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Technologies Effect on Exporting for Small to Medium Enterprises (SME's)

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ABSTRACT

The need for more research regarding Small and Medium Enterprises (SME's) is growing with most research focusing on larger enterprises. The purpose of this study is to review how technology has affected exporting for SME's. The report researches the Adaption of Information and Communications Technologies, Exporting in SME's, and Growth in SME's. Research also will show the challenges that SME's have when competing against larger enterprises. Data collection was done through gathering data from other research projects that were peer reviewed using a qualitative approach. The findings concluded that SME's are closing the gap in their ability to do exporting due to changes in technologies. They can compete in exporting due to advancements in technology and communication and the lowering cost. The application of this study goes into how SME's can use Information and Communication Technology (ICT's) in use for exporting internationally.

Keywords: Exporting, Technology, SME's, Small to Medium Enterprises, Informationand Communications Technologies, ICT's, ICT, SME

INTRODUCTION

The problem Small to Medium Enterprises (SME's) face in exporting is changing over a decade ago it would have been impossible due to barrier of entry costs, resources, shipping, scalability, and many other factors. The expansion of technology however is changing this and helping to close the gap. Due to monetary resources there is a lack of research for SME's there isn't enough funding for these companies to be able to afford or dedicate the time to get research done. Technology however is ever changingfaster than we have seen "Moore's Law states that twice as many transistors could fit in a chip doubling the expansion of technology capabilities every year." (Simonite, 2016).

This massive growth has opened opportunities for small and medium size companies. The barrier to entry is constantly dropping due to technology advancements. The adoption of this technology is necessary for the SME's to compete in today's markets. Without the ability to scale down to SME's larger enterprises can't grow either. SME's today can use larger exporters such as Amazon and Alibaba to use their power of scale in the market.

Communication around the world is improving opening abilities to create contacts globally which also expands exporting capabilities. Communication technologies allow retailers to communicate with distributors, shippers, and consumers. This is leading to the growth of SME's since they can now get involved in exporting to help their consumers meet their needs.

The research will show how these companies are facing the challenges head on and what the opportunities look like moving forward for SME's. The research will address how SME's are adapting to technology, how they benefit from it, how it affects productivity, and affects different economies. Additionally, the research will address exporting benefits, technology and export evolvement, globalization and exporting, market entry, global distribution, and items impacting exporting.

THE ADAPTION OF INFORMATION AND COMMUNICATION TECHNOLOGIES

Small, medium and micro enterprises (SMEs) are important economic engines in society through job creation and sustaining standards of living for most

people. These enterprises also play key roles in economic growth and innovation as well as a leading role in the social goal of equitable income distribution. (Ongori & Migiro, 2012) However, SMEs continue to face multiple challenges such as the lack of market information, commercial intelligence gathering, and efficient means to process data. To assist with some of these challenges, a key course of action has been the adoption of information and communication technologies (ICTs).

ICTs consist of product and services such as desktop computers, laptops, handheld devices, wired or wireless intranet, business productivity software, enterprise software, data storage and network security among others (Ashrafi & Murtaza, 2008).

This study aims to address Canada's competitiveness, productivity factors, the role digital technologies play in driving productivity of SMEs, and to identify barriers to digital technology adoption for SMEs.

POTENTIAL BENEFIT OF THE USE OF ICTS IN SMES

According to (R. Martyn, N. Amanda, & S. James, 2003, p. 307), ICTs constitute a range of software, hardware, telecommunication and information management technologies, applications and devices that are used to create, produce, analyze, process, package, distribute, retrieve, store and transform information.

SMEs' adoption of ICTs can provide competitive advantages for both intra- and inter-firm business processes and transactions. ICTs' adoption can assist by improving information and business knowledge management, reduce transaction costs and increase the speed and efficiency of transactions for both business-to-business (B2B) and business-to-consumer (B2C) transactions.

In addition, ICTs' are effective tools for improving external communications and quality of services for established and new customers (OECD, 2004). The biggest benefit for digital technology for SMEs is the opportunity to improve productivity. SMEs are distinct from large enterprises due to their significantly lower levels of productivity than large enterprises.

Today, these managerial tools are no longer viewed as a technical "service", but instead, are a critical resource to improve the competitiveness of SMEs in any business sector. The world economy continues to transition to more increased integration as a result of increased globalization. The result continues to drive advances in information communications technologies. ICTs' adoption by SMEs is key for their sustainability in this new global world.

Basing on scientific literature, (Consoli, 2012) states that the benefits/advantages of ICT depend on several variables

- the type of business,
- internal changes (e.g. re-engineering process, personnel retraining),
- suppliers-customers' interaction.

LITERATURE REVIEW

SMEs and Their Role in the Canadian Economy

Numerous studies have focused on analyzing how adoption of ICT affects companies and based on this historical finding, isolated two types of studies: (1) the ones related to productivity and (2) the ones related to the environment due to the findings of recent research that confirmed ICT has impact on the reduction of greenhouse and others increase the efficiency of energy). (Hall, Lotti, & Mairesse, 2013) The focus of this study is on the first type of research.

According to (Statistics Canada, 2005), a SME is any business that has fewer than 500 employees. On average, SMEs account for 54.2 per cent of the gross domestic product (GDP) in Canada (slightly higher than the United States comparable total of 50.7 per cent). (Statistics Canada, 2005). SMEs are distinct from large enterprises as they generate significantly lower levels of productivity than large enterprises. Improving the productivity in SMEs will have a key impact in growing the Canadian economy. (Baldwin, Leung, & Rispoli, 2013) According to the Global Competitiveness Index (GCI), Canada ranks 14th out of 144 countries, dropping five places since 2009. (World Economic Forum, 2011) See Table 1.

Innovation and its Role in Productivity

The Conference Board assesses Canada's international innovation performance as poor.

Canada ranks 13th out of a peer group of 16 countries, receiving a D grade for innovation. (Schrange, 2013) The Conference Board noted that Canada has been slow to adopt leading-edge technologies; 'Slow adopters never catch up; they are always at least one generation behind the advancing frontier of possibilities that recent technology represents. (The Conference Board of Canada, 2013) This is not a winning formula and Canada finds itself playing catch-up on too many technologies'. (The Conference Board of Canada, 2013)

Digital Technology and Productivity

One of the indicators used to assess the level of innovation in Canada is ICT Investment which consists of three components: (The Conference Board of Canada, 2013)

Software (including the acquisition of prepackaged software, customized software and software developed in-house);

Information technology (IT) equipment (computers and related hardware); and

Communications equipment

Canada ranks 8th out of 15 peer countries on ICT investment as a percentage of non-residential gross fixed capital formation. In comparison, the U.S. is a clear leader in ICT investment. They rank first overall and places first in two of the three subcategories. **See Table 2.**

From decades of research we know that "the use of ICT by staff increases productivity; ·the adoption of computer networks and more than one type of ICT drive labour productivity growth,that ICT investment can be an important catalyst for a profound transformation of the firm."(Martin & Milway, 2007)

SMEs who have adopted ICT have experienced the kinds of productivity growth consistent with the findings of the empirical research across the economy. (The Conference Board of Canada, 2013)The Canadian Council of Chief Executives stated that 'as a group, Canadian businesses have been too slow to invest in research and to adopt leading-edge technologies.' They described Canadian business leaders as 'a culture of complacency.' The lower adoption rate of digital technology appears to substantiate this viewpoint as it effectively restricts productivity performance. (Canadian Council of Chief Executives, 2008)

Despite the benefits of digital technology adoption, SMEs have much lower rate of adoption than large enterprises. (Ollo-Lopez & Aramendia-Muneta, 2012) state that there appears to be a correlation between ICT adoption and a positive impact on productivity.

METHODOLOGY

Research Design

This study intends to explore the factors that affect the readiness of SMEs in adopting the information system. This research is qualitative research conducted by using interview technique. This research used a multiple-case strategy to describe the phenomenon. (Yin, 2003) The conclusion on determining factors will be obtained through the analysis on in-depth interview results with participants.

Research Sample

The information presented in this study was collected through: (Dimick, 2014)

a one-day workshop on the topic, conducted by The Conference Board of Canada and attended by SME representatives; and

a series of targeted interviews with SME representatives who are interested in digital technology adoption or who have recently undergone an implementation to ICT.

Research Model

Research findings in this study are based on interpretation of interviews that are conducted in depth. In addition to qualitative data in the form of dialogue results, the researchers also use qualitative data to gain better understanding on the phenomenon. Quantitative data will be used to assist the researchers in populating industry group matrices.

RESULTS

Discussion of Findings

Both workshop participants and interviewees consistently identified five barriers to adopting digital technology by SMEs: (Dimick, 2014)

1. **Time**: The most common barrier stated by an overwhelming consensus both at the workshop and through interviews, was time. Time constraints pose a key challenge for SMEs, and they were quick to point out the obvious 'Catch-22'; often, the implementation of a productivity-boosting technology would ease the time constraints greatly but requires dedicated time to implement and achieve.(The Conference Board of Canada, 2013)
2. **Money:** The twin constraint to time, is money. Financial considerations were repeatedly identified as barriers to adoption. Interviewees noted that the financial investment needed to fund the adoption of technology is often considered akin to adding another salary to the payroll. Multiple respondents indicated that it is much easier for their SMEs and peer SMEs to "add another body" to their workforce instead of investing in a productivity-boosting technology. (The Conference Board of Canada, 2013).
3. **Fear and Resistance:** The two forces; fear and resistance, are also critical barriers to digital technology adoption among SMEs. Many participants at the workshop and through interviews, talked of their employees in their firms as being resistant to change. They cited a certain level of distrust in recent technologies. Change is historically challenging for humans, and organizations looking for ways to improve their productivity, often fall victim to this challenge. (The Conference Board of Canada, 2013). As a result, there is push back among workers, as well as executive decision-makers in SMEs who express similar fears concerning technology.
4. **Opportunity Cost:** SME representatives at the workshop voiced their concern of the opportunity cost involved in digital technology adoption. Top-level decision-makers in SMEs are fearful about what they're not managing while they're focused on the adoption and integration process. Executives also noted serious concerns about scope creep and price escalation. Stories abound of digital technology adoptions that have taken longer, and cost more than originally anticipated and their serious fears of falling into a trap are often strong enough to prevent SME decision-makers from taking the leap. (The Conference Board of Canada, 2013)
5. **Difficult to Understand**: For many SMEs, it can be difficult to visualize the result and benefit of undergoing a technology adoption. Many of the post-integration benefits of the recent technology can be hard to measure and difficult to accurately predict at the outset. One interviewee who works closely with SMEs that are adopting new enterprise resource planning (ERP) software spoke of how the SMEs often want to see that other companies, like their own, have undergone successful adoption of the same software. It is often difficult for executives to be fully understand the benefits. (Dimick, 2014).

Best Practices

Research findings from this study indicated six 'best practices' that collectively, represent a successful approach for digital adoption implementation by SMEs:

1. **Know Your Processes, Keep It Simple:** Interviewees stressed the importance of having processes clearly outlined in advance of any technology adoption initiative. (Goobie, 2013)
2. **Total Organizational Buy-In:** Several interviewees indicated that having support from their CEO during the adoption of a recent technology ensured their ability to push things through and gave them tools to work with when they faced internal resistance. (The Conference Board of Canada, 2013)
3. **Enlist Champions:** Many SME representatives in the room indicated the need for champions when adopting recent technology. (The Conference Board of Canada, 2013)
4. **Enlist the Right Expertise:** SME representatives we interviewed and engaged at the workshop all stressed the need for

bringing in appropriate expertise to assist in the adoption process. These are specialized skills, and many SMEs are not equipped to take on this type of assessment internally.

5. **Keep Your Eyes on the Prize:** SME interviewees spoke at length about the need to have a clear end goal—what will successful adoption of this technology look like, and the importance of keeping that vision in mind. (The Conference Board of Canada, 2013)
6. **Plan Carefully and Appropriately Execute Plans:** Finally, in the adoption process, once all the background work of consulting and identifying the appropriate technology is complete, it is important to plan the actual adoption process carefully and to stick to the plan.

CONCLUSIONS

Given the tremendous barriers to digital technology adoption, there is little motivation for Canadian SMEs to pursue or upgrade ICTs. Research findings based on workshop interactions and interviews, concluded that the decision to adopt productivity-boosting is usually the result of the SME hitting a 'pain point'.

The pain point occurs when past practices has made SMEs profitable, but they are unable to maintain this growth using the same methods. (Dimick, 2014) Reaching this pain point, and acknowledging it as a barrier to further growth, is often the driving force needed to adopt digital technology, and to alleviate the pain. These pain points are, in fact, opportunities for SMEs to examine their current practices and needs, as well as to assess their future needs. A better understanding of their business will, in turn, lead to better business decisions. (Dimick, 2014).

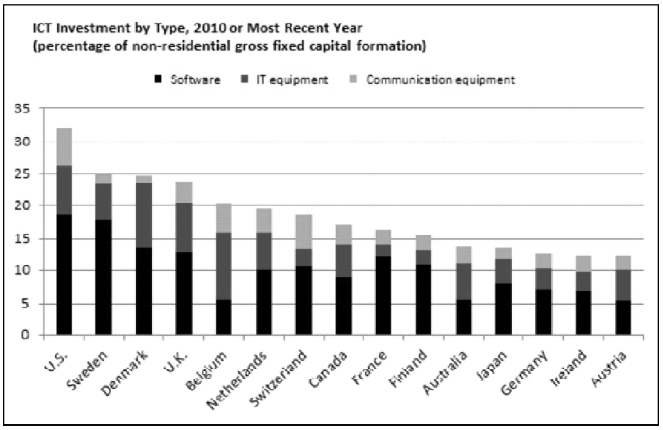
In closing, this study concluded that the adoption of technologies that serve to facilitate and automate business processes significantly improves a SME's productivity and therefore its competitiveness. This applies in all SMEs, regardless of size.

Table 1: Global Competitive Index 2012-13 Rankings and 2009, 2010, and 2011 Comparisons

Country	*2012-2013 rank*	*2011-2012 rank*	*2010-2011 rank*	*2009-2010 rank*
Switzerland	1	1	1	1
Singapore	2	2	3	3
Finland	3	4	7	6
Sweden	4	3	2	4
Netherlands	5	7	8	10
Germany	6	6	5	7
United States	7	5	4	2
United Kingdom	8	10	12	13
Hong Kong SAR	9	11	11	11
Japan	10	9	6	8
Qatar	11	14	17	22
Denmark	12	8	9	5
Taiwan, China	13	13	13	12
Canada	14	12	10	9
Norway	15	16	14	14

Source: World Economic Forum, *The Global Competitiveness Reports.* (World Economic Forum, 2011)

Table 2: ICT Investment by Type



Source: (Martin & Milway, 2007)

EXPORTING AND SMEs

1. Export Definition and Benefits

Export has defined when a company sells its products or services in other than the local market. Exporting is a strategy for companies seeking market expansion, growth and develop in international markets. Normally exporting has "lower fixed and operating costs, involves fewer resource commitments, and exposed the firm to lower business risks" (Helsen & Kotabe, 2009), whereas the capital and required

investment in other ways of market expansions such as licensing, joint venture or greenfield (Helsen & Kotabe, 2009).

Exporting is a valuable tool for companies and Small and Medium Size Enterprises (SMEs) as it helps to generate more revenues leading to a better financial position, gain marketing experiences in various countries with different market factors, transfer innovative technologies and utilize optimum operating capacity (Helsen & Kotabe, 2009).

2. Technology and Export Evolvement

During past decades exporting has evolved and rapidly grown in all the sectors on international scale due to internet and technology innovations that clearly have helped SMEs to consider exporting a part of their company's growth strategy.

Internet and technology advances during past decades has totally changed international business and marketing around the world. The impact of internet is on both supply and demand side of business globally. In terms of demand side, internet has helped companies in many ways to doing business such as open doors to new markets (export), increased sales and revenue and reach new customers in various markets etc. (Helsen & Kotabe, 2009). On the supply side, internet has provided better access to the markets by lowering the cost of international marketing and operations (sales) as well as productivity (Helsen & Kotabe, 2009).

Internet and technology advances also have profoundly impacted international marketing decision and market research capability and access for the companies with minimum costs as well as global brand awareness (Helsen & Kotabe, 2009). Additionally, internet affects price in international market which may has both positive and negative influence on sales of the company (Helsen & Kotabe, 2009). The positive side is customers can do market research and price check easily to finalize their purchasing decision, however it may create pricing problems for the company in various markets(Helsen & Kotabe, 2009). Another impact of the internet on businesses is sales and distribution channel in a positive way, i.e. many companies are selling their products internationally by their e-commerce web sites which enables companies to reach customers in many countries with minimum sales and marketing channel development(Helsen & Kotabe, 2009). "The internet and internet marketing strategy have both a direct effect and moderating effects on the impact of marketing mix decisions on firm performance" (Helsen & Kotabe, 2009).

3. Globalization and Exporting

Globalization and new tech innovations such as internet and communication channels has deeply impacted the way organizations conduct their businesses on both local and global scales. "Companies based in rapidly developing economies (RDEs) … armed with ambitious leaders, low costs, appealing products or services, and modern facilities and systems are expanding overseas and with radically transform industries and markets around the world" (Helsen & Kotabe, 2009). All the mentioned factors and market progresses are due to positive sides of globalization, however emerging markets have unique characteristics and complications which require special market research to come up with new concepts and theories (Helsen & Kotabe, 2009). There are also diverse ways of globalizing among nations, i.e. Chinese companies differ from Indian companies as two-thirds or Chinese companies are state owned whereas most of Indian companies are publicly traded(Helsen & Kotabe, 2009). According to many studies, there are unique globalization and "economic liberalization" (Helsen & Kotabe, 2009)methods around the globe (Helsen & Kotabe, 2009). Moreover, globalization has impacted the way organizations conduct their business by considering many factors such as rising economies, demographics, commercial demand, infrastructure improvement and closed market system opening (Myatt, Kerr, Berridge, & Kerr, Unknown).

4. Global Distribution, Exporting and Challenges

With regards to global distribution (export), the purpose of global distribution is providing the products to consumers at foreign countries (Helsen & Kotabe, 2009). Global distribution channels include various individuals and organizations such as agents, importers, distributors, importers & distributors, shipping and logistic companies, etc.

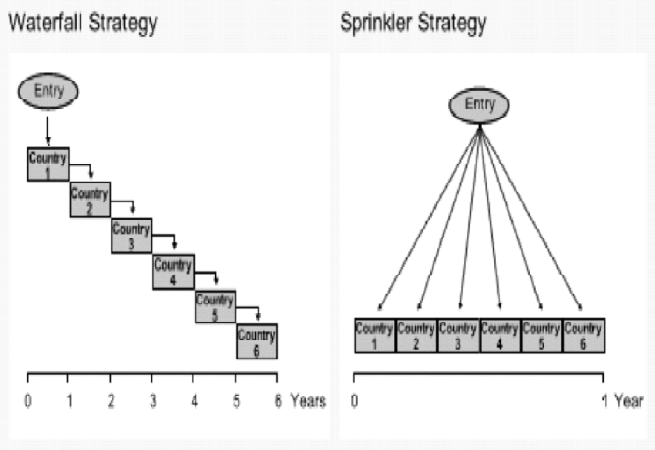
As for the theory of global distribution channels, there are three frameworks exists including transaction cost analysis, resource-based view and institutional perspective (Helsen & Kotabe, 2009). Transaction cost analysis evaluates the possible ways to minimize and reduce involved costs of exporting by an efficient organizational structure (Helsen & Kotabe, 2009), whereas the target of resource based view is the availability of all the required resources for international sales and export such as distribution and support system (Helsen & Kotabe, 2009).

The challenges facing companies during export and distribution process may include agent issues due to cultural differences and distance to the exporter and less control over sales and marketing procedure by the agent due to the distance. Additionally, other challenging factors include(The Manufacturer, 2016):

1. Global distribution competition
2. Control over inventory
3. Unbalanced business growth

5. Market Entry Strategies and Exporting

Research has showed socioeconomic factor is a key factor when evaluating and planning market entry and market expansion strategies in various countries/ markets, i.e. diffusion of new products in international markets (Helsen & Kotabe, 2009). Another issue to consider is type of industry, product, target age group, cultural differences between two markets, financial situation of the company and access to enough funds for international marketing budget, etc. Additionally, research shows countries with higher GDP would provide a better fundamental for a faster market expansion (diffusion speed is higher in these countries) (Helsen & Kotabe, 2009). Moreover, per capita GNP has positive relation with diffusion and take-off speeds, adaptation stage and penetration ceiling (Helsen & Kotabe, 2009). Surprisingly, cultural factors of Hofstede's dimensions have minimum impact on diffusion patterns (Helsen & Kotabe, 2009). Research suggest the same diffusion strategy can be used when the cultural and economic similarities between two markets exists, therefore market expansion would be faster and cheaper (Helsen & Kotabe, 2009). "One of the challenges of diffusion modeling is to incorporate external influences in models, most notably the influence of marketing mix variables" (Radas, 2005).The following chart shows two popular diffusion patterns for market entry in international business (Business Fundas, 2011):



Source: (Business Fundas, 2011)

It is obvious sprinkler strategy requires more investment and human capital in compare with waterfall strategy, although as discussed above, selecting a suitable market expansion strategy depends on many factors such as the company resources, global marketing strategy, product/service/ industry type, etc.

6. Determinants Impact Exporting

According to a study by (Pickernell, Jones, Thompson, & Packham, 2016), various determinants impact SMEs to export including "industry sector, age and characteristics of the SME owner-manager" (Pickernell et al, 2016)as well as available resources to the company such as human capital, technology and intellectual property (Pickernell et al, 2016). The study showed positive relation between technology innovation and exporting (Pickernell et al, 2016). Moreover, the positive connection between economic development policy and exporting activities of SMEs has shown (Pickernell et al, 2016).

GROWTH IN SMEs

Growth

By the end of the 1990s the number of small and medium companies, have grown rapidly in many

nations worldwide, generating up to 90% of the firms, but what made it special, is the fact that they generate much of the revenues from international markets (Helsen & Kotabe, 2009). This has been possible due to the advances in technology and communications, specially internet, and other globalization induced structures, which has decrease the cost of becoming global, before unaffordable for this kind of companies. Internet based technologies has allowed small firms to acquire substantial market data assisting manager to maximize knowledge and skills for international business, and to network facilitating the finding of partners or distributors everywhere.

However, the approach of these companies is not wide, but deep, focusing in the customer with emphasis in core competences, often attending niches ignored by larger multinationals, but with enough economies of scales for smaller companies, basing their approach on product excellence. Companies that do so, get more successful results in their markets, that the ones that use a wider approach (Helsen & Kotabe, 2009).

Companies who grow more are those than export, and these are the ones that innovate. There is a strong positive relationship between innovation, exporting and growth (Love & Roper, 2015). These authors mentioned as key issues to facilitate innovation for SMEs factors such as, skills on board, and R&D, but also capital investment and liquidity. All of these are internal factors, among the external they give importance to eco-systems, these are external enablers formed between the SME are its partners interacting in a positive role.

Challenges

SMEs are normally lacking resources, so they try to avoid costly way of internationalized, and prefer collaborative entries, such as joint ventures or similar. The smaller size confers flexibility and agility, which can be used to adapt better to customer tastes. The managers leading these companies tend to see the world as their marketplace and undertake substantial international selling activities (Helsen & Kotabe, 2009). These managers may have something called ambidexterity which in this context is the capacity for searching for latest ideas (exploration), and the one for implement the ideas found (exploitation) (Volery, 2015). These companies are normally lacking resources, and often strategic decision are taken by one, or a small group of individuals, so the ambidexterity is behavior which is promoted automatically in this kind of situations. According to the authors, managers of SMEs dedicate as an average dedicate 20% of time to activities of exploration, and 78% to activities of exploitation. Volery (2015), also reports that managers would like to increase the part dedicated to exploration, but for that, they need to reduce their time dedicated to daily business, enabling others to do it. It is important to create and foster a collaborative and flat hierarchy atmosphere, encouraging participation, through respect of the ideas of others. Managing time, prioritizing, and delegating are thus three areas for success.

When implemented, SMEs have the advantages of quick decision making, willingness to take risks, and flexibility in responding to new market opportunities (Love & Roper, 2015), small firms management is mainly about behavior. Chanut, Guieu & Guieu (2017) are consistent with previous and reports about high growth SMEs, called gazelles, these are companies that have a combination of charismatic and dynamic leader, together with a participative and decentralized organization. They also include external relations to better benefit from networking resource. These companies may double size in just a few years.

High growth SMEs are in different sectors, so it not that much about the sector itself, but on the particularity of use it in a coordinated and beneficial way, as an ecosystem. Companies when having a high growth may experience discomfort, and sometimes in the growth trajectories, are included inflections, which help avoiding ruptures when the growing company need to cross thresholds that may find in its way, becoming both, stimuli to continue growing, and barriers to stop. Human resources and financial need can be barriers to inhibit the growth (Chanut, Guieu, & Guieu, 2017).

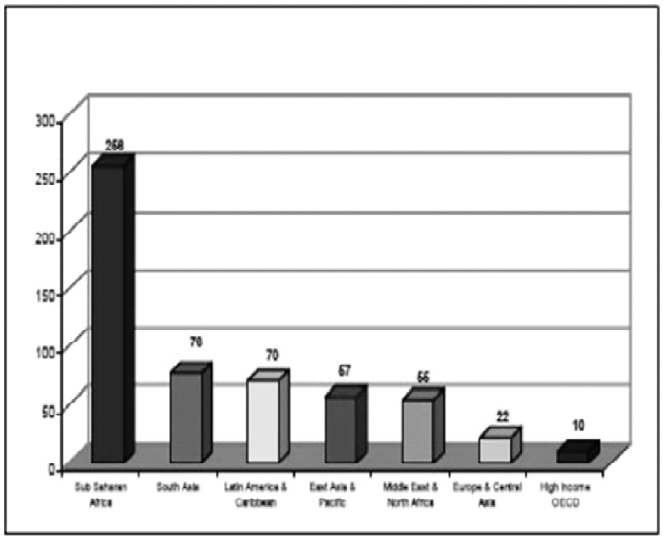
Finances

The main problem for SMEs are financial resources, they have more difficulties than large companies to get access to them. Normally SMEs finance

themselves through bank loans, but this not the ideal solution as the last economic crisis shew (Simeonov, 2015). This author argues that capital markets have a greater role financing SMEs (and industry in general) in USA than in EU. In USA, capital stock markets account for 138% of the GDP, whilst in Europe is 64,5%, furthermore, EU vary from 121% UK, or 98% Netherland to 10% of Latvia or Lithuania. The value of the corporate non-financial debt was in 2013, 40,3% in USA vs 12,7% in EU. Considering that capital markets are more flexible than banks, is a reason to explain why industry in USA recovered from the last decade crisis quicker than EU.

EU capital markets are underdeveloped, and companies using banks loan, only 63% get what they have asked, 17% get less, and 11% are rejected (Simeonov, 2015), so since the arrival of Jean Claude Junker to the presidency of the European Commission, a new initiative, called Capital Markets Union, is launched to try to reduce the overdependence of bank lending. "Capital Markets Union is about unlocking liquidity which is abundant, but currently frozen, and putting it to work in support of European business, and particularly SMEs" (European Commission, 2015).

If the situation in EU is not optimal in term of financing SMEs, we can go to other areas of the world and see that financing is a top obstacle for investment and growth, and the options available are closely related to the quality of institutions, markets and organizations that constituted the business environment.



Cost of starting a domestic SME (% of GNI per capita)
Source: (World Bank, 2018)

A Sub-Sahara African company (as it can be seen in next picture), needs to spend for the registration cost 2,5 times the GNI per capita, whilst in a developed country this is only 0,1 times (Boshbov & Kolaroski, 2014)

In Africa, main troubles are corruption, bureaucracy, taxes, and lack of information about government support, and often businessmen and women do not borrow from banks frighten to lose the property, less than 23% do it, and up to 12% make loans from family and friends (Anderson, 2017) which really make difficult any initiative to grow.

Others (Age)

Final issue to consider related to the growth of SMEs, is the age. Companies are not equally sensitive to factors depending the age of them. According to(Nunes, 2013):

Size is a restrictive factor for young SMEs growth, but it is not influencing old ones. Growth is a continuous process for young companies, but not for the old ones. The youngest need to grow until achieve a critical size of efficiency to operate in the market

R&D intensity is of greater importance for a young SME, than for an old one. Greater experience in R&D project management and greater ability to recruit qualified human resources are relevant aspects for R&D expenditure having importance for the survival and growth. However, in situations of financial deficit, this could jeopardize survival to young company, more that an old one Labor productivity is less important for growth in a young company than for an old one. The effects of experience and learning over the time, are particularly relevant for the growth in old SMEs

Cash flow and debt have a bigger relative importance in the growth of a young company, that in an old one. Young ones have greater difficulties to accessing debt, so they are more dependent on internal financials for their growth needs, having a bigger probability of bankruptcy.

SUMMARY OF FINDINGS

Small businesses identified several issues that created barriers of entry to adopt technology in general needed to help them reduce the cost of exporting. One major barrier is cost of exporting has been greatly lowered with increases in technology. So, companies must adopt the technology necessary to reduce cost of exporting. When they use technology, they can remove most the barriers that most are concerned with. Keeping costs down is a combination of adopting technology and partnering with shipping partners.

Time was another factor raised as creating the deals in order to get a return is a major issue for SMEs as they don't have the capital to wait to get the return on as other larger enterprises do. Communication technologies allow us to move and see almost live tracking details that weren't available over a decade ago. There is one preventable barrier companies need to get rid of and that's the resistance to change. Accepting change in technology allows companies to enter exporting.

The use of the internet is allowing companies to communicate globally and reduce the costs of the barrier of entry. Technology can control inventory levels better reducing holding costs if monitored properly. This allows companies to take advantage of technology advances so they maximize profits and decrease expenses. Technology is becoming the business equalizer so that SMEs can finally compete in the world of exporting that they once couldn't achieve.

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