



DISCLOSURES OF INTANGIBLE ASSETS AMONG THE FIRMS LISTED IN MSM

Ramesh Gengatharan 

Head of Section - Accounting & Finance, Department of Business Studies,
Ibra College of Technology, Sultanate of Oman
drrameshg@gmail.com

Alia Al-Habsi

Bachelor (Accounting & Finance) Students, Department of Business Studies,
Ibra College of Technology, Sultanate of Oman

Nasraa Al-Musalhi

Bachelor (Accounting & Finance) Students, Department of Business Studies,
Ibra College of Technology, Sultanate of Oman

Zuha Al-Musallami

Bachelor (Accounting & Finance) Students, Department of Business Studies,
Ibra College of Technology, Sultanate of Oman

Abstract

Intangible assets are the main factors that help in determining differences between value of the company according to the recording of accounting and the value of company at market value. It represents as a non-monetary asset that are identified and controlled by the entity as a result for past event. This study is conducted to examine the disclosure practice of intangible assets among the firms in MSM-30 Index. Secondary source of data was collected from the annual reports of the sample firms available in MSM websites. The disclosure of intangible assets between two periods i.e., 2018 and 2014 is analysed. ANOVA and Pearson Co-efficient of Correlation are used to study the effect of disclosure of intangible assets. SPSS statistical package version 20 is used to analyze the data. The result of the study shows that out of the 23



attributes used in this study, the compensation has the highest rate of disclosure of 93% and 98% during 2014 and 2018 respectively. The level of disclosure of intangible assets do not affected by the sector. In other words, all the three major sectors in Sultanate of Oman provide similar level of disclosure of intangible assets. The study found that there is a significant relationship between the Market Capitalization and Disclosure of Intangible Assets among the firms in Sultanate of Oman.

Keywords: Intangible Assets, Disclosure, MSM, MSM-30 Index, Oman Firms

INTRODUCTION

Financial statements are the important document for every business organization as well as investors. This helps the users to know about the operation, business performance, financial position and cash flow of the company. The financial statement is one of important tools to the company itself to evaluate its operation and performance for future expectation and on other hands it helps the external users like: investor for business decision making. It discloses the assets, liabilities and equity of the company as of the report date. Intangible assets are the one component of non-current assets. Intangible assets got popularity in the business world in the late 20th century and will pivot in the future. Intangible assets are different from physical and monetary assets. These differences are liable for the unique scope of intangible to develop wide economic value and growth. Nowadays intangible assets play an important role in economic development. It is said that the intangible assets are the main factors that helps in determining differences between value of the company as per the accounting records and the value of company at market value. According to the International Accounting Standard (IAS 38) intangible assets is “non-monetary assets and has no physical substance”. These assets are characterized that they don’t have tangible physical entity that applies to all properties. It is also defined as “a non-monetary assets and do not have material substance, it used for production of goods and services or supply of goods and services and may be identified and controlled by the entity as a result of past event” (Hammad, 2004). Accounting Standard 350 of the International Accounting Standard Codification (ASC350) defines intangible assets “as an assets other than a financial asset that lacks a material substance”. Identifiable intangible assets are those assets which can be sold individually from other assets and can be sold by enterprise, for example, intellectual property, trademarks, copyrights, patents and tradename. Unidentifiable intangible assets are those which cannot be individually sold from the business. An example of unidentifiable intangible is goodwill. Goodwill which internally generated is expensed as loss,

but goodwill which is externally generated if a business merge with other business is capitalizes as assets. According to Azhaldov and Karpova intangible assets are classified into ten categories: intangible assets related to marketing such as trademarks, trade names, logos, brand names; intangible assets associated with technology such as patents, process of technology technical documentation; intangible assets associated with creative activity such as copyrights, publishing rights, maps, prints; intangible associated processing of data such as proprietary software, computerized databases; intangible assets associated with to engineering practices such as industrial designs, diagrams, corporate records projects; intangible assets associated with customers such as customer's lists, customer contracts, relationships of customers, open purchase orders; intangible assets associated with contracts such as licensing agreements, subscription, futures contracts; intangible assets associated with human capital such as skilled labor force, contract of employment; intangible assets related to land such as lease right, water space rights; intangible assets associated with goodwill such as professional practice of goodwill, reputation of personal professional. A firms that fails to emphasis the significant of intangible assets destroy its competitive advantage they have in the market. In contrast, if an enterprise concentrates on realizing its intangible assets by patenting their commodities, improving its brand value etc., would strengthen its performance. Intangible assets and tangible assets is actually not dependent from each another.

In olden days, the firms derived competitive advantage through their machines and physical assets. Now firms derive and retain their competitive advantage from invention, technology and powerful intellectual property. All sectors specifically industrial sector benefits from their intangible assets. Today most sectors attribute around a quarter of their value to intangible asset as a percentage of market capitalization of the S&P 500. In United States the value of intangible assets has increased every 10 years. Every firm should pay attention and understand how to manage in general intangible assets especially that those assets which help to improve and create it is basic competences which will increase competitive advantage in the market. Understanding the significant and the value of intangible assets of a firms and better decision making in the proportion of intangible assets and their management will be crucial for advancement of strategic of any firms. There are a group of previous studies have included similar topics on the disclosure of intangible assets listed in our research. This indicates that the disclosure of these assets within the financial reports is very necessary for the companies because it has a great importance in helping investors and shareholders to make investment decision. In this research we pursuit to know the extent of disclosure of intangible assets in the annual report of the Omani firms listed in Muscat Securities Market.

Objective of the study

1. To study the disclosures practice of intangible assets among the firms listed in MSM.
2. To analyse the effect of sector and market capitalization on disclosures of intangible assets among the firms listed in MSM.

Scope of the study

This study covers the 30-index company listed in Muscat Securities Market. The MSM-30 index is the benchmark index in Oman. These firms were classified into three main sectors: financial, industrial and service. The information of the study will be collected from the annual report for a period of 5 years starting from 2014-2018. The 2018 is taken as the recent year wherein the audited financial reports are available. Therefore, the 2014 is taken as the base period for the analyses.

Rational of the study

The purpose of conducted this study to identify the factors that determines the disclosure of intangible assets of companies listed in Muscat Securitas Market.

Limitations

This study is purely based on the secondary data. The required data was collected from the annual report by using content analysis. If any errors found in the annual report it may affect the result of the study. This study is conducted by using the firms in MSM-30 Index only. Therefore, the result may not be applicable to all other firms in Sultanate of Oman. By considering the time limit, only two periods i.e., 2014 and 2018 have been taken. So result of the study could be generalized with much caution for any other period.

LITERATURE REVIEW

Bozzolan, S., Favotto, F. and Ricceri, F. (2003) have examined the disclosure of intellectual capital of listed Italian companies. In this study, an attempt is made to find the amount of intellectual capital, the factors that affect the disclosure of intellectual capital and determined the content and amount of information that are disclosed in the annual report. It was carried out with a sample of 201 Italian companies. They used stratified random sampling to choose the sample firms. They found that disclosure of intangible assets among the Italian companies is focused to the disclosure of external structure (distribution channels, brands, business collaboration and customers). Oliveira, L., Lima Rodrigues, L. and Craig, R., (2006) made an attempt to study the factors that affect the disclosure of intangible items in annual report of listed companies in

Portuguese. They used eight firm-specific variables (ownership, size, leverage, industry type, type of auditor, foreign activity, listing status and profitability) to study their impact on disclosure of intangible items. The evidence shows that disclosure of intangible information of structural capital and relational capital have more mean frequency of disclosures than human capital. An experimental study of “Intellectual capital disclosure and intangible value drivers” was conducted by Vergauwen P., Bollen, L. and Oirbans, E. (2007). They examined the relationship between intellectual capital disclosures and significant value of intangible assets for the company. The study was conducted with a few established hypotheses. They examined the high level of companies’ intellectual capital provide more intellectual capital disclosures and firms with high level of human capital, structural capital and relational capital in the organization have relatively more human capital disclosure, structural capital disclosure and relational capital disclosure respectively. Also they used sample focusing on three countries based on its market capitalization scale viz., Sweden, the UK and Denmark for the year 2002. They selected sample of 20 firms from each country. They found that relational capital has highest amount of disclosure with 46%, human capital represented 32% and structural capital has 22% of the total disclosures. Based on the results, they concluded that the structural capital has the positive engagement and the others category of capital have no effect on the disclosure of intellectual capital among the firms. Li, J., Pike, R. and Haniffa, R., (2008) have examined the “intellectual capital disclosure and corporate governance variables relationship in UK firms” by using sample of 100 UK firms listed in London Stock Exchange (LSE). The sample companies were selected from industry sector with high intellectual capital i.e., Telecommunications, Information Technology, Pharmaceuticals & Biotechnology, Business Support Services, Banking & Insurance, Media & Publishing, and Food Production & Beverage. The data was analyzed using Multiple regression to examine the relationship between control variables, disclosure of intellectual capital and the several corporate governance variables. They found that the absence of mandatory disclosure positively impacts on the format, volume and variety of intellectual capital disclosure.

A research was conducted by Davey, J., Schneider, L. and Davey, H (2009) among fashion firms in Europe and North America to examine range and nature of intellectual disclosure. They analyzed the extent of disclosure using 30 samples firms, 15 European firms and 15 North American firms. They found that fashion companies do not estimate the role of consumer in the value of brand, customer loyalty and customer satisfaction as intellectual capital assets. The level of disclosure of human capital by the European firms was more than the firms in North America. Kang, H.H. and Gray, S.J. (2011) conducted a study to test the voluntary disclosure exercises of top 200 emerging firms in terms of intangible assets. They

used Value Chain Scoreboard (Lev, 2001) to measure the disclosure index of intangible assets. It consists 28 section divided into three stages. They were of the opinion that the emerging-market companies disclose information related to intangible assets in their annual report. Similarly, they found that there were just three firms out of 181 companies that did not disclose information on intangible assets in their annual report. Chander S, Vishakha, M (2011) conducted a study to investigate the disclosure of intangible assets among in India firms. They used a sample of 243 firms and applied content analysis in the annual reports related to the financial years 2003-04 and 2007-08. They found that the most disclosed intangible asset was external capital which has the disclosure score of 37.90% and 35.83% in 2003-04 and 2007-08 respectively. Based on results, they concluded that the disclosures of intangible assets level among Indian firms were low. They envisaged that the absence of intangible assets reporting framework would have contributed for the low level of reporting intangible assets. A research was carried out by Singh, S. and Kansal, M. (2011) to determine intellectual capital disclosures and its differences among top 20 Indian pharmaceutical companies. They studied the effect on the formation of intellectual capital in monetary terms and examined the relationship between intellectual capital valuation and its disclosures using content analysis. Overall relationship between intellectual capital valuations and its disclosure is negative, weak and insignificant.

The disclosure of intangible asset is one of essential information that the investor needs to know. This information plays a vital role in investment decision making process and has the ability in predicting earning efficiency. Therefore, such study would be beneficial for the investor. However, there is no much studies available in the Sultanate of Oman context. With a view to address the issue, the present research is undertaken to study the disclosure of intangible assets in the Sultanate of Oman.

RESEARCH METHODOLOGY

This study is conducted to examine the disclosure practice of intangible assets among the firms listed in Muscat Security Market. Therefore, this study uses analytical type of research design. The population for the study is listed companies in MSM. However, it is practically difficult to study all the listed firms. Therefore, this study is conducted among the MSM-30 Index firms. The MSM-30 Index is the benchmark index in Oman and hence the result of the study could be generalized to the Oman firms. Secondary source of data was collected from the annual reports of the sample firms available in MSM websites. Based on the availability of time to carry out the research work, it is decided to study the disclosure of intangible assets between two periods i.e., 2018 and 2014 (excluding Phoenix Power as it was incorporated after 2014 hence, its 2015 annual report is used). The year 2018 is taken for the study as it is the recent year wherein the

audited financial reports are available. Since, it is aimed to study the effect of intangible assets disclosure between two periods, a 5-year period would provide a meaningful information. Therefore, the year 2014 is taken as the base period for the analyses.

The independent variables are size of the firms (market capitalization) and sector and the disclosures of intangible assets is the dependent variable for this study. This research adopts Sveiby's (1997) Intangible Assets disclosure index. Twenty-three attributes were used in this index to measure the level of disclosure of intangible assets. By using content analysis, each attributes were assigned scores as follows.

<i>Criteria</i>	<i>Score assigned</i>
Information in quantitative form	2
Information in qualitative form	1
No information	0

The assigned score of each attribute of intangible assets is used to calculate the weighted disclosure score. For the purpose of analysis, summary statistics like mean, medium, standard deviation are used in this research. Since the study is analytical in nature, ANOVA and Karl Pearson Co-efficient of Correlation are used to study the effect of disclosure of intangible assets. SPSS statistical package version 20 is used to analyze the data.

ANALYSIS AND DISCUSSION

The data collected from the annual reports of the sample firms were analysed using weighted score and percentage of disclosure. The disclosure of intangible assets is analysed by attribute-wise, firm-wise, level-wise, sector-wise. The influence of sector in disclosure is analysed using ANOVA and the relationship between market capitalization and disclosure was analysed using correlation co-efficient in this chapter.

Attribute-wise disclosure of intangible assets

Table 1: Disclosure Score of Sample firms in MSM during the study period

Attributes	2014		2018		Change
	Weighted Disclosure Score	% Disclosure	Weighted Disclosure Score	% Disclosure	
Human Capital					
Employees Number	30	50.00	30	50.00	0.00
Gender	2	3.33	5	8.33	5.00
Professional Quali. & Exp.	0	0.00	3	5.00	5.00
Compensation	56	93.33	59	98.33	5.00

Training and Development	28	46.67	26	43.33	-3.33
Work Related Knowledge	0	0.00	1	1.67	1.67
Entrepreneurial Spirit	0	0.00	0	0.00	0.00
Human resource acc.	0	0.00	0	0.00	0.00
External Capital					
Brands & their description	4	6.67	4	6.67	0.00
Brand valuation	0	0.00	0	0.00	0.00
Distribution channels	3	5.00	4	6.67	1.67
Market share, markets	18	30.00	11	18.33	-11.67
Business collaboration	14	23.33	12	20.00	-3.33
Customer satisfaction	2	3.33	0	0.00	-3.33
Customer information	1	1.67	6	10.00	8.33
Social Activities	30	50.00	48	80.00	30.00
Internal Capital					
Research projects	13	21.67	6	10.00	-11.67
Networking & inform. sys.	13	21.67	13	21.67	0.00
Organization Structure	2	3.33	2	3.33	0.00
Corporate culture	8	13.33	13	21.67	8.33
Patents	1	1.67	0	0.00	-1.67
Copyrights	1	1.67	0	0.00	-1.67
Trademarks	1	1.67	0	0.00	-1.67

Table 1...

Human capital

Employees are the core element of any business organization. The size of the employees is one of significant factor which signifies a prosperity of the firm. Therefore, disclosing employees number would enable the investor to take better decision. This disclosure is found to be one of the highest disclosure index among the firms in MSM-30 Index. In the year 2014, the weighted score is 30 with 50% disclosure and it remains same in the year 2018. So the disclosure level between the study period has not been changed for this attribute. The diversity at work place can improve the performance of companies, innovation and thus results in attraction to investors. The contribution of both the genders in different managerial roles leads to creativity in the work environment. The gender attribute disclosure score is 3.33% and 8.33 for 2014 and 2018 respectively among the firms in MSM-30 Index.

Professional qualification of employees and experience are the assets for the company and leads to better performance. Reporting such information in the annual reports would enable the investors to assess the quality of employees and thus they can predict the performance based on the employees contribution. It is seen from the above table that the professional qualification of the employees were not reported by the firms in MSM-30 Index. The companies reward employees by give salaries for them due to the expertise, skills and knowledge they have provided to the company. Out of the 23 attributes used in this study, the compensation has the highest rate of disclosure of 93% and 98% during 2014 and 2018 respectively. This shows that the firms in Sultanate of Oman are very keen in reporting the employees' compensation

details at their annual report. Training and development are the most important tools for employees to impart them new knowledge, skills and best solutions to deal with the dynamic work environment. Also, it increases their ability to perform their work well and help them to cope up to achieve the desired target. Disclosure regarding this attribute is 46.67% in 2014 and 43.33% in 2018. This emerged as one among the top five disclosure attributes with regard to intangible assets among the firms in Sultanate of Oman.

Work related knowledge of the employees shows their ability and knowledge. Better work knowledge results in application of creativity at workplace to enhance productivity. The disclosure of work related knowledge of employees among the firms in Sultanate of Oman is uncommon. Table-1 shows that in the year 2014 no disclosure could be found whereas in 2018 it is 1.67%. Similarly, reporting activities related to creation of Entrepreneurial Spirit among the employees is also yet to be initiated by the firms. People are valuable resources of an organization. Human resource accounting, being a new branch of accounting, communicates vital information to the present and prospective investors as it is one of the real resource for the corporate success. They can use this as one of the important information to base their investment decision. Disclosure practice of human resource accounting information is not found among the firms.

External capital

The brand of a product has the ability to influence customer purchase decision. Good brand enhances customers trust and reflect on the product quality. The disclosure of brand information in annual report among the firms in Sultanate of Oman is less. It is seen from Table-1 that the brand and their description attribute disclosure score is just 6.67% during both the study periods. Brand valuation is an attribute within the category of external capital that the company uses to provide its brand value to the shareholders. Brand valuation is not reported by the study companies in both period of study. The existence of proper distribution channels to distribute goods and services is an important strategy for any company. Efficient distribution channel facilitates the company to develop and expand its market share. Therefore, disclosure of this attribute would be an additional matter of importance to the investors. The sample firms' disclosure level with regard to distribution channel is just 5% and 6.67% in the year 2014 and 2018 respectively. The attribute market/market share information is one of the essential information which could be used to understand a firm's position in a particular industry. Disclosure related to market and market share was 30% in 2014 and 18.33% in 2018. Business collaboration is a key for business success. Synergy between firms facilitates to achieve common goals together in a faster way than achieving them alone. A significant level of

disclosure regarding the business collaboration is found among the firms i.e., 23% in the year 2014 and 20% in 2018.

Customer is the foundation for the success of any business. Knowing and reporting the customer satisfaction is the task of management. In management discussion analysis report of the study firms, customer satisfaction disclosure is seen as just 3.33% in the year 2014 whereas no information could be found in the year 2018. However, customer information attribute reporting is significantly increased from 1.67% to 10% between 2014 and 2018. Social activity of a firm shows how a firm voluntarily contributed for sustainable development as a corporate social responsibility. Disclosure of social activity is the second most disclosed attribute among all the attributes used in the study. In the year 2014, the percentage of disclosure is 50 whereas in 2018 it poised to increase 80%.

Internal capital

Research activity helps business in improving their products and services, provide information to make better business decision and helps to find the weaknesses of the competitors. Research activities is the most disclosed (21.67%) attribute among the attributes in internal capital category in 2014. The second most reported attribute in internal capital category for the year 2014 and 2018 are Networking and information systems. The disclosure score of this attribute is 21.67% during both the years. The organization structure is the backbone of the organization. It shows how the various activities in the organization are directed to different positions to achieve its goal. The organization structure attribute disclosure is not an attractive practice among the firms, it accounts 3.33% only in 2014 and 2018 as well. Corporate culture is an essential component for any business's ultimate success or failure. It also extends to how you work with customers, partners and stakeholders. Corporate culture is the second highest disclose attribute in internal capital category in 2018 with 21.67% of disclosure.

Patent is a right granted to the owner of the invention. It is to prevent others from selling, manufacturing and using that invention without obtaining a permit from the patent owner. Regarding to Oman commercial law Patent protected for 20 years from the filing date. Disclosure score of patent and copyright attributes is very less in Sultanate of Oman. It was just 1.67% in 2014 and there was no disclosure in 2018. Similarly, the same level of disclosure was found for trademark attribute. Trademark enables customers to distinguish the company's products and services from competitor's products and services, allowing the company to better market its goods and services.

Disclosure measure score by firm

Table 2: Disclosure level by number of firms (in percentage)

Attributes	2014			2018			No Disclosure Change
	No Disclosure %	Qualitative Disclosure %	Quantitative Disclosure %	No Disclosure %	Qualitative Disclosure %	Quantitative Disclosure %	
Human Capital							
Employees Number	50.00	0.00	50.00	50.00	0.00	50.00	0.00
Gender	93.33	6.67	0.00	90.00	3.33	6.67	3.33
Professional Quali.& Exp.	100.00	0.00	0.00	93.33	3.33	3.33	6.67
Compensation	6.67	0.00	93.33	0.00	3.33	96.67	6.67
Training and Development	36.67	33.33	30.00	43.33	26.67	30.00	-6.67
Work Related Knowledge	100.00	0.00	0.00	96.67	3.33	0.00	3.33
Entrepreneurial Spirit	100.00	0.00	0.00	100.00	0.00	0.00	0.00
Human resource acc.	100.00	0.00	0.00	100.00	0.00	0.00	0.00
External Capital							
Brands & their description	86.67	13.33	0.00	90.00	6.67	3.33	-3.33
Brand valuation	100.00	0.00	0.00	100.00	0.00	0.00	0.00
Distribution channels	90.00	10.00	0.00	90.00	6.67	3.33	0.00
Market share, markets	66.67	6.67	26.67	80.00	3.33	16.67	-13.33
Business collaboration	70.00	13.33	16.67	76.67	6.67	16.67	-6.67
Customer satisfaction	93.33	6.67	0.00	100.00	0.00	0.00	-6.67
Customer information	96.67	3.33	0.00	80.00	20.00	0.00	16.67
Social Activities	36.67	26.67	36.67	13.33	13.33	73.33	23.33
Internal Capital							
Research projects	73.33	10.00	16.67	86.67	6.67	6.67	-13.33
Networking & inform. sys.	70.00	16.67	13.33	60.00	36.67	3.33	10.00
Organization Structure	93.33	6.67	0.00	93.33	6.67	0.00	0.00
Corporate culture	73.33	26.67	0.00	60.00	36.67	3.33	13.33
Patents	96.67	3.33	0.00	100.00	0.00	0.00	-3.33
Copyrights	96.67	3.33	0.00	100.00	0.00	0.00	-3.33
Trademarks	96.67	3.33	0.00	100.00	0.00	0.00	-3.33

Table 2 reports the percentage of sample firms that discloses the various attributes chosen for the study. The number of firms in each category of disclosure level measures i.e., 'No Disclosure', 'Qualitative Disclosure' and 'Quantitative Disclosure' are computed and the percentage is obtained using the total sample firms for the both periods of study. In human capital category, disclosure of 'compensation' related information is found to be the highest attribute with 96.67% of firms in 2018. Half of the firms disclosed 'number of employees' quantitatively while the remaining 50% of the firms did not disclose it. 'Training and development' attribute is reported by around 30% of the firms. Reporting the gender details of

the employees among the firms in MSM-30 Index is not popular. More than 90% of the firms did not disclose the gender details of their employees. In gender-wise reporting, there is no significant difference between the two periods. Professional qualification, work related knowledge, entrepreneurial spirit and human resource accounting were not reported during both the period; except in 2018, 6.67% of firms reported professional qualification and 3.33% reported the work related knowledge of the employees in their annual report.

With regard to external capital, the disclosure of most of the attributes are very less among the firms. Disclosure of information related to social activities is the major attribute in this category. It is reported by 36.67% firms in quantitative form in 2014 and increased to 73.33% in 2018. Information concerning market share is reported by 26.67% companies in quantitative form in 2014 and 16.67% in 2018. The disclosure of all other external capital attribute is not attractive; 'no disclosure' percentage of firms in 2018 for the attribute 'brand and their description' is 90%, brand valuation is 100%, 'distribution channel' is 90%, 'business collaboration' is 76.67%, 'customer satisfaction' is 100% and 'customer information' is 80%. Significant improvement in disclosure could be seen among 'social activities' (23.33%) and 'customer information' (16.67%) attributes between 2014 and 2018.

A few firms disclose the research project attribute in their annual report in quantitative form, it accounts 16.67% in 2014 and 6.67% in 2018. Around 70% of firms did not disclose this attribute in their reports. Networking and information system is disclosed by 16.67% of companies in qualitative form in the year 2014 and increased to 36.67% of firms in 2018. Most of the firms (93.33%) did not disclose the organization structure attribute in their annual reports. Disclosure of corporate culture attribute is increased significantly from 26.67% in 2014 to 36.67% of firms in 2018 in qualitative form. Patents, copyright and trademarks are the attributes of intellectual capital. They were not disclosed by any sample firms in 2018. However, in 2014 just 3.33% of qualitative form of disclosure was seen for among these attributes.

Disclosure of intangible assets by firm

Table 3: Disclosure of Intangible Assets by Company

Name of the Company	2014		2018	
	Disclosure %	Rank	Disclosure %	Rank
Sohar International Bank	65.22	1	47.83	7
Oman Investment And Finance	56.52	2	17.39	28
Hsbc Bank Oman	52.17	3	34.78	12
Oman Telecommunication	52.17	3	39.13	9
Bank Dhofar	47.83	5	39.13	9

Bank Muscat	47.83	5	60.87	2	Table 3...
National Bank Of Oman	47.83	5	52.17	5	
Alizz Islamic Bank	43.48	8	34.78	12	
Sembcorp Salalah	43.48	8	26.09	19	
Raysut Cement	39.13	10	52.17	5	
Oman Cement	39.13	10	47.83	7	
Ooredoo	39.13	10	26.09	19	
Oman Fisheries	34.78	13	56.52	4	
Bank Nizwa	30.43	14	39.13	9	
Ahli Bank	30.43	14	34.78	12	
Al Madina Takaful	26.09	16	30.43	16	
Oman And Emirates Inv. Holding	26.09	16	26.09	19	
Al Sharqia Investment Holding	26.09	16	8.70	30	
Oman Flour Mills	26.09	16	26.09	19	
Galfar Engineering And Con.	26.09	16	26.09	19	
Al Jazeera Services	26.09	16	30.43	16	
Phoenix Power	26.09	16	30.43	16	
Shell Oman Marketing	26.09	16	65.22	1	
Gulf Invest Services Holding	21.74	24	34.78	12	
Al Anwar Holding	21.74	24	26.09	19	
Al Anwar Ceramic Tiles	21.74	24	21.74	27	
National Gas	17.39	27	26.09	19	
Al Madina Investment	8.70	28	17.39	28	
Ominvest	8.70	28	26.09	19	
Renaissance Services	8.70	28	60.87	2	

Table-3 above presents the disclosure score and rank among the firms in MSM-30 index. The firm-wise disclosure percentage was obtained using the weighted score of 23 attributes for each firms by dividing the total maximum possible weights of all the attributes (i.e., $23 \times 2 = 66$). The disclosure score in 2014 and 2018 ranges between 65.22% and 8.7%. In 2014 Sohar International Bank has occupied the first position of disclosure of intangible assets (65.22%) and lost its position to 7th rank (47.83%) in 2018. Shell Oman Marketing which was in 16th rank with 26.09% disclosure in 2014 has emerged to top position in 2018 with 65.22% of disclosure.

Oman Investment and Finance company which scored 2nd rank in 2014 with 56.52% of disclosure, has lost it position and obtained 28th rank in 2018 with just 17.39% of disclosure. HSBC Bank Oman and Oman Telecommunication were ranked as 3rd with the disclosure percentage of 52.17% each. However, in 2018, HSBC Bank ranked as 12th while Oman Telecommunication ranked as 9th firm in intangible assets disclosure.

Bank Dhofar, Bank Muscat and National Bank of Oman (NOB) ranked 5th in 2014. Bank Muscat has shown improvement in its intangible assets disclosure during the study period. It secured 2nd ranking in the year 2018 with the disclosure of 60.87%. NBO retained its position in 2018 while Bank Dhofar lost its rank to 9th position. The percentage of disclosure of all other firms' is less than 43.48%. Al Madina Investment and Omaninvest were ranked 28th in 2014 with 8.70% disclosure. Both the firms shown little improvement in 2018 in terms of percentage of disclosure. Renaissance services was in 28th rank in 2014 and shown tremendous improvement in disclosure of intangible assets with 60.87% to reach 2nd rank in 2018.

Table 4: Classification of companies by level of disclosure

Level of Disclosure	No. of Companies	
	2014	2018
Low level (<30%)	15	12
Moderate level (30% to 60%)	14	15
High level (>60%)	1	3

Based on the previous discussion, an attempt is made to analyze the range of disclosure and its progress during the study period. Three levels of disclosure i.e., low, moderate and high were categorized using the disclosure score obtained by the firms. Table-4 shows that, out of 30 firms, only 1 firm were in the high level disclosure category with more than 60% disclosure in 2014 while 3 firms belong this category in 2018. Similarly, the moderate level of disclosure had 14 firms and 15 firm in 2014 and 2018 respectively. There is a decrease in the number of firms (15 to 12) that belong to low level of disclosure category. It clearly shows that the level of disclosure of various attributes in intangible assets among the firms in Sultanate of Oman is increased over the study period.

Influence of Sector on Disclosure of Intangible Assets

In MSM, the firms are classified into three major sector i.e., Financial Sector, Industrial Sector and services Sector. The sector-wise disclosure of intangible assets and disclosure rank is given below.

Table 5: Disclosure of Intangible Assets by Sector

Sector	No.	Total % of Disclosure		Average % of Disclosure		Rank	
		2014	2018	2014	2018	2014	2018
Financial Sector	15	504.35	513.04	33.62	34.20	1	3
Industrial Sector	6	186.96	230.43	31.16	38.41	3	1
Services Sector	9	295.65	321.74	32.85	35.75	2	2

Table-5 reveals that the average percentage of disclosure among the firms in financial sector in 2014 and 2018 is almost same whereas greater changes could be seen with industrial sector disclosure (increased from 31.16% to 38.41%). A significant level of increase in disclosure is found with services sector i.e., increased from 35.75% to 32.85%. Services sector holds 2nd position during both the period of study whereas financial sector and industrial sector interchanged their 2014 rank of 1 and 3 in 2018.

Hypothesis Testing

To study the influence of sector on the level of disclosure of intangible assets, ANOVA is performed in SPSS v.20. This test is used to analyse the differences between the group means.

H₀: There is no significance difference in the mean score of disclosure of intangible assets among the various sectors.

Table 6: Descriptives

		N	Mean	Std. Dev	Std. Error	95% Confidence Interval for Mean		Min	Max
						Lower Bound	Upper Bound		
2014	Industrial Sector	6	31.16	7.49	3.06	23.30	39.02	21.74	39.13
	Financial Sector	15	33.62	16.39	4.23	24.55	42.70	8.70	65.22
	Services Sector	9	32.85	15.99	5.33	20.56	45.14	8.70	56.52
	Total	30	32.90	14.52	2.65	27.48	38.32	8.70	65.22
2018	Industrial Sector	6	38.41	15.41	6.29	22.23	54.58	21.74	56.52
	Financial Sector	15	34.20	13.13	3.39	26.93	41.47	8.70	60.87
	Services Sector	9	35.75	16.52	5.51	23.05	48.45	17.39	65.22
	Total	30	35.51	14.22	2.60	30.20	40.82	8.70	65.22

Table 7: ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
2014	Between Groups	26.064	2	13.032	.058	.944
	Within Groups	6085.976	27	225.407		
	Total	6112.041	29			
2018	Between Groups	76.494	2	38.247	.178	.838
	Within Groups	5786.358	27	214.310		
	Total	5862.852	29			

Table-6 reports the descriptive statistics while the table-7 shows the result of ANOVA. The significance value is more than .05 level (2014: $p = .944$ & 2018 $p = .838$). Therefore, the null hypothesis is not rejected. Hence, it is concluded that the level of disclosure of intangible assets

is not affected by the sector. In other words, all the three major sectors in Sultanate of Oman provide similar level of disclosure of intangible assets.

Relationship between Market Capitalization and Disclosure of Intangible Assets

It is presumed that the size of the (for example large, medium and small) might determine the level of disclosure of intangible assets. Market capitalization was taken as the measure to firm size. The market capitalization of each firm was converted in natural logarithm value. To study the level of relationship between market capitalization measure of the firm and the percentage of disclosure of intangible assets by the firm, correlation analysis was used.

H₀: There is no relationship between the Market Capitalization and Disclosure of Intangible Assets

Table 8: Correlations

		MCapital_LN
2018	Pearson Correlation	.464**
	Sig. (2-tailed)	.010
	N	30
2014	Pearson Correlation	.477**
	Sig. (2-tailed)	.008
	N	30

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

It is evident from the above table that there is moderate positive correlation between Market Capitalization and Disclosure of Intangible Assets during both the period of study. In 2018, the correlation value is .464 and it is significant at .01 level whereas in 2014, it is .477 and significant at .01 level. Therefore, it is concluded that there is a significant relationship between the Market Capitalization and Disclosure of Intangible Assets among the firms in Sultanate of Oman.

CONCLUSION

The study of disclosure of intangible assets among the firms in MSM-30 Index shows that there is an increasing trend on the level of disclosure of various attributes of intangible assets. The result of the study shows that sector do not influences the level of disclosure of intangible assets among the firms in Sultanate of Oman. The research concludes that there exists a moderate positive relationship between market capitalization and level of disclosure of intangible assets in Sultanate of Oman. The study reveals that still the disclosure of intangible assets in Sultanate of Oman is in nascent stage. Since the level of disclosure among most of the firms are less,

appropriate awareness on the benefit of disclosing such assets should be created to the firms. The result of this study could be used by the market regulator in the country. The regulator may encourage the reporting of intangible assets among the listed firms.

SCOPE FOR FURTHER STUDIES

The further study can be conducted in the following areas.

1. All the listed firms in Muscat Securities Market may be used to study the disclosure of intangible assets.
2. Other independent variables like profitability, ownership pattern, audit firms also could be used to measure their influence on the disclosure of intangible assets.
3. A comparative study of MSM firms with other GCC market may be carried out.
4. The period of study may be modified with longer gap i.e., more than five years.

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