Identifying key skill sets in humanitarian logistics: Developing a model for Sri Lanka

S. Rajakaruna[a,*], A.W. Wijeratne[b], T.S. Mann[c], Chen Yan[a]

[a] Dalian Maritime University, No: 1 Linghai Rd, Ganjingzi, Dalian, Liaoning, China
[b] Department of Agribusiness Management, Faculty of Agricultural Sciences, Sabaragamuwa University of Sri Lanka, Belihuloya 70140, Sri Lanka
[c] Henley Business School, University of Reading, United Kingdom

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ABSTRACT

Previous research has shown that Logistic skills are a basic requirement for employment and career development within the Humanitarian Logistics (HL) field. These skills requirements are changing in various logistics functions, groups and cultures. At the same time increasing global disasters are adding to the challenges that are adversely affecting the HL supply chain. Skills of the logisticians are therefore a necessity to effectively manage the supply chain in a disaster. It is vital to research in to the area of HL, considering the recent issues that are being faced after every disaster in Sri Lanka. A number of researches have been carried out in finding skills of the humanitarian logisticians at global level. However, as to date there has been limited discussion on the skills of humanitarian logisticians in the Sri Lankan humanitarian field. In this research a Factor Analysis (FA) was conducted in order to find the skills of humanitarian logisticians in Sri Lanka. Skills which were identified earlier by researchers were further tested in order to find the applicability in the local HL landscape. We have identified deferent set of component than in the previous studies. Results will assist the training and recruiting humanitarian logisticians. Additionally, this paper also indicates future research requirements to the field of HL.

1. Introduction

1.1. Aim

Humanitarian disasters are constantly in the news; anything from earthquakes and tsunamis to war and famine. Most result in reaction from the international community to provide aid in one form or another. Shelter, food and clothing are usually top of the list of requirements. Once the requirements are known, the Supply Chain kicks in and the reaction becomes an exercise in Humanitarian Logistics (HL). Historically, the provision of succour to distressed areas has fallen to the military and enthusiastic volunteers. However, supply chains have become more complex as have the individual roles of the key players, and the management of all these activities has become equally complex. The result is that the efficient delivery of relevant and appropriate aid to the right people at the right time has now become a complex discipline involving the co-ordination of vast numbers of qualified specialists with specific roles to play. The aim of this paper is to determine the key competencies and skill sets required to successfully conduct Humanitarian Logistics operations. Sri Lanka has been selected as the sample country for this research. The Sri Lankan involvement in the provision of HL in the 2004 tsunami and the subsequent HL development activity make the country a good subject. However, it is accepted that it has cultural and geo-political characteristics that are peculiar to the South Asian region that may need to be considered if any future research is conducted. With these considerations, the paper looks at the skills and competencies significant in carrying out HL activities in the Sri Lankan context.

1.2. Humanitarian logistics skills and competencies

One field of thought contends that, skills and competencies are essentially the same thing as they both refer to the acquired ability of an individual to perform a specific activities or tasks more successfully based on training and experience [1,4]. However, this over simplifies the situation; Amir and Imran also state that skills are specific learned activities, and they range widely in terms of complexity. By identifying the skills required to perform a specific function, an organisation can identify the skills required by the individual who is to carry out that function. Competencies, on the other hand, are the method of translating skills into the ability of an individual to perform the job requirements competently. So, it can be seen that competencies are the

effective application of skills.

This is recognized in the work of Kunz and Reiner [24] but there are very few studies that have been conducted in the field of skills identification and performance improvement with regard to HL [22]. In one of their studies, Kovács and Tatham [22] highlighted the importance of logistics skills for effective management, career development and knowledge. Research conducted over the last decade has included different types of analysis and recommendations for future research topics, and a highlighted aspect of all these studies is the lack of meaningful research into the area of logisticians' skills and the effect of these skills regarding the efficiency of organizational settings.

1.3. Sri Lankan humanitarian situation

This paper has examined HL in Sri Lanka as a representative example of generic HL based on the following. Although, Sri Lanka is not particularly disaster-prone, the 2004 tsunami showed that the country is still vulnerable to low-frequency high impact events that can cause extensive damage [19]. The realisation of this vulnerability led to a concentrated effort to address the situation. In consequence, the Sri Lanka Disaster Management Act No 13 was enacted by the Sri Lankan Parliament in May 2005 with the intention of providing solid legislative and institutional arrangements for Disaster Risk Management. Parliament also set up the powerful National Council for Disaster Management working directly to the President and the Disaster Management Centre (DMC) became the lead agency for disaster risk management. In November 2005, the Ministry of Disaster Management (MDM) was established to build further strong leadership. Following this, the 2005 'Road Map' proposed a number of disaster risk management initiatives including policy, institutional mandates and developments, hazard vulnerability and risk management, training and education. The hope is that proper implementation of this Road Map will go a long way towards ensuring that Sri Lanka is able to react appropriately and proportionately during natural disasters. Between the years 2000–2011 in Sri Lanka, more than 3 million people were affected by various natural disasters including tsunamis, epidemics, floods and storms [14]. These statistics alone show the importance of having a robust disaster management system.

2. Existing literature

2.1. Literature survey in humanitarian logistics

A literature survey was carried out on the limited HL material available. Overstreet et al. [34] proposed that future research should focus on the HL profession in order to recruit, train and retain Humanitarian Logisticians. Kunz and Reiner [24] also identified that there had been a lack of research into human resource management in HL. The concept paper developed by Leiras et al. [25] included a research framework for literature review through both qualitative and quantitative content analysis. Having considered the updates of the previous literature reviews conducted on HL, the authors have added seven more classification criteria that included humanitarian skills as a research classification, indicating the high level of prominence that they placed on skill development.

2.2. Skills and competencies for humanitarian logistics

Kovacs' research points out that Logistics training is different from the actual skills, attributes, experience, competencies, and knowledge areas required [21]. In an earlier paper, Gammelgaard and Larson [15] described the differences between context-independent skills and
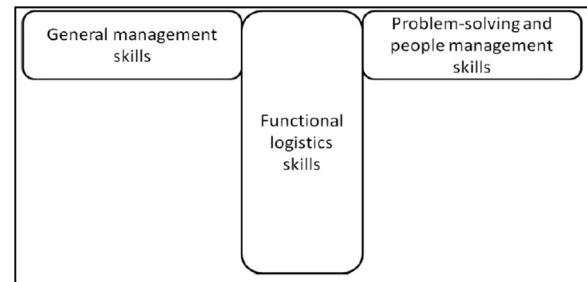

Fig. 1. 'T- shape' Logistician Skills Profile -[27].

context-dependent competencies. They indicate that both skills and competencies are important in Logistics and Supply Chain Management. During the time, many researchers added [13,16] various skills to logistics. However, Mangan and Christopher's [27] work took a new turn in to the realizing the skills of logisticians', they represented this concept with the T-shaped skill profile at Fig. 1. This clearly shows the difference between breadth and depth of knowledge skills and competencies needed in the SCM profession.

Researchers have also indicated that differences between the logistician skills may be based on Geographical areas [33] Gender [10], Ethnicity [5], Student vs Practitioners [15], Position and Type of Firm [16] and Business vs HL [22]. Murphy and Poist [31] went on to prioritise these skills by stating that it is important to be "a manager first and a Logistician second".

Although, other studies have suggested that there are new managerial skills relevant in the HL context. These include Pressure Tolerance [41], Team Building, and Operational Management etc. The Chartered Institute of Logistics and Transport [8] also includes Medical Logistics, Customs Procedure, Donor Management and Camp Management. Walker and Russ [45] have enhanced the skill sets by Adding Security and Safety, Monitoring and Evaluation, Needs Assessment and Knowledge of Sanitation. With a high turnover of Humanitarian Logisticians [17], the possibility that a disaster could occur at any time and the challenge of limited resources, it is a continuous task to recruit and retain people who have all the necessary skills [43].

The study conducted by Mangan and Christopher [27] is one of the most universally accepted amongst the research community [2,7,22–24,42,44]. The necessity for further studies with a holistic understanding of the actual daily job profile of Humanitarian Logisticians and the effectiveness of each job towards organizational performance are crucial as per conclusive statements by the authors concerned.

Based in all these research, Kovács et al. [23] conducted a study to find the skills required by the humanitarian logisticians. Kovács et al. [23] worked on the foundation of 'T-Shape' skills model put forward by Mangan and Christopher [27].

2.3. Use of factor analysis in research of skills and competencies

The identification of skills and competencies through the Factor Analysis (FA) is now widely used in research studies. Jun Lin used FA to identify accounting education skills [20]. Dada did the same for Quantity Surveyor skills [11] and Spearritt used FA to determine children's comprehension skills [40]. FA to reduce the number of factors has also been employed in the Logistics field by Heyns and Carstens in their research on the skills required by supply chain managers in South Africa [18]. Daud followed similar methodology in his Malaysian research [12]. These studies used FA to determine the main components and the basic skills required by Logisticians.