Dr. Surinder Kaur
Associate Professor, Acharya
Narendra Dev College,
University of Delhi, New
Delhi, India

The impact of human resource information on managerial decisions

Dr. Surinder Kaur

Abstract
The need to meet the increasing business opportunities of future, and simultaneously maintain or improve upon the current level of performance, has made companies to look consciously into the human resources (HR) as the future leverage for success. There is enough empirical evidence to show that HR related disclosures help management in making better HR related decisions, thereby improving company's performance. The objective of the present study is find out present-day practices relating to the effect of HR information on managerial decisions and relevant HR information used by managers while making decisions through a survey questionnaire. The data is collected from managers working at diverse levels in the listed companies.
The outcome of the study reveals that influence of HR information on managerial decisions is moderate
The result of analysis established that managers' decision to use HR information in their managerial decisions is affected by their educational qualification, department, level of management and the experience. The managers consider performance indicators (profit/ sales per employee), average employee demographics (age/ experience/ education qualification), employee strength, and attrition/turnover rate to be utmost important while taking decisions in comparison to any other information. The findings can be used by accounting bodies and company regulators while deciding about standards about HR disclosures.
However, present study represents generalized work regarding the impact of HR data in managerial decisions. In future, work can be undertaken to examine important HR variables for different decisions by managers in different departments.

Keywords: HR disclosures, management decisions, HR indicators, financial performance

1. Introduction

Traditionally capital (money) and natural resources are assumed as the main factors of production leading a business to the path of growth and prosperity. These are shown as important assets in its balance sheet and labour is not given much significance, rather amount spent on them is written off as expenditure. However with the emergence of knowledge economy, focus has been shifted to labour now reincarnated as human resources or human capital. The management world has woken up to the powers of human workforce. In fact human resources represent the only active agents among all resources who amass capital, use natural resources, establish social and economic organisations and carry forward the task of development of companies, industries and economy. The human resources are the most strategic and critical factors among all key resource factors. Hence today's management is confronted with the important task of building up of human resources. Human resources represent the vigour, abilities, expertise and wisdom of people which are or can potentially be applied for making of goods or rendering of services in a company. In many research studies it has been pointed out that HRA can potentially be used as a managerial tool to help in making such decisions that will assist in achieving the long term strategic goals and profitability of the company. Various researchers like Moore (2007) [13], Johanson and Mabon (1998) [14], and Sharma, A. (2012) [21] have suggested that availability of information about various aspects of human resources allows management to draw plans for long term business strategy and improving company's performance. Therefore, present study is aimed at finding out

1. Current practices relating to utilisation and effect of HR information on managerial decisions
2. Relevant HR information used by managers while making decisions.

Corresponding Author:
Dr. Surinder Kaur
Associate Professor, Acharya
Narendra Dev College,
University of Delhi, New
Delhi, India

2. Literature Review

Many studies indicate that management of human resources and its reporting is positively associated with improved performance and worth of companies (Edvinsson and Sullivon, (1996) [15], Bontis, (2003) [16] and Anam *et al.*, (2011) [22]. Garcia-Ayuso *et al.*, (2007) established that investors perceive companies with higher quality human resources to show higher future earnings and growth. Huang *et al.*, (2008) [17] in his study of investors' perceptions reiterated investors predominantly institutional investors like fund managers, investment banks and financial analysts look out for information about a company's management team and employees but such disclosures are not quantifiable and are inconsistent and subjective leading them to rely on alternative sources, costly sources to get the desired information. Consequently, human resource disclosures play a crucial role in helping users comprehend a company's competitive advantage. Skoog (2003) found that profit in the long run are positively correlated with stated human resources. In this current study, the aim is to investigate the utilization and impact of HR-related information on managerial decisions, focusing on identifying key HR indicators utilized by managers during decision-making processes.

3. Research methodology

The research will be using primary data obtained through survey questionnaire.

3.1 Questionnaire Design

Survey questionnaire has two parts.

Part 1: To examine the current scenario regarding the usage of HR related information by the managers in their managerial decisions, managers have been asked to tick their status with regard to the usage of this information in their managerial decisions and its impact out of the given options:

- Always - To a great extent
- Sometimes- Moderate extent
- Sometimes- Minor influence
- Rarely- No Influence
- Never- No influence

In addition, managers' perceptions regarding importance of HR information for making managerial decisions internally is studied on 5 point Likert's scale. Points considered in this category are

1. Having adequate information about HR value (measured value) provide better input for strategic business decisions such as diversification, acquisition, mergers etc.

2. Company's investment in adding value to HR would be reflected in its financial statements.
3. Estimating the value of current HR allows the company to draw plans for long term business str
4. HR Valuation helps to identify real cause of any low ROI (such as underutilisation of HR).
5. Monetary valuation instead of philosophical approach towards HR management will show improved results for the company.
6. Systems to valuate HR regularly enables management to take well informed decisions thereby improving efficiency.

Part 2: This part of questionnaire is designed to identify significant HR indicators used by managers in decision making. Based on the studies done in this respect like Petterson and Rylme, (2003) [23]; Verma and Dewe (2008) [18]; Alam and Deb, (2010) [19]; and Ragini (2012) [20] fourteen topmost indicators have been included namely Training cost, employee Turnover rate, Employee Cost, Management: Staff Ratio, Absenteeism Rate, Overtime Cost, Employee Welfare costs, ESOP/ EVA, Bonus, Intellectual capital, Average Age/ Experience, Per capita productivity, Revenue/ output per employee, Cost per hire. Respondents are asked to specify use of these in their decisions.

Besides this, variables relating to managers' age, education, gender, department, level of management, work experience in total and in present company and industry affiliation has also been asked.

3.2 Sample Selection, Data Collection and Tools of Analysis

Sample consists of managers of the listed companies of major stock exchanges of India. Gathered data has been examined using mean, standard deviation, and frequencies. The analysis of current practices of the managers regarding use of available human resources related information has been done using descriptive methods, correlation and regression analysis to arrive at meaningful conclusions.

4. Analysis and Findings

In all 500 copies were distributed, of which 272 were returned. Of these 27 responses were rejected due to insufficient information supplied. Thus 245 responses were complete.

4.1 Respondent Analysis

The summary of data relating to background variables is presented in the following table 1.

Table 1: Respondents Analysis

Variables	Frequency	%age
Age		
21-30	91	37.1
31-40	91	37.1
41-50	55	22.4
51+	8	3.3
Gender		
Female	54	22
Male	191	78
Educational Qualification		
Graduate	108	44.1
Post Graduate	75	30.6
Professional	62	25.3

Department		
General Manager	133	54.3
Accounting and Finance Manager	34	13.9
Human Resource Manager	51	20.8
Marketing Manager	27	11.0
Level of Management		
Senior Level Manager	29	11.8
Middle Level Manager	118	48.2
Lower Level Manager	98	40
Total Work Experience		
Below 5 years	60	24.5
5-10 years	64	26.1
Above 10 years	121	49.4
Work Experience in Present Company		
Below 5 years	84	34.3
5-10 years	74	30.2
Above 10 years	87	35.5
Industry Classification		
Non service	138	56.3
Service	107	43.7
Total	245	100

Results disclose that large numbers of participants are from younger age group. Majority of respondents (78%) are male. Majority of respondents (44.1%) are graduates whereas 30.6% are post graduates or above. Majority of managers surveyed are general managers. Majority of respondents (48.2%) are middle level managers. It reveals that 43.7% of the managers are from service sector companies and remaining 56.3% are from non-service sector.

4.2 Utilisation of HR related indicators in managerial Decisions
The study (Table 2) reveals the influence of human resources information on managerial decisions to be moderate to minor. Majority of respondents (31.4%) revealed the influence of information about human resources on the managerial decisions to be moderate. 8.2% of the managers stated that their choices are consistently influenced by the accessible information on human resources. However 34.7% respondents revealed that human resources information rarely/ never influences their decisions.

Table 2: Effect of Human Resources Information on Managerial Decisions

Effect of human resources information	Frequency	%age	Cum. %age
Always- To a great extent	20	8.2	8.2
Sometimes- Moderate extent	77	31.4	39.6
Sometimes- Minor influence	64	26.1	65.7
Rarely- No influence	45	18.4	84.1
Never- No influence	39	15.9	100.0
Total	245	100.0	

4.2.1 Managements perception regarding importance of HR Information in Internal Management
The survey (Table 3) shows that most of the managers (72.65% of the managers surveyed) think that HR disclosures will certainly help in improving the management of the affairs of the company. According to their survey, the topmost reason is that having adequate information about HR value (measured value) provides better input for strategic business decisions such as diversification, acquisition, mergers etc. It becomes easier to draw objective plans for the long run of the company as the managers know the strength and weaknesses of their important business resource that is human resources. Thus estimating the value of current HR allows the company to draw plans for long term business strategy as agreed by 62.72% of the managers surveyed. Most of the managers (53.67%) agreed that company's investment in adding value to HR would be reflected in the financial results of the company. Not only this, HRA disclosures will help managers identify an important cause of low return on investments such as underutilization of human resources as agreed by 61.63% of the managers. The survey results also confirmed another important proposition of HRA that monetary valuation instead of philosophical approach towards HR management will lead to better results for the company as agreed by 55.10%. 64.08% of the managers also agreed that systems to valuate HR regularly will enable them to take well informed decisions thereby improving efficiency. Thus in nutshell it can be said that HRA system in the companies will result in improved performance as the managers get quantitative information about the human resources of the company. This will enable them make long term and strategic decisions of the business more effectively.

Table 3: Managements perception regarding importance of Measuring the Value of HR (in internal management)

S. No.	Statements	Mean	S.D.	Rank
1	Having adequate information about HR value (measured value) provide better input for strategic business decisions such as diversification, acquisition, mergers etc.	3.99	.958	1
2	Estimating the worth of current HR allows the company to draw plans for long term business strategy	3.86	.910	2
3	Company's investment in adding value to HR would be reflected in the financial results of the company	3.73	.966	3
4	HR Valuation helps to identify real cause of any low ROI (such as underutilisation of HR)	3.73	1.022	3
5	Monetary valuation instead of philosophical approach towards HR management will give better results for the company	3.54	1.065	5
6	Systems to valuate HR regularly enables management to take well informed decisions thereby improving efficiency	3.71	.997	4

4.2.2 Effect of Independent Variables
In order to test effect of socio demographic variables, T- Test and Analysis of Variance (ANOVA) is used. The test results are given in the following table 4.

1. Age
Results show a clear upward trend in the usage of HR information for making decision. Managers in the higher age bracket give more consideration to such information. ANOVA test results show that age of the managers significantly affect the use of human resource information in managerial decision making.

2. Gender
The test results indicate that the mean values for male and female groups are 2.99 and 2.93 respectively. The t- statistics has value 0.340. Thus, the usage of HR information in decision making by female respondent managers is not any different as compared to male respondent managers.

3. Educational Qualification
The findings reveal that managers holding post-graduate qualifications or higher prioritize human resources information, with professionals following suit. ANOVA indicates that educational qualifications significantly influence the utilization of human resources information in managerial decisions.

4. Managerial Department
The results indicate that human resource managers pay the most attention to human resources-related information when making decisions, followed by accounting and finance managers. These findings are supported by the ANOVA test results, demonstrating that the utilization of human resources information in managerial decisions is significantly influenced by the managers' departmental affiliation.

5. Level of management
Results shows that as level of managers increases, they give more consideration to the HR information. Senior level manager give maximum consideration to the human resource related information in their decision making followed by middle level managers. The survey findings assert that higher a manager on the managerial ladder, more significance he attaches to human resources information while making decisions.

6. Total Work Experience
Mean values shows that as total work experience increases, managers give more consideration to human resources information. The test results of ANOVA implies that as managers become more experienced they pay more attention to human resources information while making decisions.

7. Work Experience in Present Company
Results show that as the work experience in the company increase, managers give more consideration to the HR information. The results of ANOVA test implies that as managers with more experience in the present company pay more attention to human resources information while making decisions.

8. Industry Affiliation
The results of the analysis show that the mean value of significance given to HR information by managers is lower in service sector as compared to manufacturing sector. However, the T- test result shows that industry affiliation does not affect significantly usage of HR information in decision making.

Therefore, managers' decision to use human resources information in their managerial decisions is not affected by their gender and the industry affiliation. However it is affected by their educational qualification, department, level of management and their experience in the present company and throughout their career.

Table 4: Group Statistics

Variables	N	Mean	Std. Deviation
Age			
21-30	91	2.62	1.143
31-40	91	3.15	1.154
41-50	55	3.22	1.301
51+	8	3.38	1.188
F value 4.557* (P value 0.004)			
Gender			
Male	191	2.99	1.24
Female	54	2.93	1.113
T-test value 0.340 (P value 0.734)			
Educational Qualification			
Graduate	108	2.75	1.137
Post Graduate	75	3.27	1.178
Professional	62	3.02	1.312
F value 4.181* (P value 0.016)			
Managerial Department			
General Manager	133	2.75	1.233
Accounting and Finance Manager	34	3.21	1.122
Human Resource Manager	51	3.37	1.216
Marketing Manager	27	3.04	0.98
F value 3.907* (P value 0.009)			
Level of Management			
Senior Level Manager	29	3.86	1.026
Middle Level Manager	118	3.1	1.158
Lower Level Manager	98	2.56	1.158

F value 15.87* (P value 0.000)			
Total Work Experience			
Below 5 years	60	2.52	1.157
5-10 years	64	3.03	1.038
Above 10 years	121	3.17	1.269
F value 6.250* (P value 0.002)			
Work Experience in Present Company			
Below 5 years	84	2.57	1.195
5-10 years	74	3.05	1.071
Above 10 years	87	3.3	1.24
F value 8.415* (P value 0.000)			
Industry Affiliation			
Non-Service	138	3.07	1.182
Service	107	2.85	1.242
T-test value 1.426 (P value 0.155)			
Total	245	2.98	1.211

4.2.3 Correlation Analysis

Significance of this relationship has been examined through. correlation analysis. The correlation test results are given in the following table 5. Results shows that the consideration given by the managers to human resources information is highly correlated with age, department, level of management, work experience in total and in present company. The correlation is significant at 0.01 level of significance. Thus the correlation analysis confirm the findings of ANOVA.

Table 5: Correlations (Pearson R)

Variables	HR Consideration
Age	.209**
Gender	0.022
Education Qualification	0.112
Department	.166**
Level of Management	.338**
Total Work Experience	.211**
Work Experience in the Present Company	.251**
Industry Affiliation	0.091

** and * implies Correlation is significant at 0.01 and 0.05 level respectively.

4.2.4 Regression Analysis

Table 6 shows the results of the regression analysis. The correlation of industry affiliation and department with the usage of HR information is positively significant at 10% and with work experience in present company at 5% whereas level of management at 1%. However gender, age, education and work experience in total have been found to be insignificant.

The value of R^2 is 0.158. Thus, 15.8 % variation in managers' responses is explained by independent variables implying the model is not very effective. Thus level of management, work experience in the present company, department and industry affiliation are important variables that explain the mangers' behaviour relating to utilisation of human resources information in managerial decisions.

Table 6: Ordinary Linear Regression Results taking all independent variables

Predictors	B	t	Sig.
(Constant)	1.775	5.125	0.000
Age	0.007	0.054	0.957
Gender	0.053	0.29	0.772
Education Qualification	0.019	0.183	0.855
Department	0.124	1.786***	0.075
Level of Management	0.563	4.077*	0.000
Total Work Experience	0.254	1.436	0.152
Work Experience in the Present Company	0.343	2.355**	0.019
Industry affiliation	0.238	1.620***	0.100

R Square 0.158
F value 5.519
Sig. F change 0.000
*, **, *** shows Coefficient is significant at the 0.01, 0.05 level and 0.10 level.

4.3 Frequency of Use of Human Resources Related Information

The response of managers in respect of HR related indicators used in decision making is given in Table 7. The responses revealed that managers use training cost, employee cost, employee turnover rate, management staff ratio and cost per hire more frequently. The indicators which are not so frequently used are intellectual capital, EVA and per capita productivity.

Table 7: Frequency of Use of Human Resources Related Information

Human Resources Related Information	Mean	S.D.	Rank
Training cost	3.77	1.127	1
Employee Turnover rate	3.43	1.170	3
Employee Cost	3.66	1.118	2
Management: Staff Ratio	3.32	1.123	4
Absenteeism Rate	3.21	1.142	6
Overtime Cost	3.15	1.165	7
Employee Welfare costs	3.11	1.157	9
ESOP/ EVA	2.85	1.207	13
Bonus	3.02	1.264	11
Intellectual capital	2.80	1.239	14
Average Age/ Experience	3.03	1.217	10
Per capita productivity	2.96	1.240	12
Revenue/ output per employee	3.12	1.254	8
Cost per hire	3.22	1.236	5

5. Summary and Conclusions

The analysis shows that effect of HR information on managers' decisions is minor to moderate. The survey results show that managers perceive that having adequate information about HR value (measured value) provides better input for strategic business decisions such as diversification, acquisition, mergers etc. It becomes easier to draw objective plans for the long run of the enterprise as the managers know capabilities and weaknesses of their important business resource that is human resources. Majority of the managers agreed that systems to valuate HR regularly enable management to take well informed decisions thereby improving efficiency. As the managers get quantitative information about the human resources that the company has, they can make strategic decisions of the company more effectively for the long run.

The use of human resources information in managerial decisions is affected by various socio-demographic factors such as education, age, department, level of management and work experience. The gender and industry affiliation are insignificant variables. The correlation and regression analysis shows that level of management, educational qualification, total work experience and work experience in the present company are important predictors on empirical grounds. As the level of management rises, managers tend to give more consideration to human resources information in their decision making. Similarly total work experience and work experience in the present company also seem to be important predictors on empirical grounds. Thus managers do consider human resources information while making decisions.

As regard significant HR information affecting managerial decisions, study reveals training cost, employee cost, attrition/turnover rate, management staff ratio and cost per hire are most important. However indicators which are not so frequently used are intellectual capital, EVA and per capita productivity.

6. Limitations

Present work is first of this kind wherein actual managerial practices regarding utilisation and effect of HR related indicators has been mapped for the first time in India. Present set of HR related indicators as constructed in the study can be used as a benchmark by companies to improve their HR disclosures and aid in improved managerial decisions. However, exploratory research design itself has certain limitations. Main limitations of present work are:

1. In questionnaire survey, it is quite common that responses are checked by the people in line with their own understanding of the questions and perceptions of the persons completing the questionnaire and second, where matters of opinion are involved, the probability of a certain amount of subjectivity creeping into the responses cannot be ruled out.
2. The study has been restricted to the questionnaire responses and personal interviews of higher level management have not been included.
3. In connection with the collection of data relating to the usefulness of HR information on managerial decisions, the sample was chosen from Delhi and its surrounding areas purely on convenient basis.
4. It is a generalised work regarding the usage of HR information in managerial decisions. Further work can be undertaken to examine important HR variables for different decisions by managers in different departments.

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