Impact of Competitive Intelligence on Organizational Performance

Tayyaba Akram[1] and Ajmal Waheed[2]

[1] Faculty of Management Sciences, Balochistan University of Information Technology, Engineering and Management Sciences, Quetta, [2] School of Management Sciences, Quaid-e-Azam University, Islamabad, Pakistan.

Abstract

Competitive intelligence has been an important tool for measuring organizational success, decision making and performance of employees in past decades. Its contribution in literature is worthy some. On the other hand organizational performance is an essential aspect for an organization in current uncertain business environment. With increased competition, limited resources and increased uncertainty, organizations are seeking better and competent ways for improving their own productivity. It is necessary then for organizations to identify those factors which can affect long term productivity and success. The objective of current study is to investigate the relationship between competitive intelligence and organizational performance. Self-administered questionnaire with five point Likert scale is used for identifying the relationship between independent variable, competitive intelligence and dependent variable organizational performance. Sample selected comprises 100 managers from 10 leading banks in Islamabad. Regression and correlation analysis are applied resulting in significant and positive relationship between the variables of the study.

Keywords: competitive intelligence, scanning, organizational performance.

Corresponding Authors email:awkhan2@yahoo.com

INTRODUCTION

Over the last couple of decades, competitive intelligence (CI) has emerged as a distinct, recognizable occupational category and evolved into a fully-fledged corporate discipline with formal education programs (Murphey, 2005). Along with this, the idea of organizational performance also evolved and found a place as an important concern for business and human resource management aspects of an organization. David (2008) defines CI as per the definition given by society of competitive intelligence professionals (SCIP) that it is a systematic and ethical process for gathering and analyzing information about competition's activities and general business trends to further a business's own goals. According to West (2001) it is the process by which companies inform themselves about every aspect of their rival's activities and performance. Mcgonagle and Veela (2003) identified two types of CI i.e., (i) active CI which involves the active development of CI on all aspects of businesses and competitive environment; and, (ii) passive CI which is the process of protecting one's firm against the competitive intelligence efforts of competitors. On the other hand, David (2008) suggested three basic reasons for running a CI program by firms i.e., (i) to provide a general understanding of an industry and its competitors; (ii) to identify areas in which competitors are vulnerable and to assess the impact strategic actions would have on competitors; and,(iii) to identify potential moves that competitors might make that would endanger a firm's position in the market. Porter (1980) summarized the essence of these dynamics and said that rivalry occurs because one

or more competitors either feels the pressure or sees the opportunities to improve position. CI can play a vital role in achieving organizational goals. However, the importance of CI has not been studied in the context of organizational performance (OP) in depth, particularly in the Pakistani context. Therefore, the main objective of this study is to find out that how can CI contribute in enhancing the organizational performance. In other words, the objective is to investigate the relationship between CI and OP in the selected banks of Islamabad.

MATERIALS AND METHODS

Respondents and Procedures

Respondents for the study are operational level managers from 10 major banks situated in Islamabad. Sample is chosen through convenience sampling technique due to limited resources in terms of time and money. Total number of distributed questionnaires was 130 out of which 105 received back. Five questionnaires are excluded due to in completion. The total response rate was 76%, showing a sufficient number of data for final analysis. As the study is on organizational level, no demographic information of the participants was required. Filling up of questionnaire followed a proper protocol. Participants were instructed to fill the questionnaire very carefully and confidently. They were ensured that their provided information will be kept confidential and will not be shared with anyone.

Questionnaire used for the study is on a five point likert scale, which comprises of two scales. Scale of Qiu's (2008) is used for measuring competitive intelligence with some modifications according to the requirements for the current study. Competitive intelligence scale includes two facets for measuring CI i.e., scope of scanning for CI and frequency of scanning for CI. Scope of scanning (SS) facet asked participants that how extensively they scan information from six market sectors namely customers, suppliers, competitors, company resources, technology and socio-economic sectors. Frequency of scanning facet of CI asked participants that how frequently they scan these six sectors. Total number of items in scope of scanning were 6 and in frequency of scanning 27 which are reduced to 19 items for meeting the requirements of the current study. Scale for organizational performance was adopted from Baum and Wally (2003). This scale included seven items in total out of which two items are related with profitability and 5 items are related with growth of the organization.

RESULTS

Descriptive statistics, Cronbach's alpha reliability, regression and correlation analysis are performed by using SPSS 17. Results are presented in tables along with their description. For scope of scanning, SS1, SS2, SS3, SS4, SS5 and SS6 are the items which measures how extensively organizations scan for six market sectors. Sample questions included for measuring scope of scanning (SS) are; our company extensively scans customer sector, and our company extensively scans competitor sector. Descriptive statistics and alpha reliability calculated for the study are presented in Table 1. Descriptive statistics includes mean, standard deviation, and score range. For scope of scanning mean value is 3.90 and standard deviation is 0.714 indicating that most of the respondents agree that they extensively scan six market sectors. Standard deviation is the measure of variation by indicating how far, on average, the observation is from mean. Lowest standard deviations show that the data lie nearer to the sample mean whereas highest standard deviations show that the data set is far from the sample mean of the sample. For current study, the standard deviation lays within mean $\pm$ 1 Standard deviation (S.D) form the mean value. It shows that the data set for current study lies within mean $\pm$ 1 S.D from the mean value. Alpha reliability for scope of scanning is 0.873 which indicates that variable is significantly reliable.

Table 1: Descriptive Statistics and Alpha Reliability for the Variables of the Study

(N= 100)

Scale	No. of items	Score Range	M	S.D	Alpha Coefficient
Scope of scanning	06	3.17	3.90	0.71421	0.873
Frequency of scanning	19	2.58	3.85	0.6478	0.933
Profitability	02	3	3.85	0.863	0.612
Growth	05	3	3.81	0.7825	0.814

M = mean, S.D = standard deviation.

Frequency of scanning is measured along items of FS1 to FS19. It explains that how frequently organizations scan six market sectors. Mean value for FS is 3.85 and standard deviation is 0.6478 indicating that most of the respondents agree they frequently scan 6 market sectors and the sample mean lays with in mean ± 1 S.D from population mean. Alpha reliability for FS is 0.933 indicating that the items included in the scale are highly reliable for the study.

Profitability is measured along two items in the scale, POP1 and POP2 with mean value of 3.85 and standard deviation of 0.863. It represents that data set lays with in mean ± 1 S.D from the population mean. With alpha reliability of 0.612, items of profitability are significantly reliable for current study. Growth for the organization is measured along items of GOP1, GOP2, GOP3, GOP4 and GOP5. Alpha reliability for growth items is 0.814 indicating high reliability of the items. With mean value of 3.81 and standard deviation of 0.7825, it is presented that most of the organizations agree that they have growth in their organizations.

Descriptive statistics for competitive intelligence and organizational performance are presented in Table 2. Competitive intelligence is having mean value of 3.85 and standard deviation of 0.628. Whereas organizational performance is with mean value of 3.82 and standard deviation of 0.737. It shows that for both independent and dependent variables the samples mean lays within 1 standard deviation from the population mean. Alpha reliability for over all scale is 0.952 indicating high reliability of the scale used in the study.

Table: 2. Descriptive Statistics and Alpha Reliability for the Competitive Intelligence & Organizational Performance *(N=100)*

Scale	No. of items	Score Range	M	S.D	Alpha coefficient
Competitive Intelligence	25	2.64	3.8596	0.62837	0.952
Organizational Performance	7	3.00	3.8229	0.73719	-

M = mean, S.D = standard deviation.

Correlation and Regression Analysis

Correlation quantifies the strength of two variables and also indicates the direction of the relationships. Correlation analysis is performed for identifying the nature of relationship between independent and dependent variables of the study. Table 3 presents Pearson correlation between the variables of the study, whereas, correlation between competitive intelligence and organizational performance, is presented in Table 4. Along with correlation analysis, linear regression analysis is also used to identify the nature of the relationship between the variables and to test the four hypothesis of the study. Regression analysis is reported in Table 5 to Table 9.

Independent variables of the study i.e., scope of scanning for competitive information and frequency of scanning for competitive information are highly and positively correlated with each other. The ($p < 0.01$) value shows the level of significance for the correlation among the variables of the study. Competitive intelligence and organizational performance are also significantly and positively correlated to each other at $p < 0.01$.

Table: 3. Correlation between the Variables of the Study *(N=100)*

Sr. No	Scale	I	II	III	IV
		-	0.729**	0.539**	0.674**
I	Scope of Scanning		0.000	0.000	0.000
		-	100	100	100
		-	0.729**	0.539**	0.674**
			-	0.484**	0.658**
II	Frequency of Scanning	-		0.000	0.000
			-	100	100
		-	-	0.484**	0.658**
				-	0.617**
III	Profitability	-	-		0.000
				-	100
				-	0.617**
		-	-	-	-
IV	Growth				
		-	-	-	-
					-

**. Correlation is significant at the 0.01 level (2-tailed).

Table 5 provides the first regression model of the study. This model is developed to identify the strength as well as the direction of the relationship among scope of scanning as independent variable and profitability as independent variables.

Table: 4. Correlation for Competitive Intelligence & Organizational Performance *(N=100)*

Sr. No	Scale	I	II
		-	0.706**
I	Competitive Intelligence	-	0.000
		-	100
		-	-
II	Organizational Performance	-	-
		-	-

**. Correlation is significant at the 0.01 level (2-tailed).

Note: b = Un-standardized Coefficients, S.E = standard error of variables, β = standardized coefficients, t = t-statistic, p = significance level. R^2 = R square, ΔR^2 = adjusted R square.

Results of model 1 in Table 5 with R = 0.539, R square = 0.291, β = 0.539, t = 6.341and p < 0.001 Indicates that scope of scanning is significantly and positively related to profitability of the organization and 54% variability in profitability of the organization is due to variability in scope of scanning. Therefore, first hypothesis of the study H1 is accepted. Table 6 presents the second regression model between scope of scanning and organizational growth. With R = 0.674, R square = 0.455, β = .674, t = 9.044 and p < 0.000, the model indicates that there is a significant and highly positive relation between scope of scanning and organizational growth. 67% variability in organizational growth is due to the variability in scope of scanning. Second hypothesis of the study, H2 is also positively and significantly supported.

Table: 5. Linear Regression Analysis for Variables of Scope of Scanning and Profitability *(N=100)*

Model	B	S.E	β	t	P
Constant	1.308	0.407		3.210	0.002
Scope of scanning(IND), Profitability (D)	0.652	0.103	0.539	6.341	0.000
R^2 =0.291 ΔR^2= 0.284					

Note: b= Un-standardized Coefficients, S.E = standard error of variables, β = standardized coefficients, t = t-statistic, p = significance level. R^2 = R square, ΔR^2 = adjusted R square

Table: 6. Linear Regression Analysis for Variables of Scope of Scanning and Growth *(N=100)*

Model	B	S.E	β	t	P
Constant	0.930	0.324		2.871	0.005
Scope of scanning(IND), Growth (D)	0.739	0.082	0.674	9.044	0.000
R^2 =0.455 ΔR^2= 0.449					

Note: b = Un-standardized Coefficients, S.E = standard error of variables, β = standardized coefficients, t = t-statistic, p = significance level. R^2 = R square, ΔR^2 = adjusted R square

Table: 7. Linear Regression Analysis for Variables of Frequency of Scanning and Profitability *(N=100)*

Model	B	S.E	β	t	P
Constant	1.368	0.459		2.978	0.004
Frequency of scanning(IND), Profitability (D)	0.645	0.118	0.484	5.480	0.000
R^2 =0.235 ΔR^2= 0.27					

Table 7 presents third model of the study. It depicts the relationship between frequency of scanning for competitive information and organizational profitability. Results indicate that there is 48% variability in organizational profitability which is due to the variability in frequency of scanning. Third hypothesis of the study, H3 is also significantly and positively supported.

Table 8 presents model number four of the study. It shows the relationship between frequency of scanning and organizational growth. There is a positive and highly significant relationship between frequency of scanning and organizational growth. Results also indicate that 66% variability in organizational growth is due to the variability in frequency of scanning for CI. Fourth hypothesis of the study, H4 is supported positively.

Table: 8. Linear Regression Analysis for Variables of Frequency of Scanning and Growth *(N=100)*

Model	B	S.E	β	t	P
Constant	0.755	0.358		2.106	0.038
Frequency of scanning(IND), Growth (D)	0.795	0.092	0.658	8.647	0.000
R^2 =0.433 ΔR^2= 0.427					

Note: b = Un-standardized Coefficients, S.E = standard error of variables, β = standardized coefficients, t = t-statistic, p = significance level. R^2 = R square, ΔR^2 = adjusted R square

Table 9 presents the fifth model of the study which indicates a very strong, significant and positive relationship between competitive intelligence and organizational performance over all. Results depicts that 71% variability in organizational performance is due to the variability in competitive intelligence. Fifth

hypothesis H5 is significantly and positively supported and accepted.

Table: 9. Linear Regression Analysis for Variables of Competitive Intelligence & Organizational Performance *(N=100)*

Model	B	S.E	β	t	P
Constant	0.624	0.328		1.903	0.060
Competitive intelligence (IND), organizational performance (D)	0.829	0.084	0.706	9.882	0.000
R^2 =0.499 ΔR^2= 0.94					

Note: b = Un-standardized Coefficients, S.E = standard error of variables, β = standardized coefficients, t = t-statistic, p = significance level. R^2 = R square, ΔR^2 = adjusted R square.

DISCUSSION

The central hypothesis for current study i.e., competitive intelligence is significantly and positively related to organizational performance. The data presented in the results section of the study clearly indicates these facts; scope of scanning is significantly and positively related to the organizational profitability. It supports the first hypothesis (H1) of the study. Scope of scanning is significantly and positively related to organizational growth. It supports the second hypothesis (H2) of the study. Frequency of scanning is significantly and positively related to the organizational profitability. It supports the third hypothesis (H3) of the study. Frequency of scanning for CI is significantly and positively related to the organizational growth which supports the forth hypothesis (H4) of the study. Competitive intelligence is highly, significantly and positively related to organizational performance supporting the fifth and last hypothesis (H5) of the study.

Environmental factors have great impact on the organizational performance (Baum & Wally, 2003). This fact shows that competitive intelligence can be used for improving organizational performance. Competitive intelligence is the process by which companies inform themselves about every aspect of their rival's activities and performance (West, 2001). In literature, Nasri (2011) also supported the use of competitive intelligence for organizational performance and said that it is important to obtain information on any aspect of competitive activity that can have a significant impact on the business decision.

Competitive intelligence is an important tool for organizational performance. This fact is highly supported by the results of preset. Results indicate that those organizations who are highly competitive and frequently collects information about different market sectors (in this case six market sectors namely customers, suppliers, competitors, company resources, technology and socio-economic sectors) are expected to perform much better than those organizations who are inactive in collecting competitive information. This study has few limitations. Firstly, due to very short time period of four months the sample size is limited to 100 operational managers from 10 banks of Islamabad. This study could generate better results by increasing the sample size. Second, it only focused on two aspects of organizational performance i.e. profitability and organizational growth. However more indicators of organizational performance can be included in future studies for better and wide spread results.

Current study aimed at identifying the relationship between competitive intelligence and organizational performance in banks of Islamabad. This objective is successfully met as indicated in the results and discussion section of the study. Keeping the relative importance of CI in mind for organizational performance, it can be said that organizations should focus on environmental forces which are continuously affecting their performance. In the current volatile and uncertain business environment, it has become very crucial for a single organization to be aware of and get complete information about all market sectors which have direct and indirect impact of its productivity and ultimately on its performance (David, 2008). This study recommends that organizations should increase the scope as well as the frequency of scanning for CI to be more active and successful for achieving long term organizational success.

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