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# Barriers in Implementation of E-Business Technologies in Small and Medium Enterprises (SMEs) in Pakistan

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*Articolul prezintă rezultatele cercetării prin care s-au investigat barierele de punere în aplicare a E-Business Technologies în întreprinderile mici și mijlocii (IMM-uri) din Pakistan. Datele și informațiile statistice au fost colectate de la 2.000 de respondenți, folosind tehnica simplă aleatoare. Un chestionar structural a fost dezvoltat pentru colectarea de date, fiabilitate și validare. A fost relevat faptul că majoritatea proprietarilor de afaceri ai IMM-urilor nu sunt familiarizați cu utilizarea Internetului și, în multe cazuri, nu sunt pregătiți în domeniul calculatorului. Se arată că Guvernul ar trebui să ofere o pregătire de bază pentru întreprinderile mici și mijlocii, să se poată utiliza calculatorul. Prin punerea în aplicare corectă a tehnologiilor E-Business în IMM-uri în Pakistan, Guvernul și celelalte organe conexe pot iniția E-Business în IMM-uri pentru a obține un avantaj competitiv.*

*Cuvinte cheie: implementare, E-Business, IMM-uri*

## **Abstract**

The current research investigates the Barriers in implementation of E-Business Technologies in Small and Medium enterprises (SMEs) in Pakistan. Data were collected from 2000 respondents by using simple random technique. A structural questionnaire was developed for the data collection and reliability and validity of data. It was revealed that most of the SMEs business owners are not familiar in using internet and in many cases they are not computer literate. It was further revealed that Government should provide some basic computer training to the Small and Medium Enterprises so they will able to use computer. The proper implementation

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of E-Business technologies in SMEs in Pakistan, Government and other related agencies can initiate E-Business in SMEs to achieve competitive edge.

Key Words: Implementation, E-Business, SMEs, Pakistan

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The main features of SME are that it does not belong to core industry in an economy and it is “not large “.In Globalization and small and medium enterprise report 1997 OECD.

Micro Enterprise	: 1~4 Employees
Very Small Enterprise:	: 5~19 Employees
Small Enterprise	: 20~99 Employees
Medium Enterprise	: 100~500 Employees

Besides quantitative aspects (employment, capital, sales etc), SMEs can also be defined in qualitative terms. Meredith (1994) suggests that the definition of SME must include both quantitative and qualitative aspects, i.e financial and non- financial measurements. The definition of SME as per Wiltshire Committee (Australia) Meredith 1994, p31):

*Small business is one in which one or two persons are required to make all of the critical decisions (Such as finance , accounting , personnel , inventory , production , servicing marketing and selling decisions) without the aid of internal (employed) specialists and with owners only having specific knowledge in one or two functional areas of management.*

Brigham and Smith (1967) found that SMEs are more vulnerable to risk than large enterprises. Walker (1975) ; Debone (1998) also have similar opinion.SMEs have higher failure rates (Cochran ,1981) keep inadequate records ( Retch ,1987) lack of trained staff and far reaching policies and plans (Welsh and white 1981 ) IT Skill (Barry & Milner 2002) , adequate fund to invest on IT (Gaskell et al 1993 ; Raymond 2001 ) Most SMEs have no proper planning , staffing (Teethe & Burn ,2001 ; Miller & Baser , 2000) and SME differs with larger enterprise in terms of product /service.

Offerings (Reynolds et al, 1994). Besides many views exist regarding characteristics of SMEs some researchers argue that the outcome of applying processes and techniques to both large and small companies are not same due to the distinct characteristics of SMEs .SMEs are not the miniature versions of large companies (Macknesss,1983 ; westhead and storey 1996).

As per industrial policy 2005 of Bangladesh Larger industry is defined to include all industrial enterprise having more than 100 workers and /or having a fixed capital of over Tk.100 million.Medim Industries covers

enterprises employing between Tk.15 million an Tk.100 millions. Small industry means enterprises having fewer than 25 workers and/or with a fixed capital investment of less than Tk.15 millions.

As per Bangladesh Bank Definitions:

Small enterprise means an entity, ideally not a public limited company that does not employ more than 60 people if it is a manufacturing concern and 20 persons if it is trading concern and 30 people if it is a service concern and also fulfills the following criteria:

- (1) A service concern with total assets at cost excluding land and building for To 50,000 to 30 lac.
- (2) A trading concern with total assets at cost excluding land and building from To 50,000 to 50 lac.
- (3) A manufacturing concern with total assets at cost excluding land and building form Tk.50, 000 to Tk.1 crores.

Japanese SMEA (Small and medium enterprise agency) divides the small and medium scale enterprise of Japan into four types: Manufacturing and others, wholesale and Retail Services on the basis of Capital Size and Employees:

Categories of Industries	Capital Size (millions yen)	Employee size
Manufacturing and Others	100 or less	300 or less
Wholesale	30 or less	100 or less
Retail	10 or less	50 or less
Services		

#### **E-Commerce, E-Business and ICTs**

Electronic Commerce, or e-commerce, is buying and selling on-line. There exist no widely accepted definition for electronic commerce. However, in general, e-commerce can be defined as any transaction with on-line commitment to buy or sell a good or service (European Commission E-commerce Web Site)

E-business is a broader term than e-commerce. It includes not only buying and selling no-line but also other aspects of on-line business activity such as purchasing tracking inventory, customer Relationship Management (SCM) managing production, logistics and business process .E-business covers both e-commerce and that re-engineering of business processes with

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the help of digital technologies. E-business has three main aspects (Margi, L. and Philip, P. technologies and firm to customers (e-commerce).

Information and Communication Technologies (ICTs) includes internet, Extranet Computer Mobile devices, Website, EDI etc. It allows new forms of partnership between companies, suppliers and consumers, improving the way of doing business. Information Communication Technologies (ICTs) helps firms to reduce cost and to enhance profit.

### **Factors Affecting Adoption of ICTs by SMEs**

E-commerce enables small and medium enterprise (SMEs) to compete and link with large companies'. The factors that influence the diffusion of and link with large companies. The factor that ICTs within SMEs numerous. Chau (2001) Mehrtens et al. 2001, in their study identified three major factors. Those are perceived benefit, organizational readiness to e-commerce and pressure from external factors. Alignment of business processes with website strategy is also an important factor for launching online trading by SMEs (Bergeron, et al 1998; Lawrence & Chau, 1998; Poon & Swatman, 1995; Cragg, 1998). The benefit, disadvantages and barriers also act as triggering forces for the SMEs to adopt and use e-commerce. If perceived benefits are higher, disadvantages are lower and barrier of e-commerce are less then certainly. SMEs will go for E-commerce provided that it cost effective to do so. Lack of awareness, lack of training, and perceived risk work negatively for adopting e-commerce by SMEs.

### **Application of E-Business Technologies in SMEs**

- Significant productivity gains associated with E-Commerce and supporting applications. In B2B relations, electronic technologies can lead to rationalizations of business processes and significant cost saving due to cost effective way of communication, better handling of information and prompt delivery (OECD, 2004).

- Shortening the design process, product customization and standardization of parts as well as lower inventory costs, faster production, lower supply costs can be attained through the use of ICTs (OECD, 1999a).

- Electronic Commerce improves possibilities for production relocation through outsourcing. Direct contact can be established with suppliers as well as customers and thus greater customers as well as suppliers, loyalty could be achieved through improved supply chain management, which create new business (Poon & Swatman 1997).

- Reduction in transaction costs which is vital for Small business is possible through the use of E-business. At the same time, improvements

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in product quality/customers service, increasing customers' base and close intimacy with suppliers are possible in E-Business process (Moodley, 2002).

- Though use of internet, SMEs can sell the products and services directly to the end users (Mikio, K., 2002) and could achieve higher profit margin that gets eaten up by the middle man in the traditional distribution channels.

- Use of internet system improve the CRM system and allows firms to interact closely and customize their products and services SMEs are better able to handle customers with services promptly (Barry & Milner, 2002).

- Through engagement in e-business the SMEs can get direct feedback from the customers about the qualities of products and services so they can avoid costly market research.

### **Obstacles to the adoption of E-Business in SMEs in Pakistan**

In most national economies, SMEs make up more than 80% of the market participants, and contribute around 50% of direct value addition or production. Why SMEs are contributing less in GDP of Pakistan compare with developed countries. The following are the main obstacles in the development of SMEs in Pakistan.

- **Lack of awareness among SMEs about E-Business Technologies:** Pakistan SMEs found to be unaware about the potential benefit of the use of ICT for profit enhancement

And cost reduction. Moreover they are also unaware about the recent development technologies. Besides, they are feeling comfortable to do business in traditional way and have lack of initiatives to take the risk of investment on ICTs.

- **Lack of ICTs Infrastructure:** To make SMEs engage in e-commerce, the infrastructure should be right place. In Pakistan telecommunication system is not so developed, the high band with internet is not available in all places, and it is confined to town areas. Besides, the costs of the computer and other accessories are also huge to justify investment on it.

- **Lack of power Supply:** Electricity is of foremost importance for uninterrupted communication with buyers, suppliers over internet. In Pakistan recent energy crisis effected the growth of SMEs business in Pakistan.

- **Lack of Finance:** Due to insufficient collateral SMEs in Pakistan, could not avail the loan from institutional services, like commercial banks, leasing and investment companies. So SMEs don't have enough funds to invest on ICTs and engage in E-Business.

- **Lack of training and Trained Manpower:** SMEs lack enough

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training on application of e-Business technologies on SMEs, therefore internal resistance to move to e-business and uncertainties of the benefits of e-commerce are evident among SMEs, Besides as IT personnel in Pakistan are limited, they normally work for large companies and SMEs can't afford to recruit them and pay high salary.

• **Security issues online payment through visa card:** The security issues relating to access of visa card by the third party, or theft from the holders how illegally access to visa card number is also one cause that most of the people in south Asia is not using the online payment through internet..

### **Recommendations**

• Establishment of cluster, location, etc. exclusively created and developed for SMEs to grow, having all the facilities (electricity

• Establishment of cluster, location etc. exclusively created and developed for SME to grow, having all the facilities (like electricity, gas road, internet etc) around Bangladesh.

• Publication of white paper on small and Medium Scale enterprises each and every year, which contains the detailed condition of SMEs and various plans and policies taken by government so that private sectors research can get the actual situation of SMEs.

• SMEs should be highly integrated in forward and backward linkages and have presence in various operations and productions.

• E-commerce enabling rules and regulations should be established in Bangladesh in line with Japanese SMEs rule.

• Trainers can be hired from Japan so that they can teach the involving parties in SMEs about the potential benefits of E-commerce and demonstrate how to do business online.

• Creation of congenial atmosphere for SMEs to grow and flourish. Beside some activities are beyond the scope of private sectors and government intervention is a must. Most desired governmental business security and promotion, provision for Internet access etc. Moreover as SMEs have great impact on employment creation and contribution to GDP the responsibilities of the government are to promote SMEs by removing barriers and creating an e-commerce enabling environment to SMEs

• The transfer of scientific and technological information from universities to SMEs is very much needed to make SMEs competitive and also to fill up the technological need. In Japan such collaboration is very much needed. In Japan such collaboration is very much common. Local industrial technology institutes, national and government industrial research

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institutes are constantly and aggressively transferring technology to SMEs in Bangladesh Government can fund the project or technological help to SMEs .In Bangladesh such collaboration is absent .So Bangladesh government can fun the projects for technological help to SMEs through public and private universities.

- Telephone, Mobile phone, Internet computer and underlying application software technologies for E-business must have to be ensuring for the SMEs like Japan .In addition, telecommunication sector should be deregulated and tale-density should be increased and internet should b made available both in town as well as in rural areas. Besides government should take initiative to encourage the use of electronic payment system. Government should ask and help the financial institutions to introduce debit/credit cards and install ATMs all around the country. Those infrastructures should be made available for SMEs use.

- In Bangladesh there is no proper IT curriculum at the primary, high school and collage levels so the initiative of education board should be to design and introduce proper IT based curriculum

- As government is the large buyer so they can encourage SMEs for online transactions. Moreover, government can provide services on the internet like e-procurmetn, e-filling of income taxes, online job searching online registration of exams and bringing all the library resources online.

- The government should make effort to enhance the investment climate to attract and retain venture capital and investment in SMEs

- Government should apply lower tax rate on income of SMEs than to large firms and tax rebate should be given to SMEs for their first few years of operation.

- Appropriate rules should be enacted to protect online customers from fraud an forger .besides, the government should educated people through media so that they feel comfortable to Transat online

### **Conclusion**

Small and medium scale Enterprise have several advantages over large firms. They are much more flexible, innovative and can adopt the changes in business environment very quickly .Moreover in any developing countries like Pakistan ,SMEs are much more important. Pakistan categorized as low income country having some severe problems like employment, Energy crisis, low per capita income, poverty, security derth and dependency on imported goods. SMEs can play a vital role for the development of Economy of Pakistan as well as create employment opportunities in the country. SMEs promote pro-

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poor growth strategy and SMEs are evenly distributed all through the country, so promotion and development of SMEs will have impact on balanced regional development.

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