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IMPACT OF INFORMATION TECHNOLOGY ON THE PERFORMANCE OF SMALL AND MEDIUM ENTERPRISES: A STUDY OF SELECTED SMEs IN JHARKHAND

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ABSTRACT

In India, Small and Medium Enterprise plays an important role in the economic development of a country. Their role in the terms of production, employment generation, contribution to exports, and facilitating equitable distribution of income is very critical. This paper presents the results of research carried out to learn about the impact of information technology on the performance of small and medium enterprises in India. The present study highlights the various influencing factors of information technology (IT) adoption in SMEs and shows the perception of SMEs owners/ECO/Managers about the impact of IT on their business. There are certain barriers and problems in the implementation of information technology in SMEs, which are also highlighted in this study.

Keywords: *Information Communication, Small and Medium Enterprises (SMEs), Manager/Owner/ECO.*

Introduction

The social, political, legal, economical, and organizational environment is directly affected by the various environmental changes in which technology changes are taking a very important role. These technological changes are also affecting the business world moreover in this changing internet are playing a very important role.

In the present time, the way of doing business with the traditional way has been changed due to the enactment of information technology. Nowadays information technology is an important medium of doing global business. IT is affecting every aspect of business in Indian SMEs. Information technology tools can help SMEs to increase their competitiveness globally.

Indian Small and Medium Enterprises (SMEs) an Overview

Small and Medium Enterprise plays an important role in the economic development of a country. Their role in terms of production, employment generation, contribution to exports, and facilitating equitable distribution of income is very critical.

SMEs employ around 40% of India's workforce, which is an estimated 80 million people, who are given an opportunity for livelihood and employment via low-skilled jobs. Around 1.3 million SMEs contribute 45% to India's manufacturing output and 40% of India's total export. In a way, they form the backbone of the Indian economy. There are around 6000 products manufactured by 31.7% SMEs while the remaining 68.2% are engaged in delivering various services. This sector, if extended the right support, has the potential to spread industrial growth throughout the country. Small and Medium Enterprise currently contributes to about 30% of India's GDP now (source: financial express).

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Indian Enterprises are classified into two categories. These are manufacturing and service enterprises/industries. Manufacturing enterprises are those which are engaged in the production process of goods and service enterprises are those which are engaged in providing services. These are the main part of Indian SMEs.

In 2006 government of India introduce an act "Micro, Small and Medium Enterprises Development (MSMED) Act, 2006. This act defines MSME in India as follows:-

Class of Enterprises	Manufacture Enterprises Investment Limits	Services Enterprises Investment Limits
Micro	Up to 25 Lakh	Up to 10 lakh
Small	25 lakh to 5 Crore	10 Lakh to 2 Crore
Medium	5 Crore to 10 Crore	2 Crore to 5 Crore

On 1st June 2020, the Union Cabinet revised the SME definition. The investment and turnover figures were changed to larger values, thereby resulting in a larger number of medium-sized enterprises. New MSME definition based on investment and turnover which is applicable from 1st July 2020

Revised Classification applicable w.e.f. 1st July 2020

Classification of Micro, Small and Medium Enterprise (MSME) Sector			
Composite Criteria Investment in Plant & Machinery/equipment and Annual Turnover			
Classification	**Micro**	**Small**	**Medium**
Manufacturing and Service Sector Enterprises	Investment in Plant and Machinery or Equipment up to Rs.1 crore and Annual Turnover does not exceed Rs. 5 crore	Investment in Plant and Machinery or Equipment upto Rs.10 crore and Annual Turnover does not exceed Rs. 50 crore	Investment in Plant and Machinery or Equipment upto Rs.50 crore and Annual Turnover does not exceed Rs. 250 crore

Information Technology Adoption in SMEs

The internet has emerged as a game-changer for businesses across the world, during the last decade. SMEs in India have traditionally been dependent upon domestic trade but with access to internet technologies, they have started to explore the opportunity to trade globally. All through, SMEs in India may or may not have an online presence (such as a website), but 43% of SMEs participating in online sales in India. Web-enabled SMEs, in general, make higher profits, have enhanced customer reach, and improve employment opportunities. As per the survey, around 56% of the SMEs believed that the use of internet technologies is critical for business growth. There are so many studies that have been conducted to investigate the impact of Information and Communication Technologies (ITC) on Small and Medium-sized Enterprises. IT has brought significant benefits across a range of business operations. Martin and Matlay (2001) argued that the adoption and implementation of new technologies are important to the growth of small businesses. This view is supported by Chaston et al. (2001) who highlighted the factors affecting e-commerce adoption on small businesses in India and observed that small businesses that adopt e-commerce will develop new knowledge and compete favourably.

Present Scenario of SMEs in Study Area

According to the Annual Report 2020-21 of the Ministry of Micro, Small and Medium, Government of India, at present, a total of 633.88 lakh MSMEs are working in India, of which 49% are working in the urban area and 51% in the rural area. It is estimated that there are 42.5 million SMEs in India right now (source: Economic Times) and among these, 43% use various Internet platforms to sell and promote themselves. According to a Google-KPMG report, about 27 percent of the Indian SMEs which are online today use E-commerce. According to the Annual Report 2020-21 of the Ministry of Micro, Small and Medium, Government of India, a total of 15 lack 88 thousand MSMEs are working in the state of Jharkhand. The details of the number of Micro, Small and Medium entrepreneurs are as follows:

Classification of SMEs	Total Number of entrepreneurs
Micro	15,78000
Small	10000
Medium	Nil

Jharkhand is rich in mineral resources such as coal (27.3 per cent of India's reserves), iron ore (26 per cent of India's reserves), copper ore (18.5 per cent of India's reserves), uranium, mica, bauxite, granite, limestone, silver, graphite, magnetite and dolomite. Since Jharkhand has around 40 per cent of the country's mineral wealth, its extensive mineral resources make mining, metals and related sectors especially lucrative for investments. Jharkhand is the only state in India to produce coking coal, uranium and pyrite. The state is also a leading producer of coal, mica, kyanite and copper. Jharkhand is the largest producer of tussar silk (a non-mulberry silk) in India.

Review of Literature

Ramayah, T. et al. (2016), examined the influence of the existing level of web adoption as a moderator in small to medium firm website continuance intention. The sample size was 108 SMEs. The result of the study shows that website adoption and continuation intention was depended on CEO's innovativeness, relative advantage, CEO's IT attitude and cost in Malaysian SMEs. Any other factors (like CEO IT knowledge, employee knowledge, compatibility, firm's size, security, external pressure and support) did not play any role in the continuance of e-commerce and website adoption. These influencing factors help the government to develop suitable policies and programs for promoting information technology (IT) adoption by SMEs.

Mishra, Bibhuti & Mishra, Uma & Mishra, P.K.. (2012), has elaborated the significance of IT and e-commerce in SMEs. Through the study, the author has observed that IT and e-commerce are emerging as a new way of helping SMEs to compete in the global market and thereby contributing to their economic success. In the opinion of the author, IT and E-Commerce can help SMEs in Orissa state. The author has discussed the prospect of future development and growth of SMEs with an empirical analysis of the factors which influence the adoption of computer-based technology in SMEs.

Saxena, S., Asthana, R. and Singh, D. (2014), investigated barriers in the adoption of electronic commerce by small and medium enterprises (SMEs) in India and also investigated the impacts of e-commerce adoption on Indian SMEs. The finding of this study shows that the barriers to adopting e-commerce have a negative impact on small and medium enterprises. analysed the perception of the young people towards online shopping in Punjab. Data was analysed through descriptive statistics. The result of the study shows that the majority of young people think that product price, quality & delivery time, transaction security, personal privacy, accessibility, promotion & advertisement, accessibility, quality comparison and reputation of the company are the key factor in online shopping.

Abdullah, S. S. (2014), analyzed the impact of ICT in SMEs and also identified common barriers in adoption of the SMEs. The survey shows that ICT in the SMEs industry plays a crucial role in the new economy of India. Most SMEs operate in a fiercely competitive environment as such, it is important to optimize business practices. That effort has significantly supported ICT but the implementation of ICT can cause a number of issues for SMEs. The findings state that the issues such as insufficient financial sources, lack of experience with ICT and insufficient knowledge & skills in the area of computer literacy of employees.

K. Hansaria, (2013), has highlighted that, while large scale enterprises were among the first to implement IT systems and lead the way in adopting more advanced web technologies to increase revenue and decrease costs. the Author has found that, the Indian Small and Medium scale enterprises too have used the internet which has led to reduction of costs, increased profits and productivity and faster growth.

Rahul Raj, (2013), has stated that many SMEs have embraced computer-based technology and taken up, e-commerce and information technology applications. The author has also highlighted the major barriers in the application of IT and computer-based technology in SMEs. The author has opined that, with the help of IT and e-commerce SMEs in the growth phase, should expand their customer base, enter the raw product market and nationalize their business.

Amin, Mohammad Ruhul and Hussin, Husnayati (2015), examined influencing factors that affect the adoption of e-commerce by the retail sector. The study was based on secondary data that had been collected from the available literature. The result of the study shows that those factors influencing the firm to adopted e-commerce in the business process. These influencing factors are technology, organizational and environmental factors and subfactors to achieve a better understanding of e-commerce adoption procedures.

Significance of the Study

This study will contribute to highlighting the various influencing factors of information technology adoption, its impact on the performance of SMEs and also measures the perception of owner/manager/ CEO of SMEs in India. It is also important to understand barriers to the implementation of information technology in SMEs.

Objective of the Study

- To identify the various influencing factors of Information Technology adoption in SMEs.
- To measure the perception of manager/ owner/ CEO of SMEs regarding Information Technology (IT) adoption.
- To study the problems and barriers relating to the adoption of Information Technology (IT) by SMEs.

Methodology

To achieve the research objectives, both sources of data, primary and secondary was employed in this research. For the purpose of collecting primary data related to the impact of information technology on the performance of small and medium enterprises in India, a small questionnaire has been developed for the owners/managers/ECO of small and medium enterprises. Therefore, a questionnaire was used as the main survey instrument. The main purpose of the questionnaire was to get responses from owners/managers/ECO of SMEs to specific the objectives of the study. Apart from this, the observation method has also been used. For the purpose of collecting primary data, the target population comprises SMEs owners/ECO/Manager, which is working in different districts of Jharkhand such as Ranchi, Dhanbad, Jamshedpur and the sample size was 30.

- **Sampling**

Total 30 Owners/ECO/Managers of the small and medium enterprise were selected by using a convenient sampling method, which is working in different districts of Jharkhand such as Ranchi, Dhanbad, and Jamshedpur.

- **Result and Discussion**

Table 1: Major Influencing factors of Information Technology adoption in SMEs.

Influencing Factors	Frequency	Percentage (%)
Information technology is to help increase operational efficiency	19	63.33
Information technology is to speed up the business transactions and creates new competitors and services	21	70.00
Information technology provides up to date information	16	53.33
Adoption of Information technology (IT) by competitors	25	83.33
Reach out to customers continuously through Information Technology	28	93.33

The above table indicates the responses of the SME unit owners regarding the major influencing factors in adopting Information Technology. Based on collected primary data, majority of small and medium enterprises owners/eco/manager (93.33%) have adopted IT tools to reach out to customers continuously through Information Technology. It means from their point of view customer reach out is the most important influencing factor which induced them to adopt IT tools in the organization. Adoption of Information technology (IT) by competitors (83.33%), Information technology is to speed up the business transactions and creates new competitors (70.00%) is the most important influencing factor. 63.33% SMEs owners/ECO/Manager have adopted IT intending to improve their decision making ability or increase operational efficiency; and adoption of IT for gating up to date information about business is also one of the important influencing factors stated by 53.33% unit owners. It indicates that many environmental, organizational and knowledge related factors are influencing the adoption of IT tools in the SMEs.

Table 2: Perception of manager/ owner/ CEO of SMEs regarding Information Technology (IT) adoption

Perception of manager/Owner/ECO of SMEs			
Positive		Negative	
Frequency	Percentage (%)	Frequency	Percentage (%)
27	90.00	03	10.00

The above table indicates the Perception of majority manager/ owner/ CEO of SMEs regarding Information Technology (IT) adoption is positive. 90% SMEs Owners/ECO/Manager have a positive perception about the adoption of Information Technology in their business. In other hand 10% SMEs Owners/ECO/Manager has a negative perception about adoption of IT in their SMEs.

Majority of the SMEs Manager/Owner /CEO have the following reasons behind the positive perception about the adoption of Information Technology in there business:- Saving of time, Reduction in cost, Positive impact on inventory control, Efficiency in decision making process, overall improvement in the management and administrative functions itc.

Table 3: Major Problems and barriers relating to the adoption of Information Technology (IT) by SMEs

Problems and barriers	Frequency	Percentage (%)
Technological Related Problems and barriers	08	26.66
Organizational Related Problems and barriers	05	06.00
Financial Related Problems and barriers	13	43.33
All the above Problems and barriers	04	13.33

The above table indicates the responses of SMEs unit owners/eco/managers regarding the barriers and problem being faced by them in adopting Information technology in their organizations. According to information provided by them Financial Related Problems and barriers is a very big great barrier being faced by 43.33% unit owners/eco/manager. In the opinion of 26.66% SMEs, have Technological Related Problems and barriers, 06.00% SMEs owners/manager/eco have stated that, Organizational Related Problems and barriers is also a big barrier. 13.3% unit owners are facing all the above problems in the implementation of IT in their business. In this context it is observed that, many SMEs unit owners/manager/eco are taking steps towards the proper implementation of IT system in their organization, by hiring more IT skilled employees, and providing more funds for IT activities, etc., but several hurdles need to be overcome. Apart from this it is also observed that, there are certain common barriers which include unsuitability for the type of business, unavailability of work infrastructure, cost factors like cost of IT and computer technology equipment, software and ongoing higher costs, reliability of IT system etc.

Conclusion

The study concludes that impact of information technology on the performance of small and medium enterprises in India. Findings from the study show clearly that ICT has the potential to increase performance of small and medium enterprises in India.

While, implementing information technology system tools, entrepreneurs are facing many problems and barriers like Technological, organizational and Financial Related Problems and barriers. There are some influencing factors like organizational, environmental and knowledge, which lead SMEs owner/ CEO/ Manager to adopt IT for the business purpose. It is observed that, IT are playing an important role in the growth and development of SMEs as it allows them to compete efficiently in today's global market.

References

1. Ramayah, T. et al. (2016), Factors influencing SMEs website continuance intention in Malaysia, School of Management, Universiti Sains Malaysia, 33 (2016) 150–164.
2. Mishra, Bibhuti & Mishra, Uma & Mishra, P.K.. (2012). PERCEPTION AND ADOPTION OF E-COMMERCE IN INDIAN SMEs: A STUDY IN THE STATE OF ORISSA. International Journal of Advanced Computer and Mathematical Sciences. 3. 227-236.
3. Saxena, Surabhi, Rishi Asthana, and Deepak Singh. (2014) "A Review of Electronic Commerce Adoption Barriers in Small and Medium Enterprises (SMEs) in India." *11th IRF International Conference, 15th June-2014, Pune, India*. 64-67.
4. Okundaye, K., Fan, S. and Dwyer, R. (2019), "Impact of information and communication technology in Nigerian small-to medium-sized enterprises", Journal of Economics, Finance and Administrative Science, Vol. 24 No. 47, pp. 29-46.
5. Amiri, Mohammad. (2016). IMPACT OF INFORMATION TECHNOLOGY ON SMALL AND MEDIUM ENTERPRISES: WITH SPECIAL REFERENCES TO PUNE CITY. INTERNATIONAL JOURNAL OF LAW, EDUCATION, SOCIAL AND SPORTS STUDIES (IJLESS). 03. 13-17.

6. Rahul Raj (2013) "SME implementing e-commerce capability Analysis", Journal of Trade and Commerce, Vol.2, 3-9

7. M. R. Amin and H. Hussin, (2014) "E-commerce adoption in SME retail sector: A conceptual model," The 5th International Conference on Information and Communication Technology for The Muslim World (ICT4M), pp. 1-6,

Internet Sources

1. https://www.herofincorp.com/blog/role-of-smes-in-indias-economic-growth

2. https://msme.gov.in/know-about-msme

3. https://assets.kpmg/content/dam/kpmg/pdf/2015/10/Snapdeal-Report_-Impact-of-e-Commerce-on-Indian-SMEs.pdf

4. https://assets.kpmg/content/dam/kpmg/pdf/2015/10/Snapdeal-Report_-Impact-of-e-Commerce-on-Indian-SMEs.pdf

5. https://www.dqchannels.com/interaction-asokan-sattanathan-founder-aaha-technologies/

6. https://msme.gov.in/sites/default/files/MSME-ANNUAL-REPORT-ENGLISH%202020-21.pdf

7. https://seraikela.nic.in/mining/

8. https://www.ibef.org/archives/state/jharkhand-reports/industrial-dev-economic-growth-february-2018

9. https://www.ibef.org/states/jharkhand-presentation.