Effect of Human Capital on Innovation Strategies
An Empirical Framework for SME South-Sulawesi Indonesia

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Abstract: This study aims to analyze the influence of human capital on innovation strategies. The design of this study was a descriptive research. Data were collected SMEs in manufacturing enterprises in Makassar City. Using convenience sampling, as many as 180 SME owners/managers participated in the study. Descriptive analysis followed regression were employed. The results reveal that human capital in the dimensions of skills has a direct positive effect on innovation strategies on the dimensions of exploration innovation, exploitation innovation.

Keywords: Human Capital; Innovation; Strategy; Indonesia

I. INTRODUCTION

Small Medium Enterprise (SME) or in Indonesia known as Usaha Mikro, Kecil dan Menengah (UMKM) has a strategic role in national economic development. SMEs play a role in increasing economic growth, providing employment, and as a distribution of development outcomes. SME contribute significantly to the increase in gross domestic product, the level of participation, and labor productivity, as well as an increase in Indonesian exports (Murniati, 2009). Even at the time of the economic crisis in Indonesia in 1998 and 2004, many large-scale businesses stagnated and even stopped their activities, SMEs proved to be strong and even considered immune to the economic crisis. Therefore these SMEs need to be maintained and developed into one of the pillars of popular economy. Development of SMEs should synergize local excellence with global market opportunities. In this case it is necessary to think on a global scale and act locally (think globally and act locally) in taking small business development policies.

Data from the Minister of Trade in 2014, when the economy was experiencing a downturn, small businesses made a positive contribution to Indonesia's economy. The business contribution reaches 6.3% of the Gross Domestic Product (GDP) which reaches Rp. 104.73 trillion, even though this achievement figure has not yet reached the targeted number, reaching at least 9% starting in 2015. Furthermore, Jerusalem (2009) stated that the presence of SMEs is one of the solutions to short and medium term economic problems in Indonesia, namely relatively low post-crisis economic growth (4.5% per year), still high unemployment around 9% -10%) and poverty rates around 16.17%.

Business competition is more competitive, consequently SMEs need innovation strategies that can win the competition. As the results of previous studies, that the application of the right innovation strategy becomes the main driver and influences business performance (Viverita and Ariff, 2008). While Rue and Ibrahim (1998) in Dinda (2006), stated that SMEs formally have strategic planning in innovation resulting in above-average performance compared to SMEs who do not have strategic planning in innovation.

Implementation of innovation strategies will encourage companies to create low-cost standardized products and efficiency (Viverita and Ariff, 2008). Furthermore, technological innovations enhance global competitiveness, help companies develop existing products or even create new products (Mohannak, 2007). Research on innovation strategies is supported by the fact that there are still many SMEs that rely on manual strategies without adopting technology that enables innovation to support business productivity (Minister of Cooperatives and SMEs, 2014).

The factors that determine the success of a business including small businesses have been the topic of many academic debates. Researchers from various scientific disciplines agree on the importance of identifying various factors that influence the success of small businesses, to design an economic policy and investment such as job creation, increased wealth, and economic and social development (Autio, 2005; Frese, 2000; Kirzner, 1997; Omri and Ayadi-Frikha, 2014). The determinants of the success of small businesses are increasingly attracting the attention of policy makers, researchers, and practitioners, and have received much theoretical attention. This concern focuses on the relationship between the success of small businesses with innovation, human capital, social capital (Anderson and Miller, 2003; David, Fred R, 2011; Honig, 1998; Thornhill, 2006; Unger et al., 2011).

Most researches on business success explicitly or implicitly apply theoretical perspectives to compile hypotheses in empirical testing, thereby formulating the factors that determine the success of small businesses. Another study found that access to financial capital facilitated the success of resource intentions (Cooper et al., 1994). It was also found that financial capital encourages change or innovation, which in turn leads to business success.
This opinion is of course difficult to refute, but even though financial capital is very important, if human capital is not optimized then success is very difficult to achieve. Furthermore, human capital in a small company ignores social capital (social network) and the application of investment activities, does not support one another, the success or sustainability of small businesses is difficult to achieve. Companies with sufficient human capital and broad social networks are potential opportunities (Shane, 2000), and get value more effectively (Venkataraman, 1997). This allows businesses to more effectively take advantage of opportunities (Kim et al., 2006), if small businesses are driven by innovation strategy factors. So an innovation strategy that facilitates the success of small businesses. This makes it clear that human capital and social networks are important for achieving small business success, because this encourages innovation that also drives business success.

Based on the above, this article discusses issue from an empirical perspective, namely the influence of human capital on innovation strategies.

II. LITERATURE REVIEW

Human resource competency is one of the determinants of the success of SMEs (Williams and McGuire, 2010; Lans et al., 2011; Wu and Wu, 2012). The success or failure of a business is in essence very influenced by managerial competencies such as planning, implementing and controlling resources, sincerity of effort and readiness to deal with change (Laforet, 2011).

The theories used in building the SME success model are based on theories such as resources based view, the concept of innovation strategy, and the concept of performance or success and a number of studies from previous studies. This will be described as follows:

A. Resources Based View (RBV)

The organization or in this study is called SMEs is a business entity that consists of a set of resources with unique capabilities, which are able to support the implementation of a strategy to face competition and achieve company goals optimally. This set of resource capabilities, continues to evolve dynamically in an effort to get profits above the average (Gib and Li, 2003; Hitt et al., 2011). This view is then known as resource based view (RBV) or resource based theory (RBT).

In addition to Penrose (1959), Rubin (1973) as a scientist who conceptualizes companies as a collection of previous resources Wernetfelt (1984) states first the origin of RBV in his article entitled A Resource-based view of the firm and distinctive competencies, which are based on Penrose writes about the definition of a firm as a system of productive resources. But the most influential theory is the RBV which was presented by Barney (1991) entitled The Resources Based View of The Firm.

There are two assumptions attached to RBT, namely heterogeneity and resource immobility. Resource heterogeneity (also called resource diversity) refers to whether a company has the resources or capabilities that other companies also have that are competitors? so that these resources are considered not to be a competitive advantage. While resource immobility refers to a resource that is difficult to obtain by competitors, to obtain or use these resources a very high cost is needed.

According to Barney (1991) "Resources that are valuable, rare, inimitable, and nonsubstitutable leads to sustainable development that cannot be easily duplicated by competitors”.

B. Human Capital

Theodore's speech, W. Schultz in 1960 entitled Investment in Human Capital in the presence of economists and officials who are members of the American Economic Association is the foundation of the theory or concept of human capital. This concept basically assumes that humans are a form of capital as other forms of capital, such as machinery, technology, land, money, and material.

However, human beings as human capital are reflected in human resource competencies such as level of education, knowledge, experience, ideas (ideas), creativity, skills, and work productivity. Unlike other forms of capital which are only treated as tools. Human capital can invest itself through various investments in human resources, including formal education, informal education and work experience and skills.

The theory of human capital assumes that knowledge carries greater cognitive skills, so that human capital is considered to have the potential to increase productivity and efficiency (Becker, 1964; Mincer, 1974).

C. Concept of Innovation Strategy

Strategy is an important process in order to overcome various critical activities of the company and face future conditions that tend to be uncertain and difficult to predict. With the strategy, it means that the company tries to dig deeper into the potential to maximize the final results that it wants to achieve and at the same time develops the ability to adapt to very rapid environmental changes.

The innovation strategy is the most important factor in both small, medium and medium industries, especially to improve operational reliability. According to (Schilling 2005) Innovation is classified into 2 different types, namely radical innovation and incremental innovation with other terms of exploration and exploitation or known as ambidexterity strategy (Ducan, 1978). Different types of innovation require different and even special knowledge and skills and have a different impact on relationships between customers and company competitors.
Radical innovation (corporate innovation) is a very different and new innovation as the main solution in an industry. On the other hand, incremental innovation (innovation exploitation) is an innovation that makes small changes and adjusts to existing practices. Hamel and Prahalad (1995) say that strategy is an action that is incremental or always develops continuously and is carried out based on the point of view of what is expected by the customer in the future. The occurrence of the pace of innovation, new markets, and changes in consumer patterns requires core competition in the business. Experience in developed countries shows that SMEs are a source of production and technology innovation, the growth of creative, and innovative entrepreneurs, the creation of skilled labor and the flexibility of the production processes to deal with rapid changes in market demand. Small industries are more efficient than large industries in meeting fast market demand. The capabilities of the small industry are largely determined by a number of factors. Among them are HR, technology mastery, access to information, market output, and input (Tambunan, 2002).

According to Gatignon and Xuerob (1997), there are 3 important things that must be considered in product innovation, namely product superiority, product uniqueness, and product costs. Product innovation can fail for many reasons. Errors in implementing strategies are a common cause, because others include product design that is not innovative, wrong estimates of competition, the problem lies in the design or production costs are much higher than expected.

Droge and Vickrey (1994)’s research found that products were used as a source of competitive advantage. Companies that are able to design their products as desired by customers will be able to survive amid competition because their products are still in demand by customers.

The results of the same study were also stated by Bharadwaj et al (1993) that the company's ability to continue to innovate its products will keep the product in accordance with the wishes and needs of the customer. Innovative products are basically to meet market demand so that innovation products are one that can be used as a competitive advantage for companies (Han, et al. 1998). The ability to innovate can be interpreted as a character from an individual and the effectiveness of its application is largely determined by the wishes of a group. Therefore, it can be concluded that innovation is actually a characteristic of an organization. To achieve sustainable competitive advantage, RBT is a business strategy must be directed towards the goal of achieving sustainable competitive advantage through the support of innovation processes or strategies of Boran and Kenney (in Omri et al, 2012, 2014). Thus, innovation can be used as a strategy of the company's competitive advantage. Some researchers conduct research by including several mediating variables to explain the relationship between innovation strategies and business enterprise performance. Research Brouwer and Kleinknecht (in Rauch and Frese, 2000) show that innovation strategies are very important and related to labor and support the increase or productivity of the company.

The activities of innovation and product development in manufacturing companies that are associated with company performance are important things that must be considered to face competition. Innovation includes the creation, selection and development or improvement of products, processes and technology (Zahra, et al., 1993; Lucas and Ferrel, 2000).

These innovations can enhance the company's global position and help them achieve status as a producer of world-class quality goods. By using new technology, creating and introducing or marketing these new products and adopting innovative production processes (Jajja et al. 2017), companies can solve competition problems effectively (Swamidass, 1986; Gobeli and Brown, 1993; Salaman and Storey, 2002).

Companies that innovate must develop innovation strategies formally and thoroughly. This strategy explains the company's goals in innovating by explaining the final results (what is developed) and how (how to achieve it). The innovation strategy of a manufacturing company can function as a guide and handle for executive executives in four ways, namely as follows (Zahra and Das, 1993, Afuah, 1998; Salaman and Storey, 2002):

- Product strategy, process or method is a strategy that is used as a way to deal with competition, thus there is a relationship between company activities and corporate innovation strategies (for example with long-term corporate planning).
- Innovation strategies in companies help executives in allocating limited resources by choosing projects that can improve the capabilities and competencies of the company. Thus, innovation helps to differentiate the company's products on the market, influences negotiations with suppliers and keeps the competition from the company.
- This strategy forces executives to explain the focus and sources of future manufacturing innovations by considering company strategies, industry conditions, internal capabilities, resources, strengths and weaknesses. This will help ensure that the innovation effort is in accordance with the desire to achieve success.
- Innovation strategies can also help companies to clarify their competitive advantages through different products and create value to consumers (creating value to customer). If the new product or process is different from other existing products so that the product is unique, it will be very difficult to be copied by competitors (Jajja et al. 2017). Companies can use these innovation products to protect existing markets or

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market to new niche markets, thereby increasing financial performance that is superior to competitors.

Lengnick-Hall, 1992 and Afuah, 1998 (in Lilian 2006) stated that the relationship between innovation activities and competitive advantage is based on four aspects (Lengnick-Hall, 1992; Afuah, 1998) namely:

- That innovation that is difficult to imitate (imitability) will make the company excel in competition. An unfavorable strategy will be easily replicated so that it requires more durable resources in competitive advantage.
- Innovations that can accurately reflect market reactions will make the company superior in competition.
- Innovations that are less able to exploit the timing characteristics of relevant industries will make the company superior.
- Innovations that are based on capabilities and easy-to-use technology will make the company excel in competition.

Decisions of appropriate and fast innovation strategies can improve company performance, especially in strategic decisions in the form of manufacturing. Therefore, how to prepare an appropriate strategy on the basis of an analysis of the company's external and internal environment, and then establishing the right innovation strategy, is the key to successful innovation (Peng, 2005); Zahra and Das (1993) and some opinions of experts who argue that the dimensions of innovation strategy will affect the company's financial performance.

The concept of own agility origin is a concept known in the field of information systems studies (Borjesson et al. 2006). Whereas in strategic management, Drucker conceptualizes agility to explain the importance of increasing organizational flexibility and responsibility (Yaghoubi & Dahmardeh, 2010).

Organizational agility strategy is a new way for organizations to develop the flexibility and responsiveness of organizations so they are able to deal with changes in a very fast, dynamic and turbulent business environment (Sharifi & Zhang, 1999; Sambamurthy et al., 2003; Lin et al., 2006; Sambamurthy, 2007; Yaghoubi and Dahmardeh, 2010; Chen, 2012).

The definition of organizational agility continues to grow, starting from the speed at which decision-making turns into flexibility, then changes again to strategic flexibility, and finally organizational agility (Schnackenberg et al. 2011). The development of the definition of organizational agility along with the development of the dimensions of organizational agility.

The definition of agility is generally characterized by dimensions of responsiveness to the environment and adaptive changes. One of the researchers who initiated the transition from strategic flexibility to agility is Sambamurthy et al (2003). According to Sambamurthy et al (2003) agility is "the ability to detect opportunities for innovation and seize those competitive market opportunities by assembling requisite assets, knowledge, and relationships with speed and surprise". Based on this definition, according to Sambamurthy et al. (2003) there are three dimensions involved in agility constructs, namely customer agility, partnering agility, and operational agility.

Sull (2009) defines agility in practical terms, namely "the capacity to identify, capture, and exploit opportunities more quickly than rivals do". In contrast to the definition put forward by Sambamurthy et al (2003) which views agility as an organizational capability, the definition of Sull (2009) further explains agility as an organizational capacity. This has implications for the dimensions involved in it, namely range of sense (range of sense) and range to respond (range of response), not the scale to feel and respond as in the initial definition.

Tallon & Pinsonneault (2011) emphasizes the importance of ease of feeling and ease in responding. Both capabilities are needed to balance aspects of exploitation and exploration. Therefore, Tallon and Pinsonneault (2011) define agility as "the ability to detect and respond to opportunities and threats in the environment with ease, speed and dexterity". This definition is similar to the definition conveyed by Overby et al (2006) which emphasizes the dimension of appropriateness of the response, which is the alignment of responses with organizational goals.

Based on the various views above, the definition of Tallon and Pinsonneault (2011) is seen as a definition that can describe the construct of organizational agility. The definition of Tallon and Pinsonneault (2011) does not only emphasize three characteristics (speed of change, ease of change and sensing / responding) but also involves dexterity dimensions. This dimension requires an entrepreneurial organization to strategically organize in order to achieve a balance of exploration and exploitation innovation in competition and to deal with changes in the company's environment.

The application of an ambiguity strategy in the dimensions of exploration and exploitation simultaneously sometimes contradicts and can create tension within the company (Raguso, 2015). Such a situation is called paradox leadership (Lewis, M. W., Andriopoulos, C. and Smith, W. K. 2014), namely the emergence of contradictions, such as flexibility-stability, change of commitment and predetermined routine approaches. These competing demands pose challenges that require paradox leadership, such as the practice of finding creative and solutions that can enable fast decision making and can adapt to the hypercompetitive environment. So the survival of an organization depends on the strategic agility of the organization responding to flexibility at and attentive to the ever-changing environment. Organizations that have dexterity can adapt and be agile, implementing the necessary decision-making and new approaches.
Leadership requires the ability to identify and exploit opportunities and threats, and to exploit internally and external competencies. In the most critical conditions and big uncertainties, leaders set a vision for their followers, foster commitment to their implementation, and encourage imagination in the process to meet increasing and often conflicting demands (Doz and Kosonen, 2014).

Strategic agility enables companies to flexibly respond to complex, global and dynamic environments. The ability to build organizational updates requires formal strategic planning, commitment to allocating resources to build core competencies for competitive advantage. On the other hand, strategic agility demands strategic flexibility, rapid response, and innovation towards the dynamic.

In addition, achieving strategic agility means organizations face a variety of often conflicting demands, such as demands for innovation and efficiency, global and local markets, and social and financial missions. (Adler, P., Goldofas, B. and Levine, D. 1999). According to Doz and Kosonen (2014) to deal with organizational contradictions or paradoxes in the implementation of exploitation exploration and innovation innovations it takes three organisas strategic agility capabilities, consisting of strategic sensitivity, leadership unity, and fluidity of resources.

Doz and Kosonen (2014) explained that strategic sensitivity consists of sharpness of perception, intensity of awareness, being attentive and open to strategic developments. Strategic sensitivity involves alertness and is able to integrate new possibilities, need to learn and let go of experience, look forward and backward, and involve opinions from top to bottom and from the bottom up (Lewis, M. W., Andriopoulos, C. & Smith, W. K. 2014). Unity of leadership includes the ability of top teams or leaders of organizations to make brave and fast, unhindered decisions. Unity of leadership shows a strong commitment from top management, middle managers, teamwork or employees. Unity of leadership depends on collectivity, convergent thinking, homogeneous perspective, and mutual agreement. Effective decision making also respects diverse perspectives by gathering multiple perspectives, encouraging radical thinking, and raising conflicting opinions. (Eisenhardt K. 1989). Liquidity of resources consists of internal capabilities to quickly reconfigure capabilities and resources. In this case organizational resources are mobilized to increase the ratio of change to stability, which requires change, transition and novelty but still depends entirely on the consistency of resource use.

D. Dimensions and Innovation Strategy Indicators


Exploration innovation is a radical innovation carried out through experimentation, research, and development in an effort to find new knowledge, new products, or new markets. Exploration shows that organizations carry out activities such as search, discovery, experimentation, risk taking and innovation, while innovation is related to the organization’s ability to implement innovation through improving product quality, product markets, and optimizing existing products. The exploration and innovation of exploitation innovation will run strong if there is organizational agility which includes indicators of strategic sensitivity, leadership unity, and the fluidity of resources in facing organizational change.

III. RESEARCH METHODS

The design of this study is quantitative research using multiple analysis. Human capital variables, financial capital and social capital are independent variables and investment strategies are dependent variables. This study used 180 SMEs manufacturing in the city of Makassar as a sample. The sampling technique is nonprobability sampling with convenience sampling method.

IV. FINDING AND DISCUSSION

A. Finding

Computational results obtained from descriptive statistics in the form of frequency values and the overall average value for the variable human capital (X1) consists of 4 dimensions, namely education (MMPD) totaling 5 indicators, skill dimensions (MMKP) totaling 4 indicators, experience dimensions (MMPL). There are 4 indicators, the entrepreneurship dimension (MMKW) is 7 indicators. Descriptive finding of the dimension is presented in table 1:
The indicator on the experience dimension (MMPL) which gives the highest average score of 4 is that the MMPL4 indicator has an average score of 3.37 describing the perception of the leader or company owner that the employee experience is a valuable resource in the company, then followed by the MMPL3 indicator has an average score of 4.33 describing the perception of the leader or company owner to agree that experienced employees guide inexperienced employees. The MMPL2 indicator has a mean score of 4.31 describing the perceptions of leaders or business owners that the experience of employees to improve product quality and MMPL1 indicators has an average score of 4.10 describing the perception of leaders or business owners that employee experience increases the amount of production in the company.

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It was identified that the skill dimension score had an average score of close to 5, namely 4.485 highest from the other 4 dimensions, followed by the experience dimension had an average score of 4.28, the education dimension had an average score of 4.27, the entrepreneurial dimension had an average score of 4.17.

The value of the average score on this dimension illustrates the perception of leaders or company owners agree on the existence and involvement of human capital, which consists of skills, education, experience, and entrepreneurship in the management of SME companies. The indicator on the skill dimension (MMKP) that gives the highest average score of the 4 indicators is the MMKP3 indicator has an average score of close to 5, which is 4.56 illustrating the perceptions of leaders or company owners strongly agree that employee skills competency is a valuable resource in the company. Then in succession the MMKP4 indicator has an average score of close to 5, which is 4.54 illustrating the perception of the leader or company owner strongly agree that the skills of the employee contribute to the performance of the company. The MMKP2 indicator has an average score of close to 5, which is 4.51 describing the perception of the leader or the owner of the company strongly agree to encourage the improvement of employee skills. The MMKP1 indicator has an average score of 4.33 describing the perception of leadership or the company owner agrees that the skills possessed by employees are in accordance with the work of the employee.

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The indicator on the entrepreneurship dimension (MMKW) which has the highest average score of 7 indicators is the MMKW3 indicator has an average score of close to 5, i.e. 4.5 describes the perception of leaders or company owners tend to strongly agree to encourage employees to innovate in the company's entrepreneurship. Then followed by the MMKW4 indicator having an average value of a score close to 5, namely 4.45 describing the perception of the leader or the owner of the company tends to strongly agree that entrepreneurial employees are responsible for their work. The MMKW2 indicator has an average score of 4.27 describing the perceptions of leaders or company owners agreeing to be open to the use of new technology or innovation. The MMKW6 indicator has an average score of 4.24 describing the perception of leaders or company owners to agree that entrepreneurship is a valuable resource in the company. The MMKW7 indicator has an average score of 4.19 illustrating the perception that
leaders or company owners agree that entrepreneurship contributes to the company's performance. The MMKW1 indicator has an average score of close to 4, which is 3.83 describing the perceptions of leaders or company owners who tend to agree to make decisions even though the risk and MMKW5 indicators have an average score close to 4, which is 3.74 describing the perception of the leader or owner the company tends to agree that employees are willing to take risks on the conduct of work gives improvements to the application of methods, work techniques, or technologies that have not been efficient. The STEP5 indicator has an average score of 4.33 describing the perception of the leader or company owner to agree to add the type of product to the market through product verification.

Indicators on the dimensions of exploration innovation (STRI) that provide the highest average perception score of 5 indicators are STRI5 indicators. The average score of 4.35 illustrates the perception that the leader or company owner agrees to discover new production processes, new products, and new markets. improve company performance. The STRI4 indicator of an average score of 4.34 illustrates the perception that the leader or company owner agrees that commitment to the search for a truly new market. The STRI2 indicator of the average score of 4.33 illustrates the perception that leaders or company owners agree to promote truly new products. The STRI3 indicator the average score of 4.26 illustrates the perception that the leader or company owner agrees to commit to improving product quality. The STRI1 indicator of an average score of 4.17 illustrates the perception that the leader or company owner agrees that the company encourages employees to find methods, work techniques, and new technologies.

Descriptive finding is presented in table 2 in the following page.

<table>
<thead>
<tr>
<th>Dimension</th>
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<tr>
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</tr>
</tbody>
</table>

Table 2:- Descriptive Finding of Innovation

Source: data analysis

The indicator on the organizational agility dimension (STOA) which gives the highest average score of perceptions of the 8 indicators is the STOA3 indicator, the average score of 4.39 illustrates the perception of the leader or company owner to care about the company's resource needs needed to face the company. Then followed by the STOA8 indicator with an average score of 4, 38 illustrating the perception of the leader or company owner to agree that the speed, sensitivity, concern and flexibility of organizational resources increase the company's performance.

The STOA1 indicator has an average score of 4, 35 describing the perception of the leader or company owner to agree responsively to customer needs. The STOA6 indicator the average score of 4.17 describes the perception of the leader or the owner of the company to agree that the unity of orders is needed to address the company's objectives. The STOA5 indicator the average score of 4.26 illustrates the perception of the leader or the owner of the company to agree to make a flexible (not rigid) organizational structure to deal with rapidly changing environmental changes. The STOA2 indicator the average score of 4.13 illustrates the perception of the leader or the company owner to agree to quickly make decisions about the company's problems Indicators STOA4 and STOA7 have the same average score, which is 4.11. The STOA4 indicator illustrates the perceptions of leaders or company owners agree that companies quickly adjust the use of company resources with demands for environmental change, and the STOA7 indicator reflects the perceptions of leaders or company owners agree that companies provide resources that are able to deal with rapidly changing environmental changes.

The leader or owner of the company agrees that human capital as a resource and capability of the company in managing SME companies in the dimensions of education, skills, experience, and entrepreneurship. Shows the variable human capital (X1) has an average score of 4.34 describing perceptions.

B. Discussion

Influence of Human Capital on the Innovation Strategy

Research on the effect of human capital on innovation strategies has become an important domain, especially in the fields of economics and management science (Manolova et al., 2008; Manikas and Terry, 2010).

The Ha1 hypothesis proposed in this dissertation is that human capital has a direct positive influence on innovation strategies. The results of hypothesis testing state that there is a direct positive effect of human capital on the innovation strategy of 0.296 with a critical value or t of 4.388 at a significant level of p-value 0.000 <0.05. The coefficient shows that human capital variables have a direct positive effect on innovation strategies. This means that an increase in human capital will be directly followed by an increase in innovation strategies significantly assuming
other factors that influence innovation strategies are considered constant.

The results of this study reinforce the opinion that the skills acquired by employees through education, training, experience, entrepreneurship play an important role in providing the human resources needed to create and develop businesses (Donckels and Frohlich, 1991). Entrepreneurship in humans is usually considered a process, innovation strategy activities that play an important role in developing a business. Innovation Strategy is a process that starts with an idea, findings and developments, the results of the introduction of new products or services (Edwards and Gordon, 1984). Corporate innovation strategies can be initiated by individuals or organizations that reflect entrepreneurial orientation (Lumpkin and Dess, 1996). The concept that there is a relationship between skills as part of entrepreneurship and innovation strategies generally originates based on Schumpeter's study (1934). Schumpeter is interested in studying the importance of organizational resources, including the capabilities that exist in humans related to innovation strategies. The same perspective from Miles and Snow (1978) states that an entrepreneur innovates through inventions in the market. Drucker (1985) considers entrepreneurs who are innovators to find success, learn, and apply principles that enable successful innovation.

David (2011) explained that the Innovation strategy is the process of managing corporate organizations and human capital is an important resource component of this process. The relationship between human capital and innovation strategies has two different aspects, the distribution process, the use of innovation, and the creation of new products and product development or innovation strategies oriented to exploration and exploitation. Bierly, et al. 2009; Gisado-González. et al, 2017; Caniels et al., 2017).

The effort to understand the innovation strategy of small businesses must be done by examining the characteristics of the founders and leaders or owners and even the human resources of the company. Likewise, related to the innovation strategies of small companies in the elements of education, knowledge and skills are important (Mahemb and De Bruijn, 2003; Lin, 1998).

Capabilities and competencies such as knowledge, experience, and work skills allow access to a wider range of opportunities to innovate both in corporate innovation activities and in exploitation innovation activities (Moschieri and Mair, 2011; Omri and Friakha, 2012; Phelan and Sharphey, 2012; Andries and Czarnitzki, 2014). The higher education, experience, skills, entrepreneurship of employees, the higher the innovation work (Ahmad et al., 2011; Agostini, 2016). So in this case there is a positive relationship between skills acquired through education, experience, and entrepreneurship of employees with innovation strategies (Gimeno, et al., 1997; Davidsson and Honig, 2003; Parihar et al., 2013; Peters et al., 2017).

The results of this study are in line with some of the researchers' views on the issue of organizational ambiguity and agility. Lubatkin, et al. (2006) stated that companies that implement an ambidexterity innovation strategy are companies that are able to utilize existing competencies and explore new opportunities with equal agility. Through the skills, knowledge, and entrepreneurship inherent in human beings in the company, they can design and formulate innovation strategies based on exploration and exploitation activities (Bierly et al. 2009; Guisado-González et al., 2017; Caniels et al., 2017; Cegarra-Navarro et al., 2017; Donation and Guadamillas, 2011) which are accompanied by the ability of company leaders to use slippage or flexibility in managing resources. Organizational strategic dexterity depends on the response of leaders to competitive demand (Nohria, N. and Beer, M., 2000).

Supported by the results of validity tests, reliability, goodness of fit, conventional factor analysis, results of testing hypotheses from empirical data, results of previous studies and Angela Baror's concept (2011) on the dimensions and size of human capital, Baldwin and Johnson (1995) on the role of human capital in Small and medium business innovation strategies can be emphasized that human capital with the dimensions of skills includes corporate indicators encouraging employee skills improvement (MMPK2), employee skills as a valuable resource in the company (MMPK3), and influential employee skills to corporate performance (MMPK4) direct positivity towards the orientation of organizational ambiguity innovation strategies with dimensions of exploration innovation including indicators encouraging employees to find methods, work techniques, and new technologies (STR1), promoting truly new products (STR2), committed to product quality improvement (STR3), commitment to towards a truly new market search (STR4), and the discovery of new production processes, new products, and new markets to improve company performance (STR5); the dimensions of innovation in exploitation include indicators of improving inefficient work (STEP2), commitment to improving product quality (STEP3), commitment to maintaining the existing product market, and even expanding the product market. (STEP4), companies add types of products to the market through product verification (STEP5): the dimensions of organizational agility include indicators concerned with the needs of company resources needed in the face of the company (STOA3), companies quickly adjust the use of company resources with demands for environmental change (STOA4), create flexible (not rigid) organizational structures to deal with rapidly changing environmental changes (STOA5) and provide resources capable of dealing with rapidly changing environmental changes (STOA7). So the hypothesis H1 that human capital has a direct positive effect on innovation strategies is accepted.
REFERENCES


