

The Materiality of Intellectual Knowledge and Its Impact on the Financial Performance of Companies (Analytical Study on a Sample of Iraqi Industrial Companies)

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Research aims to interest in intellectual knowledge by materiality of it as an asset with the rest of the other assets shown in the balance sheet to Iraqi companies and their impact on financial performance. In order to achieve that goal this research is applied to a sample of industrial companies operating in the financial markets for the financial period 2011-2018 by analysing the amount of financial expenditures on intellectual assets. This research extracts the materiality compared with other assets and looks at its impact on financial performance, as well as summing up the search after the analysis regarding the strong relationship between the increased interest of Iraqi industrial companies in intellectual assets and the increase in performance financially and will offer proposals that develop the future capabilities.

Key words: *Intellectual Knowledge, Financial Performance, Company, Iraq*

Introduction

Financial statements are gaining high credibility regarding financial information by providing materiality of intellectual assets suggesting that disclosure is important and influential on corporate financial performance (MARR, 2003 : 32) which can be defined according to the organisation for economic cooperation and development (OECD). The economic value of the two classes of intangible assets and of the regulatory capital (structural) and human capital and technological capital of knowledge (AL ZOABI & , 2011 : 51) , BATAINEH. With financial

accounting standards board defines (IASB,1998) According to international standard (38) non-monetary assets that have no physical substance are used in company operations of manufacturing, purchase or supply in order to achieve strategic objectives and management, and can be controlled by knowing the result of the company in accordance with the previous events (BONTIS, 2011 : 19). Intellectual assets according to those definitions are one of the most important financial elements that require attention in financial reports and statement of materiality when disclosed in the annual financial statements (OMAIMA &) MARSTON , 2010 : 25.

Financial performance is also one of the most important indicators which are relied upon to be able to know to what extent the ability of companies can continue operating. Financial performance is also one of the important variables upon which users and financial analysts make decisions related to the company (TALIYANG, 2008 : 22), and highlights the materiality of intellectual assets through its impact on corporate financial performance increase by upgrading the efficiency of the administration and solving financial problems to provide appropriate solutions to address the financial risks leading to the company's access to safe mode to maintain their position in competitive markets (BUKH,2003 : 32).

The Conceptual Framework of Intellectual Knowledge and its Relative Importance

Intellectual knowledge is one of the important items in companies and has an effect on the overall work through directly providing strategic plans that address financial problems which require a significant amount of the materiality giving importance to the following points (GHEN & YUANXIE, 2003 : 3):-

- 1- Intellectual knowledge will help in the development of creativity and innovation in the company, which contributes to the development of appropriate plans and foundations that serve the objectives of the company in the long term.
- 2- Working knowledge assists to increase the company's ability to increase production magazines developments contribute to an increase in stock value in financial markets.
- 3- Intellectual knowledge? provides appropriate opportunities for the company that can be exploited to enhance the competitive advantage, increase profitability and in accordance with the importance which the intellectual knowledge has and its role in the development of the company's work, it's called the knowledge components that the researchers have disputed to definite them but the most common components between the book and the researchers are as the following (HIRAS&INDRI,2012:56):-

- 1- The cognitive assets (technological): are the cognitive assets owned by the company including the designs, technological programs, cultural operations and future plans in the long term.



- 2- Human origins: are the intellectual experiences and innovation from the minds of company's employees and their presented proposals when the problems occur.
- 3- Intellectual property: intellectual assets are assimilated by the company as a result of transactions that took place in the past as companies merge and become a well known business or trade mark of a specific product.
- 4- Social assets: are the social relations between the company's sales staff and customers which is the result of the increased sales because of the relationship between employees and customers.

The Plan of the Research and Its Hypothesis

The research aims to determine the materiality of intellectual knowledge and its impact on the financial performance of the Iraqi industrial companies, where the research contains other subsidiary objectives are as follows:

- 1- Knowing the materiality which intellectual knowledge has in the Iraqi companies compared with other financial assets through expenditures.
- 2- Identify the financial reports that can be employed to provide appropriate information about the intellectual knowledge of external users.
- 3- Identify the impact of the materiality of intellectual knowledge on financial performance of Iraqi industrial companies by reducing the financial problems and the future administrative risks.

The research focuses on reaching its goals through considering intellectual knowledge with the components of human, structural and technological knowledge that are compatible with each other in order to support the company's decisions and provide appropriate plans that contribute to maintaining their competitive position. This will determine the materiality of knowledge according to the expenditures and the financial performance measurement efforts in Iraqi companies. The following sample of the scheme of the research can explain the most important variables that will support this model

(KAMATH, 2015:16):-

Figure 1. The scheme of the research



The Protocol of The Scientific Research

Coming to know the materiality of intellectual knowledge will rely on looking at expenditures by Iraqi companies on that asset as compared with other assets regardless of the meaningful level of disclosure in the financial reports and the range of interest in it as an indicator of ratios importance. This is represented in the following example:-

$$\eta = E_i \div T_e$$

η : materiality of Intellectual knowledge.

E_i : expanses Intellectual.

T_e : total expanses

Disclosure index can be used to denote the ratios importance of intellectual knowledge by following the following example:-

$$LID = E_i \div T_{er}$$

LID : level of Intellectual disclosure .

E_i : expanses Intellectual.

T_{er} : Total expanses in Reports .

The financial performance will depend on the financial analysis relativity. To achieve that purpose this will be extracted from the company's data to analyse the extracted relativity from the materiality of intellectual knowledge and financial performance in accordance with the statistical program (SPSS) As shown in the following tables:-

Table 1: Description of the sample

S	Company	Date of Establishment	Nominal capital	Percentage of the private sector
1	Baghdad Packaging Materials	1962	2.5 M	%96.56
2	Iraqi Carton Industry	1978	2.5M	%37
3	Iraqi Engineering Works	1985	8 M	%66.4

The above table shows a sample of company information research that will be applied in the research form to achieve the goals that have been identified beforehand.

Table 2: Current, Capital and Intellectual Expenditures in Baghdad Company for the Manufacturing of Packaging Materials

Expenditure	2011	2012	2013	2014	2015	2016	2017	2018
Capital expenditures	3210	3220	4321	4530	4312	4512	5610	5600
Current expenditure	1200	1300	1600	1750	1840	1890	1900	1950
Intellectual expenses	220	300	340	360	410	540	600	620
Total expenditure	4630	4630	4630	4630	4630	4630	4630	4630
Intellectual expenses to capitalism	0.068	0.068	0.068	0.068	0.068	0.068	0.068	0.068
Intellectual expenses to Current	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18
Intellectual expenses to total expenditure	0.047	0.047	0.047	0.047	0.047	0.047	0.047	0.047

Note from table (2) that the proportion of expenditure on intellectual knowledge in Baghdad company for the manufacture of packaging materials was equal in eight years (0.047) relativity to total expenditure and percentage of (0.18) relativity to current expenditure ratio (0.068) to the capital expenditure, which includes knowledge Which was relatively important to current expenditures during the year ratio with total company expenses.

Table 3: Current expenditure, capital and intellectual in the Iraqi company for the manufacture of cardboard materials

Expenditure	2011	2012	2013	2014	2015	2016	2017	2018
Capital expenditures	5210	6220	8321	8730	8912	9912	9190	9900
Current expenditure	3400	5400	5600	5250	5740	5890	5900	5990
Intellectual expenses	520	600	640	860	810	940	900	920
Total expenditure	9130	12220	14561	14840	15462	16742	15990	16810
Intellectual expenses to capitalism	0.097	0.096	0.076	0.098	0.090	0.094	0.097	0.092
Intellectual expenses to Current	0.15	0.11	0.11	0.16	0.14	0.15	0.15	0.15
Intellectual expenses to total expenditure	0.056	0.049	0.043	0.057	0.052	0.056	0.056	0.054

Table (3) shows that the percentage of expenditure on intellectual knowledge in the Iraqi Company for Engineering Works varied during the eight years, the highest percentage in 2014 (0.057) and lowest percentage in 2012 (0.043). Of the total expenditure, the importance of intellectual knowledge for current expenditure and capital expenditure was the highest in 2014 (0.16) and (0.098) respectively, indicating that in the year 2014 the company gave greater attention to comparative intellectual knowledge than other items.

Table 4: Current expenditure, capital and intellectual in the Iraqi Company for Engineering Works

Expenditure	2011	2012	2013	2014	2015	2016	2017	2018
Capital expenditures	5510	5210	5321	6530	6312	7612	6590	8800
Current expenditure	5400	4400	4600	3250	3940	4890	4900	6490
Intellectual expenses	620	400	540	810	790	840	800	820
Total expenditure	11530	10010	10461	10590	11042	13342	12290	16110
Intellectual expenses to capitalism	0.11	0.076	0.10	0.12	0.12	0.11	0.12	0.093
Intellectual expenses to Current	0.11	0.09	0.11	0.24	0.20	0.17	0.16	0.12
Intellectual expenses to total expenditure	0.053	0.039	0.051	0.076	0.071	0.062	0.065	0.05

Table (4) shows that the percentage of expenditure on intellectual knowledge in the Iraqi Company for Engineering Works varied between the eight years, the highest rate being in 2014 (0.076) and the lowest percentage in 2012 (0.039) Of the total expenditure the importance of intellectual knowledge for current expenditure and capital expenditure was the highest in 2014 (0.24) and (0.12) respectively, indicating that the year 2014 the company gave greater attention to comparative intellectual knowledge than with other items.

The ability to extract the materiality of intellectual knowledge depends on the amount of financial reports in which the elements of intellectual knowledge are disclosed and the number of elements contained in the company's research sample as shown in the following table:-

Table 5: Level of disclosure of intellectual knowledge in Baghdad Company for the manufacture of packaging materials

Report elements	2011	2012	2013	2014	2015	2016	2017	2018
Items presented in the financial reports (1)	34	36	37	38	38	39	39	40
Elements of intellectual knowledge (2)	5	5	5	6	6	6	6	6
Level of disclosure of intellectual knowledge (1) ÷ (2)	0.14	0.13	0.13	0.15	0.15	0.15	0.15	0.15

Table (5) shows that the rate of disclosure of intellectual knowledge in Baghdad Company for the manufacture of packaging materials has been increasing during the surveyed years. It increased by (1%) in 2011 (2011) (2018) by (0.15) indicating that the company paid attention to the disclosure of intellectual knowledge due to its relative importance:-

Table 6: Level of disclosure of intellectual knowledge in the Iraqi company for the manufacture of cardboard materials

Report elements	2011	2012	2013	2014	2015	2016	2017	2018
Items presented in the financial reports (1)	35	37	37	38	38	40	40	40
Elements of intellectual knowledge (2)	3	3	4	5	5	5	6	6
Level of disclosure of intellectual knowledge (1) ÷ (2)	0.08	0.08	0.10	0.10	0.13	0.12	0.15	0.15

Table (6) shows that the percentage of disclosure of intellectual knowledge in the Iraqi Company for the manufacture of cardboard materials has been increasing during the surveyed years, as it increased in 2012 (2012) and (2011) by (2%). It reached stability in 2018 by (0.15) indicating that the company paid attention to the disclosure of intellectual knowledge due to its relative importance:-

Table 7: Level of disclosure of intellectual knowledge in the Iraqi Company for Engineering Works

Report elements	2011	2012	2013	2014	2015	2016	2017	2018
Items presented in the financial reports (1)	30	30	31	33	34	35	35	38
Elements of intellectual knowledge (2)	3	3	5	6	7	7	7	7
Level of disclosure of intellectual knowledge (1) ÷ (2)	0.10	0.10	0.16	0.18	0.20	0.20	0.20	0.20

Table (7) shows that the rate of disclosure of intellectual knowledge in the Iraqi Company for Engineering Works increased during the surveyed years, as it increased in 2012 (2012) and (2011) by (8%). (2018) by 0.20, indicating that the company paid attention to the disclosure of intellectual knowledge due to its relative importance. Note that the percentage of increase in disclosure in companies in the research sample was the result of the large number of calls and claims to apply international accounting standards in the presentation and financial reporting:-

Table 8: Analysis of the financial performance of companies

Baghdad Packaging Materials								
Financial performance indicators	2011	2012	2013	2014	2015	2016	2017	2018
ROA	0.23	0.32	0.42	0.43	0.44	0.44	0.45	0.46
ROI	0.12	0.02	0.02	0.04	0.08	0.07	0.09	0.1
EPS	0.14	0.11	0.06	0.08	0.26	0.27	0.24	0.21
Iraqi Carton Industry								
ROA	0.54	0.55	0.25	0.30	0.52	0.55	0.57	0.60
ROI	0.01	0.07	0.02	0.04	1.01	1.06	1.03	1.13
EPS	1.5	1.4	2.6	2.6	2.7	2.8	2.12	2.31
Iraqi Engineering Works								
ROA	0.04	0.09	0.09	0.1	0.03	0.05	0.06	0.07
ROI	3.01	4.01	2.1	2.4	3.04	3.02	3.01	3.04
EPS	0.01	0.07	0.09	0.03	0.08	0.08	0.09	0.01

Table (8) above shows the ratios of the financial analysis of the companies in the research sample extracted from the company's data, which will be analysed by comparing the materiality of intellectual knowledge extracted from tables (2-3-4). In order to conduct the statistical analysis, the materiality of the intellectual knowledge of the companies in the research sample and the average financial performance will be extracted and statistical analysis will be carried out according to the following table:-

Results

Table 9: Average materiality Rates of Intellectual Knowledge and Financial Performance of Companies

Averages	Baghdad Packaging Materials	Iraqi Carton Industry	Iraqi Engineering Works
The materiality of intellectual knowledge	0.068	0.0925	0.106125
	0.18	0.14	0.15
	0.047	0.052875	0.058375
Average financial performance of companies	0.39875	0.485	0.06625
	0.0675	0.54625	2.95375
	0.17125	2.25375	0.0575

Table (9) shows the materiality of intellectual knowledge as compared to total, current and capital expenditure, as well as the average financial performance of the sample companies to be used in the statistical analysis in the following table:-

Table 10: Statistical analysis between the averages of the materiality of intellectual knowledge and the financial performance of companies

details	Indicators of statistical analysis		
	Iraqi Carton Industry	Baghdad Packaging Materials	Iraqi Engineering Works
Models	6	6	6
(T)	3.325	1.877	3.964
(F)	2.716	0.687	2.080
B	0.081	1.55	0.134
Correlate	0.855	0.638	0.822
sig	0.034	0.041	0.040

Table (10) shows a strong correlation between increasing the materiality of Intellectual knowledge in the Iraqi industrial companies and the increase of their financial performance. The value of the association was (0.855), (0.630) and (0.822) for the companies in the research sample and less than (5%), (0.081) for the Iraqi Company for Engineering Works. The value of the association was (1.55) for the Baghdad Company for the manufacture of packaging materials and the amount of (0.134) Baghdad Company for cardboard materials. An increase in the Iraqi industrial companies of the relative importance of intellectual knowledge through spending and disclosure by one unit leads to increase financial performance by this amount.

Conclusion

The researcher's analysis of data from Iraqi industrial companies shows that the expenditure on intellectual knowledge is related to the materiality of knowledge and its impact on the company's activity. The materiality of intellectual knowledge reflects the development of industrial companies and their dependence on intellectual systems in building their own capacity to contribute to the achievement of excellence. The final results of this research are the following:-

- * There is a correlation between the materiality of intellectual knowledge and the financial performance of Iraqi industrial companies.
- * Disclosure and expenditure on intellectual knowledge are among the most reliable indicators of the level of the materiality of intellectual knowledge in the company.



The research also presented a proposal for Iraqi industrial companies represented:

* The need to interest Iraqi industrial companies to develop their intellectual system in the form of developing financial performance to contribute to the achievement of its future goals.



REFERENCE

- Bataineh, M. & Al Zoabi, M. (2011). The Effect of Intellectual Capital on Organizational Competitive Advantage: Jordanian Commercial Banks (Irbid District) An Empirical Study. *International Bulletin of Business Administration*, Issue 10.
- Bontis, N. (2011). Assessing Knowledge Assets: A Review of the Models Used to Measure Intellectual Capital. *International Journal of Management Reviews*. Vol., 3, Issue 1, March .
- Bukh Per Nikolaj . (2003). the relevance of intellectual capital disclosure: a pradox accounting .journal accounting, school of business, Aarhus, Denmark,.
- Ghen, Jin, Zhahuizhu & Yuanxie, . (2004). Measuring Intellectual Capital Anew Model and Empirical Study. *Journal of Intellectual Capital*, Vol 5, No3 .
- Hiras Dian Indri Purnamasari & Indri Tri Hapsari . (2012). The role of corporate Intellectual capital . *American International Journal of contemporary Research* , USA.
- Kamath , Bharathi. (2015). Impact of intellectual capital on financial performance and market Valuation of firms in India. *Research , international letters of social and Humanistic Sciences*, University of Mumbai, India.
- Marr mouritsen andbukh . (2003). perceived wisdom financial management. *Global Article of financial management*.
- Marston Claire & Omaina Hassan . (2010). Disclosure Measurement in the empirical accounting Literature-a review . Article . in *University of Brunel .school of management and languages* .
- Taliyang Ismail. (2008). Intellectual capital reporting in knowledge economy evidence from Egypt international conference on economic directions. *Research. the College of Business Administration, Kuwait University* .