IMPACT OF SUPPLY CHAIN UNCERTAINTY AND RISK ON PERCEIVED ORGANIZATIONAL PERFORMANCE IN FAST FOOD INDUSTRY WITH SPECIAL REFERENCE TO ANURADHAPURA DISTRICT

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Abstract

Supply chain uncertainty and risk is a rising area in today's business world. With the development of globalization, fast food industry has gained a higher customer demand. Due to that reason fast food industry has to face various types of supply chain uncertainties and risk than ever before. The supply chain uncertainty and risk have significant impacts on organizational performance in the fast food industry because most of the procedures are associated with the human interactions and mostly it depends on the forecasted data. Even though the supply chain uncertainty and risk have an impact on the organizational performance, as people they perceive it differently according to their perception. The workers who work in the fast food outlets may have a different perception on the impact of supply chain uncertainty and risk on their organizational performance. This is called Perceived Organizational Performance. The purpose of this paper is to present how workers who work in the fast food outlets perceive the impact of supply chain uncertainty and risk on the organizational performance in their outlets. The research study was done specifically to Anuradhapura district. The empirical data was collected from the fast food outlets' workers within the Anuradhapura District. The main focus in here is to identify the impact that each source of supply chain uncertainty and risk have on the Perceived Organizational Performance. They are (1) Logistic uncertainty and risk, (2) Information uncertainty and risk, and (3) Customer related uncertainty and risk and (4) Environmental uncertainty and risk. These results contribute to the supply chain uncertainty and risk literature. In addition, it provides an insight into future researches relating to the fast food industry and Perceived Organizational Performance.

Keywords: Supply Chain Uncertainty, Risk, Fast Food Industry, Perceived Organizational Performance.

Introduction

Fast food can be considered as one of the most trending food all around the world. Most of the developed countries generate nearly half of their revenue through the fast food industry. And also, it is considered as one of the rapidly changing environments. With the modernization of the society and the adaptation of the western culture, life styles of the Sri Lankan people have changed over the years. Due to the effect of several factors food consumption also have changed over the years. People tend to purchase more fast food with the growing participation of women workforce, long time working days, increasing household income, declining number of family, urbanization, development in tourism industry, extended life expectancy, growing level of education in consumers, rising per capital income, way of socializing, fun and entertainment, promotion activities by fast food restaurants, distribution networks and marketing systems (Devendra & Kennedy, 2015). Thus, in the modern Sri Lankan context fast food plays a vital role. In Sri Lanka there are various types of fast food outlets that the consumers can buy fast food from. It ranges from multinational outlets to local outlets. With the establishment of these various types of fast food outlets, consumption of fast food of Sri Lankan people has increased in a significant amount (Patabandige & Yapa, 2016).

Today many multinational outlets like Pizza hut, KFC MC Donald's, Burger King can be seen everywhere, not only in urban areas, but also, they have spread their organizational network even to the rural areas. According to the food consumption of the Sri Lankan people the percentage of income spent on food in rural area is 25 percent -30percent. However, in urban areas it is nearly 60 percent-75 percent (Dawoodbhoy, 2018). In fast food industry supply chain plays a major role. Fast food outlets are operating with the integration of various stake holders, so in order to maintain a level best organizational performance the supply chain should be an effective and an efficient one. When considering about what could go wrong with the supply chain management supply chain uncertainty and risk can be considered as important (Wang, 2018). The term uncertainty also has a tendency of inability to forecast. Fast food industry has a massive process operating in the logistical area. So, the uncertainty and risk highly effect on the particular organizational performances. The latest trend in fast food industry is that people tend to purchase fast food with the modernization of their life styles. Nowadays even rural area people have more access to various types of outlets not only the multinational but also the local outlets than other fresh food. So, the major motive behind choosing the fast food industry and as well as the supply chain context, is because both are emerging sectors within the business context now days.

When considering about the Anuradhapura District, there are nearly 800 fast food outlets according to the Public Health Inspector (Kumarasinghe, 2019). Within these 800 out lets, there are both local and multinational fast food outlets ranging from small scale to large scale out lets.

In the fast food industry most of the supply chain uncertainty acts are major problem. Most of the uncertainties and risks are associated with the Demand and Supply ends. Uncertainties associated with these two may lead to inefficient and non-value adding tasks (Patil et al., 2012). In order to provide a better service level, these uncertainties must be taken into consideration. When considering about the demand the major uncertainty would be in identifying which product customers would purchase in what quantity. Also identifying the exact amount that should be in the stock. And in the supply side, will he supplier provide the products in exact quality in order to fulfill the customer expectations, uncertainties in the supply of raw materials etc. (Chaudhuri et al., 2011). The research basically focuses on those uncertainties in the fast food industry. According to the above literature in many countries, fast food industry contains similar types of uncertainties and risks. The research study is based on the Sri Lankan context. There is no evidence of researches that are done in the particular area on organizational perceived performance in fast food outlets. So, in the research, the main focus is on, identifying the impact of these supply chain uncertainties and risks to the organizational perceived performances in fast food industry in Sri Lanka. There are several researches that have been conducted in the area of fast food industry in countries like Malaysia (Habib, et al., 2011), India (Prabhavathi & Kumar, 2014) even in Sri Lanka (Devendra & Kennedy, 2015). But there is no evidence of any research that has been done in the areas combining supply chain uncertainty and risk and the fast food industry. Even though there are researches about fast food industry in Sri Lanka, they mainly focus on the fast-urban areas like western province and so on. There are no researches conducted regarding a rural area like Anuradhapura district. Therefore, the research presents how supply chain uncertainty and risk effect to the perceived general organizational performance in the fast food industry within the Anuradhapura district contributing to the empirical gap that exists due to the lack of researches on supply chain uncertainty and risk and the organizational performance in fast food industry. Under this level for the case of being specified to a particular area, the main focus is on Anuradhapura District. Considering about which outlets to be considered, both local outlets and multinational outlets were considered. The following research questions are derived based on the aforementioned understanding.

Research Questions

- Is there any impact of supply chain uncertainty and risk on the perceived organizational performance?
- What are the main dimensions of supply chain uncertainty and risk impact on the perceived organizational performance of fast food industry in Sri Lanka?

The research objective of this study is to investigate the impact of supply chain uncertainty and risk on the perceived organizational performance. The specific objective is identified as to investigate the main dimensions of supply chain uncertainty and risk which impact on the perceived organizational performance.

Literature review

Under this section, the main concern is based on how the main variables that are used to construct the conceptual framework are described. In addition to that from the origin to the current status of the concept of the supply chain management, is also described in detail. And also, the current practices of supply chain management within the Sri Lankan context are explained.

Theoretical Review

Supply chain uncertainty and risk

Supply chain uncertainties have a major impact on supply chain performances and even in the manufacturing process of any organization. Because these supply chain uncertainties ultimately lead to non-value addition to the overall organization (Patil et al., 2012). Supply chain uncertainty is becoming one of the most popular areas in the modern world. The word itself, uncertainty, means something that is hard to predict. Supply chain uncertainty is considered as one of the major fights that every practicing manager has to deal with. It is a very common saying that supply chain uncertainty makes the supply chain to be very complex network (Simangunsongy et al., 2011). Many of the researches have concluded that the sources for the supply chain uncertainty are demand side factors, supply side factors and also there are some other factors that have not found much of attention to be considered (Prater, 2005).

The general definition of uncertainty is the quality of being uncertain in respect of duration, continuance, occurrence, etc.; liability to chance or accident. In economic terms uncertainty is basically a business risk that cannot be measured in terms of various measurements and whose outcome cannot be predicted exactly and correctly. Some may get confused between uncertainty and risk. Basically, uncertainty is a risk under the terms of non-measurable but, risk is an uncertainty, it has a probability of occurrence.

So, in other words uncertainty is something that impacts on organizational performance or the lack of information about the factors that have impacted on organizational performance (Wang et al., 2014). In the common context, most of the uncertainties and risks occur due to the lack of understanding and insufficient knowledge regarding what will happen in future. With the advancement of technology people can use various types of methods to analyze what will happen in the near future, but still there can be mismatches or some impossible situations that cause people to fail in predicting future possible events.

Even though risk and uncertainty are differing from each other they have close relationship with each other. That is, uncertainty increases the possibility of risk occurrence and risk is a consequence of uncertainty (Aven, 2011). In the light of these definitions some authors have clearly identified and distinguished the difference between these two (Hillson, 2006), while others have not being clearly distinguished the difference between these two (Peck, 2006). When considering about the relationship between uncertainty and risk, it appears as same as the opposite of these words which are certainty and risk. This relationship consists not only a considerable importance in theoretical background but also in highly practical approaches (Toma et al., 2012).

The next most important thing is that both uncertainty and risk are most relevant in taking decisions. Because any circumstance or any factor that influence on any business occurrence may differ from each other. It means that they have different types of risks and uncertainties that influence on them. That is the reason why identification of risk and an uncertainty along with particular phenomena is important (Toma et al., 2012).

One of the most important things in here is some authors have suggested that the risk is associated only with the negative out comes (Peck, 2006), while uncertainty has both positive and negative outcomes. Supply chain uncertainty is anything that causes any stoppage or delays in normal business activities. So, in any organization supply chain operates to fulfill the customer requirements in a satisfactory level. Supply chain uncertainty and risk are most likely to be interchangeable in nature (Peck, 2006). It is very important to identify the different types of supply chain uncertainties and risks in terms of the actual industries and businesses. Different industries and businesses may have different sources and drivers of supply chain uncertainties and risks (Wang et al., 2014). In order to provide a better service level, these uncertainties must be taken into the consideration.

Sources of Supply chain uncertainty and risk

When considering about the sources of uncertainties that cause the supply chain uncertainty, several major sources can be identified throughout the existing literature. Some say the major sources of supply chain uncertainty are high variability in demand and supply sides which may cause problems in planning, scheduling and controlling (Patil et al.,2012). According to them, range of quantity required, lead time, variety of products required, number of channels through which the product acquired and rate of innovation are the main causes that impact on demand side uncertainties.

When considering about the demand uncertainties the major uncertainty would be "identifying which product the customers would purchase in what quantity

and identifying the exact amount that should have to be in the stock". And in the supply side, will supplier provide the products in exact quality in order to fulfill the customer expectations, uncertainties in the supply of raw materials etc. (Chaudhuri, et al. 2011) can be identified as concerns. As Wang et al. (2014) said, supply chain uncertainty can be appearing in four major faces.

Logistic uncertainty and risk

Risk is something we have to deal with in our everyday life even in the professional lives. Not only is that it also involved in manufacturing processes. Like the, fast manufacturing consumer goods, plastic industry, pharmaceutical industry etc. not only in that, risk is involved in the logistic performances too. Sometimes the false or incomplete information shared across the organization may cause for the logistic performances to go wrong (Sehran & Siddiqui, 2019).

There are number of supply chain risks that can be identified and so much related to supply chain uncertainty which appears that they cannot be apart from each other. The risk has a greater impact on logistic performances. This can be identified as on time delivery, freight safety, information and customers (Sehran & Siddiqui, 2019). Logistic performance has been considered as one of the most important areas in order to achieve the organizational success. These success factors are measured by two different ways, which are objectives and responsive evaluation. All the hard evaluation comprises of the raw statistics, financial status, cost, and commission stats while the idea of soft measures includes self-perception and appraisals (Chow et al., 1994).

Simply logistic means the physical flow of materials and goods within the two major ends of the supply chain (Christopher, 1992). Most of the logistic uncertainties are associated with transportation facilities. When considering about the key factors that contribute to the logistic performance, number of factors can be identified. Some say customer service is a key factor in logistic performance. And cost of transportation is also another important key factor and pay special attention on the service and quality linkage which are essential in the logistic performance. (Christopher, 1992). And some authors have suggested that the success of the logistic performance is underlying the success of the logistic service providers. (Wilding & Juriado, 2004) Some have expressed that the primary variable of the logistic performance is on time delivery. And other attributes included in the logistic performance are quality of service, security, dependability, and costs (Forslund, 2012).

Ellegaard (2008) observed that this logistic uncertainty can be broadly divided as the potential distraction that could be affected on flow of materials and goods, information and money. Basically, logistic uncertainty is any negative impact

that can have on the contemporary transportation activities. Within the supply chain network uncertainties can appear at any point when consider about the logistic operation. For an example sometimes the most reliable supplier may deliver goods late than on the regular time. And also, the machines may break down at any point of the production. It may be newly purchased one, but those kinds of uncertainties may occur. And at the same time, the whole production process may get postponed or freeze if the organization may run out of the raw materials. These problems may occur due to the problems may exists in the transportation network of the organization. So, the late delivery of the raw materials may be the resulted outcome of these inefficiencies. Another way of causing uncertainties in the logistic are the poor performance and the supply of the poor-quality materials of the supplier. This may lead to replace the suppliers more often within the organization. This frequent replacement of the suppliers may lead to the uncertainties within the logistic network of the organization (Li & Schulze, 2011).

The variables under the logistic uncertainty can be identified as delays, transportation network, storage, carrier strength and freight (Rodrigues et al. 2008). According to propose schema of Shang & Marlow (2007) presented how transportation and logistics capabilities link in order to derive the supply chain strategy and organizational performance. At the same time Wisner (2003) stated that there is a positive link between the logistic strategy and organizational performances. Logistic quality and the organizational performance of retail sector were assessed by Klei & Morschett (2006). Furthermore Lai & Cheng (2003) discussed how it is important that a firm focus on transportation services as it links directly with the customers, suppliers, and other parties within the supply chain. Moreover Wang et al. (2014) focuses on how logistics uncertainty and risk impact the Australian courier company performances. They expressed that there is a significant impact of supply chain uncertainty and risk on the logistics performance. In here they refer logistic performance of the courier company as the Organizational performance and supply chain uncertainty as Logistic uncertainties.

Information uncertainty and risk

The greater the organization network is with its information there is a greater possibility of failing the system anywhere anytime (Chopra & Meindl, 2016). This error occurs mainly within the organizations in sharing important information within the organizations. They can be occurred in relating to the capital to borrow proper and appropriate timely information for the parcel pickup from the customer and dropping it off at the preferred destination. These uncertainties relating to the information cause troubles within the timely information and timely delivery of goods and services to the particular destination. The accurate information relating to the supply chain may help the organization to function well within the organization tasks. Industries like courier

services, they require accurate information in order to provide a timely service to their customers (Sehran & Siddiqui, 2019). In here most of the Information uncertainties can be occurred due to lack of availability of information regarding finished goods inventory, material inventory, WIP, pipeline inventory, actual demand and forecast, production plans, capacity, yields and order status within the supply chain. And at the same time these information uncertainties can be occurred due to the inaccuracy forecasts in the demand information (Christopher & Lee, 2004). There are three common external factors that can be identified.

1. Controllable external factors- this refer to the factors that are most likely controlled by the supplier company. Like selecting the next tier supplier.

2. External partially controllable factors- they refer to the factors that are emerged and can be partly controllable by the supplier company. Examples like the customer demand. Because customer demand is not fully controllable factor to the organization.

3. External uncontrollable factors- these are the factors that are not controllable to the supplier company. Most of the time natural disasters are fall into this category. Like tsunami, earth quacks.

These several types of external risk factors help managers to take decisions regarding the production and other decisions (Wu et al., 2006). Under the information uncertainties, most of the factors are related to the external environmental factors. So, the external uncertainties are more related with these information uncertainties. External uncertainties simply can be identified as uncertainties that come from the factors that are outside of the companies control area. As examples for that, the regulations that government imposed on the society, competitor behaviors, macroeconomic issues, disasters. Having no clear communication of the uncertainties derive from these factors may lead to the information related uncertainties (Simangunsong et al., 2011).

In basic terms, information uncertainty is known as the unexpected outcomes relating to the information accuracy and timeliness. Information availability confirms the smooth functioning of the supply chain. Information delays, unavailability of information, information infrastructure, and information and communication issues are considered as major sources in information uncertainty and risk (Guo et al., 2006).

Information uncertainty and risks may cause internal uncertainties such as internal demand uncertainties. This may cause the overreaction on some demand information. Incorrect demand information cause disruptions within the organization. So, information uncertainties may affect significantly on the organizational performance (Power & Boonyathan, 2007).

Customer related uncertainty and risk

In any organization customers are considered as the main asset of their organization. In order to improve the good will of the organization they should satisfy their customers in a correct manner. The result will be the satisfied customer who will retain within the company (Sehran & Siddiqui, 2019). Even though the customers are the focal point of the company some customers seem to appear as the threat or danger to the company. Those kinds of customers may impact as a huge risk to the company. The risks may appear between the customers and the company may be interrelated with the customers and the organizational operations. So, the company should have a major responsibility in providing quality goods which customers are expect, from the point of origin to the point of destination or to the end customer. In here two types of customers that can be identified. Consigners and consignees are those two. In the case of the reverse logistic parting away of these two types of customers are not essential in the situation of rising probability (Coyle et al. 2008). These kinds of network uncertainties are called customer related uncertainties (Jüttner et al., 2003).

Under the customer related uncertainty and risk, there may be mismatches between company's expected demand and the actual customer demand. It is known as the forecast risk. The main impact in here is that, if the forecasts are too low there may be no products to sell, and if the forecasts are too high there may be excess products in the market so it affects the price level and it will be declined. Forecasts errors may cause due to the long lead time, seasonal demand, high product variety and short product life cycle. This error may increase when the few customers make larger amount of purchases. Apart from that these reasons, information distortion can also have a great impact on the forecast errors in an organization, under the information distortions, promotion and incentives. They lead for the forward buying and buying in bathes, they cause for the higher fluctuations in the forecasted demand. The available knowledge has loosed in such situations (Chopra & Meindl, 2016).

According to Wang (2018), the uncertainty and risk occur between the service provider and end customer. There is no clear identification of the terms relating to the customer related uncertainty, but in here they consider it as major supply chain uncertainty and risk source. Unanticipated customer, reputation, forecast error, delays to customer, receivable risks are considered as major sources in the customer related uncertainty and risk (Manuj & Mentzer; 2008, Sodhi & Chopra; 2004).

Environmental uncertainty and risk

Business functions occur in the contemporary environment related to the political, social and economic aspects in the environment. In order to maintain business functions or in order to survive in the market any business should consider

about these factors.   In here the probability of the risk occurrence between the organization and the external environment may be considered. In the previous studies this was considered as one of the critical factor. This means if the environmental uncertainty is overlooked or ignored it may cause numerous impacts on the organizations performances (Jüttner et al., 2003). These kinds of risks and uncertainties are hard to predict, like if an accident occurs it may cause the traffics and sometimes have direct or indirect impact on the transportation, which causes for the late deliveries. So, this means that the environmental uncertainty and risk is one of the major factors that should consider in planning and decision making due to have a major impact on the organizational performances. Some external factors that impact on the organizational performances are the political factors. They can be identified as the laws related to import, competitors and fluctuations with respect to price create complexities in the smooth running of the operations of the supply chain (Edmund, 2005). All these external factors are essential to consider. Because they appear as the major risk factors that can be exist in the external environment that have a huge impact on the organizational effective performance. If adding more to it, the other uncertainties and risk includes the occurrence of the natural calamities, issue of terrorism and diseases problems can also be identified as major factors. Because these factors also may create issues in the smooth operation of the supply chain that may cause delays and may cause major losses in the operations in the organization. In a study related to the political risk, political unrest and terrorism have the essential role in disturbing the supply chain management (Olson & Wu, 2011). Environmental uncertainty is a common problem face by most of the executives (Elbanna & Gherib, 2012). In the area of management researchers' researches have focused their main attention on using environmental uncertainty as a major dimension (Galbraith, 1973).

This defines as the information that one has and the information that required to perform a particular task. This uncertainty and risk occur between the external environment and supply chain network. It is very important to keep in mind that these environmental uncertainties and risks are unavoidable due to these uncertainties and risks occur in the external environment (Simangunsongy et al., 2011).   In 1967, Lawrence & Lorsch (1967) introduced the perceived environmental uncertainty scale and after that many researchers tend to address this as a central concept within organizational theory. Environmental uncertainty has different implications on the managerial practices and organizational out comes in any organization. Due to the lesser number of studies, no direct link has so far been established between environmental uncertainty as independent variables and organizational performance as a dependent variable. In the context of literature under these types of management researches, organizations facing high uncertainty in the environment will tend to be more market oriented to ease the significant negative influence on performance (Raju & Lonial, 2001). Managers high concern on environmental uncertainty may reduce their ability to plan the organizational work so that, it will negatively impact on

organizational performances. In addition to that organizational performance is based on the resources and external environment. (Michael & Shepherd, 2016). If external environment is fit with the organization, organization will have superior performances (Michael & Shepherd, 2016).

In here sources of uncertainty can be identified primarily by considering various models that have been designed by previous authors. For the purpose of the research study, as the main sources that have an impact on the organizational perceived performance in the area of supply chain uncertainty and risk, the above four sources have been selected. So, the rest of the study has been conducted by considering these four supply-chain uncertainty and risk sources. According to the research study, it mainly focuses on supply chain uncertainty in the fast food industry in Sri Lanka

Empirical Review

When consider current empirical researches under the topic that this research is conducting, several scholars have done several researchers in Sri Lanka and in other countries. In Australia, Wang et al. (2014) has presented a measurement model for the supply chain uncertainty and risk in accordance with the Australian courier industry by identifying the major sources of the uncertainty and risks in the supply chain process. Bavarsad et al., (2014) found that Supply chain risk has a significant impact on the organizational performance Chaudhuri et al., (2011) talked about the supply chain uncertainty and what kind of uncertainties and how the impact on the food processing industry and how the food processing companies are coping with these supply chain uncertainties. When considering about the fast food industry related researches in Sri Lanka, Devendra & Kennedy (2015) did an investigation on the consumer attitudes towards the fast food consumption in Colombo divisional secretariat division. Wang (2018) did an investigation the supply chain uncertainty and risk on the logistic performance. In here also he talked about how supply chain uncertainty and risk impact on the Australian courier industry. They created a model to identify various risks that's are associated with the food supply chain, with the help of Interpretive Structural Modeling (ISM) tool.

Hypothesis Development

H_1: There is a significant impact of supply chain uncertainty and risk on Perceived organizational performance

Supply chain uncertainties have a major impact on supply chain performances and even in the manufacturing process of any organization. Because these supply chain uncertainties ultimately lead to no value addiction to the overall organization (Patil et al., 2012). In a research done by Bavarsad et al., (2014), they

have found out that Supply chain risk has a significant impact on the organizational performance.

H2: There is a significant impact of Logistic uncertainty and risk on Perceived organizational performance

According to proposed schema of (Shang & Marlow, 2007) they presented how transportation and logistics capabilities link in order to derive the supply chain strategy and organizational performance. At the same time, (Wisner, 2003) stated that there is a significant positive link between logistic strategy and organizational performances. Logistic quality and the organizational performance of retail sector were assessed by (Klei & Morschett, 2006). Discussed that how it is important of a firm to focus on the transportation services as it links directly with the customers, suppliers, and other parties within the supply chain. (Lai & Cheng, 2003). According to Wang et al., (2014) focuses on how logistics uncertainty and risk impact the Australian courier company performances. They expressed that there is a significant impact of supply chain uncertainty and risk on the logistics performance. In here they refer logistic performance of the courier company as the Organizational performance and supply chain uncertainty as Logistic uncertainties

H3: There is a significant impact of Information uncertainty and risk on Perceived organizational performance

In basic terms, information uncertainty is known as the unexpected outcomes relating to information accuracy and timeliness. Information availability confirms the smooth functioning of the supply chain. Information uncertainty and risks may cause internal uncertainties, such as internal demand uncertainties. This may cause the overreaction on some demand information. Incorrect demand information causes disruptions within the organization. Thus, information uncertainties may affect significantly on the organizational performance (Power & Boonyathan, 2007)

H4: There is a significant impact Customer related uncertainty on Perceived organizational performance

Wang et al., (2014) argued that the uncertainty and risk occur between the service provider and end customer. There is no clear identification of the terms relating to the customer related uncertainty, but in here they consider it as a major supply chain uncertainty and risk source which impact significantly on the organizational performance.

H5: There is a significant impact of Environmental uncertainty on Perceived organizational performance

This uncertainty and risk occur between the external environment and supply chain network. It is very important to keep in mind that these environmental uncertainties and risks are unavoidable as these uncertainties and risks occur in the external environment (Simangunsongy et al., 2011). In 1967 Lawrence & Lorsch introduced the perceived environmental uncertainty scale and after that many researchers tend to address this as a central concept within organizational theory. In the context of literature under these types of management researches, organizations facing high uncertainty in the environment will tend to be more market oriented to ease the significant negative influence on performance (Raju & Lonial, 2001). Managers' high concern on environmental uncertainty may reduce their ability to plan the organizational work so that, it will negatively impact on organizational performances. In addition to that organizational performance is based on the resources and external environment. (Michael & Shepherd, 2016). If external environment is in accordance with the organization, organization will have superior performances (Michael & Shepherd, 2016).

Methodology

In the study the main Independent variable is Supply chain uncertainty and risk. Under that, there are four major dimensions that can be identified. Those are: Logistic uncertainty and risk, Customer related uncertainty and risk, Information uncertainty and risk and Environmental uncertainty and risk. The main Dependent variable is Perceived organizational performance. Under that two major dimensions can be identified as, Perceived operational performance and Perceived Financial performance. Figure 1 represents the conceptual model of the study.
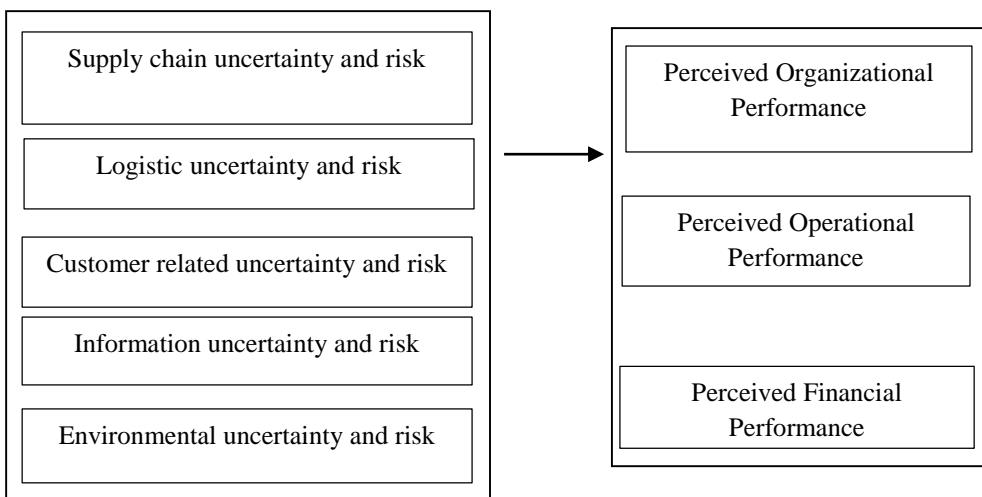

Figure 1: Conceptual framework

The research study tends to flow from generic to specific. Which means that the research started from the theory, moved on to the research questions and then to the hypotheses which were tested through data collection afterwards. So the study comes under the deductive approach. Research study was conducted under the deductive approach, through a survey method. Deductive approach was the base for this strategy as it enables collecting large volume of data to conduct the analyses (Dewasiri et al., 2018). Hence the study focuses on the perceived performance qualitative data which are used in the study. These qualitative data are collected from the employees working in the fast food outlets. Research was conducted based on the mono method due to the reason of using only qualitative data. Time horizon would be a cross sectional one, because the data was collected only one time during the study period. As two types of researches can be identified in the subject which are basic researches and applied researches, this research comes under the basic research field. Among two research approaches in the research methodology which are quantitative and qualitative, this research mainly focused on the quantitative approach because individual outlets would be used to get the accurate information. Primary data collection: primary data are known as the first-hand data. In order to collect these data interviews and questionnaire were used. In order to get the quantitative information, questionnaires and short interviews were implemented. Secondary data collection: Secondary data were collected through previous researches, articles, reports, books and internet websites.

The objective of the research is to identify the impact of the supply chain uncertainty and risk on the perceived organizational performance within the Anuradhapura district, where the research population was taken from the fast food outlets in Anuradhapura district. According to the Public Health Inspector (Kumarasinghe, 2019) in Anuradhapura district, there are nearly 800 fast food outlets. Between two major sampling methods, the researcher has used the Non-probability sampling method to conduct the study. It was quite difficult to count an exact number of the employees working in all the outlets due to some workers are working on a daily basis while some are working as permanent workers. The numbers of the workers are changing day by day. Because of that, counting an exact number of the employees who are working in the industry was so difficult in order to select a sample size for the study. By base on that reason, the researcher has selected a sample size for the study as 110 employees who were working in different outlets which are situated around the Anuradhapura district, and they were selected to do the survey. In here the researcher has applied the Judgmental sampling method. Because of that the researcher had the authority to select the employees from each shop. Judgmental sampling uses when the study based on the professional judgment of the researcher. This method is often uses when the population of interest is very small or desired characteristics of units are very rare. Due to the above reasons the researcher has used judgmental sampling method to conduct the study.

Development of the instruments

In here researcher has used nominal scale to measure the demographic factor. And the measurement of dimensions in the independent and dependent variables are included in the Operationalization table. Methods of scaling means assigning numbers or symbols to elicit the attitudinal responses of subjects towards objectives, events or persons (Sekaran, 2003). Basically, these rating and ranking scale are under the attitudinal scale. In here researcher used rating scale as attitudinal scale. Dichotomous scale, Likert scale and Numerical scale are normally used in researches. Among them researcher has used Likert scale which is a tool of itemized scale, using five- points for the respective questionnaire. Likert scale was designed to examine how respondents agree with the relevant statement in the questionnaire. In here numerical values were assigned to each potential preference as a value of 1 representing "Strongly disagree", 2 representing "Disagree", 3 representing "Moderate", 4 representing "Agree" and finally 5 representing "Strongly agree".

Table 1: Definition of Variables

Variable	Definition	Source
supply chain uncertainty and risk	"Supply chain uncertainty and risk is defined as the impacts, consequences, unexpected outcome and/or problems, they were caused by incidents, disaster and/or errors may harm the logistics performance of logistics and transport service providers."	(Wang et al., 2014),.
logistic uncertainty and risk	"Logistics uncertainty and risk is defined as weakness, faulty, error, loss and /or unexpected outcome may influence normal logistics-related activities / processes in transport service providers."	(Wang et al., 2014),.
Information uncertainty and risk	"Information-related unexpected incidents; outcome and / or problems may influence information in time, accuracy and availability in logistics and transport service providers"	(Wang et al., 2014),.
Customer related uncertainty and risk	"Customer-related uncertainty and risk is a part of supply chain uncertainty and risk, which mainly originate from customer side rather than companies, may cause disputes and / or influence the normal logistics operations in logistics service providers".	(Wang et al., 2014),.

Environmental uncertainty and risk	"Uncertainty and risk can arise due to the interactions between the supply chain network and its external environment / events."	(Wang et al., 2014),.
Perceived organizational performance	"Employee perceptions regarding their organization's overall performance and perceived organizational performance."	(Carmeli, Gilat, & Waldman, 2007)
Perceived Operational performance	"Firm's performance measured against standard or prescribed indicators of effectiveness, efficiency, and environmental responsibility such as, cycle time, productivity, waste reduction, and regulatory compliance."	(Voss, Åhlström, & Blackmon, 1997) (Carmeli, Gilat, & Waldman, 2007)
Perceived financial performance	"The perceived financial performance refers to the economic status of a firm such as profitability, sales growth and return on assets."	(Carmeli, Gilat, & Waldman, 2007) (Palagolla & Wickramasinghe, 2016)

Validity

According to Sekaran (2003), validity has the ability of determining how well something measures concept or object which is intended to measure. Under the validity, there are two major groups can be identified. They are, internal validity and the external validity. Under the internal validity, it shows how well the study has constructed. And the external validity reflects how well the study is applicable to the real world. Under the External validity measures, there are several measures can be identified. They are Content validity, Criterion related validity and Construct validity. Content validity use to measure extent to which items are relevant to the content being measured in the study. Criterion related validity measures that how well one measure forecasts an outcome for another measure. Construct validity measures how well a test measures what it is meant to measure. Which means it examines how findings that have acquired fit the theories based on which the study has constructs. This is done by using Convergent and Discriminant validity. Convergent validity measures the findings from two measures that are supposed to be measuring the same construct and shows that they are related. Conversely, discriminant validity shows that two measures that are not supposed to be related are in fact, unrelated. In this study, researcher acquired the validity of the survey questionnaire. Before the commencement of the research survey, the respective questionnaire was evaluated with the expertise in the field. For the purpose of proving the validity of the questionnaire as well as the construct validity of the study, the survey was implemented prior to finalizing the findings of the study

Reliability

Table 2: Reliability of Independent and Dependent variables

Variable	Number of the items	Cronbanch's Alpha	Acceptance
Logistic uncertainty and risk	5	0.892	Accepted
Information uncertainty and risk	4	0.839	Accepted
Customer related uncertainty and risk	5	0.850	Accepted
Environmental uncertainty and risk	3	0.871	Accepted
Supply chain uncertainty and risk	4	0.713	Accepted
Perceived Organizational Performance	2	0.748	Accepted

In order to test the consistency of the questions in the construct, The Cronbanch's alpha was used. Because the Cronbanch's alpha is considered as the most common element to measure the internal consistency. Normally it should be at least 0.7 according to Sekaran (2003). Table 2 shows the Cronbach's alpha of all these constructs indicated that all constructs were highly reliable because all constructs were higher than 0.7. So, all the constructs can be accepted.

Findings and Discussion

All the data that have collected through the survey questionnaire has analyzed by using the Statistical Package for Social Sciences (SPSS). To express the demographic results of the demographic factors of the respondents' researcher has used tables, Graphs and frequency as descriptive analysis. And also, in order to analyze the internal consistency of the collected data, the researcher has used Conbranch alpha value. Further the researcher has used inferential statistics for Hypothesis testing and Model Fit testing. Under this section the data that were collected from the survey questionnaire out of one hundred and ten workers who are working in the fast food outlets within the Anuradhapura District were considered. Within the questionnaire the first four questions were relevant to the demographic factors of the respondents. These demographic factors were separated from the Hypothesis testing. The analysis procedure, was done by using the SPSS 21.0. The main of the chapter is to give a statistical analysis regarding the findings that were collected. Regression analysis has been used to test the hypothesis. These analyses were used to investigate how each

independent variable impact on the dependent variable. There were five hypotheses in the study.

Table 3: Regression Analysis

Model	Un standardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	3.915	.623		6.287	.000
Supply Chain Uncertainty and Risk	-.105	.163	-.062	-.647	.519

H₁: There is an impact of the Supply chain uncertainty and risk on the perceived organizational performance

Supply chain uncertainty and risk is the main independent variable in the research study. In here, the significance value between the Supply chain uncertainty and risk and the perceived organizational performance is 0.077. It is higher than the 0.05, which means that the impact that the Supply chain uncertainty and risk have on the perceived organizational performance has no significance. And the t value which is -.647 is lower than the significance value. In order to accept the hypothesis, the significance value should be lower than the 0.05 value. In here the Beta value is negative (-.062) which means that there is a negative impact on the perceived organizational performance by the Supply Chain Uncertainty and risk. According to the above results the alternative hypothesis cannot be accepted under the 95% significance.

Table 4: Model summary for regression analysis

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.062ᵃ	.004	-.005	.433

a. Predictors: (Constant), Supply Chain Uncertainty and Risk

In the table 4 the R square value is 0.004. This means that 0.4% of the variance for the Perceived organizational performance is explained by the model. It means that if the Perceived organizational performance changes by 100%, out of that 100, 0.4% changes because of the Supply chain uncertainty and risk. In here the adjusted R square value is a negative one. It   means the impact of the supply chain uncertainty and risk is very less significant on the Perceived organizational performance. This means that there was a low degree of fit with the regression model.

Table 5: Multiple Regression

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	4.209	.632		6.655	.000
Logistic Uncertainty and Risk	.061	.161	.046	.376	.708
Information Uncertainty and Risk	.349	.223	.279	1.567	.120
Customer Related Uncertainty and Risk	-.393	.232	-.297	-1.696	.093
Environmental Uncertainty and Risk	-.192	.108	-.174	-1.786	.077

According to the above table, it shows the significant values and the t values between each dimension and the dependent variable.

H_2: There is a significant impact of Logistic uncertainty and risk on the Perceived organizational performance

In the Logistic uncertainty and risk dimension, the significant value between the Logistic uncertainty and risk and perceived organizational performance is 0.708. It is higher than the 0.05 which means that the impact that dimension has on the Perceived organizational performance is not significant. If it is to be significant the value should less than 0.05. And the t value which is 0.376 is lower than the significant value. In order to accept the hypothesis, the significance value should be lower than the 0.05 value. In here the Beta value is positive (0.046) which means that there is a positive impact on the perceived organizational performance by the Logistic Uncertainty and risk. According to the above results the alternative hypothesis cannot be accepted under the 95% significance level.

H_3: There is a significant impact of Information uncertainty on the Perceived organizational performance

In this dimension, the significant value between the Information uncertainty and risk and perceived organizational performance is 0.120. It is higher than the 0.05, which means that the impact that the information uncertainty and risk have on the perceived organizational performance has no significance. And the t value which is 1.567 is greater than the significant value. In order to accept the hypothesis, the significance value should be lower than the 0.05 value. In here the Beta value is positive (0.279) which means that there is a positive impact on the perceived organizational performance by the Information Uncertainty and risk. According to the

above results the alternative hypothesis cannot be accepted under the 95% significance level.

H₄: There is a significant impact of the Customer related uncertainty and risk on the perceived organizational performance

In this dimension, the significant value between the Customer related uncertainty and risk and perceived organizational performance is 0.093. It is higher than the 0.05, which means that the impact that the customer related uncertainty and risk have on the perceived organizational performance has no significance. And the t value which is -1.696, is lower than the significant value. In order to accept the hypothesis, the significant value should be lower than the 0.05 value. In here the Beta value is negative (-.297) which means that there is a negative impact on the perceived organizational performance by the customer related Uncertainty and risk. According to the above results the alternative hypothesis cannot be accepted under the 95% significance level.

H₅: There is a significant impact of the Environmental uncertainty and risk on the perceived organizational performance

In this dimension, the significant value between the Environmental uncertainty and risk and perceived organizational performance 0.077. It is higher than 0.05, which means that the impact that the Environmental uncertainty and risk has on the perceived organizational performance has no significance. And the t value which is -1.786 is lower than the significant value. In order to accept the hypothesis, the significant value should be lower than the 0.05 value. In here the Beta value is negative (-.174) which means that there is a negative impact on the perceived organizational performance by the environmental Uncertainty and risk. According to the above results the alternative hypothesis cannot be accepted under the 95% significance

Table 6: Model summary for regression analysis (Multiple regressions)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.228ᵃ	.052	.016	.429

a. Predictors: (Constant), Environmental Uncertainty and Risk, Customer Related Uncertainty and Risk, Logistic Uncertainty and Risk, Information Uncertainty and Risk

The model summary includes the necessary information regarding how well regression model fit or did not fit with the data that were observed. R square assumed that independent variable in the model helped to derive and describe the variations in the dependent variable. In table 9 the R square value is 0.052. It indicates that 5.2% of

the variance for the Perceived organizational performance is explained by the model. It means that if perceived organizational performance changes by 100%, out of that, 5.2% changes because of the above four dimensions which are shown in the table. In here the adjusted R square value is 0.016. This means that there was a low degree of fit with the regression model.

Discussion of Findings

According to previous studies, researchers have concluded that the logistic uncertainty and risk has a significant impact on the organizational performance (Patil et al., 2012). After a comprehensive analysis the researcher has identified the impact that logistic uncertainty and risk has on the Perceived organizational performance is insignificant. According to (Wagner & Bode, 2008) they have concluded that Infrastructure uncertainty has an insignificant impact on the performance. In here they refer infrastructure uncertainty as the logistic uncertainty. According to Acar, et al. (2010), some indicators under the logistic uncertainty, such as lead time uncertainty which was implied as delayed by the researcher, has no significant impact on some areas of the performance namely Production cost and Customer service.

Previous researches have concluded that there is a significant impact of Information uncertainty on the organizational performance (Boonyathan & Power, 2006). But the research study derived the result as; there is no significant impact of the information uncertainty on the perceived organizational performance. According to Zhang et al., (2012), they explained that there is no significant correlation between perceived uncertainty of task environment and frequencies of the other scanning activities. They refer task environment uncertainties to data processing, evaluating and sharing uncertainties. A frequency of environmental scanning is implied as part of organization's performance. According to Forslund & Jonsson (2007), it is argued that information quality (under the dimensions, such as in time, accurate, convenient to access) have no significant impact on the supply chain performances as long as the organizations have forecasted demand information of the customers.

Even though the previous researches have concluded that the Customer related uncertainty and risk has a significant impact on the Organizational performance (Wang et al., 2014). The researcher has found out that it has no significant impact on the organizational performance. In support to that the above, according to, they have found out that Demand uncertainty has a less impact on the organizational performance in the service base organizations. According to Acar, et al. (2010) Demand uncertainty has no significant impact on some areas of the organizational performances (Production cost etc).

Previous research has expressed that Environmental uncertainty and risk have a significant impact on the organizational performance (Raju & Lonial, 2001). But researcher has concluded that there is no significant impact on the Perceived organizational performance. According to Elbanna & Alhawarai (2012), it is found that there is no significant impact by environmental uncertainty on the organizational performance. This was done by engaging with Egyptian and United Arab Emirates

(UAE) managers. Sung (2017) conclude that according to his study perceived environmental uncertainty has no effect on Operational performance.

Previous researchers have concluded that Supply chain uncertainty and risk have significant impact on the Organizational performance (Wang, 2018). As findings of the researcher, it shows that there is no such significant impact on the Organizational performance. But according to Halim (2015), some factors in the supply chain complexity do not significantly impact to the organizational performance. Ex: Network dimension. In here he refers supply chain complexity to high number and variety of elements including firms, products, processes – and a high degree of interaction between these elements, which leads to unpredictable behaviors in the system.

Conclusion of the Study

Based on the above empirical findings, it can be concluded that in the Sri Lankan context, Supply chain uncertainty and risk has no significant impact on the Perceived Organizational Performance. According to the investigation, other sources such as, Logistic uncertainty and risk, Information uncertainty and risk, Customer related uncertainty and risk and Environmental uncertainty and risk also have not impacted on the Perceived Organizational Performance. Under the logistic uncertainty, factors such as, Delays, Transportation network, Storage, Inadequate operational strength, Breakdown of equipment's have no significant impact on the Perceived organizational performance. Changes in the above factors do not impact on changing the Perceived organizational performance to a considerable amount.

Within the Information uncertainty and risk, factors such as, Information delays, Unavailability of information, Information infrastructure, and Information Communication issues have no significant impact on the Perceived organizational performance. Unanticipated customers, Reputation, forecast error, Delays to customer, Customers changing preference are the main factors under the Customer related uncertainty and risk. According to the findings of the research it shows that these factors do not impact significantly on the Perceived organizational performance. Under the environmental uncertainty three factors were identified. They were, Labor shortage, Increasing fuel price, Natural disasters. According to the findings, it seems that these factors do not impact significantly on the Perceived organizational performance.

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