



## Effectiveness of on-the-Job Learning for Enterprises' Innovativeness



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### Abstract

The mode of on-the-job learning – one of the methods of acquiring competencies still remains one of the main modes of acquiring workplace competencies in conventional industries in developing countries. This paper explores the impact of aforesaid mode of competency acquisition for enterprise innovativeness of an industry of Sri Lanka. A structured questionnaire was used to gather primary data related to modes of acquiring competencies. Before data collection, it was reviewed by industry experts and piloted later on for validity. The paper analyses and presents the effectiveness of on-the-job learning on the innovativeness of enterprises in this industry. The research has found that the main mode of acquiring enterprise competencies remains on-the-job learning. It has been found that the level of innovations in enterprises in the industry remains at low attributed to the traditional way of acquiring competencies. As a result, the industry stagnates and faces challenges for sustainability. No similar research study was done before in this industry and this is an original work. The study has implications to policy, theoretical and practical aspects of the industry.

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## 1. Introduction

This research study investigates the relationship of employees' competencies and entrepreneurs' view about innovations as firms in a contemporary business world increasingly recognize innovative competencies as one of the key determinants towards innovations which ultimately lead to business competitiveness (Smith, Courvisanos, Tuck, & McEachern, 2012). Small and medium scale enterprises (SMEs) play a crucial role in Sri Lanka economy by providing employment, income and push the economy forward (Thilakarathna & Jayasekera, 2013) over the past few decades. Leather products and footwear industry are comprised of predominantly small firms where a significant

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number of workforce is employed (Gurusinghe, 2012). As explained in Gurusinghe, (2012) the leather and footwear industry currently employs about 20,000 people directly and indirectly. The industry includes 10 large export companies, about 290 small and medium scale companies, and about 3000 micro-scale manufacturers. This diverse group produces leather slippers, boots, shoes etc., using a variety of raw materials (EDB, 2015).

This paper will explore the relationship of competencies acquired through on-the-job (OTJ) learning by entrepreneurs of the industry. It will look at the level of innovations take place in this industry as a whole. OTJ learning remains as one of the main modes of acquiring competencies in Sri Lankan enterprises.

### *Definitions of key terms*

Webster Dictionary defines the term “on-the-job learning” as relating to or being something (as training or experience) learned, gained or done while at a job and often under the supervision of experienced workers at a workplace. 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 term “firm” can be defined as an entity working for profit and thus the terms “firms” and “enterprises” are used interchangeably to denote small and medium scale companies operate in the leather products and footwear industry of Sri Lanka. The phrases on-the-job learning and workplace learning are used interchangeably in this paper hereafter.

### *Competencies determine innovations*

In Sri Lanka, SME sector contribution to GDP has increased to 52% in 2011 from 40% in 2010 (Thilakarathna & Jayasekera, 2013) and keep on its contribution to growth. 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. In a labor-intensive industry, workplace learning remains a key mode of acquiring skills. The ability of an enterprise to innovate depends on the quality of its human resources and level of technology being used (Smith *et al.*, 2012). In this backdrop, the leather products and footwear industry in Sri Lanka have no option but to enhance the skills of entrepreneurs themselves and do innovations to be competitive in local and international markets.

### *Research problem*

The research was undertaken to find an answer to following research problem: “How effective is on-the-job learning for enterprise innovativeness?”

### *Research objectives*

It has been expected to achieve the following objectives on completion of the research:

- a) Identify current modes of learning by entrepreneurs
- b) Explain the advantages and disadvantages of on-the-job learning as a mode of acquiring competencies
- c) Suggest policy interventions for capacity building of industry entrepreneurs
- d) Identify implications of competencies for effective running of the industry
- e) Propose suggestions to overcome the constraints for innovations in the industry

## **2. Materials and Methods**

### *Literature review and theoretical background*

Enterprises have to improve the capacity to learn to be in competition in the industry locally and internationally (Garavan, Morley, Gunnigle, & McGuire, 2002). It is considered an imperative for business successes in the paradigm of strategic human resources management (Garavan *et al.*, 2002). At the same time enterprises care about innovations

for improvement of productivity and capture new markets while being in competition in the industry (Stanwick, 2011). What is really meant by innovation? It is much more about a new product, processes and services development than research and development (Stanwick, 2011). In this regard, it is widely acknowledged that for workers to be competent they must not participate in formal education and training but also take part in organizational workplace learning (Garavan *et al.*, 2002). If an entrepreneur intends to be competitive, he/she has to offer something different or do something different which requires innovations (Caskey, 2015). As cited in (Sandberg, Hurmerinta, & Zettinig, 2013) Drucker and Schumpeter had argued that in order for firms to be sustainable and socially 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 to wealth creation, firm and economic competitiveness through innovations is enormous.

In the sphere of innovations, it is acknowledged that the world recognizes the fact that innovations pave the way for business competitiveness while entrepreneurs have to be at the forefront of discourses on innovations to meet people's needs fully (Dan, 2015). Scholars give attention to numerous individual and organizational predictors which can later become a foundation for creative activities of an enterprise where the competence of individuals is a key (Wojtczuk-Turek & Turek, 2015). Individual competence is directly related to generation and introduction of innovative ideas (Wojtczuk-Turek & Turek, 2015). It is acknowledged that giving employees more freedom, a sense of ownership and self-determination is essential for workplace learning and long-term sustainability and dynamism in innovations (Muthusamy & Dass, 2014). When it comes to firms' overall performance, innovation helps in numerous ways to achieve greater efficiency and effectiveness (Toner, 2011). Damanpour, Hirst *et al.* as cited in (Moon & Choi, 2014) have explained distinctive competencies 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. Innovation helps achieve enterprises greater efficiency, effectiveness, financial and firm performance (Toner, 2011). Bouwman *et al.*, Den Hertog, Forfas as cited in (Janssen, Bouwman, Buuren, & Haaker, 2014) were of the view that businesses run in the severe competition and use a multitude of strategies to increase market share targeting increased profit margin where innovations considered to be a key. 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. Empowering people to innovate and the importance of unleashing the innovation potential in firms was 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). 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 and competence as key for the product, process, and new market innovations. Research has found that the need for the integration of human factors and technological factors in order to give birth to useful innovations (Smith *et al.*, 2012). This research paper will reveal whether the owners actually do the innovations or promote innovations in their industries in order to improve competitiveness in their firms.

Scholars argue that there is no single kind of competencies that foster innovation but rather there are a variety of competencies that are required for innovation (Stanwick, 2011). The world recognizes the fact that innovations pave the way for business competitiveness while entrepreneurs have to be at the forefront of discourses on innovations to meet people's needs fully (Dan, 2015). Entrepreneurs may be getting benefits from general education and management training to be better entrepreneurs in the industry (Dana, 2001). Previous researchers suggest 3 modes by which innovative skills of people can develop i.e. team-based work organization, support for training and flexible work practices which help develop a "learning culture" in order to promote workplace learning (Smith *et al.*, 2012). The scholars Yeh *et al.* Gonza 'lez & 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 competencies of people. Scholars give attention to numerous individual and organizational predictors which can later become a foundation for creative activities (innovative activities) of an enterprise where the competence of individuals is a key (Wojtczuk-Turek & Turek, 2015). Individual competence is directly related to generation and introduction of innovative ideas (Wojtczuk-Turek & Turek, 2015). Learning has to take place throughout of life of people which includes education and training, workplace learning, the processes of both formal and informal learning: skills, knowledge, understanding, experience, attitude, values etc., (Ball, 2009).

*Approach/Design/Methodology*

The enterprise list of 290 firms submitted by the Industrial Development Board (IDB) of Sri Lanka\* was used to contact the firms to fill the questionnaire of the survey. The questionnaire was administered to the population of firms and received 183 completed questionnaires with a response rate of 63.1 percent. When it comes to the literature review, available literature was reviewed in a descriptive manner to understand the problem and unearthed available body of knowledge that leads to understanding knowledge gaps in relation to the topic being investigated.

**3. Results and Discussions**

The researchers expected to identify current modes of learning by entrepreneurs which have implications 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. Table 1 depicted below show that 64 percent of the respondents had education up to GCE (O/L) which is the basic competitive national level school education standard. 28 percent of them had GCE (A/L) which is the next higher national level standard. Only 7 percent had bachelor's and postgraduate level degree qualifications.

Table 1  
General education

Achievement	Frequency	Per cent	Cumulative per cent
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	

Source: Survey results

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 percent indicated that they have followed a formal training course at a training institute. The dominant way of acquiring skills was on-the-job learning which represented 57 percent of respondents. Apprenticeship training which is also a key mode of on-the-job learning was received by 9.7 percent thus making an aggregate of 66.7 percent acquiring skills through on-the-job learning. Only 5.9 percent have followed business/management courses and only 2.2 percent of entrepreneurs have received foreign training. 34 percent of entrepreneurs have followed an Industry specific training course which is the relatively popular mode of acquiring skills.

Table 2  
Skills/training programs completed

Program	No.	Percent
Followed an industry-specific course at a training center	63	34.0
Undergone apprenticeship training in industry organized by NAITA	18	9.7
On-the-job learning	105	57.0
Followed business/ enterprise management course	11	5.9
Received foreign training	4	2.2

Source: Derived table from survey data

\* The Industrial Development Board of Sri Lanka is the statutory body established by an Act of Parliament to develop and assist SMEs in Sri Lanka. The IDB can be accessed via [www.idb.gov.lk](http://www.idb.gov.lk)

In relation to the level of company innovativeness, a question was raised as to whether the firms have the ability to do research on innovation, product/process innovation, innovations speedily, and whether the firms have increased their capability on innovations. Table 3 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 3  
Level of company innovativeness

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

Source: Derived table from survey data

The above question had a Likert scale where the respondents were asked to indicate their view 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 4 are consistent with the result thus showing not adequate company innovativeness in order for them to be competitive in the industry.

Table 4  
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	11	1.9643	.80459
Valid N (listwise)	39		

Source: Survey data

Entrepreneurs' future plans on innovations were questioned with 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 shown in Table 5 are not that positive in either areas of future plans i.e. increasing the production of new product, consolidation of sales in other parts of the country, finding new buyers for the new product entering to export market and setting up of a new plant for the new product.

Table 5  
Descriptive Statistics – future plans on innovations

Future plans	N	Mean	Std. Deviation
I will increase production of the new product by two fold	1 1 5	1.7304	.77597

I will go to other parts of the country to introduce a new product	1 2 5	1.7520	.70317
I will find a new buyer for the new product	7 8	1.6795	.71157
I will export the new product	3 9	2.3333	1.26352
I will set up a new plant for the new product	4 0	2.3500	1.33109
Valid N (listwise)	3 6		

Source: Survey data

### Discussion

While searching for an answer to the research problem i.e. “How effective is on-the-job learning for enterprise innovativeness?” it was expected to identify current modes of learning by entrepreneurs and explain advantages and disadvantages of on-the-job learning as a mode of acquiring competencies in the industry. Based on the findings, some policy and operational level proposals to be made in this part of the paper.

As the vast majority of entrepreneurs had educated up to the lowest level of CGE O/L at school, they have only literacy and numeracy skills in order to acquire job-specific or industry-specific competencies related to the industry operations. Thus they tend to lean on on-the-job learning as a mode of acquiring competencies. Only 7 percent of respondents had a degree and postgraduate level education thus making them difficult to understand the complex scientific principles related to innovations in the industry. Therefore, it is important to organize Continuous Professional Development (CPD) programs which bring new developments, research findings related to the industry, new technology, and customer trends into the discussion.

### 4. Conclusion

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 a low level. Also, it was found that entrepreneurs’ main method of acquiring competencies was on-the-job learning and apprenticeship training. On-the-job learning usually allows people to acquire job-specific and hands-on skills but not deep knowledge related to product development and innovations. Therefore, there is a competency gap in relation to innovations in the industry. As the level of education of entrepreneurs in the industry remains low, that affect adversely for the innovations in the industry. Therefore, it is imperative that scientific knowledge and skills related to industry operations be given to entrepreneurs in the industry. This will help improve the current level of productivity which is vital for the growth of the industry. Their future plans related to innovations were also not positive due to the prevailing competency gap issues. Hence it has found out that there is a negative relationship between entrepreneurs’ way of acquiring competencies and their innovativeness which finally lead to stagnation in the industry. Stagnation does not allow earning sufficient profit and achieving satisfactory productivity level which in turn negatively effect on innovations. Profitability improves only if productivity improves. Innovations are integral parts of profitability and sustainability. Just predominantly having on-the-job learning, an industry cannot do much for innovations. Innovations need higher level competencies. Consequently, the industry hardly moves forward or cannot be able to compete in the local or overseas market unless it does things differently in innovative ways as per the aspirations of its customer base. Thus on-the-job learning alone would not help improve the innovativeness and competitiveness of the labor-intensive industry to be able to successfully compete with its competitors. Based on the foregoing discussion it can be concluded that the effectiveness of on-the-job learning is not adequate for enterprise innovativeness. The industry needs higher level competencies by way of capacity building either local or overseas. This research opens avenues for future research on this topic as capacity building considered to be an on-going strategy for human capital development in industry. Constant gauging of human competencies may be useful for policy and training program development.

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*Statement of authorship*

The author(s) have a responsibility for the conception and design of the study. The author(s) have approved the final article.

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