

**Impact of Operating Expenditure on Sales of IT Industry**  
**(A Case Study of Leading IT Organizations in Pakistan)**

Ifrah Arshad, Tahir Ali

Karachi University Business School (KUBS) Pakistan

[ifraharshad65@gmail.com](mailto:ifraharshad65@gmail.com)

**Abstract:**

This article aims to shed light on the challenges Pakistani businesses encounter while attempting to implement IT (Information Technology). I've created a model to look at the reasons why Pakistani businesses aren't using IT to streamline their operations. The focus of my preliminary research is on businesses that are having trouble incorporating IT in their operational procedures. Issues with integrating IT into existing business processes are outlined in this article. Additionally, the purpose of this study is to examine the relationship between sales and operating expenditures, which serve as the dependent and independent variables, respectively.

Information technology (IT) usage in businesses has been on the rise recently. The technology has progressed from being used to automate standardized activities to the development of truly revolutionary systems that alter the foundations of how businesses operate. It is widely held that "rather than merely being assisted by computers, organizations will live by them," adapting their operational models and strategies to take advantage of developments in IT. Even while there is a lot written about the link between IT and organizational change, not enough of it looks at the

topic from an economic angle. The purpose of this article is to learn how information systems affect several important indicators of a company's organizational structure.

**Keywords: Organization, Business, Information Technology, Issues, Problems, Factors, Operating Expenditure**

**Introduction:**

IT (Information Technology) utilization is increasing in Pakistani businesses. IT (Information Technology) use in business processes by Pakistani firms was first modest, but it is now rapidly spreading throughout the country. These issues are the primary reasons for the failure of Pakistani organizations. These issues may improve Pakistan's organizational growth if they are correctly articulated for organizations. Organizations that are geographically and far distributed may profit from doing so in order to manage all commercial activity in a specific region. In a large firm, simple physical departmental separation makes centralized coordination increasingly difficult, if not impossible. A well-organized problem-solving process is critical for improving organizational performance. Formal structure may not be required in extremely small groups with frequent face-to-face communication, but in larger organizations, decisions about delegation of specific functions must be made. Because of the rapid spread of technological advances and the convergence of information technology, the way firms compete has changed significantly. Many business companies are integrating information technology to get a competitive advantage in their area. IT processes data, gathers information, saves gathered materials, generates knowledge, and accelerates all forms of communication (Chan, 2000). If they want to obtain a competitive advantage through the use of information technology, business owners must keep tight control over this critical corporate resource and manage its utilization (Beheshti, 2004). However, since 1980, the majority of academics have viewed IT as a powerful competitive

aspect for firms (Porter and Miller, 1985; Clemons and Row, 1991). In the early days of the corporate sector, information technology was primarily considered as a support tool. However, in the current global market and e-commerce era, small and medium-sized firms (SMEs) can employ IT to better their competitive position alongside their larger rivals (Beheshti, 2004). According to Barau et al. (2001), small businesses use the Internet more frequently than larger businesses. First, management is unclear about how and why their companies employ IT in the first place (Levy et al., 2001). Second, there is misunderstanding about the IT adoption process, primarily because managers are unaware of the potential that IT may provide or do not understand the relationship between IT and the company itself (Bull, 2003).

### **Research Methodology:**

This chapter reviews the methodology adopted for the research which will include a description of the research problem, the research process and the data collection methods used. Saunders et al. (2003:3) define research “as something that people undertake in order to find out things in a systematic way, thereby increasing their knowledge.” This study first reviews the major issues and then focuses specifically on how to solve them. IT issues in Pakistan are varied enough; few are likely to be overcome in the near future and others are expected to remain over a much longer period. To help readers understand the nature of challenges to IT in Pakistan and give the ongoing importance of IT, it is equally important to study and review how to improve the IT adoption process in Pakistani organizations. There are so many issues which are faced by the organizations of Pakistan in using IT for their business processes. These issues have become the major problems of the downfall of the industries of Pakistan by which the economy is decreasing gradually.

**Statement of Hypothesis:**

*“Sales of IT companies cannot sustain in Pakistan mainly due to increased operating expenses.”*

This research hypothesis is constructed to show the impact of independent variable Operating Expense on the Sales of the IT industry which has been observed in few companies in the IT Industry from past years. In the hypothesis the contribution of operating expense is mentioned on the outcome of any company which is sales. The relationship will lead to a result of how these variables are interlinked for the companies in the IT industry.

**Data Collection:**

For data analysis Top IT companies are chosen in order to better understand how operating expenditure affect sales. The finance, sales and IT departments will be asked to provide their input. The senior management will also be interviewed to get his or her perspective on the matter. To support this hypothesis data is collected through both primary and secondary sources. The primary sources were Software House & IT Employees and Owner’s Association For secondary sources research articles, reports, and other publications were used. To procure more knowledge and to share detail analysis for this study we also reviewed annual reports of IT Companies which is further defining the relationship between Sales and Operating Expenses.

**Sampling:**

To study the impact of sales and operating expenses which are the dependent and independent variables in this research respectively. I will be evaluating the variables through a sampling process and the research instruments will be chosen according to each source. In this research we have used stratified random sampling method by selecting a sample of 100 employees at random within Karachi only. The 100 respondents (Software House & IT Employees) filled out a

questionnaire based on prior research and an interview was conducted by the member of an upper management working in the Software House.

### **Review of Literature:**

Very few studies have examined the direct relationship between IT company operating expenses and profitability. To determine which activities will boost margins and reduce operating costs, managers must comprehend the direct relationship between operating expenses and profitability. Does an investment in information technology increase a company's profitability? If true, is this effect due to the fact that such investments help increase sales, or because they cut overall operating costs? How does IT impact on profitability compare to that of advertising and R&D? These are crucial topics because IT investments represent a significant portion of organizations' discretionary spending, and managers must comprehend the potential effects and procedures for justifying and realizing the value of their IT and related resource allocation processes. Significantly, the impact of IT spending on sales and profitability is greater than that of other discretionary investments, such as advertising and research and development.

Operating expenses are the continuing, non-production-related costs associated with maintaining a business. In general, any cost that is not directly tied to the creation of a good or service is classified as an operating expense. Included in a company's operating expenses include rent, utilities, salaries, office supplies, and business travel. Operating expenses vary by industry and within an industry dependent on a company's business model and how it chooses to operate. Generally speaking, a rise in any form of corporate expense reduces earnings. Operating expenses are merely one sort of expense that is subtracted from net sales in order to calculate net profit. However, there are three levels of profit on an income statement, and the relationship

between operational expenses and profit is most evident when examining operating profit, also known as profit before interest and taxes.

We construct a model to explain the IT budget as a strategic response to three categories of contingencies: environmental, organizational, and technological. This model is based on prior research in this subject. In addition to separating the internal complexity of a company from the external complexity in which it operates, we also construct a third dimension, namely, dynamic vs. static. This enables us to grasp the nature of complexity and identify the internal and external, dynamic and static components that exert influences on IT budget. Consequently, our approach expands the context boundary to account for changing contexts when explaining IT expenditure. In addition, we employ a dependent approach and demonstrate that the industrial strategic significance of IT moderates the internal and external effects on IT expenditure.

### **Operating Expenditure Impact on Sales of IT Industry:**

According to the hypothesis generated in response to the problem statement, an increased operating expense is a variable that depends on a variety of different circumstances, and in this case, operating expenses depends on sales. To study the impact of sales and operating expenses which are the dependent and independent variables in this research respectively. I will be evaluating the variables through a sampling process and the research instruments will be chosen according to each source. The utilization of primary research incorporates immediate information for measuring the market's survivability, which further reveals the relationship between the aspects depending on variables influencing the overall organizational function.

### **Results and Discussion:**

The largest concentration of IT companies in Pakistan is in Pakistan's second-largest city, Lahore, with 3,567 companies. The federal capital of Pakistan, Islamabad, comes in second with

2,680 companies. Islamabad, Rawalpindi, Lahore, and Karachi currently account for around 90% of all IT companies registered with SECP.

To check further the relationship of the mentioned two variables and their contribution in our industry we have chosen 5 well renowned full-fledged Software Houses along with their performance for past 10 years among which I will be describing two;

- 1- Netsol Technologies Limited
- 2- Systems Limited
- 3- Telecard Limited
- 4- TRG
- 5- World call Limited

**Netsol Technologies Limited:**

When it comes to providing cutting-edge IT solutions for the worldwide asset finance and leasing market, NETSOL Technologies is unrivalled. NETSOL has helped countless companies gain an edge in the marketplace and streamline their operations over the past four decades.

We can witness the increase in Netsol sales by looking at the chart. Recently PKR devaluation has created

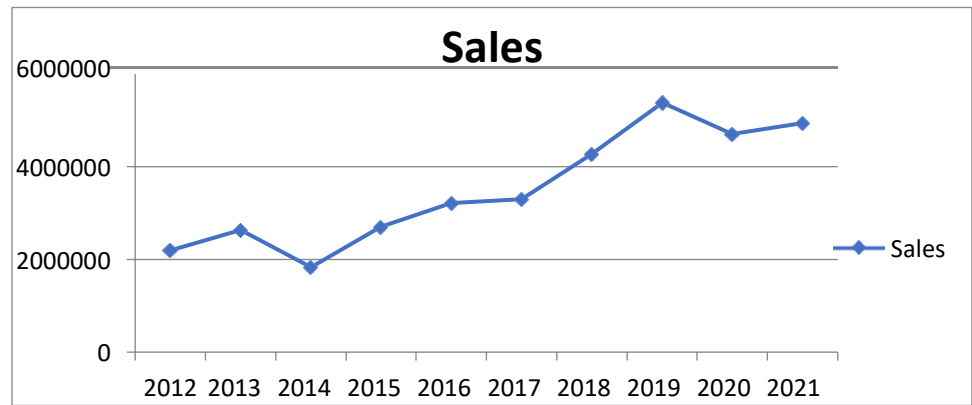


Figure 1 Netsol Sales

more incentive and surge in the revenue of Netsol like most IT companies. Netsol has also increased their services offered and devaluation has inflated the revenue further. Netsol experienced 8.55%

CAGR on its sales. And average growth of 12% per annum. Company's operating expenses surged as company expanded on

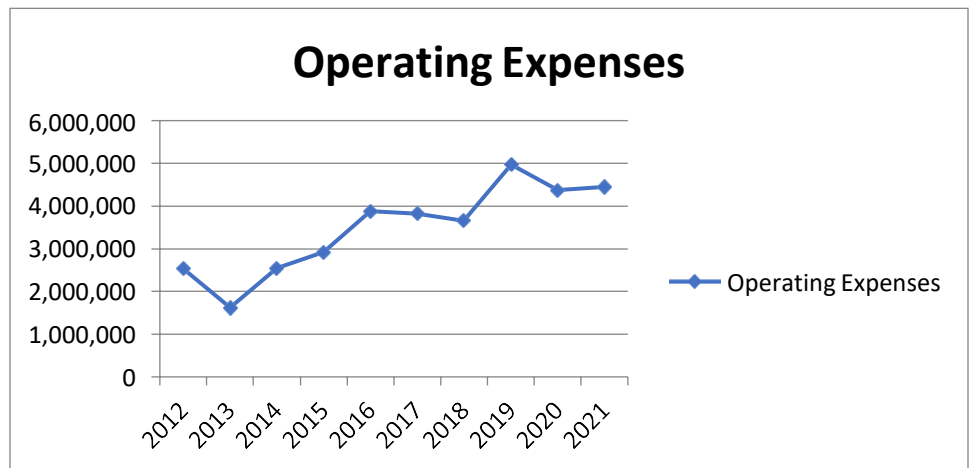


Figure 2 Netsol Operating Expenses

the services rendered and scale up its operations to capture more market. On the other hand surge in average inflation and salary expenses are also contributing factor. Salaries are higher for IT related employees due to shortage of required skills level in the country.

**Systems Limited:**



The Systems group of companies is a global force for digitally driven transformation, with a proven track record of four decades of solving difficult business problems. They have maintained leading position in the market by constant innovation over the past 45 years. We can witness the increase in Systems Limited sales by

looking at the above chart. Systems Limited has also increased their services offered and devaluation has inflated the revenue further. The graph indicates that the sales were very low in the previous years which

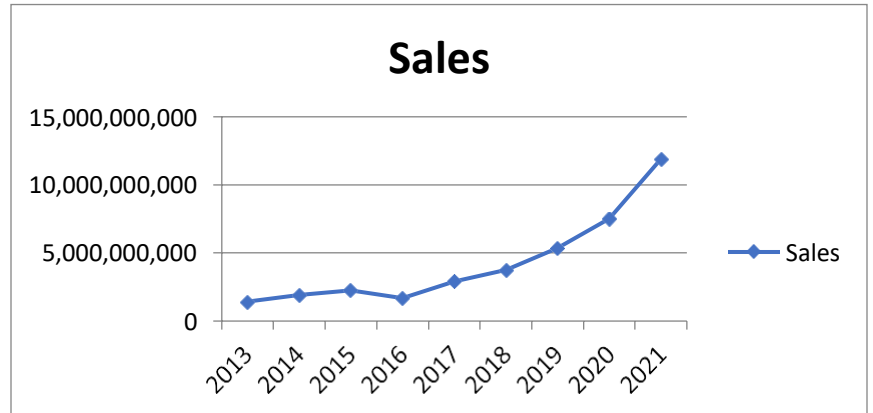
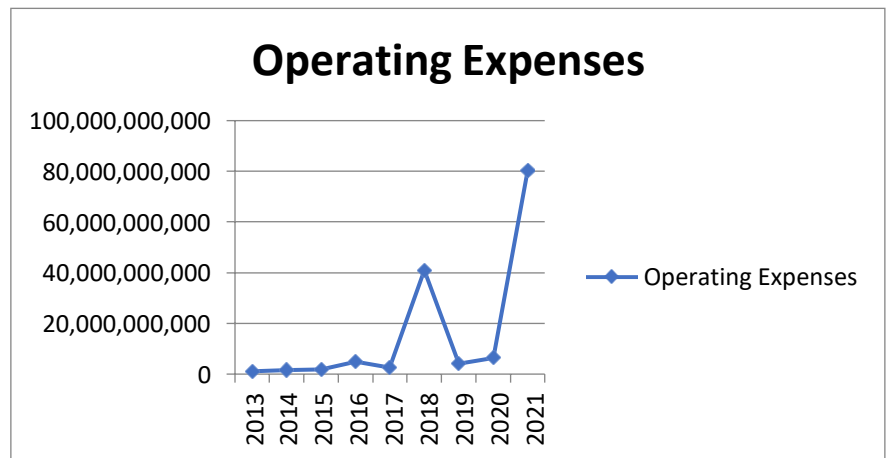


Figure 3 Systems Limited Sales

slowly started increasing since 2019 till 2021 it has rapid change.

As per the chart the Company's operating expenses surged as company expanded on the services rendered and scale up its operations to capture more market. On the other hand surge in average inflation and



**Figure 4 Systems Limited Operating Expenses**

salary expenses are also contributing factor. Salaries are higher for IT related employees due to shortage of required skills level in the country. If we look at the operating expense previous years were very low whereas there was an increase in 2018 with a drop from 2019 to 2020 and again it has risen from 2019 to 2020.

**Opinion of Employees:**

The responses gained through questionnaire were evaluated using the central tendency test of arithmetic mean and frequency, where the average value of each questionnaire factor was computed and studied. The questionnaire presented to the Software House and IT employees was based on Likert scaling technique. The data was gathered from the 70 respondents and we can see that in our survey numbers of female respondents are more than number of male respondents, we have data of 58.6% from female workers and 41.4% from male workers.

### Descriptive Statistics

|   | N   | Minimum | Maximum | Mean | Std. Deviation |
|---|-----|---------|---------|------|----------------|
| IT spending rises annually  | 100 | 1       | 5       | 4.36 | .785           |
| Internal software costs more than outsourcing                         | 100 | 1       | 11      | 3.71 | 1.358          |
| Outsourced software is more expensive than in-house                   | 100 | 1       | 5       | 3.54 | 1.243          |
| Our company uses the same sophisticated technologies as top companies | 100 | 1       | 5       | 3.86 | .995           |
| Buying and customizing third-party software is more effective         | 100 | 1       | 5       | 3.76 | .976           |
| Costly IT applications  | 100 | 2       | 5       | 3.80 | .932           |
| Top management supports improved information system                   | 100 | 1       | 5       | 4.13 | .861           |
| Scanners, routers, and other devices are updated rapidly              | 100 | 1       | 5       | 3.85 | .978           |
| Sales of IT industry is affected due to increased Operating Expenses  | 100 | 1       | 5       | 4.07 | .807           |
| Our workplace employs updated tech to achieve goals                   | 100 | 1       | 5       | 4.03 | .915           |
| Valid N (listwise)  | 100 |         |         |      |                |

The data collected through questionnaires is analyzed using MS Excel and SPSS. Furthermore, the analytical used to inference the findings is mean.

Majority of responses agreed that IT spending is rising annually over the past few years. More than 30% of responses agreed that internal software costs more than outsourcing whereas 42% agreed that Outsourced software is more expensive than in-house. And in between them 52% agreed that Buying and customizing third-party software is more effective and said that their company uses the same sophisticated technologies as top companies.

Sales are the dependent variable here while Operating Expenses is the independent variable. The result also shows that 51.4% of the respondents agree that Sales of IT industry is affected due to increased Operating Expenses giving a mean value of 4.16 and standard deviation of 0.860.

Operating expenses have a significant impact on sales and is a key factor in maintaining the company's long-term value. This study analyzed the impact of operating expenses on sales of IT industry and the results show that there is a significant impact between operating expenses consisting of salaries and wages, travel and transportation, rents and tariffs, repair and maintenance, advertising, entertainment & depreciation, and profitability of the company there.

### Frequency Distribution

**Table 1 Internal Costs more than Outsourcing**

|       |                   | Internal software costs more than outsourcing |         |               |                    |
|-------|-------------------|---|---------|---------------|--------------------|
|       |                   | Frequency                                     | Percent | Valid Percent | Cumulative Percent |
| Valid | Strongly Disagree | 2   | 2.9     | 2.9           | 2.9                |
|       | Disagree          | 14  | 20.0    | 20.0          | 22.9               |
|       | Neutral           | 15  | 21.4    | 21.4          | 44.3               |
|       | Agree             | 25  | 35.7    | 35.7          | 80.0               |
|       | Strongly Agree    | 14  | 20.0    | 20.0          | 100.0              |
|       | Total             | 70  | 100.0   | 100.0         |                    |

**Table 2 IT industry Sales is affected due to increased operating expenses**

| Sales of IT industry is affected due to increased Operating Expenses |                   |           |         |               |                    |
|--|-------------------|-----------|---------|---------------|--------------------|
|  |                   | Frequency | Percent | Valid Percent | Cumulative Percent |
| Valid  | Strongly Disagree | 1         | 1.4     | 1.4           | 1.4                |
|  | Disagree          | 3         | 4.3     | 4.3           | 5.7                |
|  | Neutral           | 11        | 15.7    | 15.7          | 21.4               |
|  | Agree             | 36        | 51.4    | 51.4          | 72.9               |
|  | Strongly Agree    | 19        | 27.1    | 27.1          | 100.0              |
|  | Total             | 70        | 100.0   | 100.0         |                    |

**Opinion of CEO:**

The primary objective of this interview is to explore the Impact of Operating Expenses on IT Industry Sales. In order to accomplish this, an interview was performed with the CEO of one of the renowned software company. When asked, what are some of the most significant issues facing the Sales of IT industry? According to him, Pakistan has an eager software industry that faces a range of obstacles. Concerning the increasing demand for the development and growth of the IT sector in Pakistan, the fact that this country only accounts for 1% of the worldwide IT industry is a source of great concern. Despite having sufficient expansion and growth potential, an increasing number of software companies are unable to fully utilize it due to the constraints that surround them. Upon further inquiry, how do you envision the future of the IT subfield in Pakistan? Pakistan's government and software companies have been competing for a better future in the country's IT sector. Generally, Pakistani businesses are unable to realize their goals or reach their full potential due to a lack of support and inadequate finance. The government of Pakistan must promote startups, attract international investors into the business, and foster a startup-friendly atmosphere in the country to aid companies. When it comes to government grants and incentives for the IT industry, however, official backing is still lacking.

**Conclusion:**

Based on the preceding discussion, we conclude that Pakistan is one of the recently developed countries that is in the development phase with regards to IT (Information Technology), and there are numerous changes occurring in Pakistani enterprises as a result of IT (Information Technology). However, there are still numerous challenges that Pakistani firms confront when utilizing IT. To improve an organization's performance by successfully resolving problems that is causing unhappiness among internal or external customers. It is critical to guarantee that issue solvers do not jump to solutions before first analyzing the causes of the problems. Its purpose is to provide a process that project management teams can use to maximize the contribution of each individual employee. Implementing solutions to problems that eliminate the difficulties through prevention methods allows issues to be simplified sequentially. Though upper level management in Pakistani firms is now aware of IT infrastructures for their business requirements and is ready to invest, there are still many challenges and gaps in strategic IT technology planning. As a result, these strategies do not function correctly when IT departments adopt IT solutions to provide support for diverse projects, increasing the likelihood of project failure. Higher-level management must recognize the relevance of IT departments in strategic decision-making. IT managers and CIOs should be involved in strategic decision making. Organizations and people in Pakistan are swiftly learning to use IT (Information Technology), but the government must move more quickly with new strategies to overcome all existing impediments.

**Recommendation:**

As operating expenses are a substantial contributor to sales income, the company must boost its advertising expenditures in order to increase sales. Due to the substantial impact of continuous expenses on sales, the company must increase its spending on sales promotion, technology, new infrastructure, and advertising in order to meet the evolving expectations of consumers. In order

to prevent more losses, the company should also reduce its financial expenses and allocate the same amount to its administrative and distribution operations. By modifying the company's expense structure, the considerable and malleable nature of operating expenses as a percentage of sales will help the company in the future.

**APPENDIX A: Questionnaire for Software House & IT employees**

**Strongly Agree = S.A.    Agree = A    Neutral = N    Disagree = D    Strongly Disagree = S.D.**

| S. No | Characteristics   | Strongly Agree | Agree | Neutral | Disagree | Strongly Disagree |
|-------|---|----------------|-------|---------|----------|-------------------|
| 1.    | IT spending rises annually  |                |       |         |          |                   |
| 2.    | Internal software costs more than outsourcing                         |                |       |         |          |                   |
| 3.    | Outsourced software is more expensive than in-house                   |                |       |         |          |                   |
| 4.    | Our company uses the same sophisticated technologies as top companies |                |       |         |          |                   |
| 5.    | Buying and customizing third-party software is more effective         |                |       |         |          |                   |
| 6.    | Costly IT applications  |                |       |         |          |                   |
| 7.    | Top management supports improved information system                   |                |       |         |          |                   |
| 8.    | Scanners, routers, and other devices are updated rapidly              |                |       |         |          |                   |
| 9.    | Sales of IT industry is effected due to increased Operating Expenses  |                |       |         |          |                   |
| 10.   | Our workplace employs updated tech to achieve goals                   |                |       |         |          |                   |

**References:**

- Barau, A., Konana, P., Whinston, A., & Yin, F. (2001). *Driving e-business excellence. MIT Sloan Management Review*, 43 (1), 36-44
- Beheshti, H. (2004), "Gaining and sustaining competitive advantage with activity based cost management system", *Industrial Management & Data Systems*, Vol. 104 No. 5, pp. 377-83
- Bull, C. (2003), "Strategic issues in customer relationship management (CRM) implementation", *Business Process Management Journal*, Vol. 9 No. 5, pp. 592-602.
- Chan, S.L. (2000), "Information technology in business processes", *Business Process Management Journal*, Vol. 6 No. 3, pp. 224-237. <https://doi.org/10.1108/14637150010325444>
- Clemons, E. K., & Row, M. C. (1991). *Sustaining IT advantage: the role of structural differences. MIS Quarterly*, 275-292
- Levy, M., Powell, P. and Yetton, P. (2001). *SMEs: aligning IS and the strategic context, Journal of Information Technology*, Vol. 16 No. 3, pp. 133-44
- Porter, M. E. (1985). *Competitive Advantage. New York, NY: Free Press*
- Saunders, M., Lewis, P., & Thornhill, A. (2003). *Research Methods for Business Students (3rd ed.)*. England: Prentice Hall.