Global Business and Economics Journal (ISSN 2816 6655)
Vol 5, Issue 2

Information Technology and Its Role in Optimizing Employee Performance: A Case Study on a Bangladeshi Organization

Md. Azazul Haq Sarker
Green University of Bangladesh
Email: md.azazulhaq@gmail.com

Abstract:

The effect of information technology (IT) on employee performance in modern workplaces is examined in this study. Information technology has become a crucial element for enhancing decision-making, productivity, and teamwork as firms rely more and more on digital platforms. Employee performance measures, such as productivity, work satisfaction, and efficiency, are examined in relation to the adoption of IT solutions, such as cloud computing, enterprise resource planning (ERP) systems, and communication tools. The study illustrates how IT improves time management, workflow efficiency, and creativity using both qualitative and quantitative methodologies. Furthermore, the study highlights obstacles including technological overload, inadequate training, and dependency problems that may prevent IT from reaching its full potential in improving worker performance. According to the findings, IT is vital for improving performance, but its full potential requires careful planning, administration, and training. This study provides insightful information for businesses looking to use IT to boost productivity and gain a competitive edge.

Keywords: Information Technology, Employee Performance, Bangladesh.

1. Introduction

The emergence and advancement in IT, advance technology and internetworking infrastructure and architecture has caused dramatic revolution in all aspect of human endeavor (Heslina, H., & Syahruni, A. 2021). Technological advancements, IT applications, and other technological components have altered corporate and organizational dynamics and demonisms (Zambrano, R. 2008). The development of IT and IS, as well as internetworking, has significantly transformed humankind from the industrial age to the computer and information age (also known as the "digital age"), and the world has become a digital one where all activities are conducted exclusively through IT and various IS are connected by communication networks, such as the internet, which is the lifeblood that connects the entire world (Malik, A.2019).

Since computers were the primary force behind the shift from the industrial to the information eras, their significance on a global scale cannot be overstated (Xu, M., David, J. M., & Kim, S. H. 2018). Information transmission between sources is now simpler and easier because to computers (Sharma, A., & Singh, B. J. 2020). Almost all offices are aware of and utilize computer systems because of the high caliber of the communication network (Kurt, R. 2019). Strong internetworking infrastructure and IT applications have created opportunities for businesses and organizations (Bowers, C. A. 2001).

Modern computers and technical advancements have made information transformation simple, quick, and accessible from anywhere at any time (Tinmaz, H. 2020). Applications and internetworking infrastructure based on IT and IS have increased the effectiveness, functionality, and adaptability of businesses and organizations. (Sanchez, R., & Mahoney, J. T. 1996). Organizations' business models may have even evolved as a result of IT-based strategies, making them more diverse (Terry Anthony Byrd, D. E. T. 2000). Internetworking infrastructures and computer applications have emerged as more important means of development and improvement, and they have enabled the realization of resources. (Alalade, A. M., Ejemeyovwi, J. O., Ekong, E. E., & Adeyemo, D. 2019).

Emphasis that the performance of blue-colored employees has been significantly impacted by IT automation (Debela, T. 2009). He maintained that the use of computer programs has increased their productivity. Because it facilitates organizational planning, regulating, directing, budgeting, and reporting, computer technology is essential for both public and private organizations (Chenhall, R. H. 2003). The internet and computer programs provide significant benefits and contributions to society (Mikre, F. 2011). Its significance has been demonstrated in the fields of commerce, education, the military, health, and the judiciary,

among other facets of national life (Herschel, R. T., & Jones, N. E. 2005). Improvements in service delivery, operation execution, product transformation, and finishing have been brought about by computer technology (Tao, F., & Qi, Q. (2017).

Bangladesh is a developing nation undergoing phases of transformation in its internetworking infrastructure and computer technologies. The majority of government agencies now use computers, the internet, and web-based information systems for operations and decision-making. The personnel of our firm are the target of this study. The purpose of this study is to investigate how information technology affects employee performance. The results of this study indicate that integrating technology into the workplace has raised worker productivity. Furthermore, the development of technology has helped to save time and reduce errors. However, appropriate training and workshops must be offered initially in order to get the most out of new technologies. To guarantee excellent performance and a high degree of customer satisfaction, all prerequisites must be satisfied before starting the implementation process.

2. Literature Review

The adventure of our organization began in February 1997. Since its founding, it has grown to rank among the biggest and most respected transport service providers in Bangladesh's travel and tour industry. It has the most comforts presently because it has been actively expanding its fleet. Bangladesh's air-conditioned tourist coaches include minibuses, coasters, microbuses, a fleet of vehicles, and four-wheel drive. Its HR consulting company is an additional aspect of its operations. They offer full human resource management services and systems across the country. They handle the contract employment cycle, payroll, invoicing, financing, and HR compliance, allowing the client to focus on their core skills. They are credited with creating business process outsourcing (BPO).

All methods of processing, storing, and transmitting data in an electronic format are referred to as information technology (IT) (Durairaj, S., & Vetrivel, V. (2024, June). Computers, fax machines, electronic software, and communication networks and tools are examples of the physical equipment used for this purpose (Morandini, S., Fraboni, F., De Angelis, M., Puzzo, G., Giusino, D., & Pietrantoni, L. 2023). Technology generally refers to a broad range of tools, computers, data storage, networking and communication channels, applications, and services that businesses utilize to generate knowledge and data (Fu, C. K., Moeins, A., & Zami, A. 2024). IT is viewed as an intellectual and cultural system, sometimes known as an information

creation culture, before it is viewed as a hardware system and a collection of patterns (Hadiansyah, H., Chandrarin, G., & Supriadi, B. 2024). Without fostering a culture of information production, IT systems cannot thrive (Heslina, H., & Syahruni, A. 2021). Thus, information-oriented thinking is the most crucial aspect of IT. (Sawitri, N. N., & Hendayana, Y. 2024). IT is not a collection of computers, supercomputers, wires, cables, and tools; rather, it is made up of a variety of good ideas (Sukmahati, R. D., Setiadi, P. B., & Dwi, F. 2024). In information technology, it is the thinking of wise people that generates information (Harahap, M. A. K., Sutrisno, S., Fauzi, F., Jusman, I. A., & Ausat, A. M. A. 2023). IT describes techniques for creating and gathering data (Nurhaliza, N. L., Rapini, T., & Hartono, S. 2024). By making computer programs smaller, less expensive, more applicable, and as simple as feasible, IT makes data available to everyone, everywhere (Diawati, P., Gadzali, S. S., Abd Aziz, M. K. N., Ausat, A. M. A., & Suherlan, S. 2023). Based on the IT concept, databases streamline intricate informational procedures inside the company, build organizational networks by joining organizations, and transform managers' short-term viewpoints into long-term ones (Wahyoedi, S., Suherlan, S., Rijal, S., Azzaakiyyah, H. K., & Ausat, A. M. A. 2023). The following elements are generally included in the concept of information technology: information-orientation, information-producing culture, data collection, summarization, and analysis, informational sensitivity, processing, network thinking, optimization, integration, research orientation, method-building, information storage, and transmission (Ekowati, Y., Firdaus, M., & Sulaksono, H. 2024).

Performance can be defined as the total expected quality and value in a particular job from an employee’s behaviors carried over a standard period of time (Sawitri, N. N., & Hendayana, Y. 2024). There are two distinct dimensions of work behaviors in job performance which are contextual (citizenship) performance and task performance (Hadiansyah, H., Chandrarin, G., & Supriadi, B. 2024). Contextual performance is described as the employee’s effort that is not directly related to their main job function but their efforts are important as they support the organizational, social, and psychological environment that serves as the critical catalyst for job activities and processes (Heslina, H., & Syahruni, A. 2021). Whereas, the task performance is defined as the employee perform the job activities are formally recognized as part of their jobs and the activities that will be contributed to the organization (Hasan, M. R., Ray, R. K., & Chowdhury, F. R. 2024). contextual performance produces a competitive advantage for organizations than task performance (Maryani, M., & Gazali, A. U. 2024).

Besides, job performance can also be defined as the individual behaviors that performed activities or tasks to achieve the organization's goal and objective (Sawitri, N. N., & Hendayana, Y. (2024). It is an important factor that will be affecting the profitability of the organization where inefficient job performance will destruct the overall organization productivity, profitability, and effectiveness (Heslina, H., & Syahruni, A. 2021). Other than that, Employee' job performance is significant for the organization as their performance and contribution will lead the business toward success, as well as achieve competitive advantages (Fu, C. K., Moeins, A., & Zami, A. 2024). Performances are also important for individuals as the accomplishment of a job and performing tasks at a high level can be a source of satisfaction (Sukmahati, R. D., Setiadi, P. B., & Dwi, F. 2024). It is an important factor that will be affecting the profitability of the organization where inefficient job performance will destruct the overall organization productivity, profitability, and effectiveness (Diawati, P., Gadzali, S. S., Abd Aziz, M. K. N., Ausat, A. M. A., & Suherlan, S. 2023). Other than that, Employee' job performance is significant for the organization as their performance and contribution will lead the business toward success, as well as achieve competitive advantages (Ekowati, Y., Firdaus, M., & Sulaksono, H. 2024). Performances are also important for individuals as the accomplishment of a job and performing tasks at a high level can be a source of satisfaction (Nurhaliza, N. L., Rapini, T., & Hartono, S. 2024). The employee's job performance can be affected by numerous factors in their working environment (Sawitri, N. N., & Hendayana, Y. 2024). Based on some researchers and practitioners, performances of employees at the workplace may affect by various factors which can be the change of job function, exclusive nature, systematic technology development, or weakening in job satisfaction (Nurhaliza, N. L., Rapini, T., & Hartono, S. 2024).

3. Methodology of the Study

This study utilized expletory research method conducted to find out Impact of information technology on performance of employees of Our organization. This method is use on new issue which is not study before. This method explores research questions that have not previously studied in depth. The goal of this research method is to formulate problems, clarify concepts and form hypothesis. In this report, I will try to show the impact of IT on our organization's employees on their work performance, absenteeism, error rate and find out whether it improve the work performance or not.

The exploratory research is a type of research conducted for a problem that has not been clearly defined. Exploratory research helps determine the best research design, data collection method and selection of subjects. It should draw definitive conclusions only with extreme caution. Given its fundamental nature, exploratory research often concludes that a perceived problem does not actually exist. Exploratory research often relies on secondary research such as reviewing available literature and/or data, or qualitative approaches such as informal discussions with consumers, employees, management or competitors, and more formal approaches through in-depth interviews.

3.1 Data and Sample

During the research, it conducted in-depth interviews with employees of our organization. Moreover, it searched previous years' service books to collect present rate of employees. It also designed a structure and unstructured questionnaire for employees. This structured questionnaire was the major tools of this research project. The entire questionnaire is prepared based on the Likert scale questionnaire (Robinson, J. 2024). There are five questions on employee performance, absenteeism, error rate, work load, efficiency and motivation.

The employees of this organization who work at least 3 years at this company and supervisor at least 10 people. Interview over the phone, face to face interview, and practical experience, were utilized during the questionnaire survey. Also, it uses secondary data, i.e., website, internet sources as well as service books. Through using purposing sampling method, the study obtains a survey to gather primary data from 38 participants from the employees.

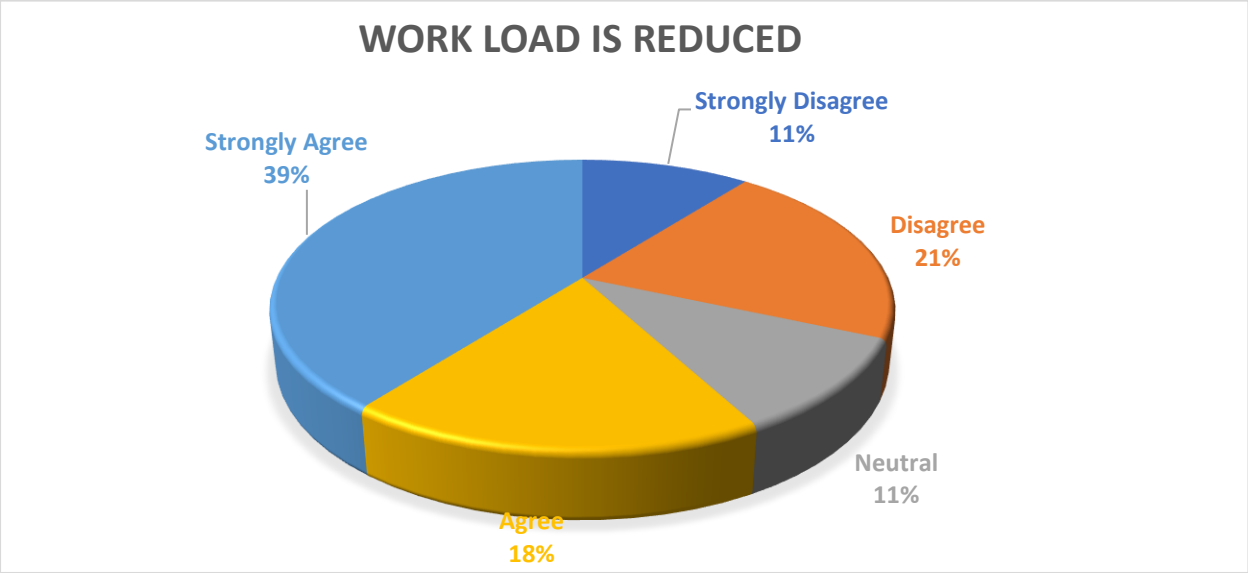
3.2 Data Analysis Tools

The analysis of collected data is completed with the help of the statistical tools. Likert-scale questions were placed and the answers were collected in five point such as: 1 indicating "strongly disagree," 2 "disagree," 3 "neutral," 4 "agree," and 5 indicating "strongly agree" on the five-point scale. The data was edited to ensure the integrity and logical consistency of the responses. After the data had been edited, quantitative analysis was performed using Microsoft Excel Sheet. The results of the analysis were presented in the form of tables and pie chart for ease of comprehension.

4. Results and Discussion

Table 1- Work Load is Reduced

	Frequency	Percentage
Strongly Disagree	4	11
Disagree	8	21
Neutral	4	11
Agree	7	18
Strongly Agree	15	39
Total	38	100



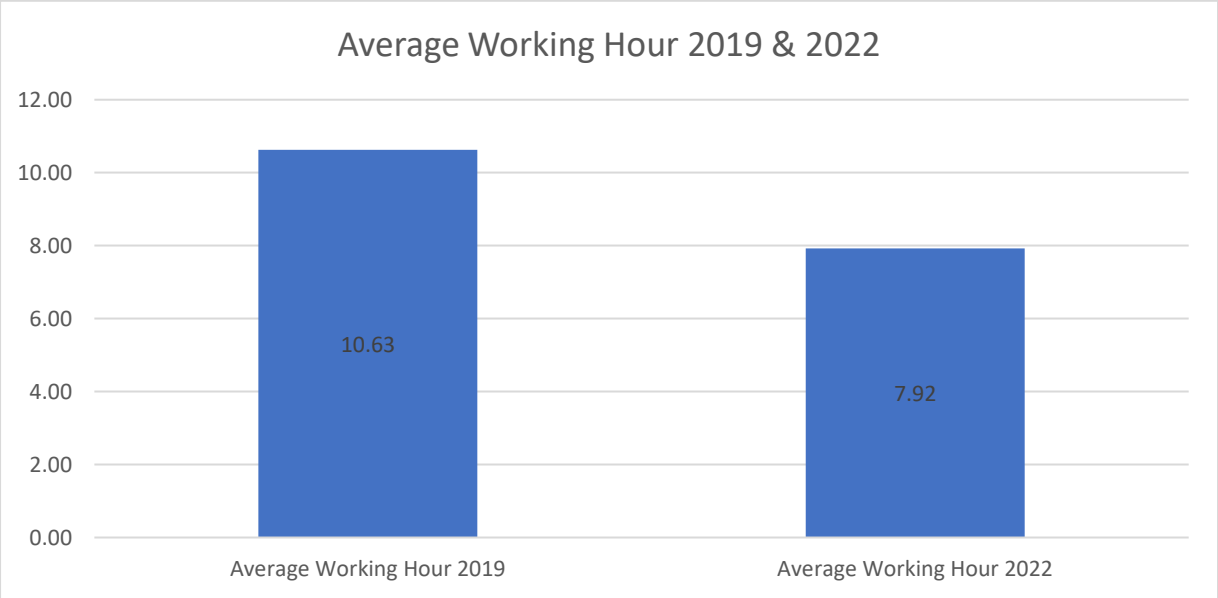
Reducing staff workload is one of the main goals of this organization's technology adoption. The number of responsibilities given to staff has significantly increased as the company has grown nationwide. The percentage of workers who think information technology (IT) has successfully reduced their workload is seen in Table 1. The company has streamlined a number of procedures using digital technology to increase operational efficiency and reduce human labor. For example, customers can now effortlessly make transactions via internet banking, mobile banking, and other online payment methods, eliminating the need for staff to physically visit clients to collect payments. This development not only streamlines the payment procedure but also cuts down on the time staff members spend collecting payments.

The company also has integrated online ordering tools, which enable customers to place purchases directly through digital channels. Employee workload is decreased because they are no longer need to manually go over every package from beginning to end. Through the use of

these technological solutions, the organization has improved overall efficiency and streamlined operations, allowing staff to concentrate on more strategic and value-driven work.

Table 2- Average working hours from the service book

Month	Average Working Hours 2019	Average Working Hours 2022
January	12.5	8.5
February	10.5	7.5
March	11	8
April	9.5	7.5
May	12	7
June	9.5	8
July	9	8.5
August	10.5	7.5
September	11	8
October	9.5	8.5
November	11	8
December	11.5	8
	10.63	7.92



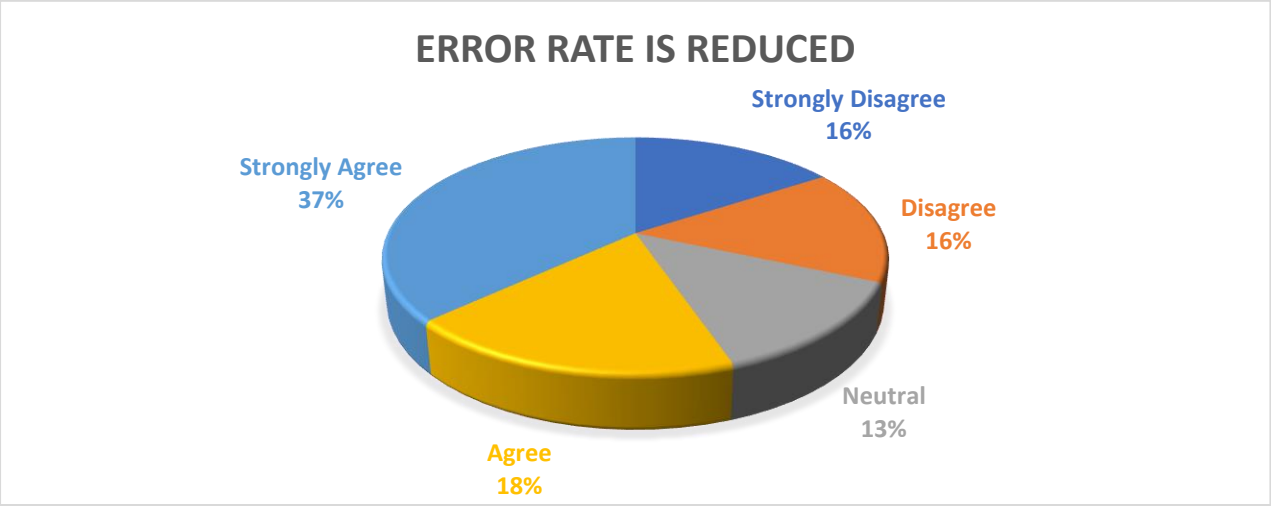
The organization's strategic use of information technology (IT) is partly responsible for the notable decrease in employee working hours between 2022 and 2019. Employees' average workday in 2019 lasted 10.63 hours, which was indicative of the labor-intensive, manual jobs they had to perform. However, the typical workday has been shortened to 7.92 hours in 2022—nearly a full shift shorter—due to the deployment of IT technologies intended to automate and streamline numerous activities.

Many technological developments that have streamlined and expedited daily tasks are to blame for this reduction in working hours. Once requiring a great deal of time and effort, tasks like inventory management, order processing, and payment collection are now effectively completed by automated systems. Instead of doing labor-intensive or repetitive tasks, these solutions let employees to concentrate on higher-priority tasks that require greater cognitive effort.

The number of working days divided by the total number of hours worked in a month is the basis for calculating the average working hours. Employees can now accomplish the same or even greater levels of production in less hours by cutting down on the amount of time spent on repetitive chores. This not only improves work-life balance but also aids in resource optimization for the company, highlighting the important influence of IT integration on worker productivity and general job satisfaction.

Table 3- Error rate is reduced

	Frequency	Percentage
Strongly Disagree	6	15.79
Disagree	6	15.79
Neutral	5	13.16
Agree	7	18.42
Strongly Agree	14	36.84



Many tools and software, such Tally and Grammarly, have been used to greatly increase worker productivity and engagement. These technologies include sophisticated capabilities that streamline processes, increase accuracy, and automate operations, enabling workers to do their work more quickly. For example, Tally simplifies data administration and financial tracking, freeing up staff members to concentrate more on strategy and decision-making than on

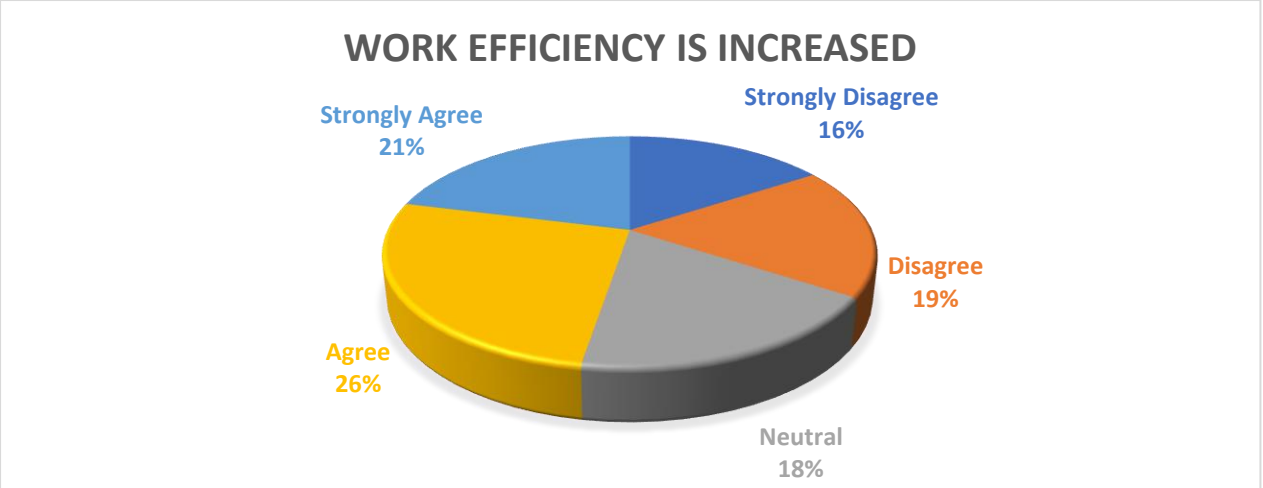
administrative duties, while Grammarly helps staff members write better by offering real-time grammar and style recommendations. These tools are therefore intended to increase output, lower mistakes, and provide a smoother working environment.

Nevertheless, a noteworthy 15.79% of workers strongly disagree with the claim that these tools have improved their work experience, despite the numerous advantages. The time needed to become acquainted with new technologies is the main cause of this discontent. Some employees may find it difficult to make the switch from traditional to digital tools, particularly if they are not used to utilizing such technology in their day-to-day work. As staff members become used to the new systems, this learning curve may cause them to become frustrated, lose confidence, and perhaps experience a brief decline in productivity.

Thus, while the use of cutting-edge tools has the potential to significantly increase productivity, companies also need to make sure that staff members have the necessary training and assistance to make the most of these tools.

Table 4- Work Efficiency is increased

	Frequency	Percentage
Strongly Disagree	6	15.79
Disagree	7	18.42
Neutral	7	18.42
Agree	10	26.32
Strongly Agree	8	21.05



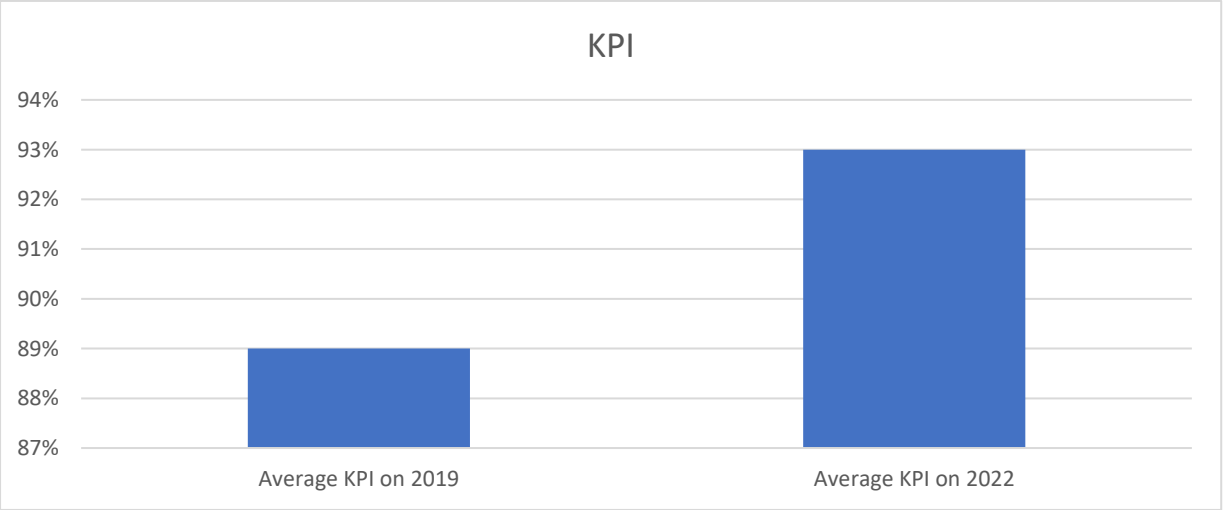
The degree of employee satisfaction following the implementation of information technology in the workplace is shown in Table 4. Employee satisfaction has undoubtedly improved as a result of the introduction of technology, which has greatly simplified a variety of activities and made them much easier than manual operations. The majority of workers concur that

technology has made their daily tasks easier, which has improved productivity and effectiveness at work. For instance, staff can now concentrate on higher-level duties that call for more strategic input because the automation of report preparation has removed the need for laborious manual data entry.

Moreover, employees can access vital information from any location at any time thanks to network system availability. Those who must communicate across time zones or who work remotely would particularly benefit from this flexibility. Routine duties are handled by technology, which relieves employees of administrative burdens and increases productivity and job satisfaction. Most respondents agreed that the use of technology in the workplace has been beneficial, making work processes more efficient and simplifying jobs, which has increased employee satisfaction overall.

Table 5 - KPI is increased

Average KPI on 2019	Average KPI on 2022
89%	93%



It is evident that employee performance significantly improved after the introduction of information technology (IT), as seen by the average Key Performance Indicator (KPI) in 2022 being greater than in 2019. However, by 2022, the average KPI had risen to 93% from 89% in 2019. This 4% increase suggests that overall employee effectiveness and efficiency have increased as a result of the integration of IT solutions.

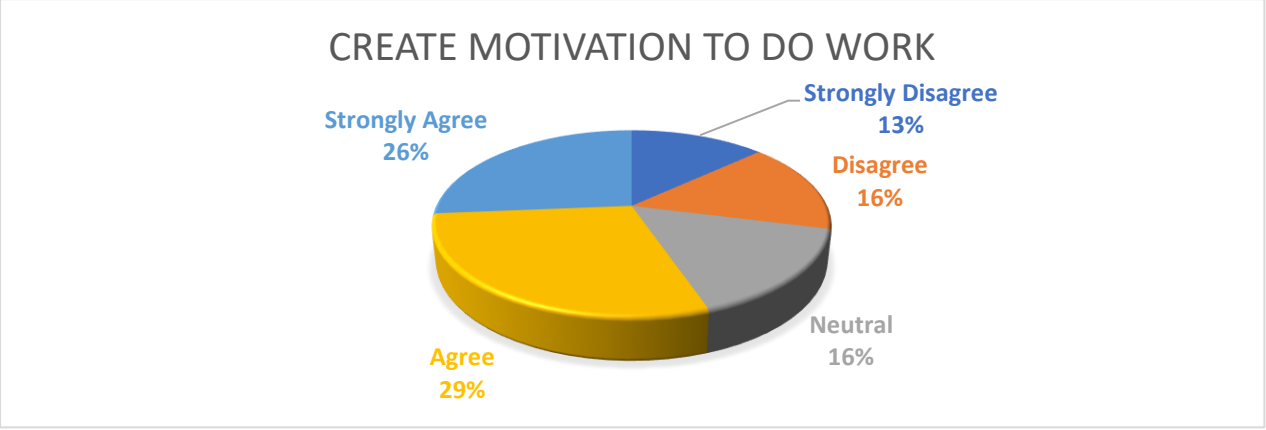
Technology has simplified a number of important procedures, freeing up staff members to concentrate on higher-value work by cutting down on the amount of time needed for repetitive duties. Employees are now able to do jobs more quickly and precisely thanks to tools like

communication platforms, data analysis software, and automated reporting systems. Employees are therefore better able to consistently meet or surpass their goals, which raises average KPIs.

Furthermore, IT solutions have boosted decision-making skills, collaboration opportunities, and real-time information availability for staff members. Employee productivity has increased thanks to these technological developments, which have also made it possible for them to produce better work. The increased trend in KPIs from 2019 to 2022 is unmistakable proof that IT adaptation has been essential to improving employee performance and more effectively accomplishing organizational objectives.

Table 6- Motivated to do work

	Frequency	Percentage
Strongly Disagree	5	13.16
Disagree	6	15.79
Neutral	6	15.79
Agree	11	28.95
Strongly Agree	10	26.32



Information technology (IT) has significantly increased employee engagement at work, according to 26.32% of respondents who were asked about their staff's motivation. Although the majority acknowledges the beneficial impact of IT, some employees may still be getting used to the changes, as seen by the additional 15.79% of respondents who were unsure about this statement (Table 6).

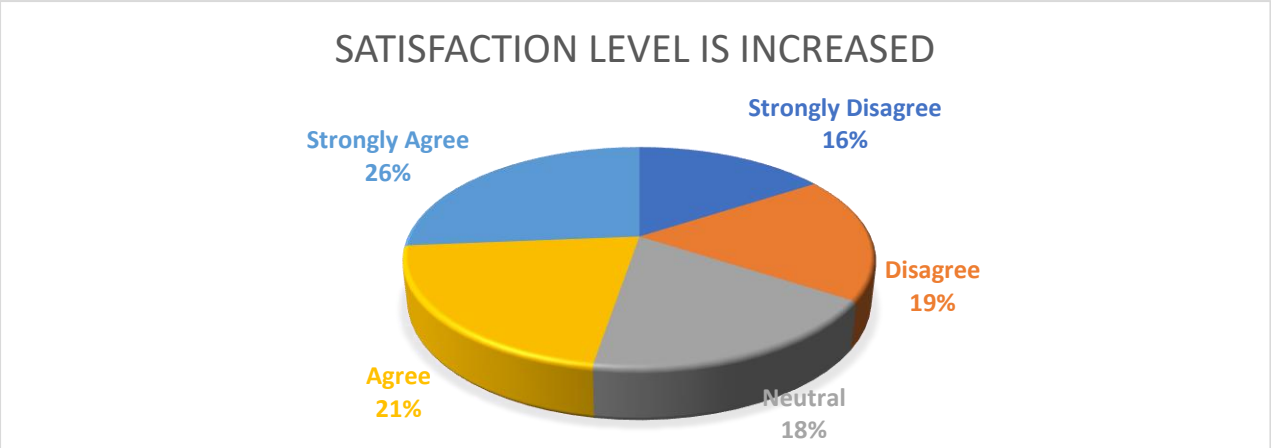
The adoption of cutting-edge technologies at Work Palace has resulted in a more engaged and driven workforce. Workers are encouraged to experiment with and learn about new technology in addition to being able to complete their work more quickly. This fosters a culture of ongoing education and training, encouraging staff members to increase their knowledge of emerging

technologies. Employees feel empowered and supported in their professional development as IT improves work performance when compared to earlier approaches.

Additionally, the integration of IT systems has simplified employees' everyday chores, freeing them up to concentrate on more fulfilling work that promotes both professional and personal fulfillment. Employee autonomy increases as a result of technology's ability to streamline and improve work processes, which in turn increases motivation levels. The favorable reaction to IT's effect on motivation demonstrates how technology may boost output and job satisfaction while promoting a more proactive and motivated staff.

Table 7- Satisfaction level is increased

	Frequency	Percentage
Strongly Disagree	6	15.79
Disagree	7	18.42
Neutral	7	18.42
Agree	8	21.05
Strongly Agree	10	26.32



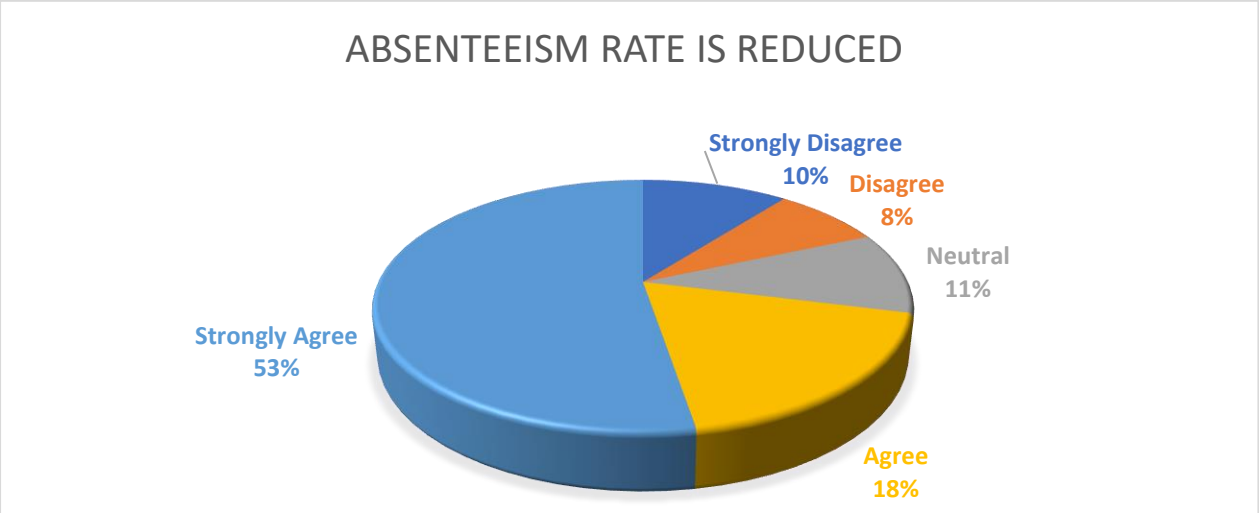
One important factor in determining how information technology affects morale and productivity at work is the level of pleasure that employees have after using it. According to Table 7, there is broad agreement that technology significantly contributes to tasks being less labor-intensive and more efficient than manual techniques, which in turn increases employee satisfaction. A significant number of respondents—26.32 percent—strongly concur that using technology makes their work easier, recognizing the many advantages it offers. These advantages include boosting accuracy, reducing time, and allowing staff members to concentrate on more creative and strategic parts of their work.

Yet, a sizable portion of respondents—15.79%—strongly disagree with the assertion that technology has simplified their work. This group might have faced obstacles that prevented them from using the technology efficiently, such as poor training, problems with the device itself, or other difficulties. Additionally, 18.42% of workers said they were neutral, meaning they didn't agree or disagree with the statement. This can indicate that these employees have not used the technology to its full potential or that they are unconcerned about how it affects their work.

These differing viewpoints emphasize how crucial it is to attend to the specific needs of each employee and offer sufficient resources, assistance, and training to guarantee that technology is used productively at work. The general pattern indicates that although the majority of workers gain from technology, its application and accessibility for all workers might yet be enhanced.

Table 8- Absenteeism rate is reduced

	Frequency	Percentage
Strongly Disagree	4	10.53
Disagree	3	7.89
Neutral	4	10.53
Agree	7	18.42
Strongly Agree	20	52.63



A significant portion of respondents, 20 people (52.63%), strongly believe that the use of information technology (IT) has resulted in a discernible decrease in employee absenteeism, as shown by the data in Table 8. This is an important conclusion since it implies that IT systems are a major factor in raising employee engagement and attendance at work. Employees are less

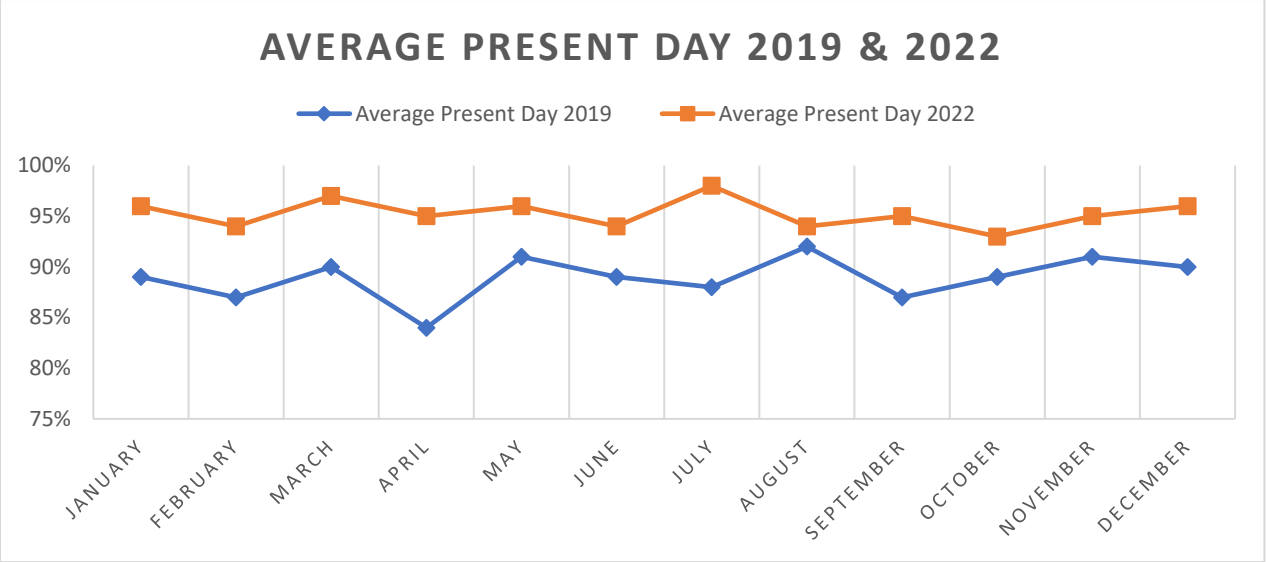
likely to miss work because of laborious or antiquated procedures when they can complete jobs more quickly and obtain vital information whenever they need it. Absenteeism may decrease as a result of IT systems' ability to optimize processes, lower errors, and give staff members the resources they need to handle their jobs more skillfully.

The opinions of the seven respondents (18.42%) who disagree with the statement should be taken into consideration, nevertheless. These people might have had varying experiences with the technology, including technical issues, inadequate training, or a lack of integration between their everyday jobs and IT systems. These elements may make it less successful for certain workers to use IT to cut down on absenteeism, showing that not all workers gain equally from technology.

Notwithstanding this disagreement, the majority of respondents seem to agree that using IT systems does, in fact, contribute to lower absenteeism. The statistics, which show a 5% decrease in absenteeism, provide compelling evidence that IT applications may improve attendance by reducing employee stress and making work easier to do. Overall, by addressing variables that could otherwise contribute to absenteeism, our findings highlight the potential of IT to not only increase productivity but also foster a more stable and engaged workforce. As a result, companies may profit from making further investments in IT solutions to develop a more dedicated and productive workforce.

Table-9- Employees present at office according to Service book

Month	Average Present Day 2019	Average Present Day 2022
January	89%	96%
February	87%	94%
March	90%	97%
April	84%	95%
May	91%	96%
June	89%	94%
July	88%	98%
August	92%	94%
September	87%	95%
October	89%	93%
November	91%	95%
December	90%	96%
	89%	95%



The information provided compares the percentage of workers who were in the office in 2019 and 2022 based on the service book. According to the data, employee attendance in 2022 was noticeably higher than in 2019, which implies that a number of reasons, including the advent of information technology, may have played a role in this encouraging trend.

During January 2022, for example, the average attendance rate rose to 96% from 89% in January 2019. In a similar vein, the attendance percentage increased from 87% in 2019 to 94% in 2022 in February. Throughout the year, this steady upward trend is maintained, with the biggest increase occurring in July, when attendance in 2019 was 88% and in 2022 it was 98%.

When comparing the annual averages, the attendance rate was 89% in 2019 and 95% in 2022. This 6% increase indicates a notable change in the number of employees showing up for work. This change could be due to a number of factors, including improved workplace management, more employee engagement, or the influence of technology in creating simpler and more adaptable work environments.

These results imply that increased employee satisfaction and a better likelihood of regular attendance at work may have resulted from the beneficial effects of IT and other organizational reforms. It's evident that workplace practices and technology developments have contributed to increased employee attendance, which may raise general involvement and productivity.

5. Conclusion

The study examined the effect of information technology on the performance of employees in our organization. Employee performance is significantly impacted by IT, according to the

report. Numerous metrics have been used to measure performance, including decreased workload, increased employee satisfaction, increased motivation, decreased employee absenteeism, and increased worker efficiency. The findings indicate that both the error rate and employee absenteeism are decreased by IT applications. 52.63% of employees strongly agree and 18.42% agree that information technology has decreased employee absenteeism, whereas 39% of employees agree and 18% strongly think that it lowers their word load.

Making large expenditures in technology can significantly improve a company's capacity to compete and run more efficiently. Given how crucial employees are to any business, every effort must be made to support them in doing their duties more successfully and efficiently. This offers the company a competitive edge in terms of reduced operating expenses and improved customer service. Employee productivity is significantly impacted by IT, according to research. Reduced workload, improved motivation, lower error rates, and increased efficiency have all been linked to lower employee productivity, job satisfaction, and absenteeism. The hypothesis was tested to see if there is a strong positive correlation between employee performance and IT utilization in the banking sector. According to individuals who replied within the organization, information technology has a favorable impact on performance. The study's conclusions indicate that our company uses technology to give its employees a competitive edge by guaranteeing continuously high performance.

References:

Bowers, C. A. (2001). Computers, Culture, and the Digital Phase of the Industrial Revolution: Expanding the Debate on the Educational Uses of Computers. The Trumpeter, 17(1)

Chenhall, R. H. (2003). Management control systems design within its organizational context: findings from contingency-based research and directions for the future. Accounting, organizations and society, 28(2-3), 127-168.

Debela, T. (2009). The role of information technology in enhancing the administrative capacity of the civil service: lessons from the USA. Journal of Business and Administrative Studies, 1(1), 21-47.

Diawati, P., Gadzali, S. S., Abd Aziz, M. K. N., Ausat, A. M. A., & Suherlan, S. (2023). The role of information technology in improving the efficiency & productivity of human resources in workplace. Jurnal Teknologi Dan Sistem Informasi Bisnis, 5(3), 296-302.

Durairaj, S., & Vetrivel, V. (2024, June). The Effect of AI in Employee Performance Evaluation on Employee Retention in the Information Technology Sector. In International Conference on Digital Transformation in Business: Navigating the New Frontiers Beyond Boundaries (DTBNNF 2024) (pp. 88-108). Atlantis Press.

Ekowati, Y., Firdaus, M., & Sulaksono, H. (2024). Assessing Employee Performance Based on Human Resource Quality and Technology Utilization. Innovation Business Management and Accounting Journal, 3(3), 444-453.

Fu, C. K., Moeins, A., & Zami, A. (2024). Enhancing Employee Performance Within the Digital Workplace is a Key Focus. Siber International Journal of Digital Business (SIJDB), 1(3), 89-98.

Hadiansyah, H., Chandrarin, G., & Supriadi, B. (2024). Improving Employee Performance through Digitalization and Skilling Processes. Innovation Business Management and Accounting Journal, 3(3), 335-344.

Harahap, M. A. K., Sutrisno, S., Fauzi, F., Jusman, I. A., & Ausat, A. M. A. (2023). The Impact of Digital Technology on Employee Job Stress: A Business Psychology Review. Jurnal Pendidikan Tambusai, 7(1), 3635-3638.

Hasan, M. R., Ray, R. K., & Chowdhury, F. R. (2024). Employee performance prediction: An integrated approach of business analytics and machine learning. Journal of Business and Management Studies, 6(1), 215-219.

Heslina, H., & Syahruni, A. (2021). The influence of information technology, human resources competency and employee engagement on performance of employees. *Golden Ratio of Human Resource Management*, *1*(1), 01-12.

Herschel, R. T., & Jones, N. E. (2005). Knowledge management and business intelligence: the importance of integration. Journal of knowledge management, 9(4), 45-55.

Kurt, R. (2019). Industry 4.0 in terms of industrial relations and its impacts on labour life. Procedia computer science, 158, 590-601.

Malik, A. (2019). Creating competitive advantage through source basic capital strategic humanity in the industrial age 4.0. International Research Journal of Advanced Engineering and Science, 4(1), 209-215.

Maryani, M., & Gazali, A. U. (2024). The Effect of Work Conflict on Job Stress & Employee Performance. Golden Ratio of Human Resource Management, 4(2), 158-171.

Mikre, F. (2011). The roles of information communication technologies in education: Review article with emphasis to the computer and internet. Ethiopian journal of education and sciences, 6(2), 109-126.

Morandini, S., Fraboni, F., De Angelis, M., Puzzo, G., Giusino, D., & Pietrantoni, L. (2023). The impact of artificial intelligence on workers' skills: Upskilling and reskilling in organisations. Informing Science, 26, 39-68.

Nurhaliza, N. L., Rapini, T., & Hartono, S. (2024). The Effect of Work Environment, Workload and Information Technology on Employee Performance. Jurnal Ilmiah Manajemen Kesatuan, 12(4), 1325-1336.

Robinson, J. (2024). Likert scale. In Encyclopedia of quality of life and well-being research (pp. 3917-3918). Cham: Springer International Publishing.

Sanchez, R., & Mahoney, J. T. (1996). Modularity, flexibility, and knowledge management in product and organization design. Strategic management journal, 17(S2), 63-76.

Sharma, A., & Singh, B. J. (2020). Evolution of industrial revolutions: a review. International Journal of Innovative Technology & Exploring Engineering, 9(11), 66-73.

Sawitri, N. N., & Hendayana, Y. (2024). The Influence of Organizational Culture, Information Technology, Work Environment and Compensation on Employee Performance Which is Moderate by Work Motivation at PT XYZ. Dinasti International Journal of Management Science, 5(3), 698-719.

Sukmahati, R. D., Setiadi, P. B., & Dwi, F. (2024). The Influence of Digital Technology and Work Facilities on Performance Through Employee Job Creativity at the Inspectorate of East Java Province. Jurnal Ekonomi, 13(02), 171-185.

Tao, F., & Qi, Q. (2017). New IT driven service-oriented smart manufacturing: framework and characteristics. IEEE Transactions on Systems, Man, and Cybernetics: Systems, 49(1), 81-91.

Terry Anthony Byrd, D. E. T. (2000). Measuring the flexibility of information technology infrastructure: Exploratory analysis of a construct. Journal of management information systems, 17(1), 167-208.

Tinmaz, H. (2020). History of industrial revolutions: From homo sapiens hunters to bitcoin hunters. Blockchain Technology for Industry 4.0: Secure, Decentralized, Distributed and Trusted Industry Environment, 1-26.

Wahyoedi, S., Suherlan, S., Rijal, S., Azzaakiyyah, H. K., & Ausat, A. M. A. (2023). Implementation of Information Technology in Human Resource Management. Al-Buhuts, 19(1), 300-318.

Xu, M., David, J. M., & Kim, S. H. (2018). The fourth industrial revolution: Opportunities and challenges. International journal of financial research, 9(2), 90-95.

Zambrano, R. (2008). E-governance and development: Service delivery to empower the poor. International Journal of Electronic Government Research (IJEGR), 4(2), 1-11.