

## Analyzing the Relationship between Intellectual Capital and Organizational Performance: A Study of Selected Private Banks in Kurdistan

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**Abstract:** This study aims to investigate the relationship between intellectual capital and organizational performances in selected private banks in Erbil. This research is applied an adopted questionnaire to measure and assess the mentioned relationship. The sample size is 144 persons who were chosen through random sampling technique. According to findings of empirical analysis, it is demonstrated that there is a significant and positive relationship between intellectual capital and selected private banks in Erbil. The results revealed that the highest value was for the relation between structural capital as intellectual capital dimension with organizational performance, and it was found that structural capital has significantly predicted organizational performance (P-value = .000 and the value  $\beta = 0.378$ , as a result it can be concluded that structural capital will have a direct relationship organizational performance. It is followed by relational capital as intellectual capital dimension with organizational performance, it was found that relational capital has significantly predicted organizational performance (P-value = .000 and the value  $\beta = 0.363$ , as a result it can be concluded that relational capital will have a direct relationship organizational performance, and finally the lowest value was for human capital as intellectual capital dimension and its relationship with organizational performance, moreover it was found that human capital has significantly predicted organizational performance (P-value = .000 and the value  $\beta = 0.186$ , as a result it can be concluded that human capital will have a direct relationship organizational performance.

**Keywords:** Intellectual capital, Kurdistan, Organizational performance, Private Banks

### 1. Introduction

Normally work and capital were thought to be the most significant resources in financial matters. Traditional physical resources were thought to be the principle elements of the execution of any monetary movement. Yet, the quick extension of science, innovation lastly the globalization changed the example and structure of the creation framework. The modern creation framework is fundamentally determined by innovation, information, ability and associations with partners and so forth which may all considered to be depicted as Intellectual Capital. In the new monetary framework, which is famously known as the learning economy, elusive or scholarly resources have in the long run perceived as the conspicuous assets. Organizations like hospital, hotel; software, banking; finance, pharmaceutical and so forth rely a significant degree on the intellectual capital for gaining and making profits. Manufacturing or Production or firms utilize Intellectual Capital with its substantial resources to sustain their competitive advantage in the marketplace. Nawraz and Haniffa (2017) demonstrated that firms, undertakings, which have dealt with their scholarly capital better, had accomplished more grounded

upper hand than the general ventures. Likewise they revealed that organizations which had fortified their own particular scholarly capital administration contrasted with the others had performed better. Therefore, this research is an underlying investigation into the effect of better administration of the full scope of information assets on general firms' performance. The researcher focuses on a solitary industry in order to dispose of issues, for example, kind of IC and the effect of industry structure and competition on money related execution. In spite of the fact that the measures utilized are genuinely expansive, we do trust them to edify and, as the outcomes appear, deserving of critical extra investigation. The concept that main information of chiefs and specialists can prompt upper hand isn't new yet the more formalized ideas of scholarly capital and learning administration. Chih-Hsingliu (2017) confirmed that intellectual capital administration assumed an essential part on the long haul business execution of an endeavour. The main aim of the study is to characterize Intellectual Capital and to feature distinctive techniques for measuring Intellectual Capital. As per Bonits (2002) there are three primary components of IC which are human capital, basic capital and client capital.

## **2. Literature Review**

Most associations have their own particular meaning of IC. Amin and Aslam (2017) stated that the ownership of learning connected understanding, client relationship, authoritative innovation and expert aptitudes which contribute upper hand to the firm in the business . It has been recognized by numerous scientists that IC is the most imperative key resources in assessing the execution of an association in the creating and immature nations. For example, Bontis et al. (2000) in their investigation done in an Asian country affirmed that IC is a noteworthy supporter of the execution of association regardless of various kind of industry. The idea of IC is expansive and is typically part into a couple of qualities, which are human capital, relational capital and structural capital.

### **2.1 Intellectual Capital (IC)**

The term scholarly capital incorporates developments, thoughts, general information, plan approaches, PC projects and productions. An ex-editorial manager of the business magazine "Fortune", Thomas Stewart depicts scholarly capital as "something that can't be touched, in spite of the fact that it gradually makes you rich". Liu and Wong (2011) stated that the term 'scholarly capital' uses to encase the majority of the non-unmistakable or non-physical resources and assets of an association, and also its practices, licenses and the understood learning of its individuals and their system of accomplices and contracts. Shahveisi et al. (2017) claimed that characterizes it as 'packaged valuable information', furthermore, Osinski et al. (2017) stated that the learning can be changed over into benefit as the 'whole of information' of its individuals and common sense interpretation of this information into brands, trademarks and procedures. Agostini et al. (2017) characterizes it as the ownership of information, connected involvement, authoritative innovation, client relations and expert aptitudes that give an organization an aggressive edge in the market. A standout amongst the most well known models for characterizing scholarly capital (IC) is the show created in the mid 1990s. It isolates scholarly capital into three sections: Human capital, Structural capital; and Customer capital.

### **2.1.1 Human Capital (HC)**

There are many researches that have researched and demonstrated that IC is noteworthy towards hierarchical execution. One of them is human capital. Human capital is an amalgamation of hereditary legacy, state of mind, training and individuals' involvement in their life and business. The most significant resource in any business is HR when contrasted with different capitals or hardware. Be that as it may, it was additionally accepted to be the most disregarded resource by the organizations. Human can be viewed as significant resource or risk to an association (Vargas & Lloria, 2017). Human capital alludes to specialists or representatives aptitudes, learning and experience imparted to their association with a specific end goal to include esteem (Andreeva, 2016). Human capital can be characterized as wellbeing, learning, inspiration and aptitudes, the accomplishment of which is viewed as an end in itself since they yield satisfaction and fulfillment to the holder. It is additionally referred to the representative fitness in making both unmistakable and immaterial resources by contributing in the constant age of learning and thoughts. Not at all like structural capital, is human capital constantly possessed by the people who have it, unless it is recorded in a substantial frame or is fused in the association's systems and structures. Fundamentally, monetary segment particularly banks specifically, needs another age of expert officials who are more client driven, innovation keen, all the more very qualified, adaptable and deft with ranges of abilities that are currently more exhaustive than beforehand. With regards to globalization, high-class human capital today has turned into a need and not only richness (Dzenopoljac et al., 2017).

### **2.1.2 Structural Capital (SC)**

Structural capital envelops the empowering structures that enable the association to abuse the scholarly capital (Ferreira & Franco, 2017). The structure ranges from substantial things offered by an association, for example, licenses, trademarks and databases, to finish impalpable achievement, for example, culture, straightforwardness and trust among workers. This capital is come about because of the items or frameworks that firm has made after some time and will stay with the venture when individuals leave (Kianto et al., 2014). Subsequently, associations that have solid structural capital will have a strong culture that allows their representatives to attempt new things, to learn and to hone those (Bontis et al., 2000). Then again, structural capital speak to the aggressive insight, equations, data frameworks, licenses, strategies, forms, that outcome from the items or frameworks the firm has made after some time. Basic capital additionally incorporates all the non-human storage facilities of learning in associations, which incorporate the databases, authoritative diagrams, process manuals, systems, schedules and anything whose incentive to the organization is higher than its material esteem (Andreeva, 2016). Structural capital comprises of ideas, models, licenses, PCs and framework made by workers, yet claimed by the association (Cabrita et al., 2017). On the other hand, it might likewise be procured somewhere else. As it were, an association exists from the mix of interior structure and individuals. Once the association upgrades its innovation, creates process and sets up other inward activities, structural capital will move forward. Consequently, basic capital means the capacity of association to suit their clients' request. Late proof recommends that a decent association structure, together with talented representatives giving proficient and quality administration will cause more noteworthy execution of an organization (Soo et al., 2017).

### **2.1.3 Relational Capital (RC)**

Relational capital incorporates information in all connections that association sets up with clients, contenders, providers, exchange affiliations or government and is a determinant factor in changing over scholarly money to showcase esteem. Relational capital incorporates all connections that exist amongst association and some other individual or association. These people and associations incorporate clients, operators, worker, providers, administrative specialists, groups, lenders, financial specialists and so on (Dekoulou & Trivellas, 2017). The social capital, connections are partitioned into two gatherings as indicated by their motivation: First gathering incorporate relations that end up noticeably formal through contracts and commitments with clients and providers or principle accomplices, and the second gathering incorporates casual connections. Bontis states that new definitions have created past idea of client cash-flow to relational capital including all information of connections that association sets up amongst clients and contenders, providers, exchange affiliations and government. Client capital is considered as a scaffold and coordinator of scholarly capital operations, and is a determinant factor in changing over scholarly cash-flow to showcase esteem. This capital incorporates the quality and faithfulness of client relations (Ferreira & Franco, 2017).

### **2.2 Organizational Performance**

Organizational performance can be measured through various instruments in light of budgetary and non-money related angle. Execution estimation devices can enable organizations to assess their asset portion forms so as to decide how assets can be better overseen and circulated to the fitting channels (Nawaz & Haniffa, 2017). Customarily, numerous execution measures have been based around monetary perspectives, discarding imperative non-budgetary angles including the significance of dynamic ability through gathering innovative work and in addition advertising capacity after some time, to additionally improve organizational performance (Chih-Hsingliu, 2017). Other than that, the assessment of the execution of banks, for instance, for the most part utilizes money related records, giving a basic portrayal about the bank's budgetary execution in contrast with past periods (Liu & Wong, 2011). By concentrating just on money related perspectives, nonetheless, isn't sufficient for administration to manage the changing business condition. Also, Shahveisi et al. (2017) specified that the monetary articulations is a typical measure of banks for the most part as far as budgetary wellbeing over a given timeframe and it can be utilized to think about comparative banks over a similar industry or to look at businesses or divisions in accumulation. In reality, there are different approaches to gauge money related execution. The execution can be measured by utilizing different strategies, for example, bookkeeping based procedure, which comprise of Return on Asset (ROA) and Return on Equity (ROE). With these outcomes, the information must be gathered in aggregate route keeping in mind the end goal to perceive what affect it can contribute in measuring managing an account execution. This measure will incorporate incomes from each and every division and operations units accessible inside the banks.

In addition, Andreeva (2016), in his article with respect to budgetary execution in Oman keeping money segment, demonstrates that not all banks that have high aggregate capitals, stores, credits or even aggregate resources would show that the banks dependably would be advised to gainfulness. The circumstance that is caused by current rivalry that seriously impact on managing an account execution.

Kianto et al. (2014) additionally noticed that with expanding rivalry in both of national and universal saving money markets, add to the progressions towards financial unions and the new mechanical advancements forerunner real changes in keeping money condition. By observing this, it is significant for the banks to acknowledge the difficulties and be prepared to get ready to go into new focused money related condition. To be particular the proportions incorporate Return on Assets (ROA) and Return on Equity (ROE). Moreover, Alipour (2012), specified that if organizations continue trailing the objective of expanding ROE, it doesn't have any association with the real execution measured by ROE. This is on account of it has a negative association with the money related execution measure of ROA. In another examination Amin and Aslam (2017) demonstrate that administration analysts would want to utilize different bookkeeping based measures to quantify execution. Most normal factors are ROA and ROE. With the utilization of ROA and ROE, it can help the administration of any types of correspondence to assess administrative execution how well is an association's administration utilizing the benefits keeping in mind the end goal to create bookkeeping returns per dollar of venture, resources or deals. This is unquestionably valid as Liu and Wong (2011) in their underlying examination, experimented with a few choices by get-together information on Return on Assets (ROA), Return on Equity (ROE), and Return on Investment (ROI). They found that the principal (ROA) is the most generally detailed figure, uncovering less holes in the informational collection. In light of the discovering, they found various noteworthy connections between corporate social obligation and productivity measures, for example, Return on Assets and Return on Sales. Cabrita et al. (2017) utilized aggregate resource yield (ROA) as a substitute variable of big business execution. In light of the point of view of authoritative adequacy, Dekoulou and Trivellas (2017) encircled the idea of firm execution. As indicated by the creators, organizational performance is a subset of authoritative adequacy. The tightest origination of organizational performance considers the utilization of money related pointers, for example, deals with development, Return on Assets (ROA) and Return on Equity (ROE) while the more extensive idea of organizational performance incorporates accentuation on pointers of non-monetary or showcase based execution. At long last, the above audits delineate different looks into that have been led and significant to this specific examination. These inquire about present past and late written works on attributes of scholarly capital and firm execution.

### **3. Methodology**

The study was carried out in private banks in Erbil by gathering primary data through questionnaire. The questionnaire was developed by adopting previous academic article. The researcher utilized dimensions to evaluate intellectual capital were adopted from earlier studies such as Sharbati and Jawad (2010). Participants were required to assess their disagreement or agreement by utilizing a 5-point Likert Scale where 1 indicated strong disagreement and 5 indicated strong agreement.

### 3.1 Conceptual Framework

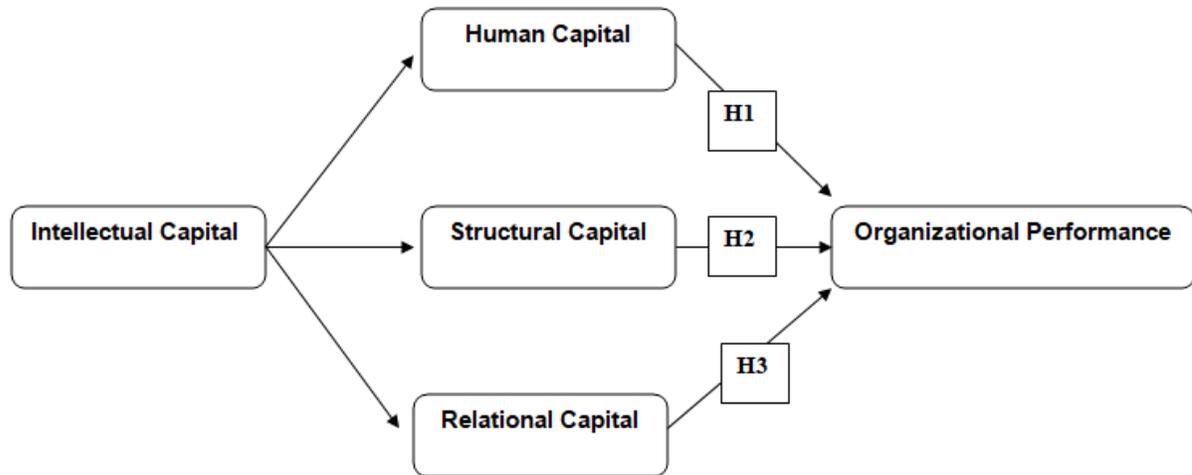


Figure 1: Research Model

#### 3.1.1 Research Hypotheses

**H1:** There is positive and significant relationship between human capital and organizational performance.

**H2:** There is positive and significant relationship between structural capital and organizational performance.

**H3:** There is positive and significant relationship between relational capital and organizational performance.

### 4. Empirical Data Analysis

#### 4.1 First Research Hypothesis

The researchers attempted to find out the association between the human capital and organizational performance in selected private banks in Erbil. Accordingly, the first research hypothesis stated that there is positive and significant relationship between human capital and organizational performance.

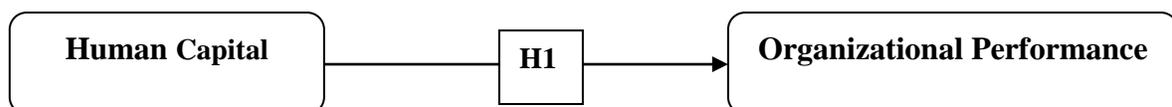


Table 1: Reliability Test (Hypothesis-1-)

Items	Cronbach's Alpha	KMO	Number of used items
Human Capital	.815	.712	17

Source; Primary data, 2017

The researchers implemented reliability test in order to find out whether questions employed for human capital as independent factor were reliable or not. The reliability test analyzed 17 questions for human capital. It was found that the Alpha for human capital =.815 for seventeen questions since .815 is more than .6, consequently all seventeen questions employed for human capital were reliable, furthermore, to find the adequacy of sample size, the researcher found out that the KMO for human capital = .712 is more than 0.5 this indicates that the KMO is middling for seventeen items employed for human capital.

Table 2: Correlations Analysis (Hypothesis-2- )

Variables	Pearson Correlation	Human capital	Organizational performance
Human capital	Pearson Correlation	1	.586 <sup>**</sup>
	Sig. (2-tailed)		.000
	N	144	144
Organizational performance	Pearson Correlation	.586 <sup>**</sup>	1
	Sig. (2-tailed)	.000	
	N	144	144

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

Source; Primary data, 2017

Correlations analysis presents the values of the identified correlation tests; Table (2) illustrates the correlations between the scales using person correlation. The researcher employed correlation analysis to assess the association between implemented variables, as for testing first research hypothesis, the human capital is an independent variable and organizational performance is a dependent variable. According to correlation test, the result revealed that human capital has significant correlation the value of  $r = .586^{**}$ ,  $p < 0.01$ ) with organizational performance, concerning of the strength of the linear correlation is moderate between human capital and organizational performance.

Table 1: Coefficient (H1)

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error			
(Constant)	3.265	.171		19.103	.000
Growth strategy	.168	.042	.186	3.978	.000
F			15.824		
R <sup>2</sup>			.35		

a. Dependent Variable: Organizational Performance

Source; Primary data, 2017

The researchers employed a single regression analysis to measure the association between human capital and organizational performance in selected private banks in Erbil. As illustrated in Table (3) human capital has significantly predicted organizational performance (P-value = .000 and the value  $\beta = 0.186$ , as a result it can be concluded that human capital will have a direct relationship organizational performance.

#### 4.2 Second Research Hypothesis

The researchers attempted to find out the association between the structural capital and organizational performance in selected private banks in Erbil. Accordingly, the second research hypothesis stated that there is positive and significant relationship between structural capital and organizational performance.

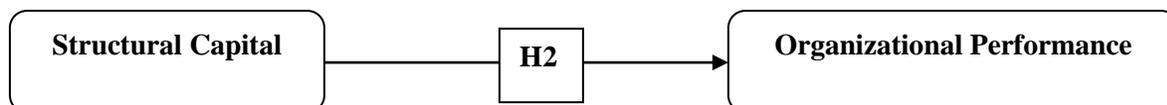


Table 4: Reliability Test (H2)

Items	Cronbach's Alpha	KMO	Number of used items
Structural capital	.770	.660	19

Source; Primary data, 2017

The researcher implemented reliability test in order to find out whether questions employed for structural capital as independent factor were reliable or not. The reliability test analyzed 19 questions for structural capital. It was found that the Alpha for structural capital =.770 for nineteen questions since .770 is more than .6, consequently all nineteen questions employed for structural capital were reliable, furthermore, to find the adequacy of sample size, the researcher found out that the KMO for structural capital = .660 is more than 0.5 this indicates that the KMO is meritorious for seventeen items employed for structural capital.

Table 5: Correlation Analysis (H2)

Items	Pearson Correlation	Structural capital	Organizational performance
Organizational performance	Pearson Correlation	1	.307**
	Sig. (2-tailed)		.000
	N	144	144
Structural capital	Pearson Correlation	.307**	1
	Sig. (2-tailed)	.000	
	N	144	144

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

Source; Primary data, 2017

Correlations analysis presents the values of the identified correlation tests; Table (5) illustrates the correlations between the scales using person correlation. The researcher employed correlation analysis to assess the association between implemented variables, as for testing second research hypothesis, the structural capital is an independent variable and organizational performance is a dependent variable. According to correlation test, the result revealed that structural capital has significant correlation the value of  $r = .307^{**}$ ,  $p < 0.01$ ) with organizational performance, concerning of the strength of the linear correlation is weak between structural capital and organizational performance.

Table 6: Coefficient (H2)

Model	Unstandardized Coefficients		Standardized	t	Sig.
	B	Std. Error	Coefficients Beta		
(Constant)	2.491	.215		11.597	.000
Growth strategy	.378	.056	.307	6.790	.000
F			46.101		
R <sup>2</sup>			.94		

a. Dependent Variable: organizational performance

Source; Primary data, 2017

The researchers employed a single regression analysis to measure the association between structural capital and organizational performance in selected private banks in Erbil. As illustrated in Table (6) structural capital has significantly predicted organizational performance (P-value = .000 and the value  $\beta = 0.378$ , as a result it can be concluded that structural capital will have a direct relationship with organizational performance.

### 4.3 Third Research Hypothesis

The researchers attempted to find out the association between the relational capital and organizational performance in selected private banks in Erbil. Accordingly, the third research hypothesis stated that there is positive and significant relationship between relational capital and organizational performance.

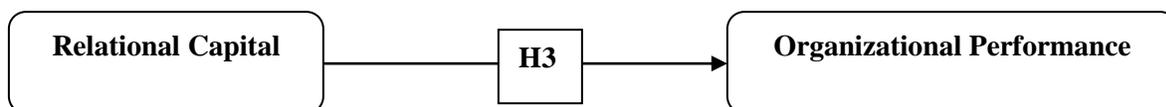


Table 7: Reliability Test (H3)

Items	Cronbach's Alpha	KMO	Number of used items
Structural capital	.895	.833	18

Source; Primary data, 2017

The researchers implemented reliability test in order to find out whether questions employed for relational capital as independent factor were reliable or not. The reliability test analyzed eighteen questions for relational capital. It was found that the Alpha for relational capital =.895 for nineteen questions since .895 is more than .6, consequently all eighteen questions employed for relational capital were reliable, furthermore, to find the adequacy of sample size, the researchers found out that the KMO for relational capital = .883 is more than 0.5 this indicates that the KMO is middling for eighteen items employed for relational capital.

Table 8: Correlation Analysis (H3)

Items	Pearson Correlation	Relational capital	Organizational performance
Organizational performance	Pearson Correlation	1	.239**
	Sig. (2-tailed)		.000
	N	144	144
Relational capital	Pearson Correlation	.239**	1
	Sig. (2-tailed)	.000	
	N	144	144

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

Source; Primary data, 2017

Correlations analysis presents the values of the identified correlation tests; Table (8) illustrates the correlations between the scales using person correlation. The researchers employed correlation analysis to assess the association between implemented variables, as for testing third research hypothesis, the relational capital is an independent variable and organizational performance is a dependent variable. According to correlation test, the result revealed that relational capital has significant correlation the value of  $r = .239^{**}$ ,  $p < 0.01$ ) with organizational performance, concerning of the strength of the linear correlation is weak between relational capital and organizational performance.

Table 9: Coefficient (H3)

Model	Unstandardized Coefficients		Standardized	T	Sig.
	B	Std. Error	Coefficients Beta		
(Constant)	3.680	.198		18.586	.000
Growth strategy	.363	.049	.361	1.286	.000
F			51.203		
R <sup>2</sup>			.40		

a. Dependent Variable: organizational performance

Source; Primary data, 2017

The researchers employed a single regression analysis to measure the association between relational capital and organizational performance in selected private banks in Erbil. As illustrated in Table (9) relational capital has significantly predicted organizational performance (P-value = .000 and the value  $\beta = 0.363$ , as a result it can be concluded that relational capital will have a direct relationship organizational performance.

## 5. Conclusion

The findings of empirical analysis demonstrate that there is a significant and positive relationship between intellectual capital and selected private banks in Erbil. In general, it could be concluded that the developed models have presented proof to carry the concept that difference across banks investigated by intellectual capital instrument have found in bank performance. Therefore, this illustrates an obvious sign that the intellectual capital method will create suitable influence in maximizing organizational performance. The researchers employed a single regression analysis to measure the association between three intellectual capital dimensions (human capital, structural capital and relational capital) with organizational performance in selected private banks in Erbil. The results revealed that the highest value was for the relation between structural capital as intellectual capital dimension with organizational performance, it was found that structural capital has significantly predicted organizational performance (P-value = .000 and the value  $\beta = 0.378$ , as a result it can be concluded that structural capital will have a direct relationship with organizational performance. It is followed by relational capital as intellectual capital dimension with organizational performance, it was found that relational capital has significantly predicted organizational performance (P-value = .000 and the value  $\beta = 0.363$ , as a result it can be concluded that relational capital will have a direct relationship organizational performance, and finally the lowest value was for human capital as intellectual capital dimension and its relationship with

organizational performance, moreover it was found that human capital has significantly predicted organizational performance (P-value = .000 and the value  $\beta = 0.186$ , as a result it can be concluded that human capital will have a direct relationship with organizational performance.

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