THE IMPACT OF INTELLECTUAL CAPITAL ON FIRM VALUE AND MODERATING ROLE OF MANAGERIAL OWNERSHIP AND INSTITUTIONAL OWNERSHIP

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ABSTRACT

The aim of this paper is to test the relationship between intellectual capital and firm value. In addition to that the moderating effect of managerial ownership and institutional ownership is tested between intellectual capital and firm value. The present study adopts quantitative methodology. The VAIC model is used to measure the intellectual capital and TobinsQ is used as a proxy for firm's performance. Regression analysis is applied to test the relationship. The results indicate that institutional ownership does have an impact on the relationship between intellectual capital and firm performance. However, managerial ownership's effect was insignificant. The present study uses the data from 2013-2018. The scope of this paper is limited to Pakistan non-financial sector of economy. This study provides evidence to top management of companies regarding the decision making of having institutional investor. This study is important as it contributes to emerging literature on intellectual capital.

Keywords: Intellectual capital; Firm value; Managerial ownership; Institutional ownership; Moderating effect

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Introduction

A number of new opportunities and challenges are being faced by companies globally because of increased competition in the market and changes in globalization dynamics (Bchini, 2015). Now, for companies to be successful and competitive regardless of their vast physical sources, adaptation of new policies and strategies are mandatory (Hejazi et al., 2016). Economic growth factors have evolved from industrial economy to knowledge economy factors, which exerts a lot of pressure on companies to efficiently use their soft resources in form of knowledge and human capital. According to Nuryaman (2015) assets like infrastructure land and equipment which are

tangible in nature are the assets on which the company's profitability and success is rested but in an evolved economy due to globalization 80 percent of companies' value is incorporated through intangible assets such as knowledge management and human capital (Vodák, 2011). In this modern era, one of the important factors of information economics is the ability of a company to utilize its knowledge and information (Noradiva, Parastou, Azlina, et al., 2016) so, they can generate tangible value for a company through intangible assets. Like, Branding is an asset through which companies creates reputation which is an intangible asset and ultimately it generates firm value (Urwin et al., 2008).

So, for a company to get long-term return investment in intellectual capital is inevitable. Human capital, structural capital and value-added capital are the three main sources for a firm through which it creates intellectual capital. Investor's interest is vested in intellectual capital in this knowledge economy which gives firms another reason to invest in intellectual capital. According to Bambang and Mukhtaruddin (2015) firm value is generated by intellectual capital through share prices. And also by return on equity, profitability and return on assets (Emamgholipour et al., 2013). Because of the evolving importance of intellectual capital, it is vey important to examine its impact on performance of business.

There are lot of methods through which the relationship between these two variables can be explained but the most widely used and the efficient method is VAIC (Value Added Intellectual Coefficient) which was introduced by (Pulic, 1998). On the relationship between firm value and VAIC both types of results are reported in literature of financial management i.e. insignificant and significant. It is also found that few VAIC components have more significant impact on firm value than others. According to Mosavi et al. (2012) firm value is positively affected by Human capital efficiency than other components of VAIC. Based on this there is need to further study the impact of VAIC components on firm value in context of Pakistan because of dynamic nature of business and volatility in economy.

Furthermore, according to Li and Zhao (2018) there is a need to study the above stated relation through ownership structure of business. Institutional ownership and Managerial ownership are elements which are considered the important elements in organizational structure while making the financial decisions of the company. Noradiva, Parastou and Azlina (2016)

explained the importance of managerial ownership in organizational structure. There are two types of hypotheses found in financial management literature regarding the behavior of managerial ownership one is entrenchment hypothesis and the other is interest-alignment hypothesis. According to Chen and Chuang (2009) entrenchment hypothesis is that the agency relation between managers and shareholders increase by increasing the managerial ownership and the opposite situation is interest-alignment hypothesis. To increase the company value incorporating institutional ownership in ownership structure is a technique for good governance. In view of Shleifer and Vishny (1997) company performance can be maximized through proper governance and it also results in solving the agency problem. In this way management will make strategic decisions for long-term returns for the company like in intellectual capital. A few past researches also concluded the positive impact of institutional ownership structure on company value (Abukosim & Mukhtaruddin, 2014; Mallorquí, 2011). So, this study is design to empirically examine the impact of intellectual capital on firm value through the moderating role of institutional ownership and managerial ownership.

Literature Review

Intangible assets of a company like knowledge, information, experience of employees, intellectual property and intellectual material is the intellectual capital and these assets are used to generate wealth (Stewart, 2007). It involves more than patents, copyrights and trademarks etc. The three basic components of Intellectual capital are Structural capital, Human capital and Customer capital (Clarke et al., 2011; Kalkan et al., 2014; Kamath, 2008; Noradiva, Parastou, & Azlina, 2016; Nuryaman, 2015).

Human capital is one the major source of company's intangible assets (Kalkan et al., 2014; Naz & Qureshi, 2020). To create firm value and to obtain the financial goals, companies these days are in a race to find the knowledge employees who are equipped with special qualities (Jacobsen & Hofman-Bang, 2005). According to Kalkan et al. (2014) structural capital is a non-human capital which provides support to human capital. Infrastructural support which is incorporated to increase the performance of employees is called structural capital (Sveiby, 1998). Last and third dimension of intellectual capital is called external or relational capital and it is also

referred as customer capital (Jacobsen & Hofman-Bang, 2005). Customer capital is the relationship of stakeholders with the firm (Jacobsen & Hofman-Bang, 2005; Kalkan et al., 2014; Nuryaman, 2015). Nuryaman (2015) stated that to keep good relations with the internal and external stakeholders, companies use customer capital. Customer capital helps the firm to increase the loyalty within its stakeholders and also increase their satisfaction level (Kalkan et al., 2014).

In this era of high market competition, for companies to achieve sustainability intellectual capital is a useful asset. According to Chen et al. (2005) Firms who possess efficient intellectual capital are preferred by the investors. A study conducted on pharmaceutical firms in Iranian stock market to investigate the relationship between intellectual capital and firm value, as a result no relationship was proven (Mehralian et al., 2012). Similarly, no significant results were reported between the relationship of firm value and intellectual capital in a study on IT firms in Bombay (Shaban et al., 2013). However, Berzkalne and Zelgalve (2014) in their study on Lithuanian and Latvian companies concluded a significant positive impact of intellectual capital on firm value. Similarly, in a study on the firms listed in Tehran stock exchange concluded a significant relationship between the dimensions of intellectual capital and firm value (Nejati & Pirayesh, 2015).

This relationship of intellectual capital and firm value also investigated by Li and Zhao (2018) on firms listed in China. Firm value measured by ROA and ROE and two dimensions of Intellectual capital were incorporated i.e. Human capital and Organizational capital and it is concluded that one of the dimensions (Organizational capital) have an impact on firm value while the other (Human capital) reported no such relationship.

According to Barney (1991) developed the Resource based theory according to which a firm incorporate all of its available resources in order to have a competitive edge in the market. A more developed form of the said theory is utilization and management of the company's strategic assets (Bambang & Mukhtaruddin, 2015). According to resource-based theory a company utilize its strategic resources to maximize the profits. So, based on this view we can say a firm value can be increased by intellectual capital. However in literature this statement is not true in all the cases, there could be a significant relationship like reported by Berzkalne and

Zelgalve (2014); Nejati and Pirayesh (2015) or results could be like Mehralian et al. (2012); Shaban et al. (2013) which show no significance. So, based on this we proposed our first hypothesis

H1: Intellectual capital has a positive significant impact on Firm value

Agency theory was first developed by Berle and Means (1932) which explained the relation of shareholder (Principal) and managers (agent) and this relation is called agency relationship and conflict between these two parties is called agency conflict. As we all know managers run the company on the behalf of shareholders and in case of agency conflict managers use the available resources of the company for their personal interest rather than shareholders' interest (Jensen & Ruback, 1983). Cost occurred for the alignment of interest between these two is called agency cost. And by incorporating Institutional and Managerial Ownership in ownership structure of company agency cost can be minimized (Haruman, 2008).

Ownership in the company works as an incentive for managers to increase the performance of the company (Noradiva, Parastou, & Azlina, 2016). Studies have clearly showed that high level of managerial ownership result in high performance of firm (Hanson & Song, 2000; Sun et al., 2016). Investment decisions in the firms having high managerial ownership are focused on long-term returns for the business which also includes the investment in intellectual capital (Mohd-Saleh et al., 2009). While in the firms which have low managerial ownership, managers make decision for short term returns which are best suited for them. A study on the relation of dimensions of intellectual capital, ownership and corporate value concluded that there exist a direct relationship between corporate value and ownership (Liang et al., 2011).

According Noradiva, Parastou and Azlina (2016) in his study while examining the role of managerial ownership on the relationship of firm value and intellectual capital concluded that there exists a direct relationship between firm value and intellectual capital but managerial ownership doesn't have any significant impact on this relationship. In another study it is concluded that there is a negative relationship between HCE (human capital efficiency) and managerial ownership and this entrenchment effect is due to the insider ownership (Azam, 2020; Bohdanowicz, 2014).Similarly, a study on Indonesian Stock Exchange reported the same results that managerial ownership have a negative impact on the relationship between intellectual capital

and firm value (Bambang & Mukhtaruddin, 2015). Based on this literature, role of managerial ownership as a moderator need to be further studies because of the existence of entrenchment hypothesis and interest-alignment hypothesis, we proposed our second hypothesis

H2: Managerial Ownership moderates the relationship between Firm Value and Intellectual Capital

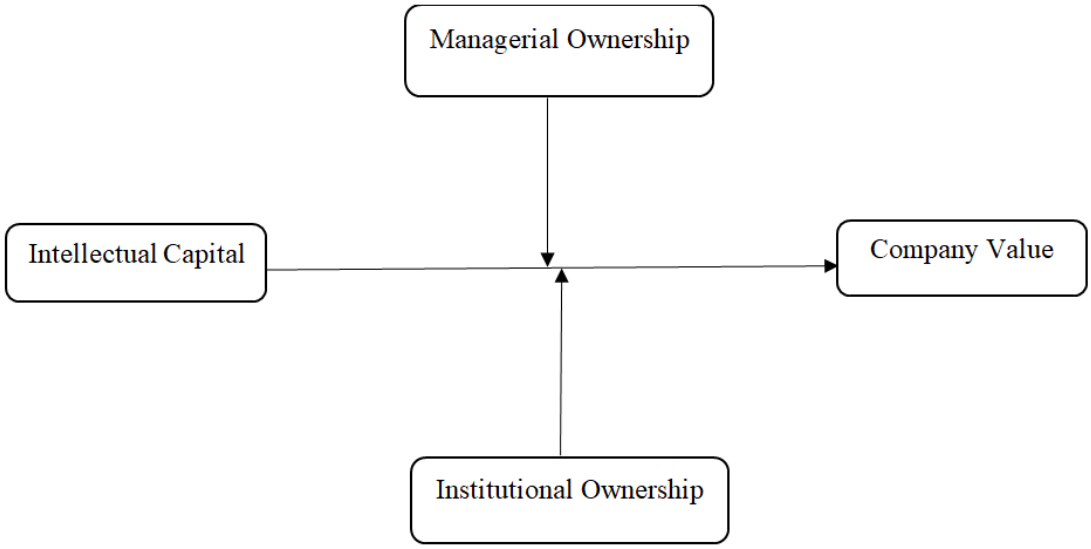
According to Chung and Zhang (2011) the percentage of shares held by institutional owners like insurance companies and banks in a company is called Institutional Ownership. In view of Chaganti and Damanpour (1991) Institutional investors can look over the activities performed by the top management. And by doing so can mitigate the agency problem (Hussain Tahir, 2015). Company's performance can be increased by such supervision (Kusumawati & Setiawan, 2019).

Stakeholder salient theory explains that institutional investors as key shareholders can influence the power of company's executives Neubaum and Zahra (2006) and by doing so they can influence management decisions (Gedajlovic & Shapiro, 2002). These decisions also include management policy for intellectual capital (Novitasari & Januarti, 2009). According to Purwanto (2011) a well-managed and optimal use of intellectual capital will generate sustainable long term returns for the company.

In a study it is concluded while examining the effect of institutional ownership on the relationship between firm value and intellectual capital that institutional ownership doesn't have any impact on the said relationship (Bambang & Mukhtaruddin, 2015). However, few other studies reported a positive impact on company value (Chen et al., 2008; Ferina & Nurcahaya, 2014). So, based on this literature we proposed our third hypothesis

H3: Institutional Ownership moderates the relationship between Intellectual Capital and Firm Value

Conceptual Framework



Research Methodology

Based on the philosophy of research, quantitative approach is applied to measure the relationship between variables. To follow the research design "purposive sampling" is used and data is collected from only those non-financial firms of Pakistan stock exchange who completely fulfil our requirements. Sample is based on 50 companies and the time span is from 2013 to 2018. So, we have (50x6=300) observations for our analysis which according to Hair et al. (2006) surpass the limit of requirement of minimum data. Data is collected through secondary resources mainly from PSX and State Bank of Pakistan's website and also from companies' websites. To run the moderation and regression analysis EViews10 is used in this paper.

Operationalization of Variables

Intellectual Capital

Independent variable of our study is intellectual capital and it is measured by VAIC model which is developed by (Pulic, 1998). VAIC and its components are calculated by following method

VA = OUT – IN – D

Where,

OUT = Total Sales Revenue
IN = Total Cost of Sales excluding Personnel Expenses
D = Depreciation Expense

Now, VACA (Value Added Capital Employed) is the first proxy for VAIC.

VACA = VA / CE

Where,

VA = Value Addition as discussed earlier
CE = Capital employed (Total Assets – Intangible Assets)

Now, VAHU (Value Added Human Capital) is calculated by using the following formula.

VAHU=VA/HC

Where,

VA = Value Addition
HC = Human Capital (Salaries and benefits of a firm's employees)
VAHU = Value Added Human Capital

It shows the value addition with respect to unit amount investment in human capital. In the last, STVA (Structural Capital Value Added) is used to measure the amount of structural capital investment to generate the value for the firm. The formula used for the calculation is give below.

STVA = SC / VA

Where,
SC = Structural Capital (VA – HC)
VA = Valued Addition
STVA = Structural Capital Value Addition
Finally,
VAIC = VACA + VAHU + STVA

TobinsQ

Dependent variable of our study is the firm performance which is measured by TobinsQ which is the ratio of market value of company to book value of company and it is measured by the following formula (Vazifehdoust et al., 2014).

$$TobinsQ = ((CPxOS)+TL+I)-CA/TA$$

CP= Closing Price

OS=Outstanding Shares of Company

TL=Total Liabilities

I=Inventory

CA=Current Assets

TA=Total Assets

Institutional Ownership

First moderating variable in our study is institutional ownership and it is the percentage of equity owned by other institutes like Banks. It is measured by the following formula

$$IO = \frac{number\ of\ shares\ held\ by\ the\ institution}{total\ outstanding\ shares} \quad x\ 100\%$$

Usually it is present in shape of percentage in company's annual reports.

Managerial Ownership

Second moderator of this paper is managerial ownership and this is also the percentage of executive workers ownership in company and it is also present in annual reports of company.

Econometric Models for testing of Hypotheses

Testing of First Hypothesis

TQ = ß0 + ß1 (VAIC) + e
TQ = ß0 + ß1 (VACA) + ß2 (VAHU) + ß3 (STVA)+ e

Testing of Second Hypothesis

TQ = ß0 + ß1 (MO) + e
TQ = ß0 + ß1 (VAIC) + ß2 (MO) + e
TQ = ß0 + ß1 (VAIC) + ß2(MO) + ß3(VAIC x MO) + e

Testing of Third Hypothesis

TQ = ß0 + ß1 (IO) + e
TQ = ß0 + ß1 (VAIC) + ß2 (IO) + e
TQ = ß0 + ß1 (VAIC) + ß2(IO) + ß3(VAIC x IO) + e

Data Analysis and Results Discussion

Descriptive Analysis

Table 1

	VAIC	VAHU	VACA	STVA	TOBINSQ	Institutional Ownership	Managerial Ownership
Mean	3.58262	2.708565	0.18891	0.685145	1429.662	6.208479	0.470486
Median	3.157437	2.27453	0.161407	0.652214	754.6568	2.13	0
Maximum	56.09439	54.99125	0.761663	30.16774	11732.53	96.5	11.14
Minimum	-14.31648	-5.11318	-0.198866	-14.3838	40.88405	0	0
Std. Dev.	4.771211	4.188658	0.178628	2.283489	1792.218	13.52635	1.729651
Skewness	5.461626	7.452858	1.023384	6.449049	2.797127	4.904868	4.240651

Table 1 present the summary of overall data and skewness represent that data is stable. Apart from the TobinsQ data is normal on the basis of standard deviation and mainly closed to the mean values which tells about the dispersion in data.

Correlation Analysis

Analyzing the data through descriptive measures now we move towards the correlation analyses between variables as it is an important measure to check the relationship in-between variables and the table is presented in Table 2.

Table 2

	VAIC	VAHU	VACA	STVA	TOBINSQ	Institutional Ownership	Managerial Ownership
VAIC	1						
VAHU	0.878842	1					
VACA	0.195099	0.222477	1				
STVA	0.462096	-0.01544	-0.078673	1			
TOBINSQ	0.09465	0.087833	0.641869	-0.01356	1		
Institutional Ownership	0.031561	0.061413	-0.21771	-0.02968	-0.164674	1	
Managerial Ownership	-0.032013	-0.01289	-0.022581	-0.04148	-0.046672	-0.055237	1

VAIC has a weak but positive relationship with TobinsQ which is perfectly line with our hypothesis and also all of its dimensions have positive relationship with TobinsQ except STVA which shows a weak negative relation with the performance of company. Relationship of Managerial ownership also show negative relation with all the other variable of study which is in line with the entrenchment hypothesis of our study. Similarly. Institutional Ownership also depicts the negative relation with the firm value but a positive relation with intellectual capital.

Assumption of Regression Analysis

Stationarity of Data

In this study we want to examine the impact of our hypotheses through regression analysis. So, it is very important that we should satisfy all the assumptions require to run the test and the first one is stationarity of data for this purpose we implied "Panel Unit Root Test" and the results are shown in Table 3. If the test results are significant then it means that our data is stationary and fulfil this assumption for the regression analyses.

Table 3

Variables	Levin, Lin & Chu test	Prob	PP - Fisher Chi-square	Prob
TobinsQ	-6.30361	0.000		
VAIC	-50.3199	0.000	226.775	0.000
Managerial Ownership	-23.4835	0.000	122.043	0.000
Institutional Ownership	-363.86	0.000	221.336	0.000
VACA	-12.9104	0.000	140.193	0.000
VAHU	-49.2277	0.000	248.754	0.000
STVA	-39.3001	0.000	198.65	0.000

Unit Root Test

Test results presented in Table 3 for Levin, Lin & Chu test & PP – Fisher Chi-square test are significant at ($P<0.01$) which proves that our data is stationary and suitable for regression analysis.

Multicollinearity

Second assumption for running the regression analysis that should be free from multicollinearity there are number of ways to detect multicollinearity in data but in this paper, we used correlation method

	VAIC	VAHU	VACA	STVA	TOBINSQ	Institutional Ownership	Managerial Ownership
VAIC	1						
VAHU	0.878842	1					
VACA	0.195099	0.222477	1				
STVA	0.462096	-0.01544	-0.078673	1			
TOBINSQ	0.09465	0.087833	0.641869	-0.01356	1		
Institutional Ownership	0.031561	0.061413	-0.21771	-0.02968	-0.164674	1	
Managerial Ownership	-0.032013	-0.01289	-0.022581	-0.04148	-0.046672	-0.055237	1

As presented in this table apart from the correlation between VAIC and VAHU all the value are well below then 0.7 which confirms that data is free from multicollinearity problem and VAHU is the component of VAIC and both are not used in any regression together.

Regression Analysis

Testing of first hypothesis through Model 1

TQ = ß0 + ß1 (VAIC) + e

Table 4
Independent variable TobinsQ

Variable	Co-efficient	Std. Error	t-Statistics	Prob.
VAIC	35.66544	21.71279	1.642601	0.1
C	1308.941	129.2903	10.12405	0
R-squared	0.008973	F-statistic		2.698137
Adjusted R-Squared	0.005647	Prob (F-stat)		0.10152

Results for the Model 1 are significant at 10% level of significance and R-square is very low because intellectual capital VAIC is not only the factor for the success of company. Now, in Model 2 this study tries to explain TobinsQ through the components of VAIC

TQ = ß0 + ß1 (VACA) + ß2 (VAHU) + ß3 (STVA)+ e

Table 5

Independent variable TobinsQ

Variable	Co-efficient	Std. Error	t-Statistics	Prob.
VAHU	-24.81308	19.48057	-1.273735	0.2038
VACA	6602.589	455.929	14.48162	0.000
STVA	29.28619	34.95345	0.837863	0.4028
C	229.8857	124.2566	1.850089	0.0653
R-squared	0.419284	F-statistic		71.23853
Adjusted R-Squared	0.413398	Prob (F-stat)		0.000

Table 5 clearly represents that VACA is significant at (P<0.01) and while other components STVA and VAHU are not significant which means VACA is more involved in enhancing firm value than STVA and VAHU. Furthermore, VAHU though is insignificant but it is showing a negative relation with firm performance. It shows that in Pakistani context structural capital and human capital does not playa vital role in uplifting the performance of the company. In this model R-square and adjusted R-square both are considerably high from previous model and overall model is significant at (P<0.01) which means that components of VAIC explain better variation in firm performance than VAIC itself. And we accept our first hypothesis that Intellectual capital have a positive impact on the firm performance.

Now we move towards the Moderation Analyses of our study

TQ = ß0 + ß1 (MO) + e

Table 6

Independent variable TobinsQ

Variable	Co-efficient	Std. Error	t-Statistics	Prob.
MO	-48.36055	60.05935	-0.805213	0.4213
C	1452.415	107.4885	13.51228	0.00
R-squared	0.002178	F-statistic		0.648367
Adjusted R-Squared	-0.001181	Prob (F-stat)		0.421341

We examined this relationship to check whether managerial ownership have any direct impact on the firm performance or not and in table 6 it is clearly shown that Managerial ownership is insignificant and doesn't have any impact on the performance of the firm. Now, to further explore this relationship we add VAIC in the model to test the relationship in overall model

$TQ = ß0 + ß1 (VAIC) + ß2 (MO) + e$

Table 7

Independent variable TobinsQ

Variable	Co-efficient	Std. Error	t-Statistics	Prob.
VAIC	35.02816	21.72535	1.612317	0.10
MO	-45.26728	59.92899	-0.755349	0.4506
C	1325.467	133.0087	9.965268	0.00
R-squared	0.010865	F-statistic		1.625713
Adjusted R-Squared	0.004182	Prob (F-stat)		0.198523

VAIC showing positive relation with firm performance but managerial ownership showing negative and insignificant relation with firm performance. And overall model is also insignificant. Now in the last model we check the moderation of Managerial economics between the relationship of intellectual capital and firm performance

$TQ = ß0 + ß1 (VAIC) + ß2(MO) + ß3(VAIC \times MO) + e$

Table 8

Independent variable TobinsQ

Variable	Co-efficient	Std. Error	t-Statistics	Prob.
VAIC	31.27705	21.8715	1.430037	0.1538
MO	-149.2364	97.41418	-1.531978	0.127
VAICXMO	30.28776	22.39165	1.352637	0.1772
C	1344.744	133.5851	10.06658	0.00
R-squared	0.016962	F-statistic		1.696722
Adjusted R-Squared	0.006965	Prob (F-stat)		0.168

we run the regression model to check the moderation effect of managerial ownership between the relationship of intellectual capital and firm performance and it is proved in table 8 that results are insignificant which are same as reported by (Noradiva, Parastou, & Azlina, 2016). And we reject

second hypothesis of our study. Now, the third hypothesis of Institutional ownership moderation impact on firm performance and intellectual capital to test the hypothesis first model is

TQ = ß0 + ß1 (IO) + e

Table 9
Independent variable TobinsQ

Variable	Co-efficient	Std. Error	t-Statistics	Prob.
IO	-21.91784	7.587539	-2.888663	0.00
C	1572.646	112.5932	13.96751	0.00
R-squared	0.027239	F-statistic		8.344373
Adjusted R-Squared	0.023974	Prob (F-stat)		0.00

As shown in Table 9 Institutional Ownership has negative but significant impact on firm performance with the ($p<0.01$) and the overall model is also significant with ($p<0.01$). it means that increase in institutional ownership result in bad performance of the company which is against the findings of Herman and Subowo (2016) who stated that IO did not have any direct impact on firm performance. To further explain this relationship, we move to the second model

TQ = ß0 + ß1 (VAIC) + ß2 (IO) + e

Table 10
Independent variable TobinsQ

Variable	Co-efficient	Std. Error	t-Statistics	Prob.
VAIC	37.66089	21.44761	1.755948	0.08
IO	-22.33641	7.564911	-2.952634	0.00
C	1440.271	135.1752	10.65485	0.00
R-squared	0.037234	F-statistic		5.743032
Adjusted R-Squared	0.03075	Prob (F-stat)		0.00

It is cleared from the above table that institutional ownership contradicts with the performance of company. In this model VAIC has a positive relation but Institutional ownership once again show the negative relation towards firm performance at 1% significance level. Now, we run the last test to check for the moderation.

TQ = ß0 + ß1 (VAIC) + ß2(IO) + ß3(VAIC x IO) + e

Table 11

Independent variable TobinsQ

Variable	Co-efficient	Std. Error	t-Statistics	Prob.

VAIC	122.7172	34.75804	3.530614	0.00
IO	-19.85032	7.502288	-2.645902	0.00
VAICXIO	-4.170254	1.352472	-3.08343	0.00
C	1221.114	151.0472	8.084322	0.00
R-squared	0.067195	F-statistic		7.10754
Adjusted R-Squared	0.057741	Prob (F-stat)		0.000

In Table 10 it is shown that VAIC doesn't have any significant impact on the TobinsQ but in table 11 it is clearly shown that institutional ownership moderates on the relationship between firm value and intellectual capital as VAIC is also significant at 1% level of significance and moderation shows us that institutional ownership has a negative effect on the relationship between firm value and intellectual capital. So, we accept our third hypothesis which is against the studies of Mollah et al. (2010); Sulistyo et al. (2017). According to them Institutional ownership does not moderate the role between firm value and intellectual capital. These results are also against the findings of (Abukosim & Mukhtaruddin, 2014). In their view institutional ownership behaves in a positive way towards intellectual capital and firm performance.

Conclusion

Main purpose of this study was to evaluate the relationship between Intellectual capital and firm performance which is not highly significant. Moreover, paper contributed in the knowledge of intellectual capital by exploring the relation of firm value and intellectual capital through the moderating role of managerial ownership and institutional ownership. Paper did not explain the relationship through managerial ownership but it did prove that institutional ownership does affect the relationship of said variables also it weakens them which is against the findings of previous studies. In Pakistan, we can say company will lose it performance by increasing the percentage of ownership of institutes in its ownership structure.

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