

COMPETITIVENESS OF LEATHER PRODUCTS AND FOOTWEAR INDUSTRY OF SRI LANKA

Competitividade da Indústria de Couro e Calçados de Sri Lanka

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Abstract: This research paper explores the relationship among skills of entrepreneurs of leather products and footwear industry in Sri Lanka and entrepreneurs' involvement of innovations in product, process, raw material and market in the industry. Further, the survey investigates firms' competitiveness and innovativeness in the industry. Database of firms in the industry available in Sri Lanka Industrial Development Board was used to administer an expert reviewed and piloted questionnaire among the population of firms. Personal interviews and a mail survey were undertaken which jointly brought above-average response rate of completed questionnaires used for analysis. The research has found that there is a strong link between skills of entrepreneurs and their involvement in innovations. Research has found that entrepreneur focus on product innovations rather than process, raw material and market innovations due to their low level of general education and the main mode of acquiring skills remains on-the-job-training. Usage of technology has been found to be lower level which has a negative effect on innovations. However, the entrepreneurs have a positive attitude towards innovations the relevant agencies can capitalize-on for expansion of the industry and increase competitiveness. The research unearths an intelligent view that in an efficiency-driven economy, what matters is productivity where skilling of entrepreneurs will yield enormous results for harnessing the potential of this ever growing industry.

Key words: Innovations; Technology; Competitiveness; Innovativeness; Skills

Resumo: Este trabalho explora a relação entre as habilidades dos empresários de produtos de couro e indústria de calçados no Sri Lanka e o envolvimento dos empreendedores de inovações em produtos, processos, matérias-primas e o mercado na indústria. Além disso, a pesquisa analisa a competitividade e inovação das empresas na indústria. Um banco de dados dessas empresas na indústria do Sri Lanka Industrial Development Board foi usado para elaborar um questionário entre as empresas. Realizaram-se entrevistas pessoais bem como por correspondência que juntas proporcionaram uma taxa de resposta acima da média dos questionários preenchidos utilizados para análise. A pesquisa mostrou que há uma forte ligação entre as habilidades dos empreendedores e seu envolvimento em inovações; e que o foco do empreendedor está mais em inovações de produto em vez de processo, matéria-prima e inovações de mercado, devido ao seu baixo nível de educação geral e o fato que o principal modo de aquisição de competências continua a ser no trabalho de formação. O uso da tecnologia foi encontrado ser de nível baixo o que tem um efeito negativo em inovações; no entanto, os empresários têm uma atitude positiva em relação às inovações que as agências relevantes podem capitalizar para a expansão da indústria e aumentar a competitividade. A pesquisa revela uma visão inteligente de que, em uma economia voltada para a eficiência, o que importa é a produtividade, onde promover a habilidade dos empreendedores produzirá resultados enormes para aproveitar o potencial dessa indústria em constante crescimento.

Palavras chave : Inovações, Tecnologia, Competividade, Habilidades.

Recebido em: 15/12/2016

Aceito em: 31/03/2017

INTRODUCTION

Small and medium scale enterprises (SMEs) play a crucial role in Sri Lanka economy by providing employment and income in order to push the economy forward (Thilakarathna & Jayasekera, 2013). Though there is large number of large scale and micro size firms operate in the economy of Sri Lanka, the main focus is on the SMEs of leather products and footwear industry in Sri Lanka for the purpose of this research paper.

This paper explores the levels of skills of entrepreneurs of the industry and the innovations in product, process, raw material and market as a whole. Economists mainly discuss about product and process innovations in enterprises (Fried, 2005) however, this particular research paper focused additional two innovation areas i.e raw material and new market as it particularly appropriate to leather products and footwear industry sector and the SME sector of Sri Lanka in general. On this backdrop, the research focused the level of new products, processes, raw material and market innovations which the entrepreneurs uncovered in their firms over the past 2 years (2015 and 2014). The paper inquires how the entrepreneurs view about innovations in a context where firms in contemporary business world increasingly recognize skills as one of the key determinants towards innovations which ultimately lead to business competitiveness (Smith, Courvisanos, Tuck, & McEachern, 2012).

1. Definitions of key terms

SMEs in general, are defined in variety of ways by various countries in terms of

- 1) Number of persons employed
- 2) Amount of capital invested
- 3) Amount of turnover of the business

In Sri Lanka, Department of Small Industries of Sri Lanka defines SMEs as enterprises with fewer than 50 people and capital investment of less than Rs. 5 million. The Export Development Board of Sri Lanka defines SMEs as enterprises with less than Rs. 8 million investments and less than Rs. 50 million annual turnovers. The World Bank defines SMEs as enterprises that employ less than 99 people (Thilakarathna & Jayasekera, 2013). Webster Dictionary defines the term “skills” as an ability that has been acquired by training. Entrepreneurs’ skills is much complex proposition where it is defined as the ability of entrepreneurs to identify the industry trends and new technologies as well as acquire and exploit this knowledge and information for further improve the enterprise performances (Curtin, 2011).

The concept of innovation has been defined as the creative application of knowledge to increase the set of techniques and products commercially available in the economy (Smith et al., 2012). An enterprise is defined as an economic entity created by the entrepreneur, which may develop into a small or large business in time to come (Henry, Hill, & Leitch, 2005). The terms “firms” and “enterprises” are used interchangeably to denote small and medium scale companies operate in the leather products and footwear industry for the purpose of this research paper.

2. How skills and innovations apply to SMEs

SMEs are a crucial set of entities in an economy which contribute heavily for Gross Domestic Product (GDP) of a country. In Sri Lanka, SME sector contribution to GDP has increased to 52% in 2011 from 40% in 2010 (Thilakarathna & Jayasekera, 2013). The leather products and footwear industry in Sri Lanka, which is highly labor intensive, has a significant potential for being a key contributor to the economy of the Country with a value addition in the range of 40% - 50% (Gurusinghe, 2012). With this level of value addition, it is extremely vital the entrepreneurs demonstrate innovative skills in order to improve firm competitiveness. The ability of an enterprise to innovate depends on quality of its human resources and level of technology being used (Smith et al., 2012).

RESEARCH PROBLEM

The research was undertaken to find an answer to following research problem:

“Does entrepreneurs’ skill matter for enterprise innovations in leather products and footwear industry of Sri Lanka”.

Enterprise innovation is referred to as product, process, raw material or new market innovations. In some enterprises innovations take place and entrepreneurs have ensured measures for innovations. However, in most other enterprises no innovations made and only the status-quo is maintained thus making enterprises inefficient, unproductive and monotonous thus leading to stagnation in doing business. So, what is matter? What prevent them not doing innovations?

1. Research objectives

The research expects to achieve following objectives on completion of the research:

- 1) To explain current level of skills of entrepreneurs and the type of skills they look for in order to make innovations
- 2) To describe the current level of technology that the entrepreneurs use including the use of information and communication technology tools and the machines they use for production purposes
- 3) To elaborate link between innovation and competencies, industry experience, location, and financing
- 4) To describe the entrepreneurs’ involvement on innovations, innovation target markets and status of enterprise competitiveness
- 5) To unearth and describe the constraints for innovations in the industry

2. Policy implications for implementation

The researcher will put forward responses for above research objectives with policy implications to address the issues for implementation by relevant agencies.

LITERATURE REVIEW AND THEORETICAL BACKGROUND

Enterprises care about innovations for improvement of productivity and capture new markets while being in competitive in the industry (Stanwick, 2011). What is really meant by innovation? It is much more about new product, processes and services development than research and development (Stanwick, 2011). If an entrepreneur intends to be competitive, he/she has to offer something different or do something differently which requires innovation (Caskey, 2015). Caskey (2015) further explains that use of different distribution channels and markets also make enterprises competitive in the market. What is inferred here is finding of different markets is also part of innovations. Beal (2000) discussed about different ways of being different where he stresses innovation differentiation and market differentiation as a strategy to be competitive in the market. As cited in Hatak, Kautonen, Fink, & Kansikas, (2016) Greve, Camps & Marque emphasized the need of product innovations for firms to be competitive in a globalized business world. Industries experience threats of new entrants and in order to face such threats product differentiation has been identified as a strategy (Porter, 1997). Parry et al. as cited in (Löfsten, 2014) explains that product innovation is the first stage of product-life-cycle management where determinants of product costs are identified and set determining the future success of the firm. Product innovation processes are different to work processes innovations where the former is strategically important to firms (Löfsten, 2014). As explained in Sundarraj (2016) product innovation processes are different to work processes innovations where the former is strategically important to firms. In the western cultures, it has been found that there is positive relationship between innovations and enterprise performance (Hatak et al., 2016). There may be different results in developing countries similar to Sri Lanka as management and financing are differ from that of western world. As cited in Sandberg, Hurmerinta, & Zettinig (2013) Drucker and Schumpeter had argued that in order for firms to be sustainable and society and economies to be vibrant entrepreneurship and innovativeness are considered to be crucial. As cited in Sandberg et al. (2013) Beugelsdijk, Hisrich&Peters, Trott, Woo et al. unanimous on entrepreneurs' contribution for wealth creation, firm and economic competitiveness through innovations is enormous. Entrepreneurs, though doing innovations challengeable, find way out to engage in product and process innovations despite numerous issues (Sandberg et al., 2013). Scholars analyze firms' ethical behaviors and performances are positively relates where such climate paves the way for various innovations (Moon & Choi, 2014). Innovations take place within enterprises as a response to competitions' behavior (Porter, 1985). Damanpour, Hirst et al. as cited in (Moon & Choi, 2014) have explained distinctive competences or skills of employees and entrepreneurs determine product and process innovations. The view of Zhang & Bartol as cited in Wojtczuk-Turek & Turek (2015) innovativeness is significant for creating competitiveness in modern organizations has been commonly approved.

As discussed by Dan (2015)¹ the world recognize the fact that innovations pave the way for business competitiveness while entrepreneurs have to be in the forefront of discourses on innovations to meet people's needs fully. Also, it has a great risk of failure of products that the enterprises innovate though there are successes (Stanwick, 2011). The scholars Yeh et al. Gonzalez & Palacios, Freeman, Hart, Urban & Hauser as cited in Graner & Mißler-Behr (2013) new product innovation is one of the most important determinants of sustained company performance and therefore represents a key challenge for firms to give attention to. Scholars give attention to numerous individual and organizational predictors which can later become a foundation for creative activities of an enterprise where competence of individuals is a key (Wojtczuk-Turek & Turek, 2015). It has been recognized the fact that giving the managers and employees more freedom, a sense of ownership and self-determination is essential for enterprise sustainability and dynamism in innovations (Muthusamy & Dass, 2014). Innovations help achieve enterprises greater efficiency, effectiveness, financial and firm performance (Toner, 2011). Bouwman et al., Den Hertog, Forfas as cited in Janssen et al. (2014) were of the view that businesses run in severe competition and use multitude of strategies to increase market share targeting increased profit margin where innovations considered to be a key. It is argued that there is no single kind of skills that foster innovation but rather there are a variety of skills that are required for innovation (Stanwick, 2011). The OECD (Organization for Economic Cooperation and Development) has been working in the sphere of innovations and they have put forward strategies for innovation among member countries. importance of unleashing the innovation potential in firms were given priority among OECD member states (Stanwick J. and Beddie F., 2011). Scholars are of the view that some entrepreneurship skills can be taught in order for them to be effective in doing businesses irrespective of the size of the firm (Henry et al., 2005). The responsibility of the entrepreneur is to revolutionize the production processes by innovation or invention of new products or processes (Dana, 2001). Scholars suggest to use competency based training (CBT) as an adult training mode for training of entrepreneurs in whatever the required areas which enables successful performance in enterprises (Hackett, 2001). Though Porter (1985) viewed that innovations take place as a result of competitors' behaviors, Hamel and Prahalad, Barney and Barney et al., as cited in Janssen et al. (2014) reiterate enterprise resources, skills and competence as key for product, process and new market innovations. The scholars Christensen and Raynor as cited in Janssen et al., (2014) argue that strategies that focus on cost-cutting due to financing limitations leave enterprises not engaging new innovations on product and processes and demoralize progressive discourses on ideas and concepts related to innovations.

Sri Lanka has been experiencing a growing informal sector over the years and as in 2014, a high 59.5% of labor force is engaged in employment in informal sector (Department of Census and Statistics, 2014²). Out of this, 47.5% of labor force is in non-agricultural sector in which the leather products and

¹ Dan, Z[I]. Retrieved on 14th March 2015 from <http://english.cntv.cn/2015/03/13/ARTI1426234682359564.html>, 2015

² Department of Census and Statistics is the Sri Lanka Government agency responsible for collection, analysis and dissemination of national statistics. It can be accessed via www.statistics.gov.lk

footwear sector falls in (Department of Census and Statistics, 2014). Skills training for informal sector is found to be very minimal that create issues in improving efficiency of those employed in the informal industries (Dundar, Millot, Savchenko, Aturupane, & Piyasiri, 2014). Gunatilaka as cited in (Dundar et al., 2014) was of the view that most informal sector employees have fewer skills than formal sector workers. Howell et al., Kelley and Lee as cited in Sergeeva (2016) put forward the view that innovative persons has more of specific personality traits than that of skills that they learned in their working life. Owners or Chief Executives of firms are regarded as leaders who show the path for innovations, take risks and identify and promote ideas on innovations (Sergeeva, 2016). Research has found that the need of integration of human factors and technological factors in order to give birth to useful innovations (Smith et al., 2012). In recent decades, enterprise size is also considered a factor for innovations where small firms are more able and enthusiastic in doing things differently and in quality and thus found as a preferable organization form to be successful in business activities (Muthusamy & Dass, 2014). Wiggins and Ruefli as cited in Breznik & D. Hisrich (2014) put forward the view that enterprise life cycle has been shrinking where their period of being competitive is diminishing. Research has found that having collaborations with Tertiary and Technical and Vocational Education Institutions, innovative capacities can be translated to real innovations (Andrew Smith, Jerry Courvisanos, Jacqueline Tuck, 2011). In order to achieve higher productivity of human resource of an enterprise it is necessary to improve capacities of human resources which determine the competitiveness of enterprise (Huggins & Izushi, 2015). Porter as cited in Huggins & Izushi (2015) presented four factors for competitiveness of a nation where he stressed “factor conditions” meaning the availability and quality of human resources of an industry. Research has found that entrepreneurs’ cognitive style, innovative intentions, and subsequent behaviors can potentially be useful in guiding workforce staffing and training efforts for enhancing productive innovation in organizations (Ettlie, Groves, Vance, & Hess, 2014). Products like footwear is produced in volumes of thousands and usually use not-so -complex technology in enterprises mainly in low-labor-cost countries (Caskey, 2015). As labor cost is low, the entrepreneurs may invest money for training in innovations at training institutions. As cited in Breznik & D. Hisrich (2014) Prahalad’s and Hamel’s have emphasized enterprises must give attention to the knowledge, skills and technologies that include the set of resources of an enterprise. Their main premise was that when a firm creates new products, these should be oriented to the firm’s strategic resources, mainly capabilities (Breznik & D. Hisrich, 2014). Entrepreneurs acquire skills through on the job and apprenticeships in the industry (Dana, 2001). This mode of training lacks mostly the theoretical aspects which are an essential part of innovations. Informal methods of learning still in existence in developing countries (Dana, 2001). Designs play a key role in innovations which entrepreneurs decide in numerous ways. They use existing designs, designs by themselves, and buyers’ designs etc. The scholars discuss generation of designs by user communities which will eventually reach production and successful in the market (Caskey, 2015).

When it comes to quality of skills training, scholars argue that quality of the education and training of the workforce is the single most important characteristic in determining economic competitiveness of a country (Ball, 2009). Learning has to take place throughout of life of people which includes education and training, the processes of both formal and informal learning: skills, knowledge, understanding, experience, attitude, values etc. (Ball, 2009). In Sri Lanka, competency based training (CBT) is in operation in training centres over the past decade based on competency standards and national curricula. Competencies are descriptions of essential skills, knowledge and attitudes required for effective performance in a work situation (Hackett, 2001). For the purpose of innovation, enterprises do not need higher level skills but a fair understanding of the entrepreneurship, industry trends and markets and customers remain the key (Stanwick, 2011). Scholars argue that lack of focus for innovation may lead to failure in business. Also, too many innovation ideas can cloud the thinking of entrepreneurs that end up in collapse of business (Vaduvescu, 2016). Literature shows that radical innovations though it is riskier is one of the key long term competitive advantages (Verganti, 2016). As people do not buy products but meanings, innovations driven by designs will be sustainable for many enterprises (Verganti, 2016). Given the level of globalization and other reasons, entrepreneurs having innovation skills is critical in 21st century (Asad, 2016).

Each person, regardless of ability, style or orientation can and should be more innovative all the time acquiring innovation skills continuously while making improvements in what they do in value chain of the business (Asad, 2016). Economically, innovation skills take a strong place and is a mainstay of industry and economic development and crucial for success of enterprises and most importantly enhance well being of mankind (Ali, 2014).

1. Limitations, reliability and validity

The scope of this research was leather products and footwear industry firms that employ 2 – 250 workers that usually regarded as SME firms by definition. The revenue criteria of the definition could not be met as respondents usually do not disclose facts that may lead to controversies. Therefore, the research considered only the number of employees of the firm in deciding whether it falls in SME definition. As per the definition of the World Bank (less than 99 employees as SMEs) a majority of respondents (92%) have employed less than 35 employees. Micro enterprises and large-scale enterprises were excluded from the survey.

When it comes to reliability and validity, the scholars have defined the terms reliability as the degree to which the measure of a construct is consistent or dependable whereas the validity refers to the extent to which a measure adequately represents the underlying construct that it is supposed to measure (Bhattacharjee, 2012). The questionnaire used to measure the dependent and independent variables was developed in consultation of industry experts and training experts in the industry. It was piloted among 10 entrepreneurs and was updated thereafter. The views of training experts of the Leather Products Development Centre¹ of the IDB, Sri Lanka, were sought and included in the questionnaire. Literature related to skills and innovations were also considered in developing the questionnaire.

2. Approach/Design/Methodology

The Leather Products and Footwear Industry is dispersed in all administrative Districts of Sri Lanka with a high concentration in the Western Province which is the main business hub of the country. The Industrial Development Board (IDB) of Sri Lanka² maintains a database of almost all SMEs in the country including all SMEs of the leather products and footwear industry. Therefore, the researcher sought assistance of the IDB in obtaining contact information of leather products and footwear firms in Sri Lanka. Accordingly, the IDB submitted a list of 290 SMEs in the industry with owners' names and postal addresses.

As the research explores the relationship between entrepreneurs' skills and firm innovations, the survey research method was used. The questionnaire with 18 relevant questions was administered during February and March of 2016 among the entrepreneurs in the industry. Depending on the availability of resources, 55 firms were personally interviewed by the researcher and then the questionnaire was sent to the remaining firms all over the country by post mail. Altogether, 185 questionnaires were gathered in both personal interviews and postal survey with a response rate of 63.8%. Personal face-to-face interviews were held to increase accuracy and quality of data being collected for reaching reliable conclusions. The data gathered accordingly have been fed to the SPSS database and analyzed for presentation. When it comes to literature, it has been found that very little amount of literature is available related to leather products and footwear industry of Sri Lanka and no research done in the industry related to the topic being investigated. However, available literature was reviewed in descriptive manner to understand the problem and unearthed available body of knowledge that leads to understand research gaps in relation to the topic being investigated.

RESULTS

The research had surveyed entire population of 290 firms and 185 completed questionnaires were collected for analysis. When we look at the dispersion of firms we can observe that 35% of firms are located in Western Province which is the main trade and economic zone of Sri Lanka. Southern province records second largest concentration of 13% of firms. The two provinces together recorded 61% of responses of the survey. The size of the firm was queried and accordingly, the responses show 50% of firms employ 6-15 workers showing that majority of firms in the industry are small firms. 92% of them have less than 35 workers. When it comes to product category, the responses show that 61% of firms produce only slippers which is the dominant category followed by leather shoes category with 16% representation. 12% produce both slippers and shoes and 13% produce bags only and remaining 7% produce other leather goods. It was found that 63% of firms have been operating in the industry for 15 years which shows their long term experience in the industry. The survey showed that only 3% sell their products to overseas market and thus vast majority of 97% of firms sell the products in the local market. Out of this number, majority of firms sell to main distributors which hinder getting customer feedback on satisfaction of the product quality. Only 1% of firms sell products in their own shops. The question related to sources of capital received multiple responses where 89% of firms use own money and 37%

¹The LPDC which operates under the purview of the IDB is the training arm related to the industry

²The IDB is the statutory body established by an Act of Parliament to develop and assist SMEs in Sri Lanka.

have been able to obtain whatever the loans from banks. Only 10% opt for capital from local money lenders and relatives. A question was raised related to designs based on which firms produce their products. It was identified that 65% of firms rely on designs already available in the industry. The results show that 33% of firms produce products based on designs developed by their own firms. Only 3% of firms rely on designs from overseas as only 3% of firms sell their products to overseas market.

The research expected to identify current level of skills of entrepreneurs and the type of skills they look for in order to make innovations and thus the survey asked entrepreneurs about their general education achievements in order to gauge their basic education and literacy and numeracy skills. The Table 1 depicted below show that 64% of the respondents had education up to GCE (O/L) which is the basic competitive national level school education standard. 28% of them had GCE (A/L) which is the next higher national level standard. Only 6% of entrepreneurs had bachelor's level degree qualifications.

Table 1 General Education

Achievement	Frequency	Percent	Cumulative%
Up to O/L	119	64.3	65.0
Up to A/L	51	27.6	92.9
Degree	11	5.9	98.9
Post graduate	2	1.1	100.0
Total	183	98.9	
Missing	2	1.1	

Key: GCE – General Certificate of Education, O/L-Ordinary Level, A/L-Advanced Level

The entrepreneurs' way of acquiring skills was queried and, as specified in Table 2 below, 34% indicated that they have followed a formal training course at a training institute. The dominant way of acquiring skills was on-the-job-training which represented 57% of respondents. Only 6% have followed business/management course and 2.2% of entrepreneurs have received training in overseas. In this question, multiple responses have been received.

Table 2 Skills/Training Programs Completed

Program	No.	%
Followed a industry specific course at a training centre	63	34
Undergone apprenticeship training in industry organized by NAITA	18	9.7
On the job training	105	57
Followed business/ enterprise management course	11	5.9
Received foreign training	4	2.2

Source: Derived table from survey data

The entrepreneurs' skills requirements were queried and, not surprisingly, majority of 70% of respondents wanted design skills followed by entrepreneurship (62%) and production skills (61%) as shown in Table 3 below. ICT skills were also a requirement of 53% of respondents. This question received multiple responses.

Table 3 Perceived Skills needs to Improve Current Performance

Nature of skills	No.	%	Nature of skills	No.	%
Entrepreneurship skills	116	62	Communication skills	88	47
Design skills	131	70	ICT skills	98	53
Production skills	114	61	Any other skills (specify)	5	3

Source: Derived table from survey data

As discussed in the literature, use of technology is regarded as a key indicator of entrepreneurs' tendency for innovations. The survey expected to identify the current level of technology that the entrepreneurs use including the use of information and communication technology tools. The finding of the relevant question was that majority of entrepreneurs do not use or occasionally use internet, email, websites and social media in day-to-day business activities as shown in Table 4 below.

Table 4 Frequency of Use of ICT Facilities

ICT facility	Frequency of use									
	Not at all (1)	%	Occasional (2)	%	No idea (3)	%	Often (4)	%	Very often(5)	%
Internet	28	15	110	60	8	4	21	11	12	7
Email	30	16	97	52	14	8	26	14	13	7
Website	59	29	84	45	13	7	15	8	9	5
Social media (facebook, tweeter)	108	58	29	16	12	7	12	7	15	8

Source: Derived table from survey data

The question on ICT usage had a Likert scale where the respondents were asked to indicate how often they use them in a scale of “Not at all (1)”, “Occasional (2)”, “No idea (3)”, “Often (4)” and “Very often (5)”. The mean values in each of ICT facility in descriptive statistics as shown in Table 5 below are consistent with the result shown in Table 4 above thus showing entrepreneurs use them occasionally or do not use at all.

Table 5 Descriptive Statistics - Frequency of Use of ICT Facilities

ICT facility	N	Mean	Std. Deviation
Internet	179	2.3240	1.08412
Email	180	2.4167	1.14274
Website	176	2.3920	4.13345
Social media	176	1.8466	1.30681
Valid N (listwise)	173		

Source: Survey data

As found in the survey, majority of firms use second hand (reconditioned) machines which indicates that the industry has been using old or outdated technology for production of footwear and leather products as shown in Table 6 below. The corresponding Table 7 below shows that 64% of entrepreneurs do not expect to buy new machines in near future. This shows their willingness to apply new technology in production process remains at low level.

Table 6 Nature of Machines Being Used

Condition	Age of machines	No.	%
Use second hand machines	Old less than 5 years	40	22
	Older than 5-10 years	64	35
	Older than 10 years	57	31
Use brand new machines	Old less than 1 year	12	6.5
	Older 1-5 years	16	9
	Older 5-10 years	7	4

Source: Derived table from survey data

Table 7 Expect to Buy New Machines

Expectation	Frequency	Percent
Yes	63	34.1
No	119	64.3
Total	182	98.4
Missing	3	1.6
	185	100.0

Source: Survey data

As per the analysis, new product innovation remains dominant over process, raw material and new market innovations in this industry as shown in Table 8 below. When we compare general education levels with product innovation, it was found that 78 respondents out of 127 who involved in product innovations had GCE O/L and, interestingly, it was found that higher the general education lower the involvement in product innovation. When it comes to training courses, 66 have received On-the-job- training, 46 have followed training courses and 17 have followed NAITA apprenticeship out of 127 who have involved in new product innovations. Those who have followed management courses and those who have gone abroad for training had very minimal involvement for product innovations. In relation to the industry experience by number of years in the industry with new product innovations, it was found that 100 of respondents with 6-20 years had involved in new product innovations. With regard to relationship between firm location and product innovation, it was found that firms in Colombo, Kalutara, Kandy and Kurunegala districts have involved in new product innovations. When it comes to financing, it was found that those entrepreneurs who use “own money” have higher involvement (116 respondents) in new product innovations.

A question was raised regarding the entrepreneurs' involvement of product, process, raw material and market innovations over the past 2 years. Interestingly, the results show that 68% have involved in product innovations but very low percentage involved in process and raw material innovations. 18% of entrepreneurs have involved in new market innovations. More than 80% did not involve in process, raw material or new market innovations over the past 2 years. Table 8 brings the findings as shown below.

Table 8 Entrepreneurs' Involvement of Innovations in Last 2 Years

Type of innovation	Yes	%	No	%
New product innovation	127	68	55	30
New process innovation	17	9	165	89
New raw material innovation	15	8	165	89
New market innovation	34	18	148	80

Source: Derived table from survey data

As the majority of entrepreneurs involved in product innovations, their target market was mainly ladies and gents followed by school children with percentages of 55%, 27% and 18% respectively. 6.5% of entrepreneurs target kids in new product innovations. Table 9 includes the findings.

Table 9 Target Market of the New Product Development

Target market	No.	%	Target market	No.	%
School Children	33	18	Gents	50	27
Ladies	101	55	Kids (less than 5 years old)	12	6.5

Source: Derived table from survey data

As indicated in Table 8, 68% of firms have involved in product innovations and in comparison of that result, the Table 10 shows that nearly 50% of entrepreneurs were of the opinion that their turnover of the new product developed has been increased and also nearly 50% of entrepreneurs indicated that their overall sales have been increased after the innovation of new product.

Table 10 Company Performance as a Result of Innovations

Variable	Strongly agree(1)	%	Agree(2)	%	No idea(3)	%	Disagree (4)	%	Strongly disagree (5)	%
Turnover of the new product increased	31	17	91	49	4	2	2	1	1	0.5
Overall sales of the company increased	29	16	91	49	3	1.6	6	3	1	0.5
Number of employees of the company increased	20	11	61	33	2	1.1	16	9	2	1.1

Source: Derived table from survey data

The question related to company performance had a Likert scale where the respondents were asked to indicate the impact for company performance as a result of any of the above innovations in a scale of “Strongly agree (1)”, “Agree (2)”, “No idea (3)”, “Disagree (4)”, and “Strongly disagree (5)”. The mean values in each of the variables in descriptive statistics as shown in Table 11 below are consistent with the result of Table 10 above thus showing an improvement of company performance as a result of new product innovation.

Table 11 Descriptive Statistics - Company Performance as a Result of Innovations

Variable	N	Mean	Std. Deviation
Increased sales in new product	129	1.8450	.61808
Increased total sales	130	2.0692	2.12839
Increased number of employees	101	2.1980	1.00020
Valid N (listwise)	99		

Source: Survey data

In relation to level of company innovativeness, a question was raised as to whether the firms have ability to do research on innovation, product/process innovation, innovations speedily, and whether the firms have increased their capability on innovations. Table 12 depicted below indicates the results and accordingly, entrepreneurs have reasonably good research capability, new product/process innovation capability despite they have problems in doing them speedily. However, they have improved themselves in foregoing areas over the years.

Table 12 Level of Company Innovativeness

Variable	Strongly agree (1)	%	Agree (2)	%	No idea (3)	%	Disagree (4)	%	Strongly disagree (5)	%	Responses	%
Our company has ability to do research on innovations	17	9	24	13	2	1.1	5	2.7	4	2.2	52	28
Our company has ability to develop new product /process	23	12	43	23	3	1.6	5	2.7	0	0	74	40
Our company can do new product development speedily	18	10	11	6	4	2.2	8	4.3	4	2.2	45	24
Our company has improved ourselves in new product development	25	13	77	42	1	0.5	7	4	2	1.1	112	60

Source: Derived table from survey data

The above question had a Likert scale where the respondents were asked to indicate their views on a scale of “Strongly agree (1)”, “Agree (2)”, “No idea (3)”, “Disagree (4)”, and “Strongly disagree (5)”. The mean values in each of the variables in descriptive statistics as shown in Table 13 below are consistent with the result of foregoing Table 10 thus showing reasonably good company innovativeness.

Table 13 Descriptive Statistics - Level of Company Innovativeness

Variable	N	Mean	Std. Deviation
Research capability	52	2.1346	1.20504
has ability to develop new product /process	74	1.8649	.78206
can do new product development speedily	45	2.3111	1.39516
has improved ourselves in new product development	112	1.9643	.80459
Valid N (listwise)	39		

In relation to entrepreneurs' future plans on innovations, the respondents were given a Likert scale of "Strongly agree (1)", "Agree (2)", "No idea (3)", "Disagree (4)", and "Strongly disagree (5)" for 5 statements which illustrate their future plans. The mean values in each of the statement in descriptive statistics as given in Table 14 show that they are positive in increasing the production of new product, consolidation of sales in other parts of the country and, finding new buyers for the new product. Descriptive statistics show that the entrepreneurs are not that positive in entering to export market and setting up of a new plant for the new product.

Table 14 Descriptive Statistics – Future Plans on Innovations

Future plan	N	Mean	Std. Deviation
I will increase production of the new product by two fold	115	1.7304	.77597
I will go to other parts of the country to introduce new product	125	1.7520	.70317
I will find a new buyer for the new product	78	1.6795	.71157
I will export the new product	39	2.3333	1.26352
I will setup a new plant for the new product	40	2.3500	1.33109
Valid N (listwise)	36		

Source: Survey data

Entrepreneurs who did not do any innovations were asked to give the reasons and accordingly, the prominent reason they have cited as indicated in Table 15 below was their unwillingness to take risk by engaging innovations.

Table 15 Reasons for no Launch of Innovations

Reason	No.	%	Reason	No.	%
No idea	6	3.2	No sufficient finance	14	8
Not like to take risk	32	17	No facilities in the company	9	5
Fellow company failed in such a work	11	6	No necessary skills	6	3

Source: Derived table from survey data

It has been found that only 27% is willing to engage in innovations in next 6 months and majority of 69% are unwilling to engage in innovations in near future as shown in Table 16. This is consistent with finding of “not like to take risk” as shown in foregoing Table 15.

Table 16 Whether the Firms do New Product in Next 6 Months

Decision	Frequency	Percent	Cumulative Percent
Yes	51	27.6	28.5
No	128	69.2	100.0
Total	179	96.8	
Missing	6	3.2	
	185	100.0	

Source: Survey data

CONCLUSIONS

1. Discussion with policy implications

This research explores for an answer to the research problem “Does entrepreneurs’ skills matter for enterprise innovations in leather products and footwear industry of Sri Lanka” as set out at the beginning of the paper. While searching for an answer to the research problem, it was expected to identify current level of skills and type of skills the entrepreneurs look for in order to make innovations. As vast majority of entrepreneurs had at least lowest standard of CGE O/L at school, they have literacy and numeracy skills in order to acquire job- specific or industry-specific skills in training institutions.

The entrepreneurs involved in new product innovations but not significant involvement in process, raw material and new market innovations as per the findings. Highly educated entrepreneurs' involvement in innovations is found to be minimal. Innovations related to process and raw material may need more of scientific knowledge which the current set of entrepreneurs may not have as their general education is at low level. Also, it was found that entrepreneurs' main method of acquiring skills was on- the-job-training (OJT) mode. OJT usually allows people acquire job-specific and hands-on skills but not deep knowledge related to product development. Therefore, it is important to organize Continuous Professional Development (CPD) programs which bring new developments, research findings, new technology and customer trends into discussion. Competency standards and curricula have to be developed and implemented by the relevant government agencies related to these training areas. As the National Vocational Qualifications (NVQ) system is in place in Sri Lanka as the national skills certification system with 7 levels from certificate level up to degree level, courses on technology and innovations can be developed targeting the industry entrepreneurs. In the areas of skills needs as perceived by entrepreneurs, the responses match with current level of competencies and would help resolving current skills gaps of entrepreneurs. In the order of preference, they have mentioned, the need of design skills, entrepreneurship skills, production skills, ICT skills and communication skills will enable them doing what they have been doing much better. In relation to the current level of technology being applied in the industry including the ICT being used, it can be argued that as the level of education of entrepreneurs in the industry remains low, their ability to use ICT tools i.e internet, email, websites and social media may remain low. This situation adversely affects the new developments in the industry. In this context, following policy suggestions are proposed for consideration of relevant agencies;

Policy suggestion 1: Develop and implement CPD programs on regular basis for industry entrepreneurs that bring new developments, research findings, new technology including ICT tools and customer trends into discussion.

Policy suggestion 2: Develop competency standards and curricula for training programs in the skills areas mentioned by the entrepreneurs and award National Vocational Qualifications (NVQ) enabling them doing higher level courses at diploma and degree levels while ensuring upward mobility in the NVQ framework.

In the area of current technology being applied in terms of machines, equipment and tools in the industry, it has been found that the entrepreneurs' willingness to apply new machines with new technology remains low. This may be because much of the entrepreneurs use own money as source of capital. Use of Banks as source of capital is not that popular among entrepreneurs which adversely affect the growth of this industry. As found in the survey, the industry is dispersed all over the country however; there is a higher presence in Colombo, Kalutara, Galle, Kandy and Kurunegala which are districts where much of commercial and industry activities are taking place. Financial services available in these areas are higher than that of other districts. Therefore, following policy suggestions are proposed in order to overcome the issues related to technology being used and to promote innovations in the industry.

Policy suggestion 3: Develop and implement industry specific funding scheme to help entrepreneurs to increase access for finance to buy new machines, equipment and tools which bring new technology in to the production process.

As majority of entrepreneurs have targeted ladies in new product innovations followed by gents and school children, design related courses can give much attention to designing of lady's footwear and leather products. Because the entrepreneurs have targeted ladies in new product innovations, the firms have been able to increase revenue and turn over. This makes sense as country's population is predominantly represented by females as per population statistics of the Government of Sri Lanka. As per the findings of the survey, the industry has a space for research and development in innovations. This is something the relevant government bodies have to take into consideration. If there is a promotion from the government front, only new things happen as entrepreneurs always focus on doing day-to-day businesses. On this backdrop, following policy suggestion can be proposed;

Policy suggestion 4: Establish and launch leather products research unit attached to Leather Products Development Centre of the IDB of Sri Lanka.

Few of researchers and data collecting staff with ICT facilities would be required for giving effect to the foregoing policy suggestion. This unit can be linked to new product, process and raw material related innovations that can be done in collaboration with the industry.

As revealed in the survey, the entrepreneurs are interested in increasing the production of new product, consolidation of sales in other parts of the country and, finding new buyers for the new product. This is an area to capitalize-on with some kind of promotion from the government and financing agencies like Banks etc. Since the entrepreneurs are positive in expansion of new products to other parts of the country, loans with low interest rates may be useful to support the expansion. A public-private-partnership between entrepreneurs, the IDB and the financial agencies like Banks can bring the results to improve the current status of the industry. Hence, following policy suggestion is proposed;

Policy suggestion 5: Establish public-private-partnership between interested entrepreneurs, the IDB and the Banking agencies in promotion of new innovations to other parts of the country.

Those who have not involved in innovations have cited "not like to take risk" as the reason for no engagement in innovations. This attitude can be corrected through CPD programs suggested in the beginning of the discussion.

The discussion was mainly built around enhancing the capacity of entrepreneurs by means of skilling them in entrepreneurship, designing technology, communications and awareness building focusing on the future prospects of the industry. The research problem raised at the beginning "Does entrepreneurs' skills matter for enterprise innovations in leather products and footwear industry of Sri Lanka" has sufficiently been investigated through the research. The research findings and subsequent discussion proved that entrepreneurs' skills matter in new product, process, raw material and new market innovations in the industry. Therefore, skilling them is vital to revitalize the industry through innovations. This vision can be reached by working in collaboration of government agencies and private sector according to a well set implementation plan.

2. Concluding remarks

Innovations improve competitiveness of firms irrespective of what they produce and what scale they produce. Leather products and footwear industry of Sri Lanka has fairly a long history however; their contribution to the national economy is relatively less despite the large number of people that this industry employs. This shows a productivity problem pull the industry back which needs urgent attention. This research has found out that there is a link between entrepreneurs' skills and their innovativeness which finally lead to innovations in the industry. Sri Lanka economy is now in the efficiency-driven stage of development where productivity of factors of production including human capital matter in greater extent. New product, process, and raw material innovations are critical in improving productivity. In this regard, knowledge of entrepreneurs matters. If productivity improves only profitability improves. An industry cannot move forward or cannot be able to compete in the local or overseas market unless it does things differently as per the aspirations of its customer base. Research has a crucial role in this regard followed by innovations where the proactive leaders identify customer needs before competitors do. Visionary leaders do it even before the customers identify that they have a requirement which not yet fulfilled.

The leather products and footwear industry is in the SME sector which plays a key role in providing employment and income to local young people of the country. The industry has a country-wide presence in different representation which shows a huge potential for expansion if it given due attention by relevant agencies. There are responsible agencies who can make difference for betterment of the industry. As proposed in the foregoing section, work in collaboration between training providers, regulatory bodies and SME sector agencies is crucial in this regard. The Leather Products Development Centre of the IDB is an institute which can be developed as a flag-ship centre that do research and innovations and show path for entrepreneurs in addition to training of youngsters who join industry as a way of livelihood. Development of skills standards and curricula is a responsibility of Tertiary and Vocational Education Commission¹ with which the training agencies and industry have to work in collaboration in order to develop skills related documents. The SME sector of Sri Lanka, as they are fully focused on the day-today activities may find it difficult to attend whatever the capacity building initiatives organized by relevant agencies. The government agencies shall not be discouraged or demoralized at the beginning because of the aforesaid issue and shall move forward and show results and then many would rally around the initiatives.

The Government Treasury and the donors may focus on the policy implications proposed in this paper and consider allocating resources to improve an industry which has a huge potential for expansion. Local investments and foreign direct investments can do miracles as the market of the industry has been ever growing.

¹The Tertiary and Vocational Education Commission is the regulatory body for Technical and Vocational Education and Training sector of Sri Lanka. The TVEC can be accessed via www.tvec.gov.lk

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