

Impact of Accounting Information System on the Financial Performance of Selected FMCG Companies

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ABSTRACT

Accounting information system is a combination of people, equipment, policies, and procedures that work together to collect data and transform it into useful information. It is a system, an assemblage of various facilities and personnel, providing information to support managerial decision-making process. It is an entity, composed of various inter dependent subsystems, working together to provide timely, reliable, and accurate information for decision making. This study investigated the role of accounting information system on the financial performance of ten major Indian FMCG companies. A self-administered questionnaire designed on five point likert scale has been used to collect data. Judgmental sampling has been applied and the sample size is 283 employees. The findings after application of simple linear regression highlighted that there is a significant impact of accounting information system on the financial performance in the companies under study.

Keywords: Accounting information, system, financial, performance and regression.

1. INTRODUCTION

Accounting information system is a combination of people, equipment, policies, and procedures that work together to collect data and transform it into useful information. It is a formal mechanism for gathering, organizing and communicating accounting information about an organization's activities. It is a system that provides people with either data or information relating to an organization's operation to support the activities of employees, owners, customers, and other key people in the organization's environment by effectively supplying information to authorized people in a timely manner. It is a system, an assemblage of various facilities and personnel, providing information to support managerial decision-making process (Khan, 2017). Its main function is to acquire, process, and communicate data that is essential to the operation of the organization. Nevertheless, it is an entity, composed of various inter dependent subsystems, working together to provide timely, reliable, and accurate information for decision making. It is a network established in an organization to provide managers with information that will assist them in decision making. It is a routine and an automatic system used for gathering and communicating data for the ends of assisting and coordinating collective decision in view of the overall objectives of a firm. The successful accounting information system would lead to the success of the organization in achieving its objectives but the unsuccessful information system could lead to the failure of the organization in achieving its goals meaning thereby an inability to grow and survive.

2. LITERATURE REVIEW

Al-Shaefee (2007) explored the applications of accounting information systems in petroleum companies in Yemen. The researcher recommended that petroleum companies should apply modern and advanced accounting information systems (AIS) such as Enterprise Resource Planning (ERP) systems, and System Application Production (SAP) for oil and gas accounts, and other modern systems such as Case-based Reasoning (CBR) and Decision Support Systems (DSS) of modern accounting information systems. Moreover, continuous training

should be provided to the accountants in petroleum companies to enable them to practice modern and advanced accounting information systems.

Salehi, Rostami, & Mogadam (2010) found the impact of accounting information system in selected industries in Iran and found that the implementation of AIS leads to better future prediction of corporations and more correct financial statements and reliable financial reporting. However, the researchers revealed that accounting information software does not harmonize with Iranian accounting standards and Iranian AIS does not confirm with other financial and managerial systems which gives a gap between AIS and financial and managerial systems which results in weakness among Iranian corporations. **Emeka Nwokeji (2012)** recommended that all the Accounting Information System stakeholders should undergo training so as to update their knowledge with current tools and strategies in order to prevent effects of poor data quality. **Soudani (2012)** examined the effect of AIS on the organizational performance with the help of 236 questionnaires distributed to accountants, financial managers and direct managers of the selected firms. The findings showed significant relationship among all the variables and the highest correlation 0.662 was existed between AIS and financial performance and the lowest correlation 0.252 was existed between financial performance and performance management. Furthermore, AIS has the highest impact on the financial performance and lowest on performance management.

Khan (2017) in the research paper entitled, *“Impact of Accounting Information System on The Organizational Performance: A Case Study of Procter and Gamble”* examined the impact of accounting information system on the organizational performance in Procter and Gamble by collecting data through questionnaires designed on five point likert scale. The author measured the role of AIS on marketing performance, job performance, and financial performance. The sample size of the study was 174 employees working in P&G Limited. Simple linear regression was used as the statistical tool for analysis. The maximum impact of AIS was revealed on marketing performance ($R^2=0.842$) followed by job performance ($R^2=0.705$). However, the least impact was found in financial performance because the value of R square was 0.632 and beta 0.484. To conclude, it can be said that there is a significant impact of accounting information system on the organizational performance in P&G Limited.

Al-Dalaien and Khan (2018) in the paper entitled, *“Effect of Accounting Information System (AIS) On Financial Performance: A Study Of Selected Real Estate Companies In Jordan”* investigated the impact of AIS on the financial performance of selected real estate companies in Jordan. A well designed questionnaire has been used for collecting data from employees working in the companies namely Noor Capital, Jordan International Investment Company (JIIC), Ihdathiat Coordinates, Real Estate Development (RED), and Afaq Holding were the selected real estate companies. Besides, financial performance was taken as dependent variable whereas AIS was the independent variable. The researchers distributed 250 questionnaires during September to December, 2017 wherein 75 questionnaires were rejected and 175 were accepted for analysis. Jordan International Investment Company has benefitted the most with AIS since the value of R square was 0.911 but no impact of AIS was revealed in Ihdathiat Coordinates. It means AIS on the financial performance of all except Ihdathiat Coordinates.

3. RESEARCH GAP

The literature review highlights that a number of studies have been conducted on accounting information system (AIS). Some studies examined the impact of AIS on organizational performance, financial performance, profitability, corporate governance, and social responsibility. But, majority of the studies have been carried out in international scenarios and a few studies conducted on Indian companies. The researcher could not identify even a single study which evaluates the role played by AIS on the financial performance of FMCG companies.

4. RESEARCH METHODOLOGY

Sampling method

The population of the study includes all employees working in all FMCG companies in India. Non-probability judgment sampling plan has been implemented in the study because some judgment on the part of the researcher has been necessary in order to select the right respondents.

Data collection

A self-administered questionnaire was used to collect primary data. Self-administered questionnaire is the survey in which respondents take responsibility for reading and answering the questions. It is considered as a superior mode for minimizing bias and improving response rates. The questionnaire consists of sixteen statements under two variables. AIS was independent variable whereas financial performance was dependent variable. The effects of independent variables on the dependable variable are assessed by the 5-point Likert attitude scale. A total of 400 questionnaires were distributed in which of 190 questionnaires were returned and 177 questionnaires were considered valid for data analysis. Table 1 shows the questionnaires distributed, rejected, and accepted. The data collection period was ten months since May, 2017 to February, 2018.

Analysis of Data

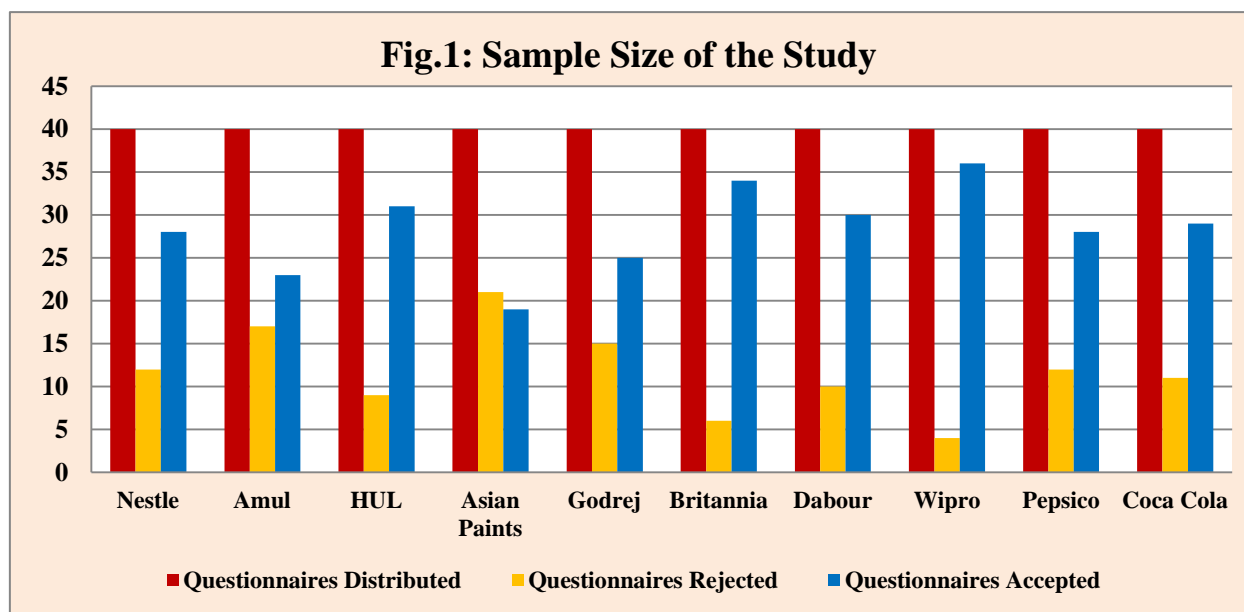
Data collected from primary as well as secondary sources was analysed and interpreted and on the basis of which conclusions were drawn. For analyzing the data, simple linear regression analysis has been used and hypotheses have been tested at confidence level of 95%. This technique has been widely used by Al-Nathary, K.J. (2005); Sajady, Dastgir, M., & Nejad, H.,H. (2008); Salehi, M., Rostami, V. & Mogadam, A. (2010); Grande, E.U., Estébanez, R.P., & Colomina, C.M. (2011); Emeka Nwokeji, N. A., (2012); Onaolapo, A. A. & Odetayo, T. (2012); Tazik, H., & Mohamed, Z. (2014); Khan, A. (2017); Al-Dalaien, B.O.A., and Khan, N.A. (2018);

Table 1: Sample Size

No	Selected Companies	Questionnaires		
		Distributed	Rejected	Accepted
1	Nestle	40	12	28
2	Amul	40	17	23
3	HUL	40	9	31

4	Asian Paints	40	21	19
5	Godrej	40	15	25
6	Britannia	40	6	34
7	Dabour	40	10	30
8	Wipro	40	4	36
9	PepsiCo	40	12	28
10	Coca Cola	40	11	29
Total of All Companies		400	117	283

Source: Primary Data



Source: Table 1

Objective of the Study

The objective of the study is to investigate the impact of accounting information system on the financial performance of selected FMCG companies.

Hypotheses Development

H₀₁: There is no significant impact of accounting information system on the financial performance of Nestle.

H₀₂: There is no significant impact of accounting information system (AIS) on the financial performance of Amul.

H₀₃: There is no significant impact of accounting information system on the financial performance of Hindustan Unilever Limited (HUL).

H₀₄: There is no significant impact of accounting information system on the financial performance of Asian Paints.

H₀₅: There is no significant impact of accounting information system on the financial performance of Godrej Consumer Products Limited (GCPL).

H₀₆: There is no significant impact of accounting information system on the financial performance of Britannia.

H₀₇: There is no significant impact of accounting information system on the financial performance of Dabour India Limited.

H₀₈: There is no significant impact of accounting information system on the financial performance of Wipro.

H₀₉: There is no significant impact of accounting information system on the financial performance of PepsiCo.

H₀₁₀: There is no significant impact of accounting information system on the financial performance of Coca Cola India.

5. DATA ANALYSIS AND INTERPRETATION

Table 2 exhibits the reliability of all questionnaire statements used in this study. The highest value of cronbach alpha (0.943) is on the second statement followed by ninth statement (0.937). The value of cronbach alpha of all statements is more than 0.7 and therefore, it can be said that data is reliable for testing hypotheses.

Table 2: Reliability Analysis

No.	Statements	Cronbach Alpha
1	It performs work very fast.	0.837
2	It made an integration and consistency among branches faster.	0.943
3	It helps the management to take timely decisions.	0.845
4	It brings simplification in work.	0.804
5	It stores and retrieves information easily.	0.799
6	It coordinates various business activities.	0.845
7	It brings high efficiency in storage, classification, and analyses of data.	0.869
8	It provides accurate and valid information at right time.	0.837
9	It makes the information more credible and understandable.	0.937
10	Accounting information system minimizes the cost of recording and interpretation of data.	0.845
11	It contributes in quality control.	0.804
12	It helps in reducing costs of production.	0.799
13	It contributes in better supply chain management.	0.845
14	It supports planning and execution in the organization.	0.869
15	It aids in better inventory management.	0.804

Source: Output of SPSS_20

6. HYPOTHESES TESTING

The impact of accounting information system on the financial performance in selected FMCG companies has been measured by applying simple linear regression. The independent variable is accounting information system and the

dependent variable is financial performance. Table 3 highlights the results of regression analysis of all hypotheses in consolidated form. *Firstly*, the value of R square is 0.850 which means 85 percent variation in financial performance is explained by AIS and the rest of the variation ($1-R^2$) is an unexplained variation. Besides, the value of unstandardized beta coefficient is 0.664 and the p value is 0.000 ($P<0.05$). Therefore, the null hypothesis stands rejected and it means that there is a significant impact of AIS on the financial performance of Nestle.

Secondly, the value of R square is 0.783 which means 78.3 percent variation in financial performance of Amul is explained by AIS and the rest of the variation ($1-R^2$) is an unexplained variation. Besides, the value of unstandardized beta coefficient is 0.449 and the p value is 0.005 ($P<0.05$). Therefore, the null hypothesis stands rejected and it means that there is a significant impact of AIS on the financial performance of Amul. *Thirdly*, the value of R square is 0.933 which means 93.3 percent variation in financial performance is explained by AIS. Besides, the value of beta coefficient is 0.801 and the p value is 0.009 ($P<0.05$) and hence null hypothesis is rejected. It means that there is a significant impact of AIS on the financial performance of HUL. *Fourthly*, the value of R square is 0.687 which means 68.7 percent variation in financial performance is explained by AIS. Besides, the value of beta coefficient is 0.338 and the p value is 0.000 ($P<0.05$). Therefore, the null hypothesis stands rejected and it means that there is a significant impact of AIS on the financial performance of Asian Paints.

Fifthly, the value of R square is 0.795 which means 79.5 percent variation in financial performance is explained by AIS. Besides, the value of beta coefficient is 0.413 and the p value is 0.007 ($P<0.05$). Therefore, the null hypothesis stands rejected and it means that there is a significant impact of AIS on the financial performance of Godrej. *Sixthly*, the value of R square is 0.804 which means 80.4 percent variation in financial performance is explained by AIS. Besides, the value of beta coefficient is 0.355 and the p value is 0.000 ($P<0.05$). Therefore, the null hypothesis stands rejected and it means that there is a significant impact of AIS on the financial performance of Britannia.

Seventhly, the value of R square is 0.570 which means 57 percent variation in financial performance is explained by AIS. Furthermore, the value of beta coefficient is 0.317 and the p value is 0.002 ($P<0.05$). Therefore, the null hypothesis stands rejected and it means that there is a significant impact of AIS on the financial performance of Dabour. *Eighthly*, the value of R square is 0.720 which means 72 percent variation in financial performance is explained by AIS. Furthermore, the value of beta coefficient is 0.615 and the p value is 0.006 ($P<0.05$). Therefore, the null hypothesis stands rejected and it means that there is a significant impact of AIS on the financial performance of Wipro.

Ninthly, the value of R square is 0.947 which means 94.7 percent variation in financial performance is explained by AIS. Besides, the value of beta coefficient is 0.896 and the p value is 0.001 ($P<0.05$). Therefore, the null hypothesis stands rejected and it means that there is a significant impact of AIS on the financial performance of PepsiCo. *Tenthly*, the value of R square is 0.901 which means 90.1 percent variation in financial performance is explained by AIS. Furthermore, the value of beta coefficient is 0.750 and the p value is 0.000 ($P<0.05$). Therefore, the null

hypothesis stands rejected and it means that there is a significant impact of AIS on the financial performance of Coca Cola.

Table 3: Show the results of Regression Analysis in Consolidated Form

Companies	R	R ²	Beta	SE	t	P Value	Results
Nestle	0.922	0.850	0.664	0.5742	-2.548	0.000	Ho ₁ : Rejected
Amul	0.885	0.783	0.449	0.6609	11.507	0.005	Ho ₂ : Rejected
HUL	0.966	0.933	0.801	0.3995	-1.119	0.009	Ho ₃ : Rejected
Asian Paints	0.829	0.687	0.338	0.5506	4.609	0.000	Ho ₄ : Rejected
Godrej	0.795	0.632	0.413	0.6223	7.075	0.007	Ho ₅ : Rejected
Britannia	0.804	0.646	0.355	0.4452	13.338	0.000	Ho ₆ : Rejected
Dabour	0.755	0.570	0.317	0.6044	-5.448	0.002	Ho ₇ : Rejected
Wipro	0.849	0.720	0.615	0.5003	9.065	0.006	Ho ₈ : Rejected
PepsiCo	0.947	0.896	0.716	0.3571	-2.257	0.001	Ho ₉ : R ejected
Coca Cola	0.901	0.811	0.750	0.4328	13.337	0.000	Ho ₁₀ : Rejected

Dependent Variable: Financial Performance

Beta: Unstandardized Coefficient

SE: Standard Error

Source: Output of SPSS_18

7. CONCLUSION

Accounting information system is a formal mechanism for gathering, organizing and communicating accounting information about an organization's activities. It is a financial information system which includes accounting terms, records instruction manuals flow charts programs, and reports to fit the particular needs of the business. Besides, it is an entity, composed of various inter dependent subsystems, working together to provide timely, reliable, and accurate information for decision making. It is a network established in an organization to provide managers with information that will assist them in decision making. It is a routine and an automatic system used for

gathering and communicating data for the ends of assisting and coordinating collective decision in view of the overall objectives of a firm. The successful accounting information system would lead to the success of the organization in achieving its objectives but the unsuccessful information system could lead to the failure of the organization in achieving its goals meaning thereby an inability to grow and survive. The present research examines the impact of AIS on the financial performance of top ten FMCG companies in India. Nestle, Amul, HUL, Asian Paints, Godrej, Britannia, Dabour, Wipro, PepsiCo, and Coca Cola were the companies selected by the researcher for analysis.

A self-administered questionnaire was used to collect primary data because it is a best method for minimizing bias and improving response rates. The questionnaire consists of sixteen statements under two variables. AIS was independent variable whereas financial performance was dependent variable. A total of 400 questionnaires were distributed in which of 190 questionnaires were returned and 177 questionnaires were considered valid for data analysis. Furthermore, the data collection period was ten months since May, 2017 to February, 2018. For analyzing the data, simple linear regression analysis has been used and hypotheses have been tested at confidence level of 95%. All the hypotheses have been rejected which means that there is a significant impact of AIS on the financial performance of selected FMCG companies. the maximum impact of AIS was revealed in HUL, PepsiCo, Coca Cola and Nestle because the value of R square is more than 90 percent. Dabour and Godrej are the companies wherein least impact of AIS was recorded.

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APPENDIX

Please give your opinion regarding the role played by AIS in your company on a five point rating scale as 1 stands for strongly disagree, 2 stands for disagree, 3 stands for neutral, 4 stands for agree, 5 stands for strongly agree respectively.

No.	Statements	1	2	3	4	5
Accounting Information System						
1	It performs work very fast.					
2	It made an integration and consistency among branches faster.					
3	It helps the management to take timely decisions.					
4	It brings simplification in work.					
5	It stores and retrieves information easily.					
6	It coordinates various business activities.					
7	It brings high efficiency in storage, classification, and analyses of data.					
8	It provides accurate and valid information at right time.					
9	It makes the information more credible and understandable.					
Overall Financial Performance						
10	Accounting information system minimizes the cost of recording and interpretation of data.					
11	It contributes in quality control.					
12	It helps in reducing costs of production.					
13	It contributes in better supply chain management.					
14	It supports planning and execution in the organization.					
15	It aids in better inventory management.					