Strategic Role of Internet In SMEs Growth Strategies

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Abstract:
Due to increasing competition through Internet, it has been difficult for SMEs to control their development path under this situation it is very important to identify and understand which factors impact the performance of the SMEs. This research aims to focus on the determinants influencing the internationalization of small and medium-sized enterprises (SMEs). The objective was to investigate and evaluate the business environment and, then, examine if degree of Internet usage can allow SMEs to develop a competitive position in the marketplace. Study found use of IT has the capability to generate international market expansion and future growth for firms.
Keywords: Information Technology, Growth Strategies, SMEs, Market Expansion, Business Collaboration

1. INTRODUCTION

Internet has opened new vistas of firms' global expansion by minimizing entry barriers and providing access to valuable information about markets, which enables firms to identify target markets and cater the needs of the specific clients. Moreover, with the use of Internet, firms are better able to find most suitable partners regardless of their physical location and develop better network coordination. Among the factors immensely improving the opportunities to go global for SMEs, the use of communication technologies such as Internet holds substantial importance.

There is a long history of research linking technology and internationalization. In general, the preponderance of these studies find that firms that were more aggressive users of technology were more likely to engage in international activities, such as exporting. Companies with a technological advantage are more likely to export than those without a technological advantage.

Certain technologies can provide an advantage that widens market opportunities and serves as a platform for expansion. The Internet is widely considered to be one such technology. A common observation in studies on technology is the importance of experience in the adopter's ability to absorb the technology and to benefit from it economically.

There is no agreement upon what constitutes a good definition for SMEs except that they are managed directly by their owner(s), e.g., they own most of the shares, provide most of the finance, and make the majority of the principal decisions. Countries and agencies employ different qualitative and quantitative limits in defining SMEs. The criterion most commonly used is the number of employees, as it is a more reliable measure of firm size between different sectors of the economy.

For the purpose of this study, firms with less than 200 employees were defined as SMEs. The results of OLS regressions used for the analysis confirmed that internet technologies significantly influence and aid SMEs to expand globally and strengthens their relationship with other firms.

2. LITERATURE REVIEW

In the early 1990s, Research on international entrepreneurship focused on the internationalization of new firms, however, in later years the scope of research was expanded to all firms irrespective of size, age and sector (George, Wiklund, & Zahra, 2005; McDougall & Oviatt, 2000). Though, SMEs are considered to have restricted access to various resources and markets consequently suffering a lack of competitiveness and barriers in internationalization, a number of SMEs have gone global soon after their incorporation in last few years (Oviatt & McDougall, 1994; Yli-Renko, Autio, & Tontti, 2002; Zahra, Hayton, & Salvato, 2004).

The role of Internet in developing firm's strategy and activities has been generally analyzed by using two pertinent approaches namely "Resource based approach" and "Transaction cost theory". As the information accessed through internet is widely available to all firms hence the use of internet can't be solely regarded as a competitive advantage for the firm (Mata, Fuerst, & Barney, 1995; Porter, 2001). Therefore, according to resource-based approach it is essential for a firm to use internet based technologies to develop strategic resources and capabilities that increase firm's competitiveness. SMEs generally have to face some limitations like restricted resource access and lower negotiation power as compared to large firms (Samiee, Walters, & DuBois, 1993), however flexibility appears to be the most distinctive advantage of SMEs enabling them to respond quickly to market needs and build innovation competency. Transaction cost theory refers to the use of Internet technologies in minimization of costs arising out of information asymmetry and opportunistic behavior. Internet enables information transfer among all contracting parties consequently reducing information asymmetry (Clemons & Row, 1992) and facilitating firms in terms of transaction costs and strengthening relationship with suppliers as well as customers (Thatcher & Oliver, 2001).

Information appears to be the most valuable resource when a firm decides to enter new markets or expand globally (Johanson & Vahlne, 1977). The availability of information about new markets (Peter S Davis & Paula D Harveston, 2000) and flow of information among firms, suppliers and clients resulting in establishment of agreements and better coordination networks at reasonably low cost has made it easier for SMEs to expand internationally (Dewett & Jones, 2001; Venkatraman, 1994). Nieto and Fernandez, (2006) studied the role of internet technologies on internalization and outsourcing of Spanish SMEs.

2.1. Internet Adoption

Internet adoption has been described as a phased process by many studies. Kwon and Zmud, (1987) suggested a six stage model of internet based technologies execution. First stage is "initiation" which refers to selection of appropriate IT solution for the firm. "Adoption" referring to the stage when firm has decided to invest in IT resources. "Adaptation" is the availability of IT applications for usage. "Acceptance" refers to stage when these applications are employed for use in the firm. "Routinization" is the phase of making adjustment in firms' *governance system to account for the ICT application.* The final stage "infusion" refers to maximum utilization of IT applications. Dholakia and Kshetri, (2004) examined the impact of certain firm specific and external factors on internet involvement of SMEs in US economy. Internet involvement was measured in terms of "adoption" which refers to website ownership by a firm and "routinization" which refers to sale of products via Internet. The study concluded that among internal factors firms previously using technology tended to have more Internet involvement whereas only external variable used in the study i.e. competitive pressure also significantly affected both phases of internet involvement. However, firm size and self-efficacy influenced first phase of Internet involvement but became less important for second phase.

Kula and Tatoglu, (2003) investigated the level of internet usage and the factors influencing internet based technologies diffusion using a sample of 237 SMEs in Turkish Economy. Firms having employees less than 100 were considered as SMEs for the purpose of the study. The study found that among 14 Internet applications categorized in three broad groups, those used most frequently were the ones related to external communication and market & product research. However, Internet applications used less frequently by Turkish firms were job placements on website and video conferencing.

Palmer, (2000) also found similar results for internet usage of firms in Bahrain where the most frequently used internet application was "e-mail" while using internet for "payments" and "job placements" were less frequently used. Firm specific variables influencing Internet adoption are the resource allocation for export development and international experience of SMEs.

Loane & Bell, (2006) in their study of SMEs using a cross national sample concluded that the internet adoption is not a step-wise process; instead SMEs adopt internet solutions that best suit the requirement of the firm. After literatures scan, the different ways to measure the degree of Internet adoption has been summarized in the table 1.

Table 1 Variables used to estimate the degree of Internet adoption.

	Independent Variables	Author
1	Marketing Communication	(Loane, 2005) (Kula & Tatoglu, 2003) (Ramsey & Ibbotson, 2005)
2	Market Intelligence	(Kula & Tatoglu, 2003) (Kula & Tatoglu, 2003) (Ramsey & Ibbotson, 2005) (Loane, 2005)
3	Competitors Analysis	(Loane, 2005)
4	Business Collaboration	(Loane, 2005) (Ramsey & Ibbotson, 2005) (Kula & Tatoglu, 2003)
5	Business Process	(María Nieto, 2005) (Loane, 2005) (Ramsey & Ibbotson, 2005) (Kula & Tatoglu, 2003)

2.2. Growth Strategies

Watts et al., (1998) suggested "*product development*" and "*market development*" to be the most suitable growth strategies for Small and Medium Enterprises. Product development refers to launching of new products/services in already captured markets. Market development refers to the offering of existing products in new markets. Growth oriented firms focus primarily on responding to new market opportunities which may either be market development or diversification. The process of extending business to internal markets or "internalization" is much feasible for larger firms and appeared to be much costly for Small sized firms. However, availability of information and communication technologies (ICT) at very low costs in past few years has provided opportunity to SMEs to compete in international markets with large firms. Internet aided SMEs in marketing their products at much lower costs all over the world, finding new market opportunities, make collaborations with supplier and distributors regardless of their geographical locations and executing transactions at much lower costs (Drew, 2003). Levy & Powell, (2002) proposed a model for internet adoption in SMEs in which four roles of internet are identified. First is "Brochure ware" in which SMEs are not planning growth and Internet is not of much worth, instead its use is limited to e-mail mostly. Firms using IT for "Business opportunity" consider Internet as valuable but in future. Currently the use of Internet is mostly restricted to research and providing customer services. These firms are also not seeking growth but use of Internet is mostly competitive pressure driven. In "Business support" firms are growth seekers but the focus in on introducing innovative products and these firms do not consider Internet of much worth except for communications with customers. The firms using Internet for "business network" consider it an essential pillar for growth of the business. These firms usually have well developed internal systems employed for execution of business processes and look forward to take full advantage of Internet in business operations.

Table 2 Growth strategies and the role of Internet

Growth Strategies	Role of Internet
Product Development	• facilities to shorten the development cycle of new products • enhancing abilities to collect, categorize and use information needed for product development • generating a range of new product ideas from a wider range of sources • making the concept screening process comprehensive, and flexible • improving the effectiveness and the efficiency of manufacturing development • increasing the speed and quality of testing and validation
Market Development	• quick and effective expansion of geographical markets regionally and globally • opening up new markets • establishing new distribution channels • increase in export at low cost • helping firms in overcoming disadvantages of small and medium enterprises to reach customers • enhancement in internal and external communication
Market Penetration	• Reaching out existing customers, explaining them the benefits of more use of the product. • Use internet to compare the products features with what is already available in the market. • Use internet to convince the people who are not using the product at all.
Diversification	• Find a partner or form an alliance with a complimentary company. • Finding new technologies • Using internet in maturing the licensing of new technologies. • Find a distribution channel for our new products to reach in the new market.

Source: (Andersen, June 2001) (Chaffey, Ellis-Chadwick, Johnston, & Mayer, 2003) (Davis & Harveston, 2000) (Loane, 2005) (Kula & Tatoglu, 2003)

The use of Internet in specific product-market development strategies is also of substantial importance (Chaffley et al. 2003). In “Market Penetration” firms can benefit from internet by selling products online which could help firms in providing better customer services and serve for business promotion; however this is a very limited use of internet (Chaffley et al. 2003). In “Market Development” SMEs can search and identify target markets and sell products via Internet. This could increase exports for SMEs and aid them in promoting products in international markets at much lower cost and eliminates the need of developing sales infrastructure in those countries. Internet adoption can be highly beneficial for “product development” and found to be valuable in improving quality of the product and decrease time and cost taken in the development of new products (Yujun, Jinsong, Li, & LiPing, 2006).

Internet made it easier to share knowledge and information about trends and needs of customers in different markets and provided easy access to people, data and software. This availability and accessibility has served to lower the time taken for completion of the development process of new products (Howe, Mathieu, & Parker, 2000). Firms can conduct research at much lower cost, take quick expert advice globally, and get timely response of customers to new products. Internet can serve firm at initial stages of product development by taking ideas for new products via online forums where the firms also get to know needs of customers in particular markets. Information and communication technologies can also serve firms during development process when project involves many individuals or teams working in different areas and at different stages of product development to share information and make collaboration much easier.

Internet can also serve to abolish any imperfection in the product before introducing it in the market by taking feedback from lead users and partner businesses that potentially decreases the risk of failure. Thus, internet serve a firm in product development by providing immense knowledge of markets and customer needs, shortening development cycle, easing timely collaboration and aiding in getting expert opinions and immediate customer feedback (Howe, et al., 2000). In “diversification” SMEs can take advantage of Internet for targeting new markets and introducing new products as discussed in earlier stages. However diversification is not considered as a preferred growth strategy by SMEs.

Ghafoor & Iqbal, (2007) in their study of Swedish SMEs investigated the level of internet adoption in implementation of growth strategies. The study concluded that Small and Medium Enterprises mostly used Internet based technologies in two growth strategies namely “product development” and “market development”. Firms used Internet for information collection, development cycle and Internet and external communication in product development strategy and benefit from Internet by identifying target markets internationally and selling products online to global customers in “market development”. However, SMEs did not use Internet to its full potential and also had not used Internet largely for advertisement purposes. Moreover, internet serve to facilitate firms in making connection with suppliers however it was not used for developing distribution channels, though it made possible for SMEs to increase exports at much lower costs eliminating the need for developing any infrastructure for sale of products in foreign markets. Concluding the above discussion, Internet based technologies can best serve SMEs in their growth specifically internalization overcoming the disadvantage of size and limited resources.
This literature scan resulted in following research model in figure 1

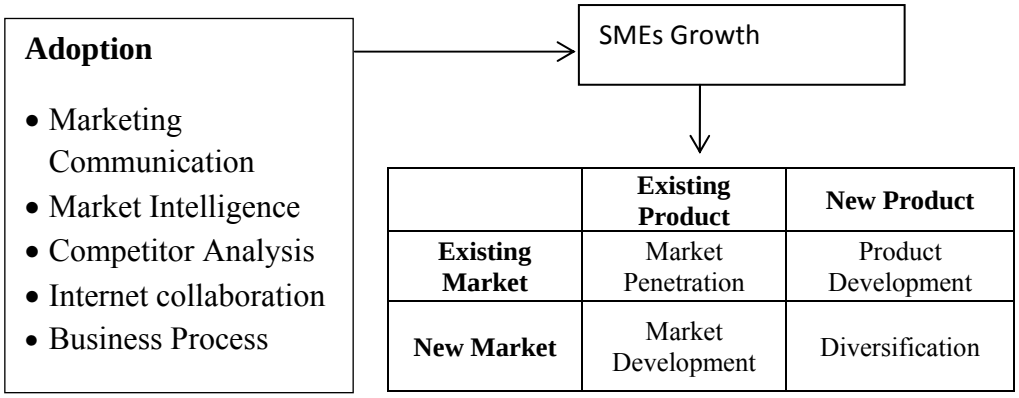

Figure 1 Strategic role of Internet adoption and SMEs growth Strategies.

3. RESEARCH FOCUS AND METHODS

A structured questionnaire of 33 items was developed to collect the data. 5 point likert scale was used ranging from never to always. Degree of internet adoption was measure by five variables i.e. Communication, Market Intelligence, Competitor analysis, Business collaboration and Business Process. Each variable was further measured by three to five questions. Dependent variable " Growth" was measured in four different directions i.e. Market Penetrations, Market Development, Product Development and Diversification. Each growth strategies were measured using likert scale from 1 to 5 with four to five different questions.

Table 3 Reliability Test

Variable Name	Cronbach Alpha
Internet Adoption	0.88
Product Development	0.90
Market Development	0.77
Market Penetration	0.70
Diversification	0.87

Reliability of the scale was checked and detail is given in Table 3. All the small and medium enterprises of Gujrat and Gujranwala region are the target population of the study. 150 questionnaires were distributed among the sample firms. Businesses from various fields contributed, their participation was totally voluntary. The responses of the questionnaires were analyzed using SPSS 16.

4. RESULTS

Correlation:

In table 4 below, correlation of the variables is shown using Spearman's Correlation. The result indicates strong association among most of the variables.

Table 4: Correlation Matrix of Dependent and Independent Variables

Variables	1	2	3	4	5	6	7	8	9
Marketing Communication	1								
Market Intelligence	.71**	1							
Competitor Analysis	.50**	.70**	1						
Internet Collaboration	.02	.48**	.60**	1					
Business Process	.51**	.65**	.69**	.72**	1				
Product Development	.63**	.78**	.60**	.46**	.74**	1			
Market Development	.75**	.76**	.60**	.43**	.70**	.78**	1		
Market Penetration	.54**	.73**	.69**	.74**	.86**	.76**	.77**	1	
Diversification	.01	.38**	.62**	.65**	.50**	.41**	.34**	.47**	1

**Correlation is significant at 0.01 level (2-tailed).

Regressions:

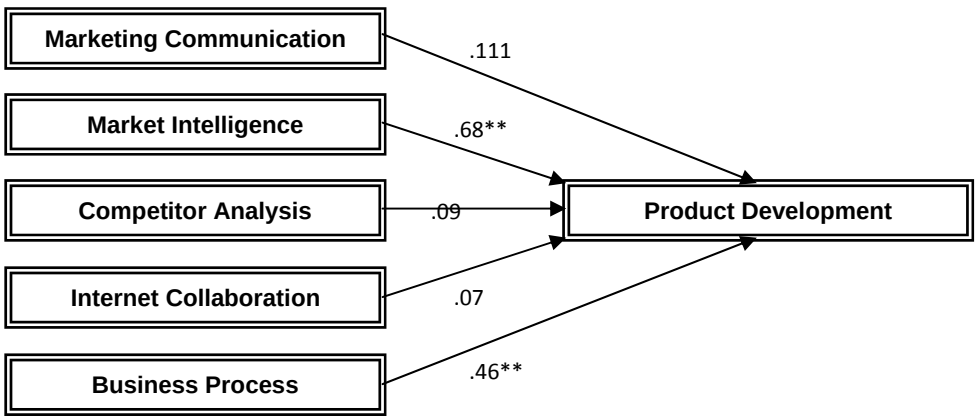

Figure 2: Internet Collaboration and Product Development

Estimates of the regression model in the Figure 2 signify good results as f-test of the model (p-value<0.01) signify that model is valid. Adjusted R square of the model is 0.83, which indicates a strong model. The regression results further indicate that Market Intelligence and Business Process are significant predictors of Product Development.

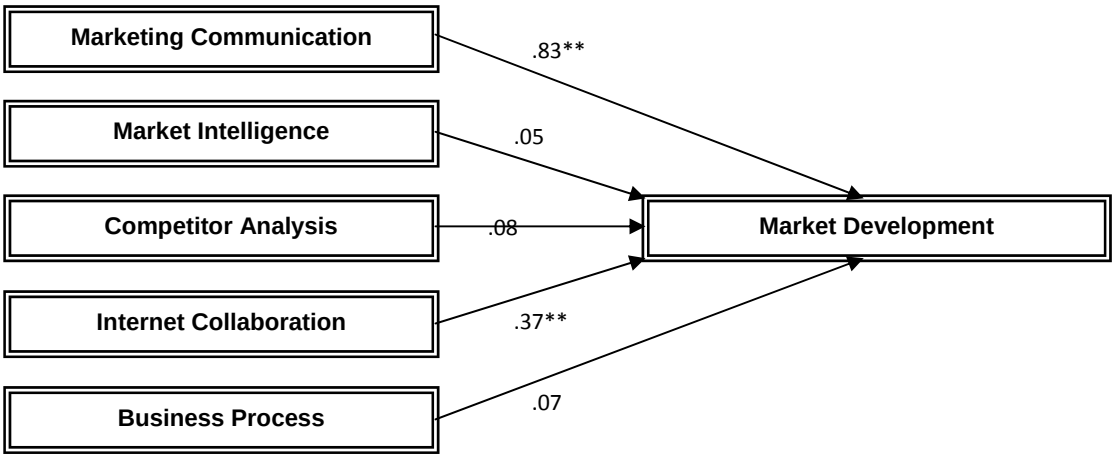

Figure 3: Internet Collaboration and Market Development

The model estimates of regression model in the Figure 3 indicate that the model is valid. Its Adjusted R Square is 0.85, which represents a good model fit. Furthermore Marketing Communication and Internet Collaboration are the significant predictors of Market development. Rest of the independent variables did not show any significant relationship with the response variable.

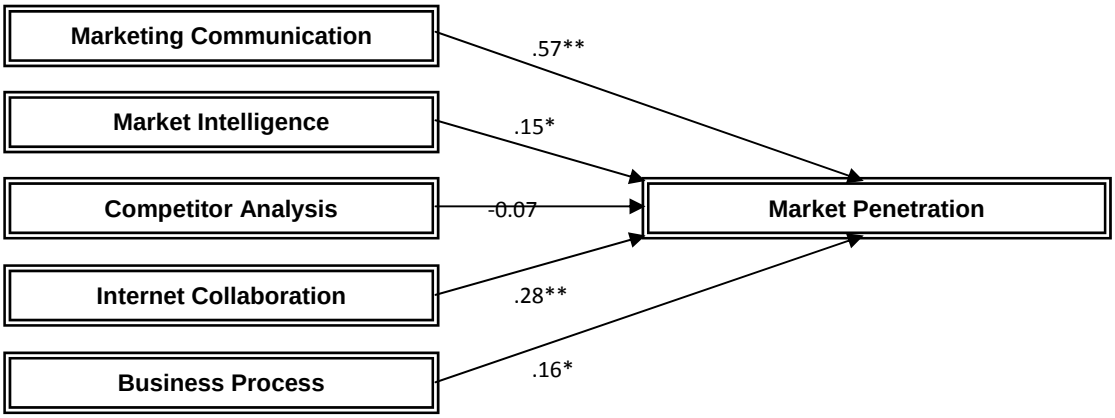

Figure 4: Internet Collaboration and Market Penetration

In the research model above, Marketing Communication and Internet Collaboration are the strongest predictors of Market Penetration. Market Intelligence and Business Process also show significant result at p-value<0.05 and beta values of .15 and .16 respectively. R square of the model is 0.84 that is signifying a good model fit.

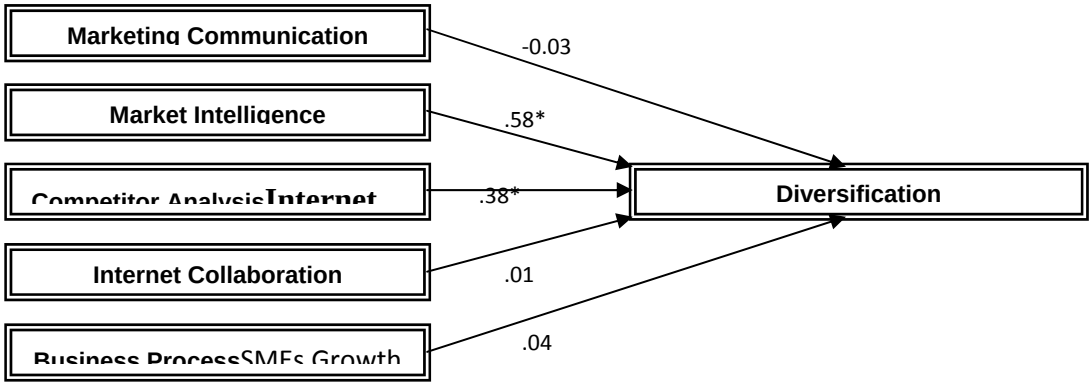

Figure 5: Internet Collaboration and Diversification

Estimates of the regression model in the Figure 5 above signify good results as f-test of the model (p-value<0.01) signify that model is valid. Adjusted R square of the model is 0.36, which indicates a strong model. The regression results further indicate that Market Intelligence and Competitor Analysis are the strong predictors of Diversification. All the remaining independent variables are not indicating any significant relationship with the response variable i.e. Diversification.

5. DISCUSSION

It is evident from the study that the Internet adoption by the SME's is affecting their business decisions and processes. Any company working in the present era cannot neglect or deny the importance of Internet and its application in the corporate world. Internet has provided an opportunity to the small businesses to bridge the gap of approaching different markets and industries in a more economical way and at the same time having updated information about the advancements in their respective areas both geographically and technologically.

It has further observed that the SME's where the Internet adoption rate is more frequent are better placed in the market in terms of market share, external linkages and market repute as compared to those where Internet usage in term of business activities is lesser. It is a very positive sign in the present business atmosphere in the Pakistan that the SME's are well aware of the importance of Internet and its application. It can safely be predicted that many businesses of this region will improve the quality of their products and process by more extensive use of Internet and shall reach the customers far from their geographical location at par with many international companies following the same pattern.

All the above regression models indicate varied results of different facets of Internet Collaboration with four growth strategies i.e. Product Development, Market Development, Market Penetration and Diversification. For instance the correlation table indicates that the Communication by an SME via its website or email is more beneficial when the firm is pursuing Product development, Market Development and Market Penetration Strategies.

Also Market Intelligence and Business Process highly affect the SME (figure 2) when the business is adopting Product Development strategy which makes perfect sense as if the company uses internet to find out industry trends (e.g., ups and downs in demand, future expectations, Price of products) it will be in an ideal position to develop new products that match market needs. Same like, the more refined the Business process of an enterprise, the more likely a company can adopt Product Development strategy as efficient business processes enable the firms to develop products that are as per market's requirements.

Results of the study further indicate that Marketing Communication and Internet Collaboration play s significant role when the firm opts Market Development strategy. As the literature indicates that in the Market Development, the firm targets new market with existing products and therefore the communication and collaboration are the ideal tools for a business in this case. The results of the study are very useful as they are generalizable and identifying the variables that must be emphasized when choosing any growth strategy. It can further provide guidance to the SME's to allocate their resources in the right direction as per the requirement of a growth strategy.

The results of this study have particular significance for those companies/businesses which are not using/underutilizing internet for commercial purposes as it is apparent that internal adoption is one of the most cost effective tools that can largely benefit any business, large or small, manufacturing or services, regardless of its geographical location.

Another very important and interesting aspect of this study is the right combination of dimension/s of Internet Adoption and Growth Strategy. SME's can proficiently channel their financial and human resources in accordance with the strategy they are pursuing which can definitely provide them with a competitive edge.

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