicator of Personal Entrepreneurial Skills**  
N = 100



**Figure 9. Comparison Percentage on Each Indicator of Technical Skills**  
N = 100

to the taxation legislation. Laws and regulations often change, such as the Motor Vehicle Tax (PKB). Another example with respect to environmental change diagnosing skills, a fiscal administrator often encounters clients, who have different specifications or expectations, different teams and types of work, that encourage him to always diagnose any changes that occur. In addition, a fiscal administrator must be good at building a network, because the network is closely related to the ease in the process in running business. A tax consultant, for example, certainly can build a good network with the tax authorities.

Conversely, the lowest indicator of the respondents' choice is the application of situational leadership style. According to respondents, this indicator is more useful for one who is at top of management level, not at the level of the lower and middle management as the majority of respondents' position.

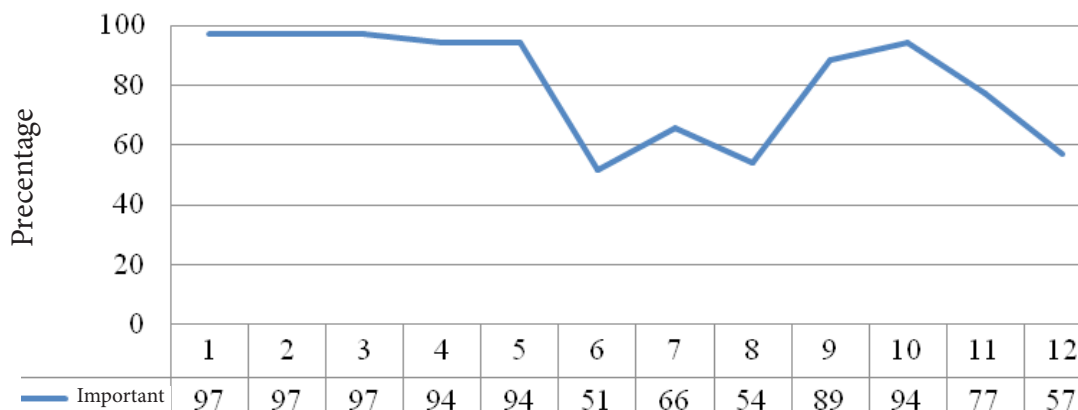
Based on the dimensions of business management skills (Figure 7), it is shown that goal setting and

work planning skills have the highest priority. This is due to the fact that every job must have goals. To achieve the goals, it will require goal setting skills. For example, a tax consultant must have a goal, though not necessarily written formally. Similar with goal setting, work planning skill is also required because the work plan is a form of derivative or practical things that shall be executed to achieve the goal.

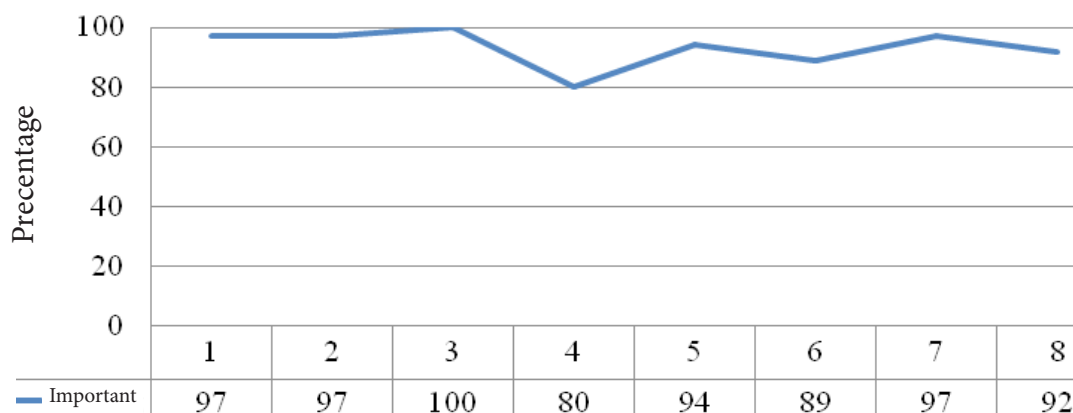
In contrast, indicator of financial management and business development management skills are selected by respondents to be the lowest indicators. According to respondents, financial management skill is something that is given - must be unquestionably owned by Fiscal Administration Science graduates. In addition, business development management skills are required by those in top management level; that is why these skills do not become the chosen priority.

Based on the dimension of personal entrepreneurial skills (Figure 8), it is shown that the indicator of risk taking skills has the highest priority. This is be-





**Figure 10. Comparison Percentage on Each Indicator of Business Management Skills**  
 N = 100



**Figure 11. Comparison Percentage on Each Indicator of Personal Entrepreneurial Skills**  
 N = 100

cause the job of fiscal administration is full of risk, since it is related with reporting and paying taxes, for example, there will be a penalty of 20% for the late taxation payment. In addition, tax consultants are in a position as a mediator (client representative) which in return has to make the right decision since a wrong one will be detrimental to their client. If such thing happens, the client will eventually demand compensation to consultants who are deemed to bear the risk.

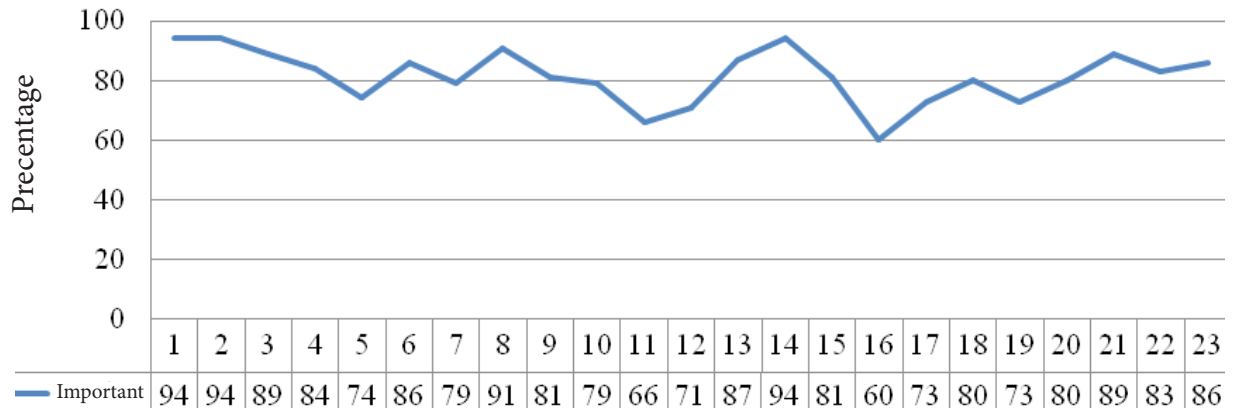
Meanwhile, indicator of innovative skills is selected by respondents as being the lowest. According to respondents, the fiscal/tax management itself actually just follows the enacted regulation, in other words there has been certainty in performing the work. Innovative skill is only needed to interpret the regulation to be implemented in the work. Thus, innovative skill is important, but not as much as other indicators in the dimension of personal entrepreneurial skills.

Based on the dimension of technical skills (Fig-

ure 9), indicator of network building skills becomes the main priority. According to respondents, in a bureaucratic environment, especially when one wants to improve one's career and strengthened the position in one's workplace, one needs not only performance, but also of a good network with the boss.

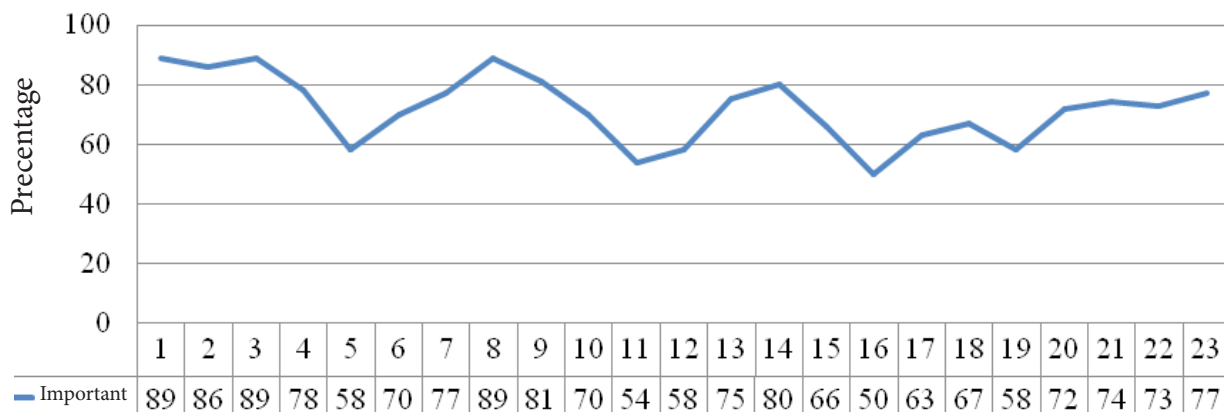
In contrast, the indicator of situational leadership skills becomes the lowest chosen by respondents. This is because the majority of the Public Administration graduates work in a bureaucratic environment where they rarely encounter conditions that require situational leadership skills. In the bureaucratic environment itself, the working conditions are relatively stable and run in accordance with existing procedures so that the situational leadership style is considered less important.

Based on the dimension of business management skills (Figure 10), the indicator of goal setting skills, work planning skills, and decision-making skills are selected by respondents as top priority. All three indicators can be explained within the context of



**Figure 12. Comparison Percentage on Each Dimension of Entrepreneurial Characteristics**

N = 100



**Figure 13. Comparison Percentage on Each Dimension of Entrepreneurial Characteristics**

N = 100

the top level workers in the bureaucracy. The goal setting skill and work planning skill are necessarily owned by the top level workers because they are responsible for setting goals and making plans used as a standard or guideline for their subordinates to do their work. The indicator of decision making has also been associated with top-level workers in the bureaucracy because the higher the positions within the bureaucracy, the greater the authority to make strategic decisions. For low or middle level workers, particularly, decision making skill is limited to merely technical decision; they are not yet authorized for strategic decision-makings.

In contrast, the indicator of financial management skills is the lowest. According to respondents, the scope of work performed by employees in bureaucracy consists merely of creating letters, reporting or other matters relating to technical matters. That is why, the employees assume financial management skill is not so important because this skill is not sig-

nificantly associated with their work.

On the dimension of personal entrepreneurial skills (Figure 11), it is shown that the indicator of risk taking skills becomes the top priority. According to respondents, the mindset change of the Public Administration graduates is related to the discourse of changes which may circulate in the bureaucratic environment. The issues on changes which possibly circulate in the bureaucratic environment encourage the respondents to anticipate the changes. Therefore, the risk taking skill is necessary to anticipate the possible changes, since the comfort zone in bureaucracy signifies a disease that disables the achievement of excellent public service in the era of global competition.

In contrast, the indicator of innovative skills is the least opted by respondents. This is due to the fact that within the scope of bureaucracy there is no open space to create and suggest a new method or things for doing the job. The works performed in bureau-

cratic environment encourage workers to always comply with all existing standard operational procedures. Moreover, violation over the SOP will have an impact on the punishments that influence one's career in bureaucratic environment.

Based on the dimension of entrepreneurial characteristics (Figure 12), the dimensions of commitment, clearness of purpose, and reliability become top priorities chosen by the respondents. Running the business requires a commitment. Commitments to each step in the business plan will lead to success. The meaning of commitment is oriented on one's focus in exploiting opportunities. The commitment that starts from capturing ideas to the realization of the idea requires sacrifice in various ways.

Conversely, for entrepreneurial characteristics, respondents made the high-energy level dimension as the last choice. According to respondents, the dimension of high-energy level—such as doing regular medical checkup, eating a balanced diet, doing regular exercise, and having a great energy to achieve the goal of their job or business—less influences their working or business activities. Respondents, mostly aged 30 to 40 years, do not value the indicators in the dimension of high energy level as part of the entrepreneurial characteristics and tend to ignore them. They assume that high energy level is part of life-style and necessity, not something related to the entrepreneurial characteristics.

Based on Figure 13, it is shown that the dimensions of commitment, perseverance and persistence in solving problems are top priorities. According to respondents, each job is in desperate need of commitment, because commitment encourages workers to carry out the work as best as possible so that the output will be also best.

In fiscal administration, for example, commitment is very important and closely related to integrity; such as when resolving taxation cases—tax avoidance and tax evasion—one should account to existing rules. As for the dimension of persistence, the respondents considered that persistence is a major prerequisite in conducting work since persistence produces an independent personality. For persistence dimension in solving problems, fiscal administration is closely associated with the completion of tax cases. In resolving the case of taxation, a fiscal administrator is required to complete the case quickly and accurately.

Similar to the answers of Business Administration respondents, dimension of high energy level is the lowest opted by Fiscal Administration respondents.

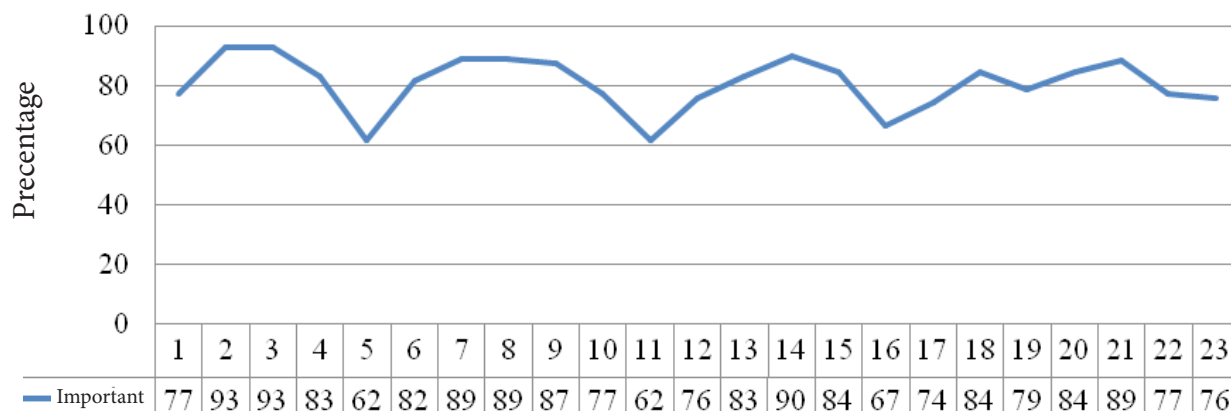
According to the respondents, people of young age certainly still have a good physical condition so that physical health matters, such as sports, medical checkup, and eating healthy foods are not needed or not significant. Fiscal Administration Respondents, mostly aged 30 to 40 years, value the high energy level dimension as part of life-style and necessity, not something related to the entrepreneurial characteristics.

Figure 14 shows that the dimensions of clearness of purpose and perseverance are the main priorities for the respondents. This is because the bureaucratic environment has a standardized system, so perseverance is needed. What is meant by perseverance in the bureaucratic environment is obedience toward outlined standard operational procedures. Public Administration graduates Respondents are aware that errors in obeying the SOP will have negative impact on their career in bureaucratic environment.

In contrast, the dimensions of opportunity oriented and (2) tolerance for ambiguity are the lowest selected. According to the respondents, opportunity oriented dimension cannot be implemented in the bureaucratic environment. According to the respondents, the career in that environment depends on the assessment and policy of the leader. The existence of this culture makes the employees not too enthusiastic in looking for opportunities to enhance their career. Non-democratic leaders will make the employees lazy in seeking the opportunities because employees think the result will be the same whether seeking the opportunity or not. In addition it will not open the space for employees to innovate and therefore contributes to the employees' orientation. They will do their work routinely in accordance with orders from their superiors.

Similarly, the dimension of tolerance for ambiguity is of lowest priority. The respondents argue that in a bureaucratic environment it is still difficult to accept changes. Those bureaucrats are readily aware that there will be a change, such as a new bureaucratic procedure, however they hardly welcome the change, particularly for people living in the comfort zone. To change an already established old behavior, the key is at the leader. Therefore, in the era of globalization, the respondents expect a mindset change of the leader in order to ensure changes, instead of consider it odd, and familiarize a discourse on ambiguity, like the bureaucrat's structure that may at any moment change.

The results of the study show that each study program requires different entrepreneurial skills and



**Figure 13. Comparison Percentage on Each Dimension of Entrepreneurial Characteristics**

N = 100

characteristics (attributes) depending on the requirements of each type-of-work. In the Business Administration Science program, the entrepreneurial skills and characteristics needed are the skills of observing changes in the environment, listening, organizing work, work planning, decision making, marketing programs planning and execution, self-control skill, self-discipline skill, and risk taking skills, as well as commitment, clearness of purpose, and reliability.

Fiscal Administration Science program emphasizes the environmental change diagnosing, network building, goal setting, work planning, as well as risk taking skills, commitment, perseverance and persistence in solving problems. As with the Public Administration program, more emphasis is put on the network building, goal setting, work planning, decision making, and risk taking skills, as well as clearness of purpose and perseverance.

Meanwhile, referring to the study of Martin and Staines (1994) the emphasized entrepreneurial characteristics are creativity, risk taking, and innovativeness. Unlike Martin and Staines (1994), Gürol and Atsan (2006) in their study on students at two universities in Turkey found that six entrepreneurial characteristics that tends to be required by students when studying entrepreneurship, i.e. risk taking propensity, tolerance for ambiguity, locus of control, need for achievement, innovativeness, and self-confidence. From the research, respondents suggest that entrepreneurial teaching methods should include active learning methods such as role playing and simulation, small group discussions, and case studies in order to enable knowledge sharing.

## CONCLUSION

Based on the results of the study, entrepreneurial skills and characteristics are needed by the Adminis-

tration Sciences graduates. Each study program has its own priority of emphasized entrepreneurial skills and characteristics (attributes). The results of this study also suggest the need to include entrepreneurial education and teaching in the entire Administration Sciences study programs, both in compulsory subjects (such as Business Administration Science) or integrate it in relevant subjects. Entrepreneurial education is considered crucial given the high competitive working world that requires everyone to have added value. This research suggest that further entrepreneurship research be done on the graduates of Administration Science Department, FISIP UI, so as to learn more profoundly about the entrepreneurial skills and characteristics that should be owned by each study program.

This study, as well as other research on entrepreneurship by using descriptive statistical analysis, has several limitations. *First*, this study did not clearly describe the entrepreneurial skills and characteristics specifically needed by each professional working field. *Second*, a research on disparity test needs to be done in order to further study different entrepreneurial skills and characteristics required in all three study programs in Administration Science Department. *Last*, this study does not clearly differentiate the respondents' profession, whether they work as entrepreneurs, private sector workers, or government staff. A more in-depth and complete analysis than this quantitative study is therefore encourage to explore the qualitative aspects of entrepreneurial skills and characteristics of any type-of work.

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