

RELEVANCE OF INTANGIBLE ASSETS: AN OPINION OF INDIAN PRACTITIONERS

Sarishma Sharma*, Khushdeep Dharni**

Abstract *Intangible assets are identifiable non-monetary asset without physical substance. The intangible assets are non-physical sources of value generated by innovation (discovery), unique organisational designs, or human resource practices. This paper examines the importance assigned to intangible assets, dimensions related to measurement and reporting of intangible assets and relationship between orientation towards intangible assets and selected variables. The data was collected using a structured questionnaire from 164 practitioners. It was found that intangible assets which are covered under Intellectual Property Law are accorded more important than other intangible assets. Major issues pertaining to intangible assets, in Indian context, were identified using factor analysis. Value relevance of intangible assets and management of intangibles assets were identified as the major issues. Cluster analysis was used to categorize respondents on basis of their orientation towards intangible assets. The results of correlation analysis show that there exist a positive relationship between management of intangible assets and importance assigned to intangible assets covered under intellectual property rights.*

Keywords: *Intangible Assets, Knowledge Assets, Intellectual Property Rights, Practitioners*

INTRODUCTION

The concept of knowledge economy gave rise to the concept of knowledge assets which are also known as intangible assets or intellectual assets. These have become the major drivers of the performance of an organisation. The word 'Knowledge Assets' is used by the economists and 'Intellectual Capital' is used in the management and law literature. The term 'Intangible Assets' is used in accounting and finance. Intellectual capital has often been described as the difference between what a firm's market value is and the cost of replacing its assets. Intangible assets may also be referred as immaterial assets which arise from research and development activities, advertising and branding activities and information technology. It has been stated that intangible assets does not create value for the organisation alone. Intangible assets when combined with the tangible assets can prove to more influential in creating value for the organisation. A firm may utilize both tangible and intangible assets in creating value for its stakeholders. Considering the increasing importance of intangible assets in creating value for an organisation there is a need to measure these assets. The need of measurement gives rise to the need of management of intangible assets. Thus, organisations are focusing more on the measurement and reporting of intangible assets.

REVIEW OF LITERATURE & BACKGROUND OF THE STUDY

Globally, we are witnessing transition of the economies from being capital intensive to knowledge intensive. This has resulted a shift in organisational focus from 'tangibles' to 'intangibles'. Alternative methods have been evolved for measuring the intangible assets. It is pertinent to mention that accurate measurement is pre-requisite for effective management. Currently major portion of the value of the firm is derived from intangible assets. Need for dynamic management at firm level in wake of changing nature of the global economy has been vehemently advocated in literature. (Eisenhardt & Martin, 2000; Henri, 2006; Teece, 1998; Witcher & Chau, 2007). Effective management of leads to sustainable competitive advantage arising from alignment of intangibles with an integrated business strategy (Brown, Trevino, & Harrison, 2005; Leitner & Warden, 2004). Management of intangibles is considered as key to improve the performance of the organisation (Wu, Lin, & Hsu, 2007). Not much literature is available related to the management of intangible assets at firm level.

The measurement and reporting of Intangible Assets can be related to the qualitative and the quantitative dimension. Intangible assets have received increasing recognition as

* Assistant Professor, Khalsa College for Women, Civil Lines, Ludhiana, Punjab, India. Email: sarishma_kaushik@yahoo.co.in

** Associate Professor, School of Business Studies, Punjab Agricultural University, Ludhiana, Punjab, India.

sources of the economic value of individual firms (Lev, 2001; Brynjolfsson, Hitt, & Yang, 2002; Hulten & Hao, 2008) and as sources of countries' economic growth (Buiges, Jacquemin, & Marchipont, 2000; Corrado, Haltiwanger, & Sichel, 2005; Corrado, Hulten, & Sichel, 2009; Fukao, Miyagawa, Mukai, & Shinoda, 2009; Marrano, Haskel, & Wallis, 2009). Previous studies have concentrated more on studies related to the quantitative dimension of intangible assets. The research related to the primary data lacks evidence in their support. This research paper focuses on the primary data aspect of intangible assets. The study conducted is related to the opinion of practitioners with respect to measurement and reporting of intangible assets in Indian context. The practitioners are well versed with the policies, procedures, and disclosures and reporting of information in the financial reports of the organisations. Studying the opinion of the practitioners will help in providing a deeper insight into the realm of intangibles. It is important to identify vital issues and explore the opinion of managers (key stakeholders in the process of measuring, reporting and managing intangibles

The practitioners which have been considered for the purpose of the study includes Cost and Works Accountants, Chartered Accountants, Company Secretaries, and other practitioners involved in the operations of an organisation having knowledge about Intangible assets and their measurement and reporting. These have been considered for the purpose of the study because it is assumed that they are well versed with the subject of intangible assets and its measurement and reporting.

This study contributes to the existing literature as very limited research has been done on studying the opinion of practitioners with respect to measurement and reporting of intangible assets in Indian context.

RESEARCH METHODOLOGY

The research design is exploratory in nature. A structured questionnaire was prepared for the purpose of data collection. Major issues of inquiry included in the questionnaire were, importance assigned to intangible assets, acquisition and management of intangible assets, and issues related to reporting of intangible assets. For capturing the opinion of practitioners numbers of statements were prepared and summary of these statements is presented in Annexure 1. These statements were adapted from Barth et al. (2002), Marr et al. (2002), Doukas and Padmanabhan (2002), Lev and Zambon (2003), and Roslender and Finchman (2004) and few other statements were developed by the researcher. Respondents were asked to give responses on a seven point Likert scale, with '7' representing 'Strongly Agree'/'Most Important' and '1' representing 'Strongly Disagree'/'Least Important's. For the purpose of the study, the practitioners

included the experts who are well versed with the preparation of annual reports such as Chartered Accountants, Cost and Works Accountants, Chartered Financial Analysts, Companies Secretaries, Chief Financial Officers etc. The questionnaires were electronically mailed to around 550 practitioners. Responses were received from 164 practitioners. Thus the response rate was about thirty percent. These responses were further used for analysis purpose. The data has been analysed using various statistical tools such as descriptive statistics, correlation analysis, factor analysis and cluster analysis.

FINDINGS

The data collected using a pre-structured questionnaire was analysed using different statistical techniques. Out of 164 practitioners, 29% were Chartered Accountants, 23% were Company Secretaries, 32% were Cost and Work accountants and others were Chartered Financial Analysts, MBAs, Doctorates in Finance and other allied areas. The average work experience of the respondents was 19 years with standard deviation of 9.58. Major findings of the study are described in the following section.

DATA REDUCTION RELATED TO IMPORTANCE ASSIGNED TO INTANGIBLE ASSETS

Factor analysis was used for finding out the principal dimensions based on importance assigned to intangible assets. Respondents were asked to rate various intangible assets on a scale of 1–7, with 7 representing 'Most Important' and 1 representing 'Least Important'. Mean values and standard deviation for underlying dataset used for the purpose are presented as Annexure I. Results suggest that the importance assigned to intangible assets for financial reporting was the highest for trademarks with mean value of 5.51 followed by goodwill having mean value of 5.35 and patents having mean value of 5.43. The importance assigned to intangible assets for financial reporting was the least in case of design of integrated circuits having mean value of 4.59.

Kaiser-Meyer-Olkin Measure of Sampling Adequacy came out to be 0.828. KMO value more than 0.5 is an indication of adequate sample size (Field, 2003). Value of chi-square for Bartlett's test of sphericity came out to be 944.609. This value was found to be significant ($P < 0.0001$) with 55⁰ of freedom. Value of KMO and results of Bartlett's test of sphericity indicated factor analysis could be performed on the given data set. Varimax rotation with Kaiser normalization was used for extracting factors.

Table 1: Factors for Importance Assigned to Intangible Assets

Factor	Eigen Value	% of variance	Items	Item loading
Intangible Assets Covered Under IP Law (F1)	5.040	45.822	Copyrights	0.885
			Patents	0.872
			Trademarks	0.771
Other Intangible Assets (F2)	1.720	15.640	Customer Relationship	0.865
			Supplier Relationship	0.820
			Human Capital	0.808
			Brand Equity	0.713
			Industrial Designs	0.683
			Goodwill	0.613
			Design of Integrated Circuits	0.587

Two factors (F1, F2) were obtained from principal component analysis. Eigen values and Factor loadings have been presented in Table 1. These two factors were able to explain 61.462% variance in the data set. Factor definitions of the extracted factors have been provided as follows:

Intangible Assets Covered Under IP Law: This factor includes the intangibles such as patents, copyrights, and trademarks. These intangibles are strongly protected under IP law in India.

Other Intangible Assets: This factor includes the importance assigned to other intangible assets such as brand equity, goodwill, customer and supplier relationship, human capital, industrial designs and design of integrated circuits. These intangibles are either not covered under IP law or are relatively weakly protected.

DIMENSIONS RELATED TO INTANGIBLE ASSETS MANAGEMENT ISSUES

Factor analysis was used for finding out the principal dimensions of intangible asset issues in Indian context. Respondents were asked to rate the statements (Annexure-II) concerning the measurement and reporting issues related to intangibles Indian corporate sector on a scale of 1–7, with 7 representing ‘Strongly Agree’ and 1 representing ‘Strongly Disagree’. Mean and standard deviation of underlying variables are presented as Annexure-II. The Kaiser-Meyer-Olkin Measure of Sampling Adequacy came out to be 0.672. KMO value more than 0.5 is an indication of adequate sample size. Value of chi-square for Bartlett’s test of sphericity came out to be 179.434. This value was found to be significant ($P < 0.0001$) with 15^0 of freedom. Value of KMO and results of Bartlett’s test of sphericity indicated factor analysis could be performed on the given data set.

Two factors (F3, F4) were obtained from principal component analysis. Factor loadings and means have been presented in Table 2. These two factors were able to explain 59.836% variance in the data set. Factor definitions of the extracted factors have been provided as follows:

Value Relevance of Intangible Assets: This factor includes increased concentration on creation of intangible assets, translation of intangible assets into market value, and commercialisation of intangible assets.

Management of Intangible Assets: This factor includes the measurement and management of intangible assets for long term value creation, acquisition of intangible assets from outside sources, and measurement and management of only those intangible assets that are acquired through mergers and acquisitions.

Table 2: Factors for Intangible Assets Related Issues

Factor	Eigen Value	% of variance	Items	Item loading
Value Relevance of Intangible Assets (F3)	2.253	37.549	IA2	0.869
			IA4	0.835
			IA5	0.703
Management of Intangible Assets (F4)	1.337	22.287	IA1	0.778
			IA3	0.635
			IA6	0.614

RELATIONSHIP BETWEEN IMPORTANCE ASSIGNED TO INTANGIBLE ASSETS AND SELECTED VARIABLES

Orientation towards intangible assets is the sum total of importance assigned to various intangible assets by respondents. It has been assumed that a respondent

assigning higher importance to intangible assets is having higher orientation towards intangible assets. We employed cluster analysis for dividing the respondents on the basis of orientation towards intangible assets. Hierarchical clustering was undertaken, using Ward's method, to determine appropriate number of clusters. Agglomeration schedule suggested formation of three clusters. Cluster analysis was done using K-means clustering to obtain cluster centroids and membership. On basis of results respondents were divided into three groups: High Orientation (HO), Medium Orientation (MO), and Low Orientation (LO). Cluster characteristics (mean, number of participants) are depicted as follows: ($\mu_{HO} = 67$, $n_{HO} = 61$), ($\mu_{MO} = 52$, $n_{MO} = 83$), ($\mu_{LO} = 31$, $n_{LO} = 20$). Majority of respondents were having medium orientation towards intangible assets. Further, cluster frequency of high orientation group outnumbered cluster frequency of low orientation group. Outcomes of cluster analysis and factor analysis have been combined to probe the relationships between various dimensions of interest.

Various dimensions related to importance assigned to intangible assets and intangible assets scenario in Indian context as well as factor scores obtained from factor analysis were compared across different clusters.

One-way ANOVA was used to test variations across different clusters on basis of two factors (F1, F2) extracted using factor analysis in case of importance assigned to intangible assets and Intangible assets issues (F3, F4) in Indian context. In case of importance assigned to intangible assets which are covered under intellectual property rights (F1) group means for high, medium and low orientation were significantly different ($H = .828$, $M = -.226$, $L = -1.588$) with F-value of 116.980 ($p < .001$). Means for importance assigned to intangible assets which are not covered under intellectual property rights (F2) was also found to be significantly different ($H = .489$, $M = -.099$, $L = -1.082$) with F-value of 25.117 ($p < .001$). For value relevance of intangible assets (F3), no significant difference was found across means of different clusters ($H = 0.385$, $M = 0.077$, $L = -0.437$) with F-value of 2.242 ($p = 0.11$). Group means for management of intangible assets (F4) was also found to be significantly different ($H = .371$, $M = -.165$, $L = .447$) with F-value of 7.983 ($p = .001$).

Correlation analysis was used to find whether there exist any relationship between the importance of Intangible Assets, importance of modern and traditional Intangible Assets, total work experience of practitioners, total awareness among the practitioners and factor scores of extracted factors. It was found that there is a significant positive correlation ($r = 0.199$, $p = .011$) between management of intangible assets (F3) and importance assigned to the intangible assets that are covered under intellectual property rights (F1).

DISCUSSION

The importance of intangible assets is on a rise especially the intangible assets that are covered under Intellectual Property Law as compared to the intangible assets which are not covered under intellectual property rights. The results of the current study also support the same. Importance assigned to trademarks, patents, goodwill and copyrights was higher than other intangible assets which are not covered under IP law.

The results of factor analysis depicted that the two dimensions on which the importance of intangible assets can be classified are intangible assets that are covered under intellectual property rights and other intangible assets which are not covered under intellectual property rights. Research has supported the fact that intangible assets covered under intellectual property rights have been assigned more importance than other intangible assets.

The factors extracted using the factor analysis signifies the principal dimensions in context of intangible asset issues in Indian context are value relevance of intangible assets and management of intangible assets. It has also been observed that the intangible assets that are value relevant for the organisations because it has an impact on the relationships with investors (Barth, Kasznik, & Nicholas, 2001; Gelb, 2002; Wyatt & Abernethy, 2008). Intangible assets also help in increasing the earnings of the organisations (Roulbtone, 2011; Ling, 2013; Doukas & Padmanabhan, 2002; Carmeli & Azeroual, 2009; Su & Well, 2014; Ritter & Wells, 2006; Barth & Kasznik, 1999). Apart from the benefits of intangible assets there are certain problems with intangible assets such as there are no standard methods available for its measurement, lack of reporting practices and lack of statutory disclosure practices with respect to reporting of intangible assets.

The results of cluster analysis depicted that majority of the respondents were having medium orientation towards intangible assets and cluster frequency of high orientation group outnumbered cluster frequency of low orientation group. The results of the comparison based on the cluster memberships depicted that the importance assigned to intangible assets which are covered under intellectual property rights differed significantly across high, medium and low orientation towards intangible assets.

The results of one way ANOVA show that group means for high, medium and low orientation towards intangible assets differed significantly in case of importance assigned to intangible assets which are covered under IP law, other intangible assets not covered under IP law and management of intangible assets. The results of correlation analysis

indicate that there is a significant positive relationship between management of intangible assets and the importance assigned to intangible assets which are covered under intellectual property rights which means that there is a tendency to manage those intangible assets which are assigned higher importance.

There are certain limitations to the study. The sample size of the study is relatively small. The research can be conducted by including larger sample size. Research can be conducted in the field of management of intangible assets, the persons responsible for management of intangible assets and the effectiveness of the management of intangible assets for the organisations.

CONCLUSION

It can be concluded from the research that trademark, copyrights and goodwill are considered more important among the practitioners than other intangible assets. For the purpose of management, the practitioners in India tend to classify intangible assets based on extent of legal protection. The result of the analysis also shows that there is a positive relationship between the dimension of management of intangible assets and the importance assigned to intangible assets which are covered under IP Law. Major dimensions in context of intangible issues in context of India are value relevance of intangible assets and management of intangible assets. With the growth of knowledge economy, intangibles are expected to assume greater importance in future.

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ANNEXURE I

Importance of Intangible Assets for financial reporting

	Mean	Std. Deviation
Trademarks	5.51	1.50
Patents	5.43	1.71
Goodwill	5.35	1.70
Copyrights	5.33	1.58
Human Capital	4.98	1.74
Customer Relationship	4.96	1.83
Brand Equity	4.95	1.68
Industrial Designs	4.92	1.66
Franchises and Agreements	4.70	1.58
Supplier Relationship	4.66	1.71
Design of Integrated Circuits	4.59	1.69

ANNEXURE II

Statements for Identifying Intangible Asset Issues

Item Code	Statements	Mean	Std. Deviation
IA1	In Indian context, only intangibles those are important for long term value creation are measured and managed.	4.56	1.731
IA2	Indian corporates have started concentrating more on creation of intangible assets.	4.45	1.389
IA3	Indian corporate emphasizes acquisition of intangibles from outside sources rather than from in-house activities.	4.60	1.649
IA4	Indian corporates have been successful in translating intangibles into market value.	4.08	1.535
IA5	Indian corporates are able to effectively commercialize intangible assets.	3.91	1.599
IA6	Indian corporate report and manage primarily those intangible assets that are acquired through mergers and acquisitions.	5.15	1.398