Evolution of Critical Success Factors in the Clothing and Textile Industry in Mauritius

By Chan Sun C.A, Chittoo H. & Sukon K.S.

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A mixed method methodology was used using quantitative and qualitative methods. The findings shows the evolution of the Critical Success Factors in the order of importance with Cost effectiveness and Human and physical resources preceding Supportive environment and Capital investment after more than 40 years of existence.

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GJMBR - A Classification : JEL Code : L67

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Evolution of Critical Success Factors in the Clothing and Textile Industry in Mauritius

Chan Sun C.A \textsuperscript{a}, Chittoo H. \textsuperscript{o} & Sukon K.S. \textsuperscript{p}

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As no research work has been conducted on the subject, this study provides an understanding and the need to focus on the right strategy to maintain competitive advantage as a world class player in the Clothing and Textile industry worldwide.

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I. Introduction

In the 1960's, the government of Mauritius decided to embark into diversifying its mono-crop economy into a larger export oriented namely the Clothing and Textile industry (C&T) in view of creating employment in the country. This diversification was achieved in 1970 with the enactment of the Export Processing Zone (EPZ) Act and the creation of the first Export Processing Zone in 1971. The act has as main objectives to provide investment, exogenous factors and preferential trade arrangements which facilitated the transition. With the EPZ Act in force, the government has provided a conducive environment by taking a policy decisions at that time to sustain export growth through, five successive stand-by arrangements and two structural adjustment programs between 1980 and 1986: the establishment of key support institutions like the Mauritius Export Development and Investment Authority for promoting export and devaluing the rupee to make exports more competitive internationally. Besides, Robecka, Rosuneeb and Pattisonc, (2012) explain how EPZ in Mauritius was based on manufacturing for exports only and how the conditions offered were determinant for its success. These factors were the non-payment of taxes for the first 10 years and then 15% on dividends, no custom duties, duty free imports of raw materials and equipment, no customs controls and access to infrastructure such as factories and buildings built by the Mauritius government and developed by the Bank of Mauritius against rent only. Subramanian & Roy (2001) also explained how foreign firms were encouraged to set up in the EPZ to take advantage of various benefits such as cheap, well-educated Mauritian labour among others including the provision of state owned infrastructure. These physical infrastructure according to Aggarwal (2005) are important for EPZ worldwide as one of the basic elements critical for any export activity which include transport system such as port, airport, water, electricity and communication facilities. Milberg (2007) also put forward the benefits of the EPZ as being free profit repatriation, streamlined administrative services, especially to facilitate import and export, and provide free enhanced physical infrastructure for production, transport and logistics. This is also confirmed by Stein (2008) who describes the infrastructure of the EPZs as being well developed and often subsidized in his strategic paper on the importance of industrial policy related interventions in the management of developmentally successful industrial zones.

Joomun (2006) explained that the success of the Clothing and Textile sector in Mauritius is also
attributed to exogenous factors which have greatly contributed to the success of the EPZ sector during that period. Three factors have contributed positively to the Mauritian economy, in particular the Clothing and Textile sector. These are the Multi-Fibre Agreement signed in 1982 which provided duty free and quota free access to many countries in the European market and attracted Hong Kong investors to set up their firms in Mauritius, a combination of lower and falling oil prices together with a lower debt servicing arising due to the depreciation of the overvalued US dollar in 1984 and a fall in Taiwanese competitiveness affected global competitiveness and provided the EPZ in Mauritius a competitive edge on the world market. However, Robecka, Rosunee and Pattisonc (2012) also explained that the future of the Mauritian textile and apparel industry is dependent on a number of factors namely labor and productivity, marketing strategies, trade agreements, and agility.

After 1984, prevailing monetary factors such as the appreciation of the European currencies in relation to the Mauritian rupee resulted into making Mauritian export products more competitive. Also, during the 1990s, political uncertainty over the future of Hong Kong’s reintegration into China encouraged many investors to relocate to Mauritius bringing capital, marketing networks and technological know-how (Lim Fat, 2010). Furthermore, Preferential Trade Arrangements placed Mauritius to be a preferred investment destination for clothing and textile business due to the favourable terms of trade combined with ready markets. Both domestic and foreign investors exploited preferential market access through preferential trade agreements mainly in the EU under the Lomé Convention and in the US through the GSP (now under AGOA) for redistribution and investment in human and physical capital (Subramanian, 2009).

b) Challenges facing the Mauritian EPZ

The Clothing and Textile industry in Mauritius experienced a rapid growth in the 1980s up to the year 2000. An analysis of the statistics over the past decade shows that the industry started to face difficulties and start to show downfall trends. All economic indicators with respect to employment, enterprise creation, contribution to the national wealth, growth of the industry and foreign direct investment showed negative trends. The Clothing and Textile sector has created a lot of employment since its creation in the 1970s for the simple reason that unemployment was high and that the country had a pool of unskilled but yet educated labour provided an adaptable workforce for Clothing and Textile sector. However, over the years, this workforce has gradually become more expensive and with further diversification of other sectors of the economy, the Clothing and Textile sector started to suffer from shortages of labour while being at its peak in 1999. Romer (1992) explained as wage costs have raised in Mauritius, firms have economized on their use of inputs and improved their efficiency in order to sustain growth. Cypher & Dietz (1997) and Hogendorn (1996) explained how growth theorists emphasized on the role of international trade as an “engine of growth”. Ancharaz (2009) finds that access to finance is a problem for most firms but even more among smaller firms which are locally owned and relatively young. It was found that this category of firms faces greater difficulty in obtaining loans for investment purposes or for working capital. According to her, access to credit is therefore essential for the development and growth of firms in Mauritius.

Besides, Bellone, Muss, Nesta, and Schiavo (2010) argued that financial constraints can also act as a barrier for companies to export as in so doing they can enjoy from a better financial health are thus most likely to become exporters. This was confirmed by Kasseeah, Ancharaz & Tandrayen (2013) who conducted a study among 20 firms showing that finance was viewed as the main constraint in doing business most specifically access to finance matters which is required for the financing of working capital. In fact, Lall and Wignaraja (1998) already highlighted several major obstacles that enterprises started to face during that period. Many factors identified such as high interest rates; heavy bureaucratic procedures resulting in delays in obtaining foreign investment approvals; difficulty getting loans approved by the Development Bank of Mauritius, delays in receiving refunds on import duties; difficulty obtaining work permits for foreign technical staff; lack of access to finance for small enterprises; and high sea freight costs were stumbling blocks for further development of the sector.

The University of Cape Town (2001) also highlighted that one of the limitations of Mauritius was due to the few shipping lines serving exports and infrequent sailings as Mauritius does not lie on the main sea routes and maritime transport costs are higher than for countries competing in similar markets. Similarly, MEXA (2013) stressed on the importance of our logistic system and announced during its annual report 2013 that various initiatives were undertaken by the Port authorities to ensure that our port remains the most competitive one of the region as our competitiveness relies on it. The organisation also added that together with Enterprise Mauritius they are already in negotiation with at least 2 companies which may offer us this direct service which will reduce the lead time from 40 to 14 days. As a result this will not only help the export manufacturing sector but also hopefully boost the Freeport activities and regional trade. It was further mentioned that the Mauritian government has taken a bold initiative by providing a 25% subsidy on the freight cost on containers exporting directly to the East African ports.
The above challenges have also caused many factories started to relocate themselves to Madagascar, where labour is cheaper, others started to have recourse to foreign workers from China, India and other Far East Asian countries as they were considered to be more productive and more available as they worked longer hours and were paid the same as local workers. Almost unique in the world, Mauritius reach full employment and the EPZ faced labor shortage. The University of Cape Town (2001) in its paper of restructuring of the Mauritian Clothing Industry in light of New Trade Agreements also refer to the shortage of labour and explain how it will became a binding constraint on future industrial growth. They also pointed out that faced with this shortage of labour, some companies were already importing labour. Lincoln (2009) relates how the first expatriate workers arriving in Mauritius to work in the EPZ were primarily from Asian countries mainly from China and India. This is a very similar case to the Thai Clothing industry outlined by Kohpaiboon (2009) where he refers to this as the “Lewisian turning point” where excess supply of labour runs out in a country.

In 2004, it was estimated that around 15,000 foreign workers were working in the Clothing and Textile factories of Mauritius. The Clothing and Textile sector has always represented an important proportion of the manufacturing industry in the EPZ sector in Mauritius. The EPZ sector represented almost 50% of the contribution of the manufacturing industry to the national GDP in 1990, 1995 and 2000. In 2004 this contribution has fallen to 41% whilst the overall contribution of the manufacturing industry to the GDP increased consistently. This showed the importance of the Clothing and Textile sector while at the same time demonstrated that the sector was slowly losing ground to other sectors of the economy (David and Petri, 2003). Rosunee (2005) explains how with trade liberalisation, the clothing and textile industry in Mauritius was faced with a number of short and medium-term challenges, both on the local and external fronts. He points out that these challenges relates to the elimination of trade preferences, exchange rate fluctuations, relatively slow pace of restructuring and diversification, increased competition from low-cost manufacturers, rising costs of air and sea freight, and low penetration of new markets. Tang (2011) and Wong (2011) both explain that the Mauritian textile industry intends to be fully immersed in the EU and the US markets, via existing trade agreements such as AGOA, COMESA, COTONOU, SADC and other Economic Partnership Agreements as these tools provide preferential access to large global markets. The same is being developed with South Africa, Madagascar and India. This is confirmed by Zafar (2011) who pointed out that Mauritius has maintained its competitiveness throughout the years because the country has demonstrated a capacity to capitalize on good international relationships.

Zafar (2008) pointed out how the sectors have evolved from lower to intermediary and higher market segment and concluded in his research that quota removal is a most important factor influencing strategic decisions and larger companies have also to undergo a process of restructuring through vertical integration. Peerally and Cantwell (2011) cited Mauritius as an example as a developing sub-Saharan African country and a source of innovative technological capabilities to domestic and foreign subsidiaries which has gone through a their learning strategy as a consequence of their need to continue, thrive and expand after preferential trade agreements. They further added that Mauritian companies are sustaining competitiveness through state of the art technology and vertical integration.

However, the Clothing and Textile sector has also faced many challenges in terms of labour where the HRDC (2006) in its sectoral committee report clearly pointed out how the image of the industry and morale of workers were affected by job insecurity, abrupt closure of factories and workers deprived of any form of compensation in many cases of closures. They further explained that there was a time factor-disparity of working hours between EPZ and non-EPZ which led to high rate of absenteeism, poor social conditions due to disparity in working hours thus limiting participation in social activities. According to the report, the sector is very competitive and this requires a constant need to reduce costs, to improve productivity and to enhance quality require upgrading the level of skills and other characteristics of workers. As a result, local workers have a tendency to join the informal sector where it is easier to earn an income in less stringent work conditions. Moreover long working hours and overtime do not motivate people to join the Manufacturing industries. Abella, Park and Bohning (1996) explained similar situation in Korea and make reference to this situation as “scissors movement” between the volume of national workers willing to fill undesired jobs and the volume of such jobs put on the market by employers. They added that in the case of Korea in the future, the bottom blade of the scissors will point even more downwards than suggested by the heavy trend line. The HRDC (2006) further explained that with the closure of many companies during that period, retrenched workers in this sector did not get the appropriate financial support after job losses moreover, they were either not willing to attend training programmes or were unable to participate in similar empowerment programmes. The HRDC added that age factor was also critical factor especially when we know that this sector always needs to train employees to satisfy the demand of the customers (HRDC, 2006).
foreign direct investment. Since the 1970’s, Mauritius has benefited from a series of positive conditions, which have helped to create a solid Clothing and Textile and industry with significant foreign and local investment. Madani (1999) outlined the goals of the EPZ and explain that one of them is to attract foreign direct investment (FDI) and engender technological transfer, knowledge spill-over and demonstration effects that would act as catalysts for domestic entrepreneurs to engage in production of non-traditional products. The University of Cape Town (2001) explained that Mauritius has not only been able to attract foreign investment but substantial amount of investment came from local entrepreneurs themselves. According to them, this is quite unusual as by contrast to most EPZs around the world, EPZ rely heavily on foreign investment. They further added that this also created opportunities for a large number of joint ventures between local and foreigners. They argued that although foreign investment was extremely important for the initial take-off of the clothing industry yet the measure of success achieved would not have been the possible without the involvement of the local business community. The University of Cape Town also highlights the benefits developed from FDI as real linkages between the activities of foreigners and Mauritians which has been crucial for the acquisition of know-how. This has led to many large Mauritian own companies become industrialists of international caliber (UCT, 2001).

However, with the dismantling of the Multi-Fibre Agreement, the Clothing and Textile sector finds itself in difficulty and many factories were closing down. With no special support for restructuring its sector and under the most disruptive conditions, many workers were laid off. Kilduff and Chi, (2006) explained that the elimination of preferences compelled enterprises to modernize by adopting new technology and to upgrade to higher value added products in order to move into the upper segments of the market to remain competitive. With no more preferential tariffs, buyers from our traditional market in the EU market turned to low cost producers, based in countries such as Bangladesh, India and Pakistan, thus narrowing down market opportunities for Mauritian producers of textile products. Redundancies due to the closing down of factories became recurrent and those laid off did not obtain the sort of support and benefits which enabled their counterparts in the sugar industry to survive their transition to other activities.

In 2007, the government of Mauritius in the collaboration of the UNDP (2007) conducted a study to assess the impact of the Multi-Fibre Agreement on the employment in the textile industry with special reference to strategies for coping with retrenchment. The report made a number of recommendations which paved the way to the repositioning of the industry and the retraining of workers affected by redundancy in order to equip them with the right skills needed to cope with different factory operations. Despite the implementation of a policy to cushion the disruption caused to the industry, redundancies took place on a massive scale. A survey conducted by the Human Resources Development Council (HRDC 2006) on Manpower Planning revealed the difficulty that exists in the EPZ sector namely in some areas like machine operators, machinists and quality controllers, where it is difficult to recruit employees in the EPZ sector. The survey reported that since many years the Export Oriented Enterprises (EOE) sector has been employing foreign labour because domestic job seekers consider EOE employment unattractive, on account of its low pay and high insecurity. The Clothing and Textile sector was at its peak in 1999 employing 80,960 workers and consisted of 285 enterprises. Following the phasing out of the preferences, the number of enterprises and employment declined sharply in 2006 where the sector counted only 226 companies employing 53,583 workers. This has further declined to 149 companies employing 40,161 workers only as at July 2013. (CSO, 2013).

The sector remains one of the main providers of employment still contributing to 4.9% to the GDP. With the dismantling of the Multi-Fibre Agreement (MFA) and the Agreement of Textile and Clothing (ATC) on the 1st of January 2005, Mauritius had to face new challenges and compete with other countries on the world market. Tang (2011) and Wong (2011) both relate how Mauritius immediately felt the impact with the dissolution of the MFA in 2005 and pointed out that with a decrease of 49% in the US exports from 2004 to 2007 companies were becoming involved in alternative strategies such as eco friendliness, carbon foot printing, and increasing equipment and system technologies. Many enterprises have to adopt new strategies by repositioning themselves producing value-added products to suit niche markets. However, this will not have been possible without heavy investments in technology which increased in the early stage of the crisis. Lim Fat (2010) explain that the world recession of 2008 impacted on Mauritius and the EPZ was boosted with a one billion Mauritian rupees grant and successive reduction of interest rates prompting stabilization. Domun (2011) explains that companies in the Clothing and textile sector are producing high end quality products for niche markets. They are competing on the basis of non-price factors such as creativity in design and ability to meet tight lead time. High quality products and creativity implies R&D abilities, where companies have to be on the outlook for new trends, new materials, new production processes and material testing. Furthermore, Kilduff (2006) pointed out that the sector has evolved from lower to intermediary and higher market segments thus forcing many companies to adopt good governance, eco-friendly production processes, fair trade and social compliance. The sector also had to facilitate the reskilling of workers towards
new technologies and production systems, as manufacturers moved up the value chain and upgraded their products (CSO, 2013). This is in line with the recommendations of the HRDC (2012) for the need to develop workforce with new skills in line with the change in technology and other requirements of the sector to sustain its growth.

The economic success of Mauritius and the transition of its economy over the past years have resulted into a working population attaining higher income and a new generation of the population with higher education who are not interested to work in manufacturing industries to take up low-paid and labour intensive jobs. Wong (2011) explained how Mauritius reached full employment and faced labour shortage in the peak of 1999 while many factory labourers shifted to the newly formed tourism industry preferring the work of cleaning and waiting in relaxed and enjoyable accommodations and garnering generous tips and led to the importation of foreign labour. This was confirmed by the CSO who demonstrated that this situation has encouraged companies to turn to the recruitment of foreign workers which started in the early 1990’s and has since then been on an increasing trend attaining 18,592 workers as at July 2013 (CSO, 2013).

II. Methodology

A combination of methodologies using a mixed method approach was used in the study to show how inferences from mixed methods may be greater than the single method components (Tashakkori & Teddlie, 2003). The research was conducted by adopting an exploratory approach among stakeholders of the industry followed by both quantitative and qualitative methods using primary and secondary data. All data relevant to the case have been gathered and organized to provide intensive analysis of many specific details often overlooked by other methods.

a) Research Design

The purpose of this two-phase, mixed methods purpose study explores the participant’s views who are experts in the field. This information was developed and tested with a sample from the Clothing and Textile industry. The data collected provided allows us to perform an in-depth assessment of the companies and their contributions in the context. The first phase was conducted through a qualitative exploration in the form of a stakeholder’s meeting to find out “What are the existing critical success factors of the Clothing and Textile industry?” by collecting data from participants (experts) already working in the sector. The second phase consisted of quantitative research questions which will measure the relationship between the independent and dependent variables that have been identified in our literature review with respect to Clothing and Textile companies.

The purpose of this concurrent mixed method approach helped to better understand the research problem by converging both qualitative data in terms of detailed views from experts in the field and quantitative data in terms of broad numeric trends data. In the study, a questionnaire with open-ended questions was also used as main instrument for interviews and observations gathering the views of experts in the field. At the same time, quantitative instruments were used to measure the relationship between independent variables and dependent variables within the companies.

b) Questionnaire Design

The questionnaire was designed to be as simple and comprehensive as possible, covering widely the different aspects related to the assessment of critical success factors for the Clothing and Textile industry. The questionnaire was designed to reflect the various identified critical success factors as covered both in the literature review and from the exploratory exercise. This was listed under a specific section which led for quality of information. A pilot test was run among 4 companies and feedback obtained allowed us to make constructive changes for the final questionnaire.

III. Analysis of Results

The sample was drawn from a list comprising of 85 Export Oriented Companies (EOE) obtained from the Ministry of Industry in the Clothing and Textile industry. After the survey was carried out, it was found that 5 of them closed down during the year 2014 and these companies have therefore been excluded from the list. Besides, 4 of the respondents have informed us that they will not participate in the study for confidentiality reasons. In order to have a representative sample, care has been taken to include among the respondents organizations from various sizes in the Clothing and Textile industry. The sample includes 39 organizations grouped under various sizes with respect to their turnover which is in accordance with the Ministry of Industry in Mauritius. As company size is defined by the Ministry of Industry by turnover, we have therefore taken care that in the sample respondents, all participants are from the three mentioned categories. These are classified as small, medium and large companies with turnover of less than Rs.10 million, Rs.10 - 50 million and over Rs.50 million respectively.

The respondents were asked to what extent they agree that the below are critical factors to the Clothing and Textile industry as per table 1.0 below:
Table 1.0: Critical success factors for the Clothing & Textile Industry

<table>
<thead>
<tr>
<th></th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Neither</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>Availability of local labour (both skilled and unskilled).</td>
<td>34%</td>
<td>47.5%</td>
<td>10.5%</td>
<td>8%</td>
<td>100%</td>
</tr>
<tr>
<td>II</td>
<td>Employment of foreign labour.</td>
<td>34%</td>
<td>53%</td>
<td>5%</td>
<td>8%</td>
<td>100%</td>
</tr>
<tr>
<td>III</td>
<td>Training and reskilling of workers for new technology and production systems.</td>
<td>26.5%</td>
<td>66%</td>
<td>2.5%</td>
<td>5%</td>
<td>100%</td>
</tr>
<tr>
<td>IV</td>
<td>Marketing support for new and emerging markets.</td>
<td>45%</td>
<td>52.5%</td>
<td>2.5%</td>
<td>100%</td>
<td></td>
</tr>
<tr>
<td>V</td>
<td>Development of new trade agreements (e.g. AGOA, SADC, etc.)</td>
<td>42.5%</td>
<td>50%</td>
<td>5%</td>
<td>2.5%</td>
<td>100%</td>
</tr>
<tr>
<td>VI</td>
<td>Research and Development (e.g. new fabric/material and process technology).</td>
<td>42%</td>
<td>50%</td>
<td>8%</td>
<td>100%</td>
<td></td>
</tr>
<tr>
<td>VII</td>
<td>Fiscal incentives for investment from the government.</td>
<td>50%</td>
<td>34.5%</td>
<td>13%</td>
<td>2.5%</td>
<td>100%</td>
</tr>
<tr>
<td>VIII</td>
<td>Access to finance.</td>
<td>42%</td>
<td>37%</td>
<td>18.5%</td>
<td>2.5%</td>
<td>100%</td>
</tr>
<tr>
<td>IX</td>
<td>Lower bank charges and interest rates.</td>
<td>52.5%</td>
<td>42.5%</td>
<td>5%</td>
<td>100%</td>
<td></td>
</tr>
<tr>
<td>X</td>
<td>More frequent air and sea connectivity.</td>
<td>31.5%</td>
<td>52.5%</td>
<td>11%</td>
<td>5%</td>
<td>100%</td>
</tr>
<tr>
<td>XI</td>
<td>Better road infrastructure.</td>
<td>18.5%</td>
<td>39.5%</td>
<td>37%</td>
<td>2.5%</td>
<td>100%</td>
</tr>
<tr>
<td>XII</td>
<td>Better communication networks.</td>
<td>31.5%</td>
<td>47.5%</td>
<td>10.5%</td>
<td>8%</td>
<td>100%</td>
</tr>
<tr>
<td>XII</td>
<td>Competitive utility costs (CWA, WWA, CEB, etc.).</td>
<td>40%</td>
<td>50%</td>
<td>5%</td>
<td>5%</td>
<td>100%</td>
</tr>
<tr>
<td>XIII</td>
<td>The adoption of new technology for competitive edge.</td>
<td>42%</td>
<td>47.5%</td>
<td>8%</td>
<td>2.5%</td>
<td>100%</td>
</tr>
</tbody>
</table>

a) Factor Analysis

A normality test using Shapiro-Wilk (Sample < 50) was carried out to verify whether the data follows a normal distribution and results revealed that the data does not follow a normal distribution with all P-values < 0.05. Prior to the extraction of the factors Kaiser-Meyer-Olkin (KMO) was conducted to measure the Sampling Adequacy and Bartlett's Test of Sphericity. The KMO index ranges from 0 to 1, with 0.50 considered suitable for factor analysis (Hair et al., 1995). The Bartlett's Test of Sphericity should be significant (p < .05) for factor analysis to be suitable (Barlett, 1954). If any pair of variables has a value less than 0.5 we will consider dropping one of them from the analysis. As our sample size is below 50, we will refer to Kaiser (1974) who recommends 0.5 as minimum (barely accepted), values between 0.7 - 0.8 as acceptable and values above 0.9 are superb. In our case, KMO measure is 0.643 with a p-value of 0.00 < 0.05 also indicating that the Bartlett's test of Sphericity is significant indicating that the correlation matrix is not an identity matrix.

b) Total Variance Explained

The fourteen Critical success factors associated with the Clothing and Textile Industry labour were subjected to principal components analysis (PCA) using SPSS version 21. Prior to performing the PCA, the suitability of data for factor analysis was assessed. Inspection of the correlation matrix revealed the presence of many coefficients of 0.5 and above. The Kaiser-Meyer-Olkin value of 0.643, exceeding the recommended value of 0.5 (Kaiser, 1970, 1974) and Bartlett’s Test of Sphericity (Barlett, 1954) reached statistical significance, supporting the factorability of the correlation matrix. Principal components analysis revealed the presence of four components with Eigenvalues(>1) of 6.032, 1.872, 1.375 and 1.115 explaining 43%, 13.4%, 9.8% and 8% of the variance respectively. An inspection of the scree plot revealed a clear break after the fifth component. The four component solution explained a total of 74.2% of the variance, with component 1 contributing to 24.3%, component 2 contributing to 20.1%, component 3
contributing to 16.2% and component 4 contributing to 13.6%. To aid in the interpretation of the four components, Varimax rotation technique was performed and the simpler orthogonal rotation yielded meaningful item groupings and strong, unambiguous loadings. By referring to the content of those items, one can discern the nature of the latent variable that each factor represents.

### Rotated Component Matrix

<table>
<thead>
<tr>
<th>Item</th>
<th>Component 1</th>
<th>Component 2</th>
<th>Component 3</th>
<th>Component 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Competitive utility cost is a CSF for the C&amp;T industry</td>
<td>.886</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lower bank charges and Interest rate is a CSF for the C&amp;T industry</td>
<td>.850</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>More frequent air and sea access is a CSF for the C&amp;T industry</td>
<td>.840</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Research and development is a CSF for the C&amp;T industry</td>
<td>.533</td>
<td>.426</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adoption of New technology for competitive edge is a CSF for the C&amp;T industry</td>
<td>.496</td>
<td>.480</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Better communication networks is a CSF for the C&amp;T industry</td>
<td>.780</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Training and reskilling of workers for new technology is a CSF for C&amp;T industry</td>
<td>.742</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Better road infrastructure is a CSF for the C&amp;T industry</td>
<td>.739</td>
<td>.412</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Marketing support for new and emerging market is a CSF for the C&amp;T industry</td>
<td>.706</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Availability of local labour is a critical success factor for the C&amp;T industry</td>
<td>.814</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Development of new trade agreements is a CSF for the C&amp;T industry</td>
<td>.801</td>
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<tr>
<td>Fiscal incentives for investment from government is a CSF for the C&amp;T industry</td>
<td>.517</td>
<td>.624</td>
<td>.504</td>
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<tr>
<td>Employment of Foreign labour is a critical success factor for the C&amp;T industry</td>
<td>.817</td>
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<tr>
<td>Access to finance is a CSF for the C&amp;T industry</td>
<td>.535</td>
<td>.717</td>
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Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.
a. Rotation converged in 6 iterations.

c) **The Four Topic Factors**

The four component solution emerged from the factor analysis conducted on the Critical success factors for the Clothing and Textile industry. The four components explain 74.2% of the total variance, with component 1 contributing to 24.3%, component 2 contributing to 20.1%, component 3 contributing to 16.2% and component 4 contributing to 13.6%. The four component solution are labelled Cost effectiveness as a critical success factor in the C&T industry, Human and physical resources as a critical success factor in the C&T industry, Supportive environment as a critical success factor to the C&T industry and Capital investment is a critical success factor for the C&T industry.

i. **Component One – Cost competitiveness as a critical success factor**

This component groups the factors which is considered to be critical success factors associated with cost competitiveness in the Clothing and Textile industry. Five items were identified in the first component as competitive utility cost, lower bank charges and interest rate, more frequent air and sea access, research and development and adoption of new technology for competitive edge. This component is labelled “Cost effectiveness as a critical success factor”. The first three items loaded onto component one have high factor loading of 0.886, 0.850, and 0.840 while the other two factors are loaded at 0.533 and 0.496 respectively.

90% of the respondents agree that competitive utility cost is a critical success factor for the Clothing and Textile industry while 95% believe that lower bank charges and interest rates is equally important. 84% also found that more frequent air and sea access is critical as the Clothing and Textile industry is dependent on efficient logistic tools for the competitiveness of the business. However, Research and Development (R&D) and the adoption of technology are found to be two important factors for the development of the sector. 92% of the respondents believe that Research and Development will contribute for moving upmarket and help to upgrade the industry while 89.5% also agree that the adoption of new technology is equally important for this more efficiency and progress.

ii. **Component Two –Human and physical resources as a critical success factor**

This component has listed four items related to the resources required for a continuing growth in the Clothing and Textile industry. These items are better communication networks, training and reskilling of
whereas 92.5% of the respondents agree that training and reskilling of workers is important to cope with new technology 84% agreed on the need to have better road infrastructure while 97.5% agree on the need to have better marketing support for new and emerging market. This component is labelled “Human and physical resources as a critical success factor” and has factor loadings of 0.780, 0.742, 0.739 and 0.706 respectively.

iii. Component Three – Supportive environment as a critical success factor

In this component four items were identified as critical success factors related to the working environment for C&T industry to perform. These items are: availability of local labour, the development of new trade agreements and fiscal incentives for investment from government. 81.5% of the respondents agree that availability of labour is a critical factor for the C&T industry and 92.5% agree about the importance of the development of new trade agreements. 84.5% of the respondents agree that fiscal incentives for investment from government are equally important to support the C&T industry. This component is labelled “Supportive Environment as a critical success factor” and has factor loadings of 0.814, 0.801, and 0.624 respectively.

iv. Component Four – Capital inputs as a critical success factor

This component is loaded with two items as critical success factors related to the employment of foreign labour and access to finance. 87% of the respondents agree that employment of foreign labour is important and 79% of them also emphasise on the need to have access to finance. This component is labelled “Capital inputs as a critical success factor” and has factor loadings of 0.817 and 0.717 respectively.

IV. Conclusion and Recommendations

The results from the factor analysis allowed the identification of critical success patterns through fourteen factors based on data gathered from both exploratory research and data collected from the survey questionnaire. The results from factor analysis demonstrate how critical success factors have evolved over the years as compared to 1975 when the EPZ was created. The literature highlighted critical success factors that determined the success of the EPZ in Mauritius and today the study shows that the four main critical success factors can be categorized as: Cost effectiveness, Human and physical resources, Supportive environment and Capital investment as critical success factors for the C&T industry.

However, the above identified factors have not yet been measured in terms of their impact and contribution to the EPZ. Thus, we will recommend that further studies be conducted to assess the impact of the identified critical success factors on the EPZ and to what extent they are contributing to further success of the EPZ in Mauritius.

Bibliography


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