Creating Human Resource Development Strategy Through The Strengthening of Human Capital, Structural Capital, and Relational Capital to Improve Local Competitive Advantage (Survey Conducted in Bangka Belitung Islands Province)

Reniati
Management Department-Economic Faculty of Bangka Belitung
University, Indonesia

ABSTRACT

The quality of human resources (HR) as a source of competitive advantage in Bangka Belitung Islands is still low. This is indicated by the value of Human Development Index (HDI), which is no.4, in the Sumatera region. In addition, the human resource development competencies have not yet met the standard set by the companies/institutions where they work. In particular, the purpose is to study the effects of human resource development strategy on human capital, structural capital, and relational capital and their impacts on the improvement of competitive advantage. The method used in the study is an explanatory survey. The sample used in this study consists of 330 respondents. The model of effect was analyzed using the Partial Least Square (PLS) technique. The results showed that the human resources strategy has a significant positive effect on human capital, structural capital and relational capital in Bangka Belitung Islands. However, it did not affect the local competitive advantage. This is because the competitive advantage in this province still comes only from its most well-known natural resource: tin. Structural capital and relational capital affected the local competitive advantage, but human capital did not affect it.

Keywords: Human Resource Development Strategy, Human Capital, Structural Capital, Relational Capital, And Competitive Advantage

I.   INTRODUCTION

1.1. Study Background

Population is the most valuable development asset of resources. It pertains to the population development policy that puts population as the basic capital development with dual function either agent of development or development beneficiary, and also to the sustainable development policy which is oriented to the future development for the next generations.

In term of quantity, based on the census in 2010, the population of Bangka Belitung province reached the lowest number of ten provinces in Sumatra Island approximately 1,223,296 inhabitants. However, in term of the Population Growth Rate, Bangka Belitung province stood in the third place with the percentage of 3.14 under the province of Riau Islands which was about 4.95% and Riau in the amount of 3.58%.

Meanwhile, in term of quality issues, the Human Development Index (HDI) of Bangka Belitung province in 2010 had medium level about 72.86 with the rank of 12 from 33 provinces in Indonesia. It was lower than the previous year in the rank of 11 though the HDI rose slightly about 0.31, having index in the amount of 72.55. Compared with ten provinces in Sumatra Island, Bangka Belitung province reached the fourth from the bottom in the rank of 7 (Koalisi Kependudukan dan BKKBN (2012).

This phenomenon shows that the quality of human resources in Bangka Belitung province still needs to be improved. A tool used to measure it is called Human Development Index (HDI). HDI can describe the results of the implementation of very basic human development, namely: health status, quality of education, and access to economic resources like the equity level of people's purchasing power.

Human Development Index in Bangka Belitung province stated a declining trend in 2010. Human resource development strategy has yet to be done comprehensively nowadays so that there is no clear blueprint pertaining to the human resource quality adapted to local condition. The primary survey indicates that there has been a massive migration with low education level because of the labor's inappropriate competency and skill required by the market. On the other hand, there is a gap between education and work field because of the labors' unreadiness to work. Although they have higher education, they are only ready to train. Through interviews, many companies or businesses in Bangka Belitung province prefer seeking their labors from other regions to local.

The progressive movement to a rapid change and intensive economy with technology based on knowledge and investment in human resources has become essential in order to maintain the competitive position of an organization/region/ country and to establish the continuity in the future (Ramirez, 2007). Therefore, the human resource development with intellectual capital-based is urgent to implement for achieving local competitive advantage.

1.2. Research Problems
Based on the study background above, some problems are emerged as follows:
1. What are the contributions of human resource development for human, structural, and relational capital in Bangka Belitung Province?
2. What are the influences of human resource development strategy to the competitive advantage in Bangka Belitung Province?
3. How is the role of human, structural, and relational capital to the competitive advantage in Bangka Belitung Province?

1.3. Specific Purposes
1. To obtain an analysis on the contribution of human resource development for human, structural, and relational capital in Bangka Belitung Province.
2. To draw an analysis of human resource development strategy to the competitive advantage in Bangka Belitung Province.
3. To obtain an analysis on the role of human, structural, and relational capital in Bangka Belitung Province.

II.   LITERATURE STUDY

2.1. Strategic Management Human Resources
The strategy is not only required by an organization that focuses on profit-oriented, but also non-profit oriented organization such as hospitals, universities, mosques, and regional governments. Strategic management human resources is a spreading pattern of planned human resource activities to enable an organization to achieve predetermined objectives (Noe, 2008). Strategic management human resources relates to the use of organizational employees in order to gain or maintain the competitive advantage against competitors (Mathis and Jackson, 2004: P.67). This activity is linked directly with the company's strategy in creating a competitive advantage.

According to Anatan and Ellitan (2007: p.16), four steps of human resource development strategy must be taken to manage the challenges of the current strategic management human resources, such as:
1.   Managing the human resources in order to create competency
2.   Managing labor diversity to obtain the competitive advantage
3.   Managing human resources to increase the competitiveness
4.   Managing human resources to face the globalization era

Strategic management human resources includes the consistent development and the implementation of policy programs to facilitate the target of organizational strategy improvement (Jeffrey A. Mello, 2002).

2.2. Intelectual Capital

Knowledge based economy supported by development in information technology and science emerges the interest growth to the intellectual capital. According to Pithanen (2006), intellectual capital shows a combination of human capital, structural capital and relationship capital. Human capital focuses on the skills, experience, competence and personal ability to innovate. Structural capital consists of processes and organizational systems, databases and software, business processes and brands. Capital relationship consists of a list of consumers, information of potential income consumers, and the closeness of consumers.

Intellectual capital consists of three elements, namely: 1) Human capital-the knowledge, skills, abilities and capacity to develop and innovate possessed by people in an organization. 2) Social capital-the structures, networks, and procedures that enable those people toacquire and develop intellectual capital represented. 3) Organizational capital-the institutionalized knowledge possessed by organization that is stored in databases, manuals, is it other called structure capital. (Amstrong, 2007)

2.2.1.Human Capital

Human capital is very important for a region/organization because human is the source of creativity and innovation and reflects the knowledge, leadership skills, problem solving and risk taking. Ramirez (2007) states that human capital is the set of explicit and tacit knowledge of the universities personnel acquired through formal and informal educational and actualization processes embodied in their activities.

The other perspective of human capital can be measured by two dimensions (Mathis & Jackson, 2006: p.114) such as: (a) Efforts like motivation, work ethic, presence, and task design. (b) Individual capability consists of talent, interest, and personality factor.

2.2.2. Structural Capital

In the HRM perspective of structural capital is organizational support given to each employee in performing his or her duties. According to Mathis & Jackson (2005: p. 114), organizational supports contains training and development, equipment and technology, performance standards, management and co-workers (leadership, mechanics, systems and processes, culture and condusive work environment).

Brinker (2000) expresses four things that must be considered in structural capital measurement namely: (1) the value of technology process which can be obtained as long as the process can continuously provide the value to the company, (2) the use of technology in the company, (3) the real productivity for the company, and (4) the integration of process performance in achieving performance goals.

2.2.3. Relational Capital

This element is an intellectual capital component that gives real value. Relational capital is a harmonious/association relation between company and its partners as reliable and quality suppliers, and satisfied customer on the service, government, and society.

Bontis et al., (2000) conveys that customer capital is important in determining the competitive advantage. The higher the customer's capital, the more lasting the company's competitive advantage. In addition, many companies implement customer relationship management (CRM) as a mechanism in the management process.

Many marketers have changed their point of view from brand centric to customer centric. This view becomes the dominant paradigm in guiding the marketing management. (Bell et all in Chang dan Tseng, 2005)

2.3.   Local Competitive Advantage

Competitive advantage emphasizes the long-term performance in any focus levels, associated with competitors to yield the superiority. (Man et, all 2002, 2008). Indeed, competitive advantage should consider various multidimensional concept. Barney (1991: 101) conveys through company's resource-based that the tangible and intangible assets enable companies to understand and implement strategies which improve the efficiency and effectiveness. The growing competition in the business world leads to a number of researchers have examined the SCA (Sustained Competitive Advantage) from resource-based view (Barney, 1991; Becker & Gerhart, 1996; Lado & Wilson, 1994; Wright et al, 1994; Wright, Dunford & Snell, 2001). The most famous action is done by Barney (1991). He shows four characteristics of resources that can generate SCA for the company namely VRIO consisted of: value, rareness, immitability, and the organization. VRIO can bring SCA for the company. All of these arguments indicate that human resources is important in obtaining SCA and provide the benefits of research in batik industry of coastal area globally.

Meanwhile, Best (2010) describes the sources of the competitive advantage such as cost advantage, differentiation advantage dan marketing advantage.
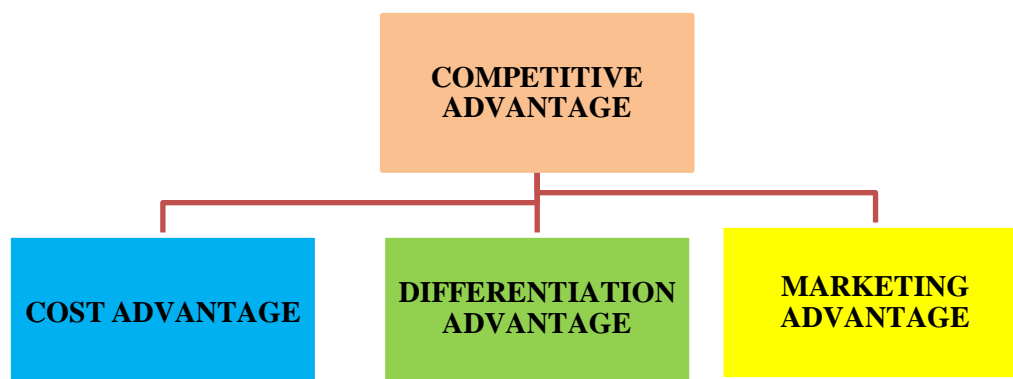

Figure 1. Major Sources of Competitive Advantage
Source : Roger J.Best (2010, p.150), Market-Based Management. Strategies for Growing Customer Value and Profitability.

- ➢ Variable Cost
- ➢ Marketing Expenses
- ➢ Operating Expenses

- ➢ Product Differentiation
- ➢ Service Quality
- ➢ Brand Reputation

- ➢ Distribution
- ➢ Sales Effort
- ➢ Brand Awareness

Another perspektive by Besanko et all. (2010, p.363) that A company has a competitive advantage with the following conditions: When a firm earns a higher rate of economic profit than the average rate of economic profits of other firms competing within the same market (Besanko, 2010). A company can create and deliver more economic value than its competitors simultaneously by increasing the profit and offering the higher benefit to the consumers rather than to the competitors.

2.4.Theoretical Framework and Hypothesis

Each region must manage its resources optimally, consisted of human capital, structural capital and relational capital. Those things are a unity called intellectual capital. Intellectual capital is important to develop strategies for human resource development in an organization/region so as to create a competitive advantage in an increasingly competitive today's hypercompetitive. Based on the theoretical framework and research paradigm above, the hypothesis will be:

1.   Strategy of human resource development has positive contribution to the human capital, structural capital, and customer capital in the processing industry in Bangka Belitung province.
2.   Strategy of human resource development gives positive effect to the competitive advantage in the processing industry in Bangka Belitung province.
3.   Human capital, structural capital, and customer capital plays important role to the competitive advantage of the processing industry in Bangka Belitung province.
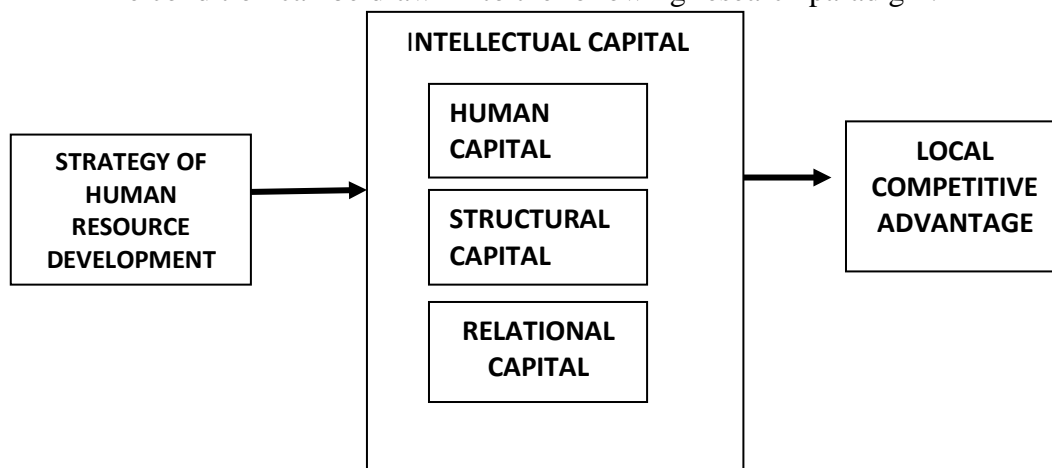   The condition can be drawn into the following research paradigm:

Figure 2. Research Paradigm

III.   RESEARCH METHODOLOGY

3.1.Method Used

This research focuses on strategic management human resource in the economic management as its Grand Theory. The Middle Theory is its strategic management theories and its Applied Theory is human resource development strategy, human capital, structural capital, relational capital, and local competitive advantage. The descriptive and verifikative research is carried out through field data collection based on descriptive and explanatory survey.

1.3.   Population and Sample

Respondents consists of employers of the industry with additional information from the local government, consumers (people who use the products/ services), and the employees of the industry. There are 2446 small medium industries in Bangka Belitung province as follows:

Table 1. Industry Groups in Bangka Belitung Province of 2006

No	Regencies/Cities	Industry Groups					Total
		Food	Clothes	Metal, Machine & Elektronics	Chemistry & Building material	Craft	
1	Bangka	91	7	116	162	21	397
2	West Bangka	44	0	23	28	5	100
3	Central Bangka	18	1	61	53	2	135
4	South Bangka	54	2	41	61	12	170
5	Belitung	100	7	188	214	31	540
6	East Belitung	103	16	74	65	115	373
7	Pangkalpinang	191	23	260	202	49	725
Total		601	56	763	785	235	2440
Percentage (%)		24.63	2.30	31.27	32.17	9.63	

Source: Industry, Cooperatives, Small and Medium Enterprises Service in Bangka Belitung Province

Based on the samples, resampling with bootstrapping developed by Geisser & Stone were used to test the hypothesis on PLS. The sample size was estimated as follows:
1) Ten times the number of formative indictors (neglecting the reflexive indicator).
2) Ten times the number of struktural paths on the inner model.
3) Sample in a small size from 30 to 50 or big sample more than 200

In this study, 100 business units throughout Bangka Belitung province were surveyed and determined by Proportional Random Sampling for each regency/city. Meanwhile, 30 institutions of local government includes Bappeda, Tourism Department, Industry and Trading Service, Cooperatives, Small and Medium Enterprises Service, BKKBN, Education Board, academy personnel, community leaders, etc were invited to focus group discussions. For the consumers, they were surveyed using Systematic Sampling technique of 100 people, and 100 workers in the industry. Total samples of this research were 330 persons:

Table 2. Number of Samples

No.	Name	Number of Samples	Sampling Techniques
1.	Entrepreneur	100 persons	PLS standard
2.	Local government and community leaders	30 persons	Purposive
3.	Employees	100 persons	PLS Standar
4.	Consumers	100 persons	Sistematic Sampling
Total		330 persons	

IV.   RESULTS

4.1 The Influence of Human Resources to the Human, Structural, and Realtional Capital.

Analysis model shows that research model fits the data. Further, testing the hypothesis of the first sub-structure indicates an analysis of the influence of the internal environment, external environment, and partnership strategy for innovation strategy as described in the followings:
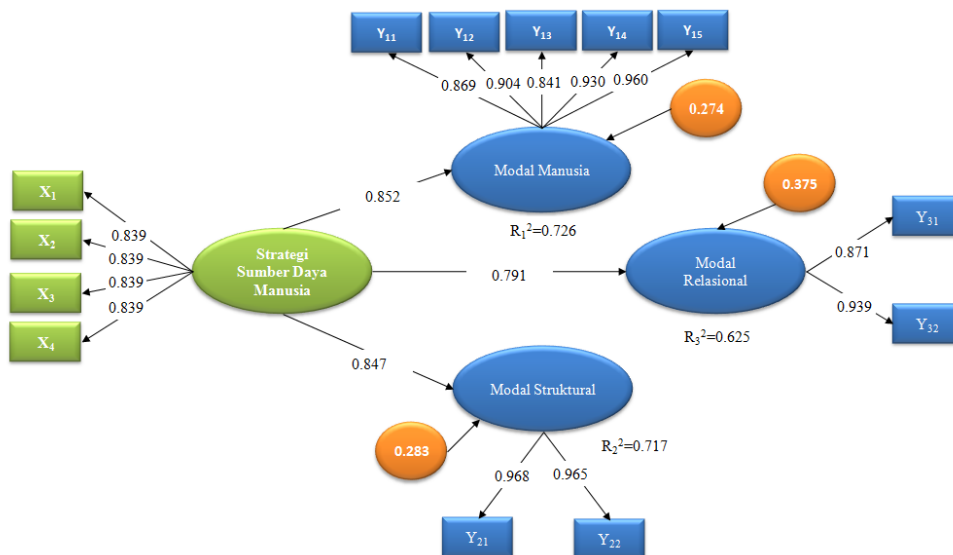
The results of t-test statistical calculation to the student provide the value for t count of each affecting variable on human resource strategy to human capital, structural capital and relational capital. It is greater than 1,981 which shows that there is a significant effect of human resource strategy to the three variables above.

Table 4. 1
Primary Hypothesis

Hypothesis Effect	Value	R2	Error Standard	t-count	t-table	Remark
Human Resource Strategy - > Human Capital	0.852	0.726	0.050	17.142	1.981	Significant
Human Resource Strategy - > Structural Capital	0.847	0.717	0.051	16.757	1.981	Significant
Human Resource Strategy - > Relational Capital	0.791	0.625	0.058	13.615	1.981	Significant

Statistical calculation results show that human resource strategy has positive and significant impact on human capital. The direct influence of the variable yields deviation standard of 0,852. It means that if there is an increase of one deviation standard of human resource strategies, the improvement will be 0,852 of human capital in Bangka Belitung province. R2 value of 7.26% states that the changes occured to the human capital in Bangka Belitung province are affected by changes in the human resource strategy.

Statistical calculation results show that human resource strategy has positive and significant impact not only on human capital, structural capital, but also on relational capital. Firstly, in human capital, the direct influence of the variable yields deviation standard of 0,852. It means that if there is an increase of one deviation standard of human resource strategies, the improvement will be 0,852 of human capital in Bangka Belitung province. R^2 value of 7.26% states that the changes of the human capital in Bangka Belitung province are affected by changes in the human resource strategy. Secondly, in structural capital, the direct influence of the variable yields deviation standard of 0,847. It means that if there is an increase of one deviation standard of human resource strategies, the improvement will be 0,847 of structural capital in Bangka Belitung province. R^2 value of 7.17% states that the changes of the human capital in Bangka Belitung province are affected by changes in the human resource strategy. Thirdly, in relational capital, the direct influence of the variable yields deviation standard of 0,625. It means that if there is an increase of one deviation standard of human resource strategies, the improvement will be 0,625 of relational capital in Bangka Belitung Province. R^2 value of 6.25% states that the changes of the relational capital in Bangka Belitung Province are affected by changes in the human resource strategy.

4.2 The Influence of Human Resource Development Strategy to the Competitive Advantage
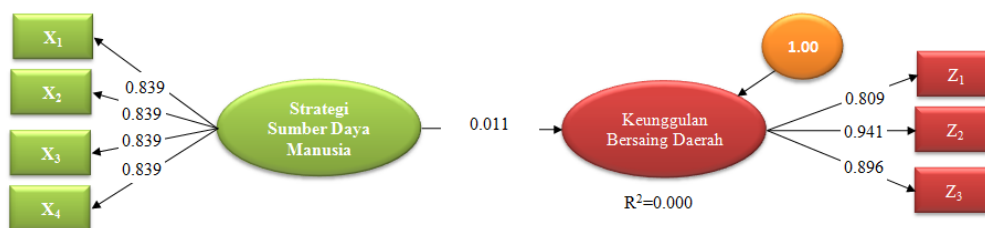

Table 4. 2
Secondary Hypothesis

Hypothesis Effect	Value	R2	Error Standard	t-Count	t-table	Remark
Human Resource Strategy - > Competitive Advantage	0.011	0.00	0.118	0.096	1.981	Not Signifikan

Statistical calculation results show that human resource strategy has no significant influence on local competitive advantage. This is indicated by the value of t-count which is smaller than t-table. Therefore, the changes of the competitive advantage in Bangka Belitung province are not affected by changes in human resource strategy.

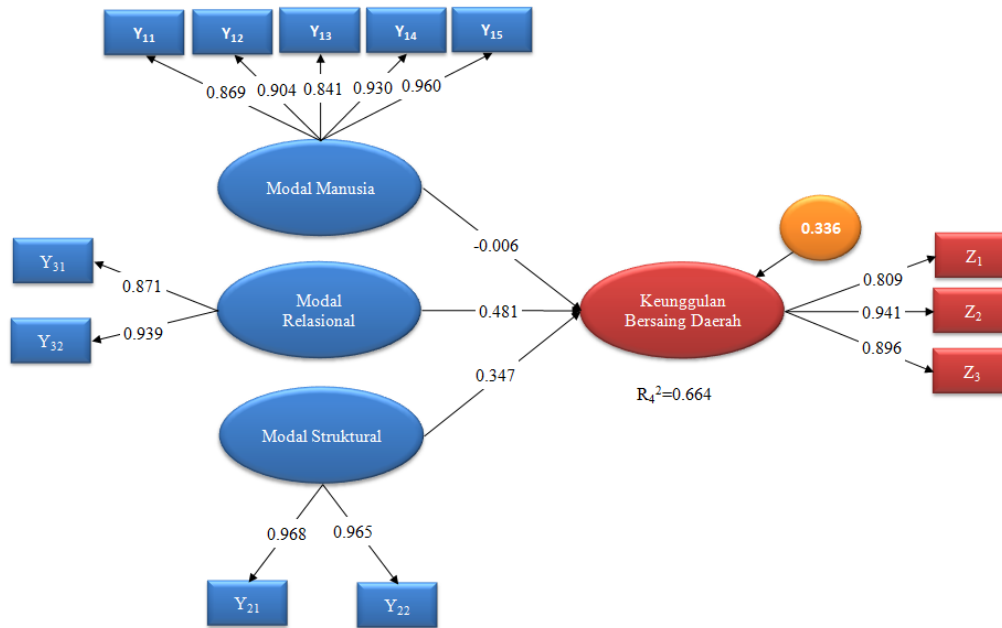## 4.3 The Role of Human Capital, Structural Capital, and Relational Capital

Table 4. 3
Thirdly Hypothesis

Hypothesis Effect	Value	R2	Error Standard	t-count	t-table	Remark
Human Capital -> Competitive Advantage	-0.006	0.000	0.151	-0.038	1.981	Not significant
Structural Capital -> Competitive Advantage	0.347	0.121	0.145	2.389	1.981	significant
Relational Capital -> Competitive Advantage	0.481	0.232	0.122	3.956	1.981	significant

Statistical calculation results show that human capital variables have no significant effect on competitive advantage, of course, in line with previous findings in which human resource strategy has no significant influence on regional competitive advantage. The value of t-count is smaller than t-table, so that changes of the competitive advantage in Bangka Belitung are not affected by changes of human capital. Meanwhile, the structural capital variables have positive and significant impact on competitive advantage. The direct influence reaches the standard deviation of 0,347. If the standard deviation of structural capital increases, the competitive advantage in Bangka Belitung Province will raise about 0,347. R2 value of 1.21% states that the changes in competitive advantage are affected by the changes in structural capital. The relational capital variables have positive and significant impact on competitive advantage. The direct influence reaches the standard deviation of 0,481. If the standard deviation of relational capital increases, the competitive advantage in Bangka Belitung Province will raise about 0,481. R2 value of 2.32% states that the changes in competitive advantage are affected by the changes in relational capital.

V.   CONCLUSIONS AND SUGGESTIONS

1.1. The conclusions of the research are :
1. The research yileds human resource strategy has significant and positive influence to the human capital, structural capital, and relational capital in Bangka Belitung province.
2. Human resource strategy has no influence to the competitive advantage because the competitive advantage in this province still comes only from itsmost well-known natural resource: tin.
3. Structural and relational capital affects the local competitive advantage significantly and positively, however, human capital has no significant influence to thhe competitive advantage Bangka Belitung province.

1.2. The suggestions of the research are :
1. Human resource strategy becomes a basic way to increase the quality of human capital, structural capital, and relational capital in Bangka Belitung province.
2. Local government must have vision, missions, and programs not only focusing on tin or natural resources but also focusing on the human resources.
3. The further research will be completed if the respondents are not only entrepreneurs but also local government and academic personnel.

REFERENCES

[1]   Anatan, Lina dan Lena Ellitan (2007), *Manajemen Sumber daya Manusia dalam Bisnis Modern*, Penerbit Alfabeta-Bandung.

[2]   Barney, J.B. (1991), *Firm Resources and Sustained Competitive Advantage. Journal of Management* 17 (1), 99-120.

[3]   Barney, J. (2000), *Firm Resources and Sustained Competitive Advantage.* Advances *in Strategic Management*, 17, 203-227.

[4]   Besanko, David; Dranove, David; Shanley, Mark; Schaefer Scott (2010), *Economics of Strategy,* Fifth Edition-John Wiley & Sons (Asia).

[5]   Best. J.Roger (2010), *Market-Based Management. Strategies for Growing Customer Value and Profitability.* Prentice Hall, New Jersey.

[6]   Bontis, Nick., Keow, W.C.C.and Richardson S. (2000), *Intelectual Capital and Business Performance in Malaysian Industries. Journal of Intelecutal Capital,* Vol. 1 No.1.pp. 85-100.

[7]   BPS dengan Kementerian Pemberdayaan Perempuan dan Perlindungan Anak (2005).*Pembangunan Manusia Berbasis Gender Tahun 2005-2011.*

[8]   Brinker, Barry (2000), *Intelectual Capital : Tommorrows Assets, Today's Challenge.*

[9]   Chang Aihwa and Tseng, Chiung-Ni (2005), *Building Customer Capital Through Relationship Marketing Activities The Case of Taiwanese Multilevel Marketing Companies. Journal of Intelectual Capital.* Vol.6 No. 2 pp. 253-266.

[10]   Ghozali, Imam (2008), *Structural Equation Modelling : Metode Alternatif dengan Partial Least Squares".* Edisi 2. Badan Penerbit UNDIP.

[11]   Koalisi Kependudukan dan BKKBN (2012), *Grand Design Pengendalian Kuantitas Penduduk Provinsi Kepulauan Bangka Belitungtahun 2010-2035.*

[12]   Man. Thomas W.Y., Lau.Theresa and Chan, K.F (2002), *The Competitiveness of Small and Medium Enterprises A Conceptualization With Focus On Entrepreneurial Competencies. Journal of Business Venturing* 17 (2002) 123-142.

[13]   Man. Thomas W.Y., Lau.Theresa, and Chan, K.F (2008). *Home Grown and Abroad-Bred Entrepreneurs in China : A Study of The Influences of External Context on Entrepreneurial Competencies. Journal of Enterprising Culture* Vol. 16. No. 2 June.

[14]   Man.Thomas W.Y, Lau.Theresa, Snape.Ed (2008). *Entrepreneurial Competencies and the Performance of Small and Medium Enterprises : An Investigation through a Framework of Competitiveness. Journal of Small Business and Entrepreneurship 21,* no.3 (2008) : pp.257-276.

[15]   Mathis, Robert. L and Jackson, John H. (2006), Management Sumber daya Manusia" *Penerjemah Diana Angelica, Penerbit Salemba Empa, Jl. Raya Lenteng Agung No. 101. Jakarta.*

[16]   Noe, A. Raymond (2008), *Human Resources Management : Gaining a Competitive Advantage,* 6th ed, McGraw Hill 1221 Avenue of The America-New York.

[17]   RPJMD Provinsi Kepulauan Bangka Belitung 2007-2012.

[18]   Ramirez, Yolanda (2007), *Intelectual Capital Management in Spanish Universitites, Journal of Intelectual Capital. Vol. 8 No.4, pp 732-748.*