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A Study of the Impact of Accounting Information Systems on Organisational Profitability

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Abstract:

Accounting Information Systems (AIS) have become an essential component of modern business organisations because they facilitate the collection, processing, storage, and communication of financial and operational information. With increasing digitalisation, organisations in technology-intensive and consumer-oriented industries are increasingly dependent on integrated accounting and information systems for financial reporting, managerial decision-making, internal control, and operational efficiency. The present study examines the effects of Accounting Information Systems on organisational profitability, with particular reference to companies belonging to the Information Technology (IT) and Fast-Moving Consumer Goods (FMCG) sectors in India. The study considers AIS effectiveness as the independent variable and organisational profitability as the dependent variable. Profitability is evaluated through financial-ratio indicators, particularly Return on Assets (ROA), Return on Equity (ROE), and Net Profit Margin (NPM).

The study adopts a comparative and longitudinal research design covering a ten-year period from FY 2014–15 to FY 2023–24. The financial information supplied for the selected companies is analysed to identify trends in profitability and to examine differences between IT and FMCG businesses. The FMCG analysis covers companies including Hindustan Unilever Limited, Nestlé India, Dabur India Limited, Varun Beverages Limited, Tata Consumer Products Limited, Colgate-Palmolive (India), Britannia Industries Limited, ITC Limited, Godrej Consumer Products Limited, and Marico Limited. The IT-sector companies included in the broader dataset are also incorporated into the proposed panel-data framework. The study proposes that higher AIS effectiveness, reflected through system quality, information quality, integration, timeliness, accuracy, internal control, and managerial usefulness, should contribute positively to organisational profitability.

The ratio analysis indicates substantial differences in profitability patterns among FMCG companies. Colgate-Palmolive (India) and Hindustan Unilever demonstrate strong and relatively consistent profitability, while Nestlé India records substantial improvement in ROA and NPM over the study period. Varun Beverages shows significant improvement in profitability after the middle of the study period. Godrej Consumer Products records a sharp deterioration in FY 2023–24, demonstrating that strong information systems alone cannot guarantee profitability when companies face operational or financial challenges. The findings provide a framework for integrating AIS effectiveness with objective financial performance indicators. However, causal statistical testing between AIS and profitability requires company-level AIS observations or an AIS effectiveness index. Therefore, the study recommends panel regression or related statistical techniques for the final empirical test.

Keywords: Accounting Information Systems, Organisational Profitability, Return on Assets, Return on Equity, Net Profit Margin, IT Sector, FMCG Sector, Financial Ratio Analysis, Information Quality, India

Introduction:

The rapid development of digital technology has fundamentally changed the manner in which organisations generate, process, and use accounting information. Accounting is no longer restricted to recording historical transactions. Modern accounting functions are closely integrated with enterprise resource planning systems, financial databases, business intelligence tools, cloud computing, automated reporting systems, and internal control mechanisms. Consequently, the quality of an Accounting Information System (AIS) can influence the speed, accuracy, and usefulness of financial information available to managers.

An Accounting Information System may broadly be understood as a system that collects, records, processes, stores, and communicates accounting and financial information for decision-making and control. An effective AIS can reduce manual processing, improve the accuracy of accounting records, strengthen internal controls, facilitate timely reporting, and provide management with relevant information for planning and performance evaluation. The quality of information systems and the quality of information generated by those systems are important dimensions of information-system success (DeLone & McLean, 2003).

The importance of AIS becomes particularly significant in large organisations operating in highly competitive industries. The IT sector is characterised by rapid technological change, intangible assets, global operations, and extensive dependence on information technology. Similarly, the FMCG sector operates through large distribution networks, high transaction volumes, extensive inventories, multiple product categories, and geographically dispersed markets. Both sectors therefore require reliable and timely accounting information for efficient resource allocation and managerial decision-making.

The present study focuses on the relationship between AIS and organisational profitability. Instead of measuring organisational performance only through subjective managerial perceptions, the study incorporates objective financial indicators derived from the financial statements of selected companies. Three major profitability indicators are considered: Return on Assets (ROA), Return on Equity (ROE), and Net Profit Margin (NPM).

The study is based on a ten-year period, FY 2014–15 to FY 2023–24, and compares selected companies from the IT and FMCG sectors. The financial-ratio analysis supplied for the study provides an opportunity to understand whether profitability has improved, declined, or fluctuated over time. This analysis is then connected conceptually with AIS effectiveness.

The DeLone and McLean Information Systems Success Model provides a useful theoretical foundation because it identifies system quality, information quality, and service quality as important dimensions associated with system use, user satisfaction, and net benefits (DeLone & McLean, 2003). Recent AIS research has similarly reported positive relationships between AIS quality and organisational performance. AIS quality may contribute to organisational outcomes by improving the quality and availability of accounting information, which subsequently supports managerial decision-making and organisational performance.

Thus, the central proposition of this research is that an effective AIS can contribute to organisational profitability by improving the quality of accounting information, reducing processing inefficiencies, strengthening control systems, and supporting better managerial decisions.

Background of the Study:

Accounting Information Systems occupy an important position between accounting processes and organisational decision-making. An organisation may generate thousands or millions of transactions involving sales, purchases, inventory, payroll, taxation, receivables, payables, and other activities. Without an efficient information system, processing such transactions accurately and rapidly becomes difficult.

The effectiveness of an AIS can be evaluated through several dimensions.

System Quality:

System quality refers to the reliability, accessibility, usability, integration, and technical performance of the accounting information system. A reliable system reduces interruptions and supports continuous financial operations.

Information Quality: Information quality refers to the accuracy, relevance, completeness, consistency, and timeliness of information generated by the AIS. High-quality information is essential for managerial planning and control.

Internal Control: AIS-based internal controls include authorisation procedures, segregation of duties, access controls, audit trails, transaction verification, and mechanisms for reducing errors and fraudulent activities.

Integration: Integration refers to the extent to which accounting systems are connected with sales, inventory, procurement, production, human resources, and other organisational functions. Greater integration can provide management with a more comprehensive picture of organisational performance.

Timeliness: Timeliness refers to the speed with which financial and operational information becomes available to managers. Timely information allows management to identify problems and take corrective action.

Decision Usefulness: Decision usefulness refers to the extent to which accounting information assists managers in planning, controlling, evaluating, and making strategic decisions.

User Competence: User competence refers to the ability of employees to operate and utilise accounting information systems effectively. Even technically advanced systems may fail to produce expected benefits if employees lack appropriate skills and training.

The relationship between AIS and profitability is not necessarily direct. AIS may first improve information quality and operational efficiency, which then affect managerial decisions and ultimately profitability. Therefore, AIS can be considered an organisational capability that supports financial performance rather than simply an accounting technology.

Existing research has reported positive associations between AIS quality and organisational performance. Similarly, research concerning enterprise resource planning, AIS quality, employee competence, and internal controls suggests that these factors can contribute to improved organisational and financial performance. This provides a theoretical basis for examining AIS effectiveness alongside objective profitability measures.

Statement of the Problem: Organisations make substantial investments in accounting software, enterprise resource planning systems, digital reporting platforms, cloud accounting, cybersecurity, and automated financial systems. However, investment in technology does not automatically guarantee improved profitability. An organisation may possess sophisticated technology but fail to obtain financial benefits if its information is inaccurate, employees are inadequately trained, systems are poorly integrated, or internal controls are weak.

Therefore, an important research question is whether the effectiveness of AIS is reflected in measurable organisational profitability.

The present study addresses the following problem:

To what extent does the effectiveness of Accounting Information Systems influence the profitability of organisations operating in the IT and FMCG sectors in India?

The study further examines whether profitability trends differ between the two sectors and whether financial-ratio analysis can be used as an objective measure of organisational performance in an AIS framework.

Objectives of the Study:

The major objectives of the study are:

1. To examine the role of Accounting Information Systems in improving organisational profitability.
2. To analyse the relationship between AIS effectiveness and organisational financial performance.
3. To measure organisational profitability using ROA, ROE, and Net Profit Margin.

4. To analyse the profitability trends of selected companies over the period FY 2014–15 to FY 2023–24.
5. To compare the profitability performance of selected companies in the IT and FMCG sectors.
6. To identify the major AIS characteristics that may contribute to organisational profitability.
7. To provide recommendations regarding the effective implementation and utilisation of AIS.

Research Questions:

The study is guided by the following research questions:

RQ1: Does Accounting Information System effectiveness have a positive relationship with organisational profitability?

RQ2: Does AIS quality contribute to improved Return on Assets?

RQ3: Does AIS effectiveness contribute to improved Return on Equity?

RQ4: Does AIS effectiveness contribute to improved Net Profit Margin?

RQ5: Are there significant differences in profitability between companies operating in the IT and FMCG sectors?

RQ6: Which dimensions of AIS are most relevant to organisational profitability?

Hypotheses of the Study:

The following hypotheses are proposed for empirical testing:

H1: Accounting Information System effectiveness has a significant positive effect on organisational profitability.

H1a: AIS effectiveness has a significant positive effect on Return on Assets.

H1b: AIS effectiveness has a significant positive effect on Return on Equity.

H1c: AIS effectiveness has a significant positive effect on Net Profit Margin.

H2: Information quality has a significant positive relationship with organisational profitability.

H3: System quality has a significant positive relationship with organisational profitability.

H4: AIS integration has a significant positive relationship with organisational profitability.

H5: Internal-control effectiveness associated with AIS has a significant positive relationship with organisational profitability.

H6: There is a significant difference in profitability between selected IT and FMCG companies.

Conceptual Framework:

The conceptual framework of the study considers **Accounting Information System effectiveness as the independent variable** and **organisational profitability as the dependent variable**.

Independent Variable: AIS Effectiveness

AIS effectiveness can be represented through the following dimensions:

- System quality
- Information quality
- System integration
- Timeliness
- Internal control
- User competence
- Decision support
- Reliability and accessibility

Dependent Variable: Organisational Profitability:

Organisational profitability is measured using:

- Return on Assets (ROA)
- Return on Equity (ROE)
- Net Profit Margin (NPM)

The proposed relationship can be represented as:

AIS Effectiveness → Information Quality and Operational Efficiency → Better Decision-Making → Improved Organisational Profitability

This framework is consistent with the logic of the DeLone and McLean Information Systems Success Model, in which system, information, and service quality contribute to system use, user satisfaction, and ultimately net benefits (DeLone & McLean, 2003).

Research Methodology:

Research Design:

The study adopts a quantitative, comparative, and longitudinal research design. The longitudinal component covers ten financial years, from FY 2014–15 to FY 2023–24. The comparative component examines companies from the IT and FMCG sectors.

The study combines two principal forms of information:

1. AIS information, which should be measured through an AIS effectiveness instrument or company-level AIS index; and
2. Financial information obtained from the financial statements and ratio analysis of selected companies.

This research design allows the study to combine an information-system perspective with objective financial-performance indicators.

Sample:

The study focuses on selected leading companies from the IT and FMCG sectors. The sectors were selected because both are economically significant and highly dependent on information systems.

The FMCG dataset supplied for the study includes:

- Hindustan Unilever Limited
- Nestlé India
- Dabur India Limited
- Varun Beverages Limited
- Tata Consumer Products Limited
- Colgate-Palmolive (India)
- Britannia Industries Limited
- ITC Limited
- Godrej Consumer Products Limited
- Marico Limited

The IT dataset supplied for the study includes:

- Tata Consultancy Services Limited
- Infosys Limited
- HCL Technologies Limited
- Wipro Limited
- LTIMindtree Limited
- Tech Mahindra Limited
- Persistent Systems Limited
- Oracle Financial Services Software Limited
- Zensar Technologies Limited
- Birlasoft Limited

Financial Variables:

The financial data are expressed in Indian rupees (₹ crore).

The principal profitability variables are:

ROA = Net Profit / Total Assets × 100

ROE = Net Profit / Shareholders' Equity × 100

NPM = Net Profit / Net Sales × 100

These ratios capture different dimensions of profitability. ROA evaluates how efficiently assets generate profit, NPM evaluates the proportion of sales retained as profit, and ROE measures profitability relative to shareholders' investment.

For methodological accuracy, ROE should preferably use average total shareholders' equity rather than paid-up share capital. Financial statements present equity as part of the overall financial position, and proper interpretation requires distinguishing share capital from total shareholders' equity.

Measurement of AIS Effectiveness:

For the final empirical version of the study, AIS effectiveness can be measured through a structured questionnaire using a five-point Likert scale:

1 = Strongly Disagree
2 = Disagree
3 = Neutral
4 = Agree
5 = Strongly Agree

The AIS index can contain statements covering system quality, information quality, integration, internal controls, timeliness, user competence, and decision usefulness.

An overall AIS score can then be calculated for each company or respondent. Higher scores would represent greater perceived AIS effectiveness.

Analysis of Financial Ratios:

The ratio data supplied for the study demonstrate substantial differences among the selected FMCG companies and IT companies:

FMCG Industries:

Hindustan Unilever Limited:

Hindustan Unilever demonstrates a strong and generally improving profitability profile during the earlier part of the study period. Net profit increased from ₹4,376 crore in FY 2014–15 to ₹10,282 crore in FY 2023–24. Net sales increased from ₹31,972 crore to ₹61,896 crore.

ROA increased from 30.33% in FY 2014–15 to 33.52% in FY 2019–20 before falling to approximately 11%–14% in subsequent years. This decline is associated with the substantial increase in reported total assets from ₹20,153 crore in FY 2019–20 to ₹68,740 crore in FY 2020–21.

NPM increased from 13.69% to 16.61% over the study period. This suggests that despite changes in asset utilisation, the company's ability to convert sales into profit remained strong.

The exceptionally high ROE values in the supplied dataset should be interpreted cautiously because the denominator appears to be relatively small compared with total assets.

Nestlé India:

Nestlé India demonstrates one of the strongest improvements among the companies studied. Net profit increased from ₹563 crore in FY 2014–15 to ₹3,933 crore in FY 2023–24, while sales increased from ₹8,175 crore to ₹24,394 crore.

ROA increased from 9.25% to 37.38%, representing a substantial improvement in asset profitability. NPM also increased from 6.89% to 16.12%.

The improvement suggests that Nestlé India became progressively more efficient in generating profits from its asset base and sales. From an AIS perspective, such a large organisation requires sophisticated transaction-processing, inventory, sales, supply-chain, and financial-reporting systems. Effective information integration can potentially support these processes.

Dabur India Limited:

Dabur's net profit increased from ₹1,068 crore to ₹1,811 crore. However, ROA declined from 17.49% in FY 2014–15 to 11.98% in FY 2023–24.

NPM also fluctuated during the study period and stood at 14.60% in FY 2023–24. Although the company maintained positive profitability, the declining ROA indicates that asset growth did not translate proportionately into profit growth.

This highlights an important point for the AIS-profitability relationship: implementation of an information system should ultimately improve resource utilisation and decision-making rather than merely increase the amount of technology used.

Varun Beverages Limited:

Varun Beverages demonstrates a significant improvement in profitability. Net profit increased from ₹113 crore in FY 2014–15 to ₹2,634 crore in FY 2023–24.

ROA increased from 2.55% to 11.39%, while NPM increased from 3.33% to 13.16%. This indicates substantial improvement in the company's ability to convert sales and assets into profit.

The company also experienced significant expansion in assets and sales. Such rapid growth increases the importance of integrated information systems capable of managing inventory, distribution, sales, procurement, and financial transactions.

Tata Consumer Products Limited:

Tata Consumer Products recorded fluctuating profitability. Net profit was ₹273 crore in FY 2014–15 and became negative at ₹37 crore in FY 2015–16. It subsequently increased to ₹1,215 crore in FY 2023–24.

ROA improved from 2.89% to 4.36%, although it fluctuated considerably. NPM increased from 3.42% to 7.99%.

The company's results demonstrate that profitability is affected by multiple factors beyond AIS, including business restructuring, costs, acquisitions, market conditions, and operational strategy. AIS can support these activities but cannot independently determine profitability.

Colgate-Palmolive (India):

Colgate-Palmolive demonstrates consistently strong profitability. Net profit

increased from ₹559 crore to ₹1,324 crore, while ROA increased from 32.84% to 41.41%.

NPM increased from 14.04% to 23.31%, the highest final-year NPM among the FMCG companies included in the supplied dataset.

The company's consistently high ROA and NPM suggest strong asset efficiency and operating profitability. This makes Colgate-Palmolive an important benchmark within the FMCG sample.

Britannia Industries Limited:

Britannia's net profit increased from ₹689 crore to ₹2,134 crore. However, ROA declined from 24.67% in FY 2014–15 to 17.80% in FY 2019–20 before recovering to 23.52% in FY 2023–24.

NPM increased from 8.77% to 12.73%, although it fluctuated during the period.

The results show that profitability can improve even when asset efficiency fluctuates. Therefore, multiple profitability ratios should be considered rather than relying on a single measure.

ITC Limited:

ITC is the largest company in the supplied FMCG group in terms of assets and net profit. Net profit increased from ₹9,779 crore to ₹20,751 crore.

ROA remained relatively strong, ranging from approximately 17.89% to 22.69%, and reached 22.62% in FY 2023–24.

NPM was particularly strong, increasing from 25.19% to 30.55%. ITC therefore demonstrates strong profitability despite the size and complexity of its operations.

The complexity of ITC's diversified business model strengthens the relevance of AIS integration because management must process information across multiple businesses and operational functions.

Godrej Consumer Products Limited:

Godrej Consumer Products presents a contrasting case. Net profit increased substantially during much of the study period, but the company recorded a loss of ₹561 crore in FY 2023–24.

Consequently, ROA declined to −3.05%, ROE became −550%, and NPM became −3.98%. This is particularly relevant to the present research because it demonstrates that the existence of an AIS does not automatically result in profitability. External economic conditions, exceptional items, restructuring costs, acquisitions, taxation, and other business factors can influence profitability.

AIS should therefore be understood as an enabling mechanism rather than a sole determinant of financial performance.

Marico Limited:

Marico's net profit increased from ₹585 crore to ₹1,502 crore. ROA remained relatively stable and strong, ending at 20.43%.

NPM increased from 10.20% to 15.56%, indicating improvement in the company's ability to generate profit from sales.

Overall, Marico demonstrates a relatively stable profitability pattern compared with several other companies.

Comparative Interpretation of FMCG Ratio Analysis:

The FMCG ratio analysis indicates that profitability varies significantly among companies.

In FY 2023–24, the highest ROA in the supplied dataset was recorded by Colgate-Palmolive at 41.41%, followed by Nestlé India at 37.38%. Hindustan Unilever reported 13.10%, ITC reported 22.62%, Marico reported 20.43%, Britannia reported 23.52%, Varun Beverages reported 11.39%, Dabur reported 11.98%, Tata Consumer Products reported 4.36%, and Godrej Consumer Products reported −3.05%.

The NPM analysis similarly indicates substantial differences. ITC reported an NPM of 30.55%, followed by Colgate-Palmolive at 23.31%, Hindustan Unilever at 16.61%, Nestlé India at 16.12%, Marico at 15.56%, Dabur at 14.60%, Varun Beverages at 13.16%, Britannia at 12.73%, Tata Consumer Products at 7.99%, and Godrej Consumer Products at −3.98%.

These results suggest that organisational profitability cannot be explained simply by company size. Rather, operational efficiency, cost control, product mix, asset utilisation, pricing power, and managerial decision-making are important determinants.

AIS can contribute to these areas by providing timely and accurate information. For example, an integrated AIS can provide managers with information concerning product profitability, inventory levels, customer receivables, regional sales, procurement costs, and operating expenses. Such information can support decisions that ultimately affect ROA and NPM.

IT Industries:

Tata Consultancy Services Limited:

Tata Consultancy Services Limited (TCS) demonstrated consistently strong profitability throughout the study period. The return on assets (ROA) increased from 27.36% in FY 2014–15 to 31.69% in FY 2023–24, indicating effective utilization of the company's asset base in generating profits. The company also reported exceptionally high return on equity (ROE); however, this ratio should be interpreted with caution because the relatively low reported shareholders' equity results in a mechanically high ROE. Furthermore, TCS maintained a net profit margin (NPM) above 18% throughout the study period, reaching 19.14% in FY 2023–24. Overall, the findings indicate that TCS maintained a strong and relatively stable profitability position, accompanied by improved asset efficiency during the later years of the study period.

Infosys Limited:

Infosys Limited maintained a strong profitability position throughout the ten-year study period. Its ROA generally remained within the range of 17% to 20%, reaching a maximum of 20.20% in FY 2017–18 and standing at 19.30% in FY 2023–24. However, the company's NPM declined from 23.20% in FY 2014–15 to 17.08% in FY 2023–24, indicating some reduction in the proportion of sales converted into net profit. Despite this decline in profit margin, Infosys continued to demonstrate effective utilization of its assets and maintained a strong overall profitability position. The findings suggest that the company remained financially efficient, although its margin performance weakened over the study period.

HCL Technologies Limited:

HCL Technologies Limited experienced fluctuations in profitability during the study period. Its ROA declined from 20.83% in FY 2014–15 to 13.35% in FY 2019–20 before recovering moderately to 15.87% in FY 2023–24. Similarly, the NPM demonstrated a gradual decline, decreasing from 20.00% in FY 2014–15 to 14.29% in FY 2023–24. These trends indicate that the company experienced a reduction in both asset efficiency and profit generation from sales compared with the beginning of the study period. Nevertheless, the recovery in ROA during the later years suggests some improvement in the company's ability to utilize its assets efficiently. Overall, HCL Technologies maintained positive profitability, although its performance was comparatively weaker than at the beginning of the study period.

Wipro Limited:

Wipro Limited exhibited a gradual weakening in profitability during the ten-year study period. Its ROA decreased from 14.93% in FY 2014–15 to 9.70% in FY 2023–24, while its NPM declined from 18.56% to 12.38% over the same period. Although the company experienced temporary improvements in profitability, particularly around FY 2020–21, the overall trend indicates a reduction in the efficiency of converting assets and sales into net profit. The decline in both ROA and NPM suggests that Wipro faced challenges in maintaining its earlier level of profitability. Consequently, its profitability position in the later years of the study appears comparatively weaker.

LTIMindtree Limited:

LTIMindtree Limited maintained a relatively strong asset profitability position during the study period, although its profitability ratios exhibited fluctuations. The company's ROA declined from 25.82% in FY 2014–15 to 16.65% in FY 2023–24. Similarly, its NPM decreased from 15.45% to 12.91% during the same period. Despite these declines, LTIMindtree continued to generate positive and substantial returns throughout the study period. The company also reported exceptionally high ROE values; however, these figures should be interpreted

cautiously because the relatively small reported shareholders' equity significantly affects the ratio. Overall, the findings indicate that LTIMindtree maintained sound profitability, although its asset efficiency and profit margin weakened over time.

Tech Mahindra Limited:

Tech Mahindra Limited exhibited considerable fluctuations in profitability, with a particularly significant deterioration during the most recent year of the study period. Its ROA decreased from 13.40% in FY 2014–15 to 5.56% in FY 2023–24. Similarly, its NPM declined from 11.75% to 4.61% during the same period. The simultaneous decline in ROA and NPM indicates reduced efficiency in utilizing assets and generating profits from sales. The sharp deterioration observed in FY 2023–24 is particularly noteworthy and suggests increased profitability challenges. Among the companies examined, Tech Mahindra recorded one of the most pronounced declines in profitability during the study period.

Persistent Systems Limited:

Persistent Systems Limited demonstrated a relatively positive long-term profitability trend. Although its ROA declined during the earlier part of the study period, it subsequently recovered from 11.00% in FY 2019–20 to 14.76% in FY 2023–24. The NPM followed a similar recovery pattern, increasing from 9.53% in FY 2019–20 to 11.13% in FY 2023–24. The improvement in both profitability indicators during the later years suggests enhanced operational performance and more effective utilization of the company's asset base. Overall, Persistent Systems showed a positive recovery in profitability and demonstrated improved financial performance toward the end of the study period.

Oracle Financial Services Software:

Oracle Financial Services Software (OFSS) recorded one of the strongest NPM performances among the companies included in the study. Its NPM remained consistently high throughout the study period, increasing from 30.52% in FY 2014–15 to 34.82% in FY 2023–24, with a peak of 36.18% in FY 2021–22. The company's ROA also remained above 18% throughout the study period and increased to 22.76% in FY 2023–24. These findings indicate strong profitability and efficient utilization of assets. The consistently high NPM, together with a strong ROA, positions OFSS among the better-performing companies in the sample in terms of profitability.

Birlasoft Limited:

Birlasoft Limited exhibited moderate and fluctuating profitability throughout the study period. Its ROA ranged from 8.34% to 15.89%, while its NPM varied between 6.81% and 11.82%. The company experienced relatively weaker profitability around FY 2019–20, when both profitability indicators declined. However, the subsequent improvement in ROA and NPM indicates a recovery in profitability toward the end of the study period. By FY 2023–24, ROA had increased to 15.89% and NPM had reached 11.82%. These results suggest an improvement in the company's operational performance and profitability in the later years.

Zensar Technologies Limited:

Zensar Technologies Limited experienced considerable variation in profitability over the ten-year study period. Its ROA declined from 15.28% in FY 2014–15 to 7.56% in FY 2019–20 before recovering to 14.31% in FY 2023–24. Similarly, the NPM decreased from 9.98% in FY 2014–15 to 6.50% in FY 2019–20 and subsequently increased to 13.57% in FY 2023–24. The substantial improvement in both ROA and NPM during the later years indicates a significant recovery in profitability and asset utilization. Therefore, Zensar Technologies demonstrated a positive turnaround in its profitability performance, particularly during the final years of the study period.

Comparative Interpretation of IT Ratio Analysis:

The profitability analysis of the selected IT companies reveals considerable variation in financial performance across the study period. TCS and OFSS demonstrated particularly strong profitability, supported by relatively high and stable ROA and NPM values. Infosys and HCL Technologies also maintained sound profitability, although both companies experienced some

deterioration in their profit margins over time. Wipro and Tech Mahindra exhibited comparatively greater declines in profitability, particularly during the later years of the study period. In contrast, Persistent Systems, Birlasoft, and Zensar Technologies showed evidence of recovery in their profitability indicators toward FY 2023–24. LTIMindtree maintained relatively strong profitability but experienced a gradual decline in ROA and NPM. Overall, the findings indicate that profitability performance differed substantially among the selected IT companies, reflecting variations in asset utilization, operational efficiency, and the ability to convert revenue into net profit.

AIS and Organisational Profitability:

The principal argument of this research is that AIS affects profitability through several mechanisms.

- First, AIS improves **information accuracy**. Accurate accounting information reduces errors and improves the reliability of financial statements.
- Second, AIS improves **timeliness**. Managers can receive financial information more rapidly, allowing them to identify problems and take corrective action.
- Third, AIS improves **internal control**. Automated authorisation, access controls, transaction records, and audit trails can reduce the possibility of errors and fraud.
- Fourth, AIS improves **integration**. When sales, inventory, procurement, and accounting systems are integrated, managers can obtain a more comprehensive view of organisational performance.
- Fifth, AIS supports **decision-making**. Management can use accounting information to evaluate product profitability, costs, budgets, and business-unit performance.

Finally, AIS can improve **operational efficiency** by reducing repetitive manual tasks and facilitating automated reporting.

However, the effect of AIS is dependent upon system quality, user competence, organisational culture, and management support. Research on information-system success indicates that system and information quality are important factors in achieving organisational benefits (DeLone & McLean, 2003). Recent AIS research similarly indicates that AIS quality and information quality may contribute to organisational performance.

Expected Findings:

Based on the theoretical framework and existing empirical literature, the study expects AIS effectiveness to have a positive relationship with profitability.

Companies with higher-quality accounting systems are expected to demonstrate better financial performance because they can obtain accurate and timely information for planning, control, and decision-making.

The relationship may be particularly strong for ROA and NPM because effective information systems can improve resource utilisation and cost management. The relationship with ROE may be more complicated because ROE is influenced by capital structure and financial leverage.

The comparative analysis is also expected to demonstrate differences between the IT and FMCG sectors. IT companies are expected to have a particularly high dependence on digital systems, whereas FMCG companies require extensive integration across sales, distribution, inventory, and supply-chain functions.

The financial data, however, demonstrate that AIS should not be considered the only determinant of profitability. The negative profitability recorded by Godrej Consumer Products in FY 2023–24 illustrates this point. Therefore, the research should interpret AIS as an important organisational capability within a broader group of financial and strategic determinants.

Discussion:

The findings from the ratio analysis provide a useful financial foundation for examining AIS effectiveness. The selected FMCG companies show different profitability trajectories despite operating within the same broad industry.

Nestlé India and Colgate-Palmolive demonstrate strong improvements in ROA and NPM. Varun Beverages demonstrates substantial long-term growth in profitability. ITC maintains strong NPM and ROA despite its scale and diversification. Marico also shows relatively stable profitability. In contrast, Dabur's ROA shows a declining trend, while Tata Consumer Products and Godrej Consumer Products exhibit considerable fluctuations.

These differences suggest that organisational profitability is influenced by more than sales growth. The efficiency with which an organisation converts its resources into profits is equally important.

AIS can potentially support this efficiency by enabling management to identify underperforming products, monitor costs, control inventory, analyse sales trends, and evaluate business units. The more integrated the AIS, the more effectively information can flow from operational activities to financial reporting and managerial decision-making.

Nevertheless, a causal relationship cannot be established from ratio analysis alone. Financial ratios show the outcome variable but do not establish how much of the outcome is attributable to AIS. For this reason, the final research design should collect AIS data through questionnaires, interviews, annual-report disclosures, or a structured AIS maturity index.

This distinction is essential for academic validity. It would not be appropriate to claim that an increase in ROA was caused by AIS merely because the company uses an advanced accounting system. The research must statistically test the relationship between an AIS measure and profitability.

Practical Implications:

The study has several implications for corporate management.

- First, organisations should treat AIS as a strategic investment rather than merely an accounting tool.
- Second, management should focus on information quality. The system should provide accurate, relevant, complete, and timely information.
- Third, AIS should be integrated with operational systems such as sales, inventory, procurement, production, and supply-chain management.
- Fourth, strong internal controls should be incorporated into AIS architecture. Access management, transaction authorisation, audit trails, and segregation of duties can improve financial reliability.
- Fifth, employee training is essential. Even a technically advanced AIS will not generate expected benefits if employees cannot use it effectively.
- Sixth, management should periodically evaluate whether AIS investments are producing measurable benefits in terms of efficiency, reporting quality, cost reduction, and decision-making.

Limitations of the Study:

The study has several limitations.

- First, the financial-ratio data alone cannot establish a causal relationship between AIS and profitability. An AIS effectiveness score is required for statistical testing.
- Second, profitability is affected by numerous factors, including market conditions, competition, taxation, capital structure, inflation, acquisitions, restructuring, and macroeconomic conditions.
- Third, the ROE figures in the supplied dataset should be interpreted cautiously because the denominator appears to represent share capital rather than total shareholders' equity in several cases. This produces exceptionally high ROE percentages.
- Fourth, the study covers selected companies and therefore its findings may not represent every company in the IT and FMCG sectors.
- Fifth, differences in accounting policies and business structures may influence ratio comparability.

Conclusion:

The study concludes that Accounting Information Systems have the potential to make a

significant contribution to organisational profitability by improving accounting information quality, operational efficiency, internal control, integration, and managerial decision-making.

The ten-year financial analysis of selected FMCG companies demonstrates substantial differences in profitability. Colgate-Palmolive and Nestlé India exhibit particularly strong ROA performance in FY 2023–24, while ITC demonstrates strong net profit margins. Varun Beverages records significant improvement over the study period, whereas Godrej Consumer Products illustrates the volatility that can occur despite the presence of established business systems. These differences reinforce the need to examine AIS within the broader organisational context.

The theoretical and empirical literature supports the argument that system quality and information quality can contribute to organisational performance. The DeLone and McLean framework provides a useful foundation for explaining how system quality, information quality, and service quality can ultimately produce organisational benefits (DeLone & McLean, 2003). Recent AIS studies also report positive associations between AIS quality and organisational performance.

The study therefore proposes that AIS effectiveness should be treated as an independent variable and ROA, ROE, and NPM as dependent measures of organisational profitability. For stronger empirical evidence, the final study should construct an AIS Effectiveness Index and combine it with the ten-year financial panel data. Fixed-effects or random-effects regression can then be used to determine whether AIS has a statistically significant effect on profitability.

Overall, the research supports the view that modern accounting systems are not merely mechanisms for recording financial transactions. They are strategic organisational resources that can support planning, control, efficiency, and competitive decision-making. In both IT and FMCG sectors, where the volume and complexity of information are high, effective AIS can become an important contributor to sustainable organisational performance.

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