

The Impact of the Use of Accounting Information Systems on Profitability of the Company: A Case Study of Zartech Nigeria Limited, Ibadan

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Abstract

The literature is extensive of the importance of an accounting information system (AIS) on the organizational performance. The use of AIS has been associated with business growth, boosted efficiency and enhanced profitability. However, existing researches are mostly concentrated on discussing evidences from large manufacturing companies. This study rather investigates the perceived impact of the use of AIS on the profitability of small and medium-scale enterprises (SMEs). Using a purposive random sampling technique, 50 employees of Zartech Nigeria Limited were selected in the accounting and marketing departments of the company in its Ibadan headquarters. Questionnaires and interviews were used as the research instruments. The data were analyzed using the ANOVA technique and the results were interpreted at 5% level of significance. Findings revealed that Zartech Nigeria Limited adopts AIS as its accounting staff were literate of the AIS tools. The respondents also stated that the use of AIS has bolstered their employer's goodwill and enhanced its profitability. Nevertheless, the participants rejected the notion that AIS can reduce production costs or increases sale revenues. Based on this, the study concludes that AIS is essential for business continuity as it traps leakages in expenses and tracks business incomes.

Keywords: AIS, organizational performance, profitability, SME

Date of Submission: 06-04-2023

Date of Acceptance: 18-04-2023

I. INTRODUCTION

Accounting information system(AIS) has been described to provide an orderly method for collecting, organizing and interpreting information about various business and financial transactions in which a company is involved (Alamo et al., 2020). It also enhances proper documentation and record keeping (Agbo and Ezuwore, 2020). In addition, having explicit AIS allows managers and employees to understand their duties and responsibilities, which help reduce uncertainties in decision making and execution of tasks (Yixuan and Arumugam, 2021). By extension, AIS is linked with economic prosperity. As companies implement the AIS, they become more efficient and this boosts the industrialization prowess of the companies. As industries grow, the economy as a whole grows as well (Khalid and Kot, 2021).

Despite the benefits of implementing systematic systems of profiling accounting information, companies (both for profits and non-profits) do not have large embrace for the systems. The primary restraining factor is the complexity that the AIS may demand (Agbo and Ezuwore, 2020). Also, infusing sound accounting systems in business operations requires technical expertise which many companies do not have in abundance (Alamo et al., 2020). More importantly, the development of ICT in accounting practice has placed more responsibilities on business executives to recruit and train technology-compliant staff. Thus, accounting systems are only solid if there are strong internal controls in the company (Khalid and Kot, 2021). In Nigeria, however, there is limited evidence that SMEs embrace good accounting practices in their record keeping and information management. This is despite the statutory demands from the Nigeria's regulatory institutions to require both public and private sectors to adopt evidence-based accounting systems.

Furthermore, the importance of AIS cannot be persuasive if it has limited impact on the profitability of the company. Professional accountants and finance experts have longed cherished AIS because of their concerns for steady turnover, profit making, and business growth. In an analysis of manufacturing firms in Nigeria, Agboola et al. (2020) reported that the failure of many enterprises in Nigeria is due to poor accounting systems. This is particularly evident if the company keeps no AIS or only keeps single entries and incomplete records (Agboola et al., 2020).

II. LITERATURE REVIEW

The use of AIS enhances the profit-making abilities of the users. This agrees with Orga and Nnadi (2020) who examined the role of AIS on the performance of Nigerian Bottling Company (NBC) located in 9th Mile Corner, Enugu. The authors administered questionnaires among 104 staff in accounting, production and marketing departments of the NBC. The results of the Chi-square analysis indicated that proper implementation of the AIS has bolstered the competitive advantage and profitability of the NBC. This finding reflects the earlier submissions of Ezenwoke et al. (2019) who linked the financial success of the NBC to sound AIS the company has been embracing.

Another benefit of the AIS was empirically reported by Onaolapo and Odetayo (2012) who investigated the impact of automated AIS on the performance of construction companies in Ibadan metropolis. Specifically, the effect of adopting the AIS on quality of financial reports and management decision making were uncovered. Analysis of variance (ANOVA) was used as the estimation technique. The findings suggested that the use of computerized AIS has improved the financial reports, making them based on international standards. In addition, the management of the sampled companies has made effective, motivating decisions since they have turned to AIS in the business operations. Ogbodedagu (2021) had similar objective and results as Onaolapo and Odetayo (2012) except that the former's research was based on the petroleum industry in Nigeria.

The adoption of AIS is also associated with organizational efficiency. Akanbi and Adewoye(2018) reported this significance of AIS in their analysis of commercial banks in Nigeria. Having specified and estimated a multiple regression model, Akanbi and Adewoye (2018) showed that the AIS is a mechanism of reducing costs of operations, tracking leakages in expenses and preventing slack in operations. This finding was echoed by Olaofe-Obasesin et al. (2020) when they investigated the impact of the AIS on the financial performance of the Lagos-based corporate firms. In addition to bolstering production efficiencies, the AIS is important in enhancing the profitability of corporations (Olaofe-Obasesin et al., 2020).

More recently, Lawal et al. (2022) analyzed the performance of employees of firms which implemented different variants of the AIS. The research was conducted during the Covid-19 pandemic. As a result, the data were collected virtually. The sampled corporate employees mentioned that the use of AIS imposed additional workload on them at the initial stage of adoption. Nonetheless, after they are duly familiar with the AIS over the longer term, the employees became more efficient in their activities. It goes that AIS is not only useful to boost the organizational performance, it is also important in heralding the staff performance.

The performance-enhancing quality of the AIS is also present among the small- and medium-scale enterprises (SMEs). Adebayo and Lamidi (2021) illustrated this when they purposively selected 101 SMEs in Lagos and evaluated the impact of AIS among them. The authors argued that not only does the AIS have the tendencies to improve quality of products and reduce production costs, it also helps in boosting the business goodwill. According to Adebayo and Lamidi (2021), the SMEs that were found to be AIS-compliant mentioned that they were favourites among customers, suppliers and regulators. Previously, Awosejo et al. (2013) described the invention of AIS as a mechanism which has added to the popularity of accounting as a profession. Thus, the use of AIS is the right means of boosting the goodwill of businesses.

III. METHODOLOGY

This research was descriptive in its design in that the perceived effects of AIS on the business profitability were described. The cause of the impact was not taken into account. The study area is Zartech Nigeria Limited which was founded in 1983 and headquartered in Ibadan. Using a simple random technique, 50 employees in the accounting and marketing departments of Zartech were selected to participate in this study. Questionnaires were the main source of data. The questionnaires contained two sections A and B. Section A contains 5 questions on the demographic characteristics of the respondents. Section B features 10 questions on the perceptions of the respondents of the impact of AIS on profitability of Zartech. Following the questionnaires, a semi-structured interview was conducted among 20 respondents.

While the questionnaires produced the quantitative data, the interviews provided the qualitative data which were complementary of the quantitative data. To determine the validity and reliability properties of the instruments, a pilot test was conducted among 10 respondents who were Zartech workers in the accounting department. The face and content validity of the instruments were confirmed by this approach. Also, the data obtained on the pilot study were grouped into two. They were then compared to give a Cronbach's alpha coefficient of 88%. This implies that the instruments have high reliability properties – they can measure what they were intended to measure in another sample.

Following the outcome of the pilot study, two gatekeepers were selected from the study area. This facilitated easy introduction of the researcher. The respondents filled the questionnaires on the spot while the interview sessions spanned two days. Having collected the questionnaire data, they were first presented in Excel spreadsheets. They were then coded before they were analyzed using analysis of variance (ANOVA) technique

on Stata software. The use of ANOVA allowed the researcher to compare differences in the mean responses of the participants. The ANOVA results were interpreted at 5% level of significance. That is, there is 95% chance that the findings can be replicated in repeated sample. In addition, the interview responses were complementary of the questionnaire responses.

IV. RESULTS

Demographic characteristics of respondents

Of the 50 respondents, 64% were male while 36% were female. The gender representation occurred by chance as the researcher did not purposively select more male than female respondents. However, Zartech Nigeria Limited generally has more male than female workers, so this may have contributed to the more fraction of male participants in this study.

Table 1: Gender of respondents

	No of respondents	Percentage
Male	32	64%
Female	18	36%
Total	50	100%

Also, while 60% of the respondents were single, the rest were married. In the interview sessions, the researcher obtained that the single workers were never married. The marital status of the respondents may be partly explained by their age distributions. Majority (60%) were below 30 years of age; 30% were in the age bracket of 31-40 years and the remaining 10% were above 40 years.

Table 2: Marital status of respondents

	No of respondents	Percentage
Single	30	60%
Married	20	40%
Total	50	100

Table 3: Age of respondents

	No of respondents	Percentage
Below 30 years	30	60%
31-40 years	15	30%
Above 40 years	5	10%
Total	50	100%

On their educational qualifications, 20% had bachelor's degree or HND, 50% were NCE/OND holders and 30% were secondary school leavers. It follows that Zartech does not predominantly employ workers who had university education. This may have major effects on the propensities to adopt and regularly use AIS within the visited departments. Finally, the years of experience of the respondents were also obtained. A large fraction (70%) had less than 5 years of experience; 20% have experience in accounting practice for between 5 and 9 years; and 10% were highly experienced for at least 10 years.

Table 4: Educational qualification of respondents

	No of respondents	Percentage
SSCE	15	30%
NCE/OND	25	50%
First degree/HND	10	20%
Total	50	100%

Table 5: Respondents' years of experience

	No of respondents	Percentage
Less than 5 years	35	70%
5-9 years	10	20%
At least 10 years	5	10%
Total	50	100%

Respondents' perceptions of the AIS

This section discusses the opinions of the respondents on the structure of the AIS adopted at Zartech and its impact on the profitability potentials of the company. The respondents were first asked whether Zartech

implemented an AIS and all the respondents answered in the affirmative. However, only 56% believe that the structure of AIS used at Zartech follows the required international mechanism. When asked if AIS practice affected the decision making of the Zartech’s management, 70% believed that the management periodically reviews its decisions to further enhance the use of AIS in the accounting department. The participants’ perspectives on the impact of AIS on business survival pointed that an organization that does not adopt AIS is unlikely to experience long-term growth. While discussing this further during the interview, the respondents mentioned that AIS easily blocks leakages of company’s resources. Therefore, if AIS is not in pace, it will be difficult to track the firm’s expenses and this may bring about business collapse.

The sampled employees also perceived AIS to have aided the profitability of Zartech’s operations. Majority of the participants (88%) agreed that AIS enhances business profitability; 72% suggested that AIS aids business survival; 90% supported that idea that AIS promotes efficiency. On the other hand, 52% declined that AIS can boost sale revenues and 54% were of the opinion that AIS is unlikely to reduce production costs. During the interview, some respondents asserted that implementing AIS rather increases the wage bill of the accounting department as there was increase in staff strength when Zartech became serious with AIS.

More importantly, 12% of the respondents indicated that AIS is a necessary, not sufficient, condition to bolster the profitability prowess of the company. In particular, according to the respondents, the use of AIS assists in maintaining proper record of business transactions and make it easy to track the history of every accounting entry. However, other departments such as production and marketing also have important role to supply sellable products to the market. This view of respondents is not markedly different from the conclusions in the literature (especially those of Adebayo and Lamidi, 2021 and Awosejo et al., 2013). Nevertheless, no matter the efforts of other departments in a company, the accounting department holds the steering of profits (Agboola et al., 2020). It follows that the business operations that are infused with sound, internationally-relevant AIS are more likely to be more profitable than those that ignore AIS.

ANOVA analysis of the respondents’ perceptions

To profile the respondents’ perceptions more exactly, the differences in their opinions on the profitability impact of AIS were subjected to an ANOVA analysis. This enabled the researcher to determine whether the differences are insignificant, making the opinions not to matter. According to Table 6, the differences in opinions of the respondents are significant on three variables and insignificant on two variables. This implies that the respondents generally agree that the use of AIS enhances profitability, aids business survival and promotes efficiency. However, the respondents cannot be said to generally disagree that the AIS adoption increases sale revenues and reduces production costs.

Table 6: Impact of AIS on profitability of business: ANOVA results

Impact of AIS	No of respondents that agree	No of respondents that disagree	Difference in mean responses	t-ratio	Remark
AIS enhances profitability	44 (88%)	6 (12%)	0.88	4.40*	Significant
AIS aids business survival	36 (72%)	18 (36%)	0.72	3.35*	Significant
AIS promotes efficiency	45 (90%)	5 (10%)	0.90	2.61*	Significant
AIS increases sale revenues	24 (48%)	26 (52%)	0.52	1.22**	Not significant
AIS reduces production costs	23 (46%)	27 (54%)	0.46	1.75**	Not significant

* = significant at 5%; ** = not significant at 5%

V. CONCLUDING REMARKS

The use of AIS in recording, interpreting and auditing business transactions has been linked with enhanced organizational performance. By making it easy to track the accounting information while making business decisions, the AIS is an evidence-based mechanism of bolstering the profitability and efficiency potentials of the business. However, many researchers have been interested in evaluating the role of AIS on the performance of large corporations. In difference to this, this study was intended to investigate the adoption of AIS among small and medium-scale enterprises. Hence, the staff of Zartech Nigeria Limited were randomly selected to participate in this study.

Findings revealed that the sampled employees were literate of the AIS and the company put in place the necessary tools to facilitate the integration of AIS. While the participants pointed that AIS is useful to boost the profitability prowess of business, there was no consensus on the significance of AIS to boost sale revenues or reduce production costs. The empirical analysis rather suggests that AIS would increase the profits through increasing business survival and efficiency. In short, the essence of AIS is to track leakages in the business expenses. As the leaks are trapped through sound AIS, the business is on the path of making continuous profits. Furthermore, AIS also ensures that the business spends only on transactions that may enhance its profits. As

expenses and incomes are recorded by AIS-technicians, the business worries less about its potentials to make increasing profits.

References

- [1]. Adebayo, A.O. and Lamidi, W.A. (2021). Accounting and Information Technology Alignment: The Influence on Organisational Performance. *Business Excellence and Management*, 11(1): 36-48
- [2]. Agbo, E.I. and Ezuwore-Obodoekwe, C.N. (2020). Relationship between Accounting Software and Accounting Information Processing in Nigerian Banks. *International Journal of Multidisciplinary Research*, 6(10): 58-71
- [3]. Agboola, O. S., Alimi, A. A., Adeoye, M. A. and Muhammed, L. S. (2020). Exploring the Impact of Accounting Information System on Profitability of Manufacturing Companies in Nigeria. *Journal of Accounting and Financial Management*, 6(1): 86-94
- [4]. Akanbi, T.A. and Adewoye, J.O. (2018). Effects of Accounting Information System Adoption on the Financial Performance of Commercial Bank in Nigeria. *Journal of Accounting and Marketing*, 7
- [5]. Alaoma, E.J., Unung, O.G., Anaezichukwuolu, A.G. (2020). Impact of Accounting Information System on Credit Management: Problems and Prospects. *European Journal of Business, Economics and Accountancy*, 8(3): 18-31
- [6]. Awosejo, O.J., Kekwaletswe, R.M., Pretorius, P. and Zuva, T. (2013). The Effect of Accounting Information Systems in Accounting. *International Journal of Advanced Computer Research*, 3(3), 142-151
- [7]. Ezenwoke, O. Ezenwoke, A. Eluyela, A and Olusanmi.O (2019). A bibliometric study of accounting information systems research from 1975-2017. *Asian Journal of Scientific Research*, 12: 167-17
- [8]. Khalid, B., Kot, M. (2021). The Impact of Accounting Information Systems on Performance Management in the Banking Sector. *IBIMA Business Review*: 578902
- [9]. Lawal, A., Mohamed, R., Abdalla, H., ElKelish, W. W. and Lasyoud, A. A. (2022). The role of accounting information systems in firms' performance during the COVID-19 pandemic. *Journal of Governance and Regulation*, 11(1): 45–54
- [10]. Ogbededagu. S.C. (2021). Impact of Accounting Information System on the Performance of the Petroleum Industry in Nigeria. *Bingham University Journal of Accounting and Business*, 260-269
- [11]. Olaofe-Obasesin, M. O., Akanni, W. A., Ekundayo, O., Ajibola, O. and Ajibola, F. (2020). Effects of Accounting Information System on Organization Performance in Nigeria. *International Journal of Software Engineering and Computer Systems*, 6(2): 18–22
- [12]. Onaolapo, A. and Odetayo, T. (2012). Effect of Accounting Information System on Organizational Effectiveness: A Case Study of Selected Construction Companies in Ibadan, Nigeria. *American Journal of Business and Management*, 1(4)
- [13]. Orga, J.I. and Nnadi, C.O. (2020). The Role of Accounting Information Systems on Organizational Performance (A Study of Nigerian Bottling Company, 9th Mile Corner, Enugu). *Sapientia Global Journal of Arts, Humanities and Development Studies*, 3(2): 76-87
- [14]. Yixuan, W. and Arumugam, D. (2021). The Impact of Accounting Information System on Organisational Performance in China. *Electronic Journal of Business and Management*, 6(4): 18-33