The Caspian Sea Journal
ISSN: 1578-7899

Volume 10, Issue 1, Supplement 3 (2016) 03-10

Investigating the Relationship between Intellectual Capital and Competitive Strategy in Finance and Credit Institution Samen-Alhojaj of Mazandaran Province

Mirvahed Hosseini, *M.S.*
Master of Science in Executive Management, Faculty of Humanities, Islamic Azad University, Sari Branch
Marzie Niazazari, *Ph.D.*
PhD, Professor, Department of Executive Management, Faculty of Humanities, Islamic Azad University, Sari Branch

ABSTRACT ─ The purpose of this research is investigating the relationship between intellectual capital and competitive strategy in the Finance and Credit Institution Samen-AlHojaj of Mazandaran province. This study is an applied and developmental research in terms of purpose and is descriptive correlating research in terms of nature and the method. The research population includes all staff of Finance and Credit Institution Samen-AlHojaj, who were working during 2015 and they are equal to 377 persons. Data collection method includes library and field methods. Standard questionnaires were the data collection tool in this research. Results has shown that intellectual capital and its dimensions (structural, cognitional and communicational) has a direct and significant relationship with competitive strategy in Samen-AlHojaj institution.
KEYWORDS: Intellectual Capital, Competitive Strategy, Cognitive strategy, Communication strategy.

Introduction

Today, tangible assets are not used as a prominence in organizations' Authoritarianism, but the basis of successful organizations' activities has been changed from production-oriented to knowledge oriented. In knowledge economy, unlike the industrial economy, knowledge or intellectual capital as a production factor compared to other assets, play an important role in obtaining competitive advantages and promoting organizational goals. There are several reasons indicating the importance and necessity of intellectual capita: first, strategic focus of nonprofit sector is concentrated on mental resources and the receptivity of challenges imposed by external environment will increase. Second, intellectual capital is the key driver that promoting performance improvement and organizational competitiveness. In addition, instead of using traditional scales, intellectual capital can strengthen the connection point of universities and organizations based on a common language, which is the most interesting reason to measure intellectual capital. The last reason is that; intellectual capital plays a significant role in human resources strategic management.

Problem Statement

In today's competitive world, all of the organizations are looking for profit and increasing their market share. In other words, competitiveness is one of the main concerns of trading and working in today's dynamic and competitive environment (babayi, 2010, magazine no. 4 ,p 23). Competitiveness is caused by a combination of assets and processes. Assets has two types; they are gifts (like natural resources) or are made by humans (like infrastructures) and processes which can transform assets to economic benefits resulting from sales to customers and finally, lead to competitiveness. In the meta-information era, skilled man is the most important source of strategic power and the most vital competitive advantage in organizations, which Management style based on spirituality and humanity is the Superior style of leadership in that era (alvani, 1391). The issue of competitiveness can be considered from another point of view and that is the sources of competitiveness. Sources of competitiveness can be classified into three categories: technology, organization and human resource. Competitive advantage resulted from human resources, has more Durability and sustainability compared to other competitive advantages and more time is required for competitors to imitate these competitive advantages (Lidia[1], 2015, p154) and (Asgharnia, 2012, thesis). Therefore, in this paper, we explain the relationship between intellectual capital and competitive strategy of in Finance and Credit Institution Samen-AlHojaj. in other words, we want to examine the presence or absence of a significant relationship between intellectual capital and competitive strategy of in Finance and Credit Institution Samen-AlHojaj.

Conceptual model

All of the studies used in this research are based on a conceptual framework that indicates the variables and relationships among them. Various models evaluate the competitive advantage between companies, such as Porter's competitive model, P*orter's-five-forces-model,* diamond model, Chou's competitive model and so on. Here, for the reason that we require a model in which, human resources and intellectual capital is discussed as a competitive advantage, so that the most appropriate model is "Porter's diamond model page 1-24"[2]:

1. Lidia
2. Porter

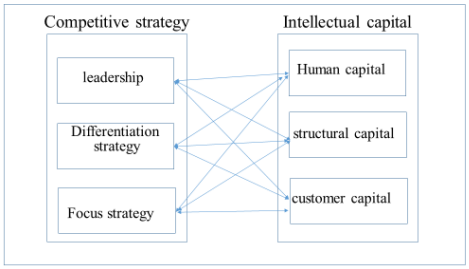

Figure 1. Conceptual model of Porter's diamond model

Research methodology

The method of data collection is "descriptive" and "correlation" and is "applied" in terms of aim.

The research population

The research population of this study includes all staff of Finance and Credit Institution Samen-AlHojaj of Mazandaran province who have been working in 2015 and they are 377 persons there.

Sample and sampling method

Determining sample size: according to the population size and by referring to Morgan sample size table, sample size was considered equal to 190 people.

Sampling method: Simple random sampling was used in order to select the samples.

Data collection Methods and tools

Data collection method is library method and field method.

In library method, books, Articles and documents related to the investigation have been surveyed and in order to collect data needed for the research, we have referred to library resources and documents to collect some required data.

In field method, data related to statically sample was gathered by a questionnaire.

Data collection tool in this study, is two standard questionnaires:

A) standard questionnaire of Bontis intellectual capital (page 63)

This questionnaire consists of 20 questions with at *five* -point *Likert*-Scale. And it also includes three main components:

Table 1. Questions and variable components of intellectual capital 3. Bontis

Component	Number of questions	Question number
Structural	8	1 – 8
Cognitive (human)	6	9-14
Capital(communicational)	6	15-20

B) standard questionnaire of Porter's Competitive Advantage

This questionnaire consists of 20 questions with at *five* -point *Likert*-Scale. And it also includes three main components:

Table 2. Questions and variable components of competitiveness

Component	Number of questions	Question number
Differential strategy	7	1 – 7
Cost reduction strategy	9	8-16
Focus strategy	4	17-20

Validity of the Questionnaire

Validity means that the measurement tool can truly measure the considered characteristic and not another variable, in other word, validity in a research refers to the accuracy of the indicators and measurements that are prepared to evaluate the considered item. Considering that the questionnaire used in this research is researcher made, in order to ensure about determining the content validity, the questionnaire has been by a number of Reviewed by a number of experts, advisors and Professors who insisted on the validity of the questionnaire in order to conduct the research.

Reliability of the questionnaire

Trust or reliability is a quantitative and technical issue and mostly considers this question that measurement tool can measure the characteristic or feature with how much accuracy. According to the researcher made questionnaire, 30 questionnaires will be distributed randomly among participants, Before the final execution and after gathering them, The Cronbach's alpha value was calculated as follows, and Considering that in all cases Cronbach's alpha values is over 0.70, it indicates the reliability of questionnaires:

Table 3. The Cronbach's alpha

Variable	alpha
Intellectual capital	0.81
Competitive strategy	0.78

Data analysis method

Analysis method of collected data, has been performed with Descriptive and inferential methods by SPSS software. in this study, Descriptive statistics is used to calculate the mean and standard deviation of the research variables and showing The frequency and related charts, and inferential statistics is used to evaluate the research hypotheses. Conducted test in this study includes Pearson correlation test in order to investigate the relationship among the variables and Regression is applied to determine the relationship between intellectual capital and competitive strategy.

Data analysis

Analyzing the data collected from survey questionnaires are as follows:

1. demographic description of samples
2. 2. Describing research variables by using mean and standard deviation
3. Testing the research hypotheses using Pearson correlation and regression

Part one: Descriptive analysis of data

Number of participants in this study was 190, with following demographic characteristics:

Gender:

Table 4: participant distribution according to gender

Gender	Frequency	Percent
Male	110	58%
Female	80	42%
Sum	190	100%

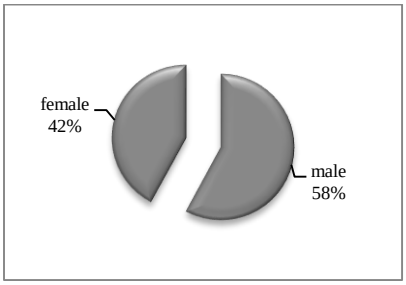

Figure 2. Participants based on gender

According to the table and figure above, it can be observed that 58% of participants are male and 42% of them are female.

Education:

Table 5. Participant distribution according to education

Education	Frequency	Percent
Associate Degree	45	24%
Bachelor	121	64%
Master	24	12%
Sum	190	100%

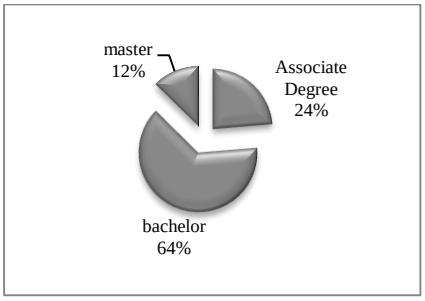

Figure 3. Participants according to education

As it can be seen in the above table and figure, 64% of participants have bachelor degree, 24% have associate degree and 12% have master degree.

Job experience:

Table 6. Participants' distribution according to job experience

Job experience	Frequency	Percent
Less than 5 years	47	25%
Between 5 to 10 years	89	47%
11 to 15 years	42	22%
More than 15 years	12	6%
Sum	190	100%

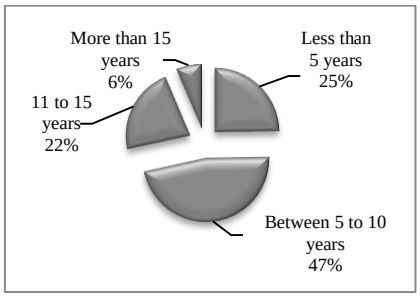

Figure 4. Participants according to job experience

According to table number 3 and figure number 4, 25% of participants have less than 5 years of job experience, 47% have job experience between 5 to 10 years, and 22% between 11 to 15 years and 6% have job experience more than 15 years.

Part 2: variables' description

Intellectual capital

Table 7: Describe the dimensions of intellectual capital variable

Variables	The minimum amount	The maximum amount	Average responses	Standard deviation
Structural	1.25	5	3.25	0.77
Cognitive(human)	1.50	5	3.24	0.71
Communicational(customer)	1	5	3.58	1.02
Intellectual capital	1.40	5	3.38	0.73

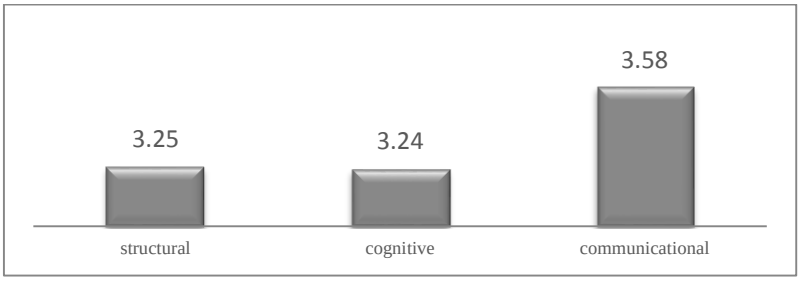

Figure 5. Average score of variables responses

Given that the number of responses in the questionnaire is between 1 to 5, so that the responses theoretical mean is equal to 3. it can be seen in the above table that The average score of intellectual capital and its dimensions are all above average 3, which shows a desirable level of intellectual capital among the participants in descriptive terms.

Competitiveness

Table 8. Variable description

The minimum amount	The maximum amount	Average responses	Standard deviation
1.45	4.85	3.50	0.70

Since the rank of responses in the questionnaire is between 1 and 5, therefore the theoretical mean of responses is equal to 3. In the above table we can see that the average score of competitiveness is more than the average value 3 and it shows the desirability of competitiveness level among participants in descriptive terms.

Part 3: The analysis of research questions

In order to investigate the relationship between intellectual capital and competitive strategy, Regression analysis has been used. So, using regression has three pre-conditions:

1. Variables scales are ratio and interval
2. Variables are normally distributed
3. A linear relationship exists between the variables

Normal test

One of the preconditions of using regression analysis is that the research's variables are normally distributes. In order to do so, we examined the normality of variables using Kolmogorov-Smirnov test:

Table 9. Normal test

Variables	Amount of Z statistic	Error value	p-value
Structural	1.077	0.05	0.196
Cognitive	1.18	0.05	0.123
Communicational	1.52	0.05	0.064
Intellectual capital	1.58	0.05	0.130
Competitive strategy	1.008	0.05	0.262

According to the normal test table we see that the p-value is not significant in any of the variables. (Probability value is greater than 0.05 error) which indicates the normality of research variables that is one of the preconditions of using regression test. Research question: is there any relationship between intellectual capital and competitive advantage in Finance and Credit Institution Samen-AlHojaj? In order to check the linearity of the relationship between research variables, scatter plot has been used. As it can be seen, the type of relationship between two variables is linear, that the slope of the regression line fitted to data is positive and also Density of data is accumulated around the regression line, which shows a direct relationship between considered variables, then, the relationship between variables using the Pearson correlation will be examined:

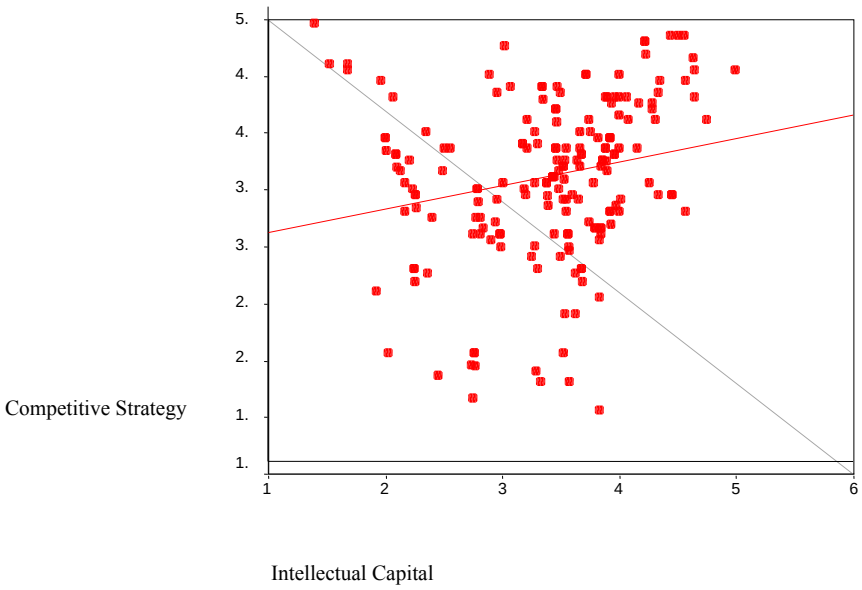

Table 6. Scatter plot diagram

Variables	Pearson coefficient	Error value	Sig(significance level)
Intellectual capital and competitive strategy	0.215	0.05	0.003

Hypothesis H_0: intellectual capital has no significant relation with competitive strategy of the institution.
Hypothesis H_1: intellectual capital has significant relation with competitive strategy of the institution.

Table 10. Statistical analysis of the main research question

H0 : ρ = 0	**H1 : ρ ≠ 0**

Given that in Pearson table, the value of Sig (significance level) is significant in 0.05 error level (sig $-\alpha < 0.003 - 0.05$), therefore it can be concluded with 95% confidence that there is a direct relationship between intellectual capital and competitive strategy in finance and credit institution Samen-AlHojaj. In the following we have used regression test in order to determine the relationship between intellectual capital and competitive strategy in credit and finance institution and credit Samen-AlHojaj.

Table 11. Summarized regression model

R (correlation between variables)	R^2 (coefficient of determination)
0.215	0.046

As you can see, the total correlation between the research variables is equal to 0.215, which indicates a relatively weak correlation between the research variables. Also, according to the coefficient of determination value, it can be concluded that intellectual capital can predict only 0.046 of competitive strategy variable changes and it has a weak relationship in predicting changes.

Table 12. Variance analysis table

F	Degree of freedom	Sig(significance level)
9.031	1.186	0.002

Since the Sig (significance level) value is significant, it can be concluded that regression equations are significant and we are allowed to use regression equations.

Table 13. Regression coefficients

Model	**Non-standardized coefficients**		**Standardized coefficients**	**t**	**Sig**
	B	Standard error	Beta		
0.000	2.801	0.239		11.72	0.000
Intellectual capital	0.207	0.069	0.215	3.005	0.003

As its observable in the above table, intellectual capital variable will remain in the regression model and in fact, it has a relationship in predicting competitive strategy.
Regression equation: $y = ax + b$
Competitive strategy = (0.207) *(intellectual capital) + 2.801

Conclusion and research findings
Descriptive findings:

- Demographic findings showed that 58% of participants are male and 42% of them are female. 64% of participants have bachelor degree, 24% have associate degree and 12% have master degree. 25% of participants have less than 5 years of job experience, 47% have job experience between 5 to 10 years, 22% have job experience between 11 to 15 years and 6% of them have more than 15 years of job experience.
- Considering that responses ranking in research questionnaire is between 1-5, so that the responses theoretical mean is equal to 3. Average score of intellectual capital and its aspects are totally higher than the average value 3, which shows the desirability of intellectual capital level among the participants in descriptive terms.
- Since, the responses ranking in research questionnaire is between 1-5, so that the responses theoretical mean is equal to 3. Average score of competitiveness and its aspects are totally higher than the average value 3, which shows the desirability of competitiveness level among the participants in descriptive terms.

Inferential findings

- According to the research question findings, it's concluded that: a direct relationship exists between the intellectual capital and competitive strategy of finance and credit institution Samen-AlHojaj, and in fact, there is a significant and positive relationship between intellectual capital and competitive strategy of finance and credit institution Samen-AlHojaj. Moreover, results of regression test showed that according to the coefficient of determination value, intellectual capital can predict only 0.046 of competitive strategy variable and it has a weak relationship in predicting that variable.

Discussion
According to the results, it's concluded that: a direct relationship exists between the intellectual capital and competitive strategy of finance and credit institution Samen-AlHojaj, and intellectual capital has a direct effect on business competitive strategy of finance and credit institution Samen-AlHojaj, and these results are consistent with research results of Aghili (2014, p 25-480, Shahi (2014, magazine no. 24), GHaffari (2013, journal no.43) and Fisher et al. (2014).

- Results showed that as staff embrace the other's criticism, working relationships among members be desirable and meeting colleagues and access to managers would be easy, competitive advantage in organization including innovation and creativity in providing services, providing services with high quality, the organization's brand and reputation will improve.

References

1. Aghili, Mansoureh, (2014), role of knowledge management and intellectual capitals in competitive strategy acquisition, business management, second course, number 9, page 25 to 48, 2014.
2. Alvani, seyed Mehdi and Seyed Taghavi, MirAli (2012), "intellectual capital: concepts and theories": Journal of Management Studies number 33, 34, page 3-26.
3. Asgharnia, Mojtaba (), the relationship between organizational intellectual capital and marketing strategy, Master's thesis of Executive Management 2012.
4. Babayi, Mohammadali (2010), Competitive Strategy Analysis from marketing viewpoint and competition outlook, automotive engineering and related industries Magazine, third year, number 4, 2010.
5. Bontis, N. (1998), Intellectual capital: an exploratory study that develops measures and Models, Management Decision, Vol. 36 No.2, pp. 63-76.
6. Fisher cites J.S. Nicholson,Claudia Goldin.(2014) "The Living Capital of the United Kingdom," for the term "living capital" as opposed to "dead capital.
7. Ghaffari, Mohammadali and Khodadad Hoseini, seyed Hamid, 2013, export marketing for Iranian carpet, investigating key factors and pathology, journal of commerce, number 43, 2013.
8. Lidia Ogiela.(2015) ;Advanced techniques for knowledge management and access to strategic information International Journal of Information Management 35 (2015) 154–159.
9. Portes A. (1990) "social capital: its origins and Application in modern sociology" , Annual Review of sociology,24,PP.1-24.
10. Portes, A. (1998). "Social Capital: Its origins and applications in modern sociology." Annual Review of Sociology 24.
11. Shahi, Najme (2014), human capital in competitive strategy acquisition, Tadbir magazine, number 24, 2014.