

IMPLEMENTATION OF SMAC IN INDIAN SMES: CHALLENGES AND OPPORTUNITIES

¹MS. MANU SEHGAL, ²Dr. PRIYAKA KHANNA

¹Assistant Professor, Post Graduate Department of Commerce
Khalsa College for Women, Ludhiana-141001

²Head of Post Graduate Department of Commerce,
Khalsa College for Women, Ludhiana-141 001

ABSTRACT

Global competition has enabled Small and medium-sized enterprises (SMEs) to think beyond the traditional methodology. Nowadays, Indian SMEs are facing competition from various organisations within the country as well as from organisations from other developing countries. SMEs have a crucial role to play because of their potential contributions to economic development. It is a well-known fact that information technology plays a vital role in increasing the profitability of the organisation. Competition has made SMEs to adopt current available technology. SMAC is the integration of social, mobile, analytic and cloud technologies implemented in latest business models to provide services and deliver products in a customized and contextual manner to the consumers with optimization in cost and convenience. Becoming an inherent part in large organisations, SMAC (Social, Mobile, Analytics and Cloud) enables SMEs to grow revenues by creating new customers and achieving operational effectiveness, efficiency and positive customer experience. This paper will focus on the challenges and opportunities for implementation of SMAC by SMEs for maximizing benefits by taking quick decision.

Keywords: SMAC, Small and medium enterprises, India, Challenges.

1. INTRODUCTION

The Small and Medium scale enterprises (SMEs) play a significant role in the socio-economic growth of India accounting for more than 45 percent of the manufacturing output and around 40 percent of the total export of India, as per annual report of Ministry of MSME (2015-16). This sector is also considered as the leading provider for employment and business avenues in rural and urban India, thereby spurting equitable and inclusive growth across local economies. SMEs employ an estimated 59.7 million persons spread over 26.1 million enterprises in the country (4th Census of MSME sector). Yet, the potential of the Indian SMEs in creating jobs opportunities remains untapped. Inadequate access to latest technology, technical and business skills and finance have been emphasized as some of the basic constraints for the MSMEs. Information and communication technology (ICT) has become a huge enabler for the businesses. The recent innovations of Mobile and Cloud have made access to technology affordable and easy to use especially in areas of Social Media and Analytics.

Social Media, Mobile, Analytics and Cloud Technologies (SMAC), as termed by ASSOCHAM is the new wave in Information Technology, is revolutionizing the manner computing is done in the modern era and providing operational efficiency and transforming customers' experience. According to NASSCOM, it is estimated that market growth is expected to rise 30% (US\$1 trillion) by 2020 due to implementation of SMAC. The SMEs in India facing several challenges such as the lack of adequate and timely institutional credit facilities, limited capital, expert knowledge, regulatory requirements, lack of access to latest technology, inadequate infrastructure, shortage of skilled manpower, competition from global market and large enterprises. These issues need to be addressed to bring exponential growth in social and economic development of the country.

2. CONCEPT OF SME

The MSMEs are defined on the basis of investment in Plant, Machinery and equipments under the MSME (Micro Small and Medium Enterprises Development) Act, 2006.

Table 1: Definition of SME as per MSME Act, 2006

(a) Manufacturing Enterprises: The enterprises engaged in the manufacture or production of goods pertaining to any industry specified in the first schedule to the industries Development and regulation) Act, 1951). The Manufacturing Enterprises are defined in terms of investment in Plant & Machinery.	
Enterprises	Investment in plant and machinery
Micro enterprise	upto twenty five lakh rupees.
Small Enterprises	More than twenty five lakh rupees but does not exceed five crore rupees
Medium Enterprises	More than five crore rupees but does not exceed ten crore rupees
(b) Service Enterprises: The enterprises engaged in providing or rendering of services and are defined in terms of investment in equipment.	
Enterprises	Investment in Equipments
Small Enterprises	More than ten lakh rupees but does not exceed two crore rupees.
Medium Enterprises	More than two crore rupees but does not exceed five crore rupees.

3. CONCEPT OF SMAC

SMAC is the integration of social, mobile, analytic and cloud technologies implemented in latest business models to provide services and deliver products in a customized and contextual manner to the consumers with optimization in cost and convenience.

Each SMAC technology is one of its kinds which complements and supplements other technology. These include the following.

- **Social technologies** which include social media platforms like such as Facebook, You Tube, Instagram, LinkedIn, Twitter, Four square etc has enabled the implementation of virtual platforms to connect and exchange ideas and collaborate with each other globally to reach out to a large number of industry as well as diverse segments of consumers.
- **Mobile technologies** have empowered people to act on any information at their convenience. It provides a clear view of their business operations and enables decision making anytime and anywhere. Nowadays, financial institutions are leveraging mobile technologies that support multiple modes of payments in order to empower owners and employees of SME industries.
- **Analytics** is rapidly becoming a strategic focus zone for businesses, driven by increasing volume of data, latest development of data mining tools, increasing operational efficiency and optimizing business decision making and gaining an edge over competitors for better understanding of the customers.
- **Cloud technologies** have made accessible to all technology resources to be connected via a utility model to run in an efficient and effective manner. Now, businesses do not have to worry about huge investments (in software, hardware and storage), recovery of data and other issues relating to remote technology service solutions.

4. REVIEW OF LITERATURE

Van Everdingen et al. (2000) surveyed more than 2000 European companies in order to study adoption of technology like ERP in different industries. Most of earlier studies emphasized on the use of the best practices in course of implementation.

Buonanno et. al (2005) analyzed the empirical data and concluded that that business complexity is a weak indicator for ICT adoption.

Kotenikov, Vadium (2007) elaborated that all the governments encourage the growth of small and medium enterprises (SMEs), as they assist in reducing poverty by providing employment opportunities and thereby improving income levels.

Upadhyay and Dan (2008) studied Indian SME organizations where they empirically assessed and analysed certain issues that would lead to the successful implementation of technology.

Päivi (2009) concluded that the principle reason for failure has often been linked with the inefficient management of technological implementation in organisations.

Sharma Monika et al. (2010), discussed that majority of the Indian SMEs have adopted the traditional ERP Systems and while implementation of the system, they have incurred heavy cost. They have also discussed the cost reduction and saving in the level of difficulty in implementing the cloud computing Service (CCS) system.

Ghobakhloo, Morteza et al., (2012) studied IT adoption in SMEs and identified factors influencing IT adoption processes in SMEs such as organizational behavior, top management, government, customers, supplier and IT consultant.

Carter (2014) observed that there is a growing trend of internet use and use of social media which enables the businesses to do E-Commerce by employing social media as a tool of E-Commerce.

Cesaroni and Consoli (2015) have observed that the use of ICT has helped in progressively transforming SME businesses. It has been concluded that increased use of social media platforms has helped SMEs frame strategies to decrease operational costs, increase public awareness, open up new vistas of doing business, optimize innovative concepts of data sharing, increase profitability and effectively integrate business management functions.

5. KEY ELEMENTS FOR SMAC IMPLEMENTATION

SMEs will flourish if key enablers supported by SMAC technologies are created in integrated environment to sustain their needs mentioned as follows.

i) Knowledge Accessibility

- Availability of qualified knowledge on operations of industry and observation in the markets.
- Ability to take benefit from expert opinions, best strategies and practices of other players of the industry.
- Ability to participate in programmes and discussions.

ii) Financial freedom

- A transparent channel to share innovative business ideas, get analysis of business feasibility and viability.
- Assessment of financial maturity and operational efficiency of potential stakeholders with whom they want to associate
- Accessibility to seamless payment-processing services on variety of platforms to support business functions and operations.

iii) Targeted audience and marketing

- Cost-effective advertising mediums to reach the specific audience and target appropriate audience.
- Right strategies using content marketing to involve and associate with buyers, suppliers and business partners.
- Sharing experiences to create trust by gaining attention to expand loyal customers (beyond local boundaries)

iv) Operational excellence

- Integrating employees for operational efficiency.

The diagram above classifies digital transformation under a “**digital portfolio**” and defines how SMAC technologies come together to deliver business-related benefits across each of the foundational blocks.

Foundational categories	
 <p>Digital business model</p> <ul style="list-style-type: none"> ▶ New digital business models ▶ Digitally enhanced business 	<p>Creating new revenue streams through entirely new business (subsidiaries, spin-offs or new companies) or optimizing existing business models by leveraging digital technologies to deliver existing and new products/services</p>
 <p>Digital customer experience</p> <ul style="list-style-type: none"> ▶ Digital marketing ▶ Digital sales ▶ Digital service 	<p>Continuous learning of customer behaviour / preferences, attracting and engaging in a personalized, intuitive and contextual way through the customer lifecycle journey to generate incremental revenue through targeted and deeper product / service relationship through digital technologies</p>
 <p>Digital operations</p> <ul style="list-style-type: none"> ▶ Digitally-enabled field force ▶ Multi channel integration ▶ Digital R&D 	<p>Customer convenience to engage and execute; improving bottom-line by enabling sales force to identify, qualify, pursue and close opportunities anytime, anywhere through channel of choice along with provisioning a collaborative ecosystem to ideate new products and services.</p>
 <p>Digital workforce</p> <ul style="list-style-type: none"> ▶ Digital HR ▶ Connected workforce 	<p>Develop a global and efficient workforce by leveraging digital technologies to reach and recruit, identify and provision need based training, manage employee T&E / performance / productivity</p>

6. INTERNAL AND EXTERNAL POLICIES FOR SMAC IMPLEMENTATION IN SMEs

E-business integration of internal as well as external processes has shifted over time as economy has become e-ready and aware towards mature e-business for dynamic business environment. Following policies have to be catered to for successful implementation of SMAC in the SMEs.

- **B2B participation**-For addressing the post-digital customers, enterprises need to integrate SMAC in the business model. The change in consumer behavior of post-digital consumers is noticeable in both types of businesses, respectively business-to-business (B2B) and business-to-consumer (B2C) enterprises.
- **Accessing the internet innovations**-Internet innovations encourages business associations to provide tools to assess e-business opportunities, benefits and costs and the development of products and services.
- **Staff training**- There is need to provide training programmes for SME managers and employees focusing on both technical and managerial skills.
- **Privacy issues**- For successful implementation of SMAC there is need to address security, trust and confidence issues through policy frameworks and regulatory tools.
- **Potential market power**- To tap market, there is need to monitor anti-competitive behaviour as e-business becomes more extensive, e-markets evolve and prospective market power increases.
- **E-governance**- In order to monitor the SMAC effects, it is essential to use e-government initiatives to provide additional incentives for SMEs to go on-line by simplifying organizational procedures, reducing costs and allowing them to enter new markets.

7. CHALLENGES FOR SMAC ADOPTION

Although every business, small or big, faces hindrances, SMEs in India have a huge challenge to sustain in today's market while implementation of SMAC. These can be categorized as follows:

- **Supporting challenges:** In India, SMEs often lack the human technological resources necessary for SMAC implementation. Lack of knowledge, suspicion of its advantages, set-up operational costs, pricing issues and security concerns are the most prominent barriers to SMAC in terms of maintenance of system and its failures. The other option is to seek advice and support from IT experts, but most SMEs do not afford to do that because of the relatively more cost.
- **Managerial challenges:** SMEs also lack the managerial knowledge and skills. SMEs need to entirely restructure its current systems because ICT adoption projects are intricate in nature. Undertaking these modifications cannot be successfully implemented without pertinent skills and a visionary attitude. Lack of long term corporate strategy is another issue. SMEs' strategies are frequently limited to short term activities.
- **Administrative challenges:** Mostly managers of SMEs take their decisions on current situation. The decision-taking process of most of the managers is considered intuitive and is less dependent on formal models. They do not pass on information and are quite reluctant to delegate decision-making powers to their subordinates. They themselves take the entire burden for identifying business opportunities including adoption of IT for strategic and competitive purposes. These uneven skills among the managers often form the reason of conflicts during the SMAC implementation.
- **Competitive challenges:** In order to become more competitive in the global market and successfully implement SMAC, there is need for cost-reduction, quality enhancement, productivity expansion and effective management of supply chains, greater investment in infrastructure. SMEs do not get the required backing from the Banks, Financial Institutions, Government Departments and other corporates to become more competitive in the global markets.
- **Financial Challenges:** SMEs may have budgetary constraints that may hinder them to fully realize the benefits of SMAC implementation. Most of the SMEs do not have skilled in-house resources who can provide suitable inputs and appropriate guidance to the SMAC implementation team.
- **Infrastructural Challenges:** Lack of comprehensive infrastructure is one of the biggest drawbacks faced by SME. Since there is significant percentage of SMEs which operate in the unorganized space, the lack of basic infrastructure and absence of marketing platforms makes it extremely challenging for businesses to prosper and compete with competitive players in the global market and implement SMAC.

8. OPPORTUNITIES FOR GROWTH OF SMEs BY IMPLEMENTATION OF SMAC

India's SME sector has been one of the key drivers of the country's economy. Its contribution to India's GDP is anticipated to increase to 22 percent in 2020 from 17 percent in 2011. The topic of SMAC has been governing debates across the world over the last two years. In India, the time is suitable for SMAC to finally move from to a business reality. SMEs will play a prominent role in the implementation of SMAC in India, not only to grow revenues by creating new customers, but also by achieving in operational effectiveness, efficiency and positive customer experience. This is an appropriate time for SMEs to influence this wave of SMAC with pre-defined business strategies in India. In the last few years, three fundamental reasons which have been accelerating the need of SMAC strategies are as follows:

- i) **Emergence and rise of young middle class in India-** The largest set of Indian consumers has been young middle class. By the year 2020, it is estimated that the average age in India will be 29 years and India's middle-class population is predicted to be more than 267 million.
- ii) **Increase in ownership and penetration of technology in urban as well as rural India:** With respect to number of mobile phone users, India is considered as the second-largest country in the world. Its high-end smartphone market grew by 229 percent in 2013 with more than one million rural users access the internet on their mobile phones through data connections. According to the latest report from the Internet and Mobile Association of India, the number of Internet users in India is expected to be 450-465 million by June 2017 from 432 million in December 2016.
- iii) **Rise in social media platforms in India:** It has been observed that an average Indian user spends more than 29 minutes in a day on social media platforms and 77 percent access it on their mobile phones. The projected user base of social networks would be 550 million people by the year 2020. Thus, dynamic business environment combined with these multi-dimensional changes provide an attractive opportunity for SMEs to conquer the traditional barriers and engage stakeholders in a targeted manner.
- iv) **Boost from Schemes of the Government:** There are several government policies providing monetary and technical assistance to SMEs. Some of the Government initiatives introduced for Indian SMEs include 'Make in India', 'Skill India', 'Startup India' to promote entrepreneurial culture in India and also impart required skill set in the workforce. MUDRA scheme has also been introduced to provide better financial access to SMEs.

These multi-faceted changes and the dynamic business environment in the country offer an attractive opportunity for SMEs to conquer traditional barriers and engage stakeholders in a targeted manner.

9. CONCLUSION

SMAC technologies have become so advanced, affordable and inevitable that they are now easily available to all sizes of businesses. This opportunity for SMEs has provided the level playing field to compete with larger players. SMEs will flourish if key elements powered by SMAC technologies are created in integrated environment to support their numerous needs. It is necessary for certain industries, including government bodies, to leverage SMAC technologies to create and foster an environment that will support SMEs to do business better and reap significant insights to simplify their operations and build a much stronger relationship with organizations. The need for SMEs is to adopt SMAC and make it an integral part of their business strategies that will definitely lead new wave of growth.

REFERENCES

- [1] Sharma K.M. and Bhagat R.,(2006) "Practice of information systems Evidence from select Indian SMEs", Journal of Manufacturing Technology Management, Vol. 17 No. 2, pp. 199-223.
- [2] Ignatiadis, I. and Nandhakumar (2007) The Impact of Enterprise Systems on Organizational Resilience. Journal of Information Technology, 22, 1, 36-43.
- [3] Huang, Z. and Palvia, P. (2001). ERP implementation issues in advanced and developing countries, Business Process Management Journal, 7 (3), pp. 276-284.
- [4] Heeks, R. (2007) Using Competitive Advantage Theory to Analyze IT Sectors in Developing Countries: A Software Industry Case Analysis. Development Informatics Group, Institute for Development Policy and Management, 3, 3, 5-34.
- [5] Marnewick, C. and Labuschagne, L. (2005) 'A conceptual model for enterprise resource planning (ERP)', Information Management and Computer Security.
- [6] Davenport, T. (1998) Putting the Enterprise into the Enterprise System. Harvard Business Review, 76, 4, 121-131.
- [7] Fillis, I., Johansson, U. and Wagner, B. (2004) 'A qualitative investigation of smaller firm e-business development', Journal of Small Business and Enterprise Development, vol.11, no.3, pp. 349-61.
- [8] Panandiker, Pai, D.H. (1996), "Status of SMEs in terms of their competitive strength", paper presented for the IX International Conference on Small and Medium Enterprises", New Delhi, 17-19 April, WASME
- [9] Al-Mashari, M., Al-Mudimigh, A and Zairi, M.(2003), "Enterprise Resource planning: a taxonomy of critical factors", European journal of Operational research, Vol 146, pp. 352-64.
- [10] Rosemann, M., 1999. ERP-software-characteristics and consequences. In: Proceeding of the 7th European Conference on Information Systems, 1999-ECIS_99, Copenhagen, DK.
- [11] Gable, G., Sedera, D., and Chan, T. "Enterprise Systems Success: A Measurement Model," 24th International Conference on Information Systems, Seattle, USA, 2003.

- [12] Gore, A. (2008) Exploring The Competitive Advantage Through ERP Systems: From Implementation to Applications In Agile Networks.
- [13] Davenport Thomas, (2000), "Mission Critical", Harvard Business Press.
- [14] Boykin R. F., (2001) "Enterprise resource planning software: a solution to the return material authorization problem", Computers in Industry Vol. 45, pp. 99-109.
- [15] Shehab E. M., Sharp M. W., Supramaniam L., Spedding T. A., (2004) "ERP: An integrative review", Business Process Management Journal, Vol. 10 (4), pp 359-86.
- [16] Gupta A., (2000), "Enterprise resource planning: The emerging organizational value systems", Industrial Management & Data Systems, Vol. 100 (3), pp. 114-18.
- [17] Rao, S.S. (2000), "Enterprise resource planning: business needs and technologies", Industrial Management & Data Systems, Vol. 100 No.2, pp.81-8.
- [18] Ehie, I., & Madsen, M. (2005). Identifying critical issues in enterprise resource planning (ERP) implementation. Computers in Industry, 56(6), 545-557
- [19] Mandal, P. & Gunasekaran, A. (2002). Application of SAP R/3 in on-line inventory control. International Journal of Production Economics, 75, 47-55
- [20] Hinton, J.E., McEwen, R.A. & Wier, B. (2002). The reaction of financial analysts to enterprise resource planning (ERP) implementation plans. Journal of Information Systems, 16(1), 31-40
- [21] Carter J (2014) Social media strategies in small businesses. Centre for Enterprise and MMU pp: 1-28.
- [22] Cesaroni FM, Consoli D (2015) Are small businesses really able to take advantage of social media. Electronic Journal of Knowledge Management 13: 257-268.
- [23] http://msme.gov.in/Report_working_group_5yearplan-2012-17.pdf
- [24] <http://sme.siliconindia.com/news/Technology-Adoption-A-Weak-link-for-Indian-SMEs-nid-106413.html>
- [25] <http://www.thehindu.com/business/Industry/it-can-help-indian-smes-boost-revenue-by-56-billion-saysmicrosoft/article5217864.ece>