

# THE IMPACT OF CRITICAL SUCCESS FACTORS ON THE PERCEIVED SUCCESS OF SMALL & MEDIUM-SCALE ENTERPRISES IN THE ENGINEERING SECTOR IN SRI LANKA

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## ABSTRACT

*The research is on the determination of the impact of Critical Success Factors (CSF) on the success of Small and Medium-scale Enterprises (SMEs) in the engineering industry selecting four Critical Success Factors as independent variables, and the success of SMEs as the dependent variable. The current study was conducted as a quantitative, cross-sectional, field study with a sample of 79 SMEs operating in the Engineering Industry. The data were analysed performing descriptive, correlation and regression analysis with the use of SPSS (Version 20). Findings revealed that all the four factors have a significant positive impact on success of SME, while excellence of customer service was discovered as the strongest while product/ service innovation has the least impact among the four selected CSFs. The owners, Managers and the entrepreneurs those who are willing to enter this particular economic sector shall emphasise on focusing on the specific CSFs to ensure the stability and survival of the SME irrespective of whether product oriented or service oriented.*

**Keywords:** Small and Medium-scale Enterprises (SMEs), Critical Success Factors (CSF), Success of SMEs, Engineering sector

## INTRODUCTION

As per the press release on key indicators of industry trade and services sector economic census- 2013/2014 by the Department of Census and Statistics of Sri Lanka, SMEs make significant impact on the national economy as they contribute to a larger portion of the GDP and also provide employments. The National Policy Framework for Small Medium Enterprise (SME) Development states that the Government of Sri Lanka recognizes SMEs as the backbone of the economy, as it accounts for more than 75% of the total number of enterprises, provides 45% of the employment and contributes to 52% of the Gross Domestic Production (GDP).

However, the small and medium scale enterprises undergo many hardships to ensure its success as the present context of business has characterised with unpredictable changes and pressures (Shari & Zhang, 1999). SMEs can't sustain their success under such pressures (Khan et al., 2011). Due to the smaller size and inability to react, the SMEs may have to undergo opportunistic behaviour of the stakeholders including suppliers and clients (Acs & Preston, 1997). In this case, identifying the determinants for organisational success is crucial to avoid the failure of SMEs (Al-mahrouq, 2010). Only one in three SMEs exists for five years in the business and one in five SMEs survive for 10 years. Simpson et al. (2012) as cited by Douglas et al. (2017) claimed that there was no accepted single set of Critical Success Factors (CSFs) which

would ensure SME performance. Further, Douglas et al. (2017) cited in Pansiri and Temtime (2010) argued that the perceived impact of CSFs varied from company to company depending on their size, age, and industry sector and management profile.

Considering the contribution of SMEs to economic growth and to the overall development of the country, the current study is dedicated to identify the impact of CSFs on the success of SMEs in the engineering sector. Engineering can be considered as a key driver of innovation and human development. Engineering is a broad discipline that includes various fields such as infrastructure, construction, power, oil and gas, refinery, steel, automotive and consumer durables. Sri Lanka has a long history for having an outstanding knowledge base in engineering. Today, the traditional engineering know-how has been combined with innovative skills, modern technology, and new knowledge on engineering products and services. However, no study has been done to identify the CSFs that affect the SMEs in the engineering field in Sri Lanka.

With this limitation, answers need to be found out to the problem of “what are the Critical Success Factors (CSF) that contribute to the success of SMEs in the engineering field in Sri Lanka?” Therefore, the current study aims at analysing the influence of CSFs on the business success of SMEs in the engineering sector in Sri Lanka. In this context, the researchers set research questions of; what are the CSFs that contribute to the success of the SMEs in the engineering sector in Sri Lanka? What is the level of success of SMEs as perceived by the owners or the Managers of such SMEs? What is the impact of CSFs, on the perceived success of SMEs in the engineering sector in Sri Lanka?

The research objectives were formulated to answer these research questions that are given as

To identify the CSFs the contribute for the success of SMEs in the engineering sector in Sri Lanka;

- To measure the level of success of SMEs as perceived by the owner or the Manager of SMEs in the engineering sector in Sri Lanka
- To assess the impact of CSF identified on the perceived success of SMEs in the engineering sector of Sri Lanka;
- To measure the impact of excellence of customer service on the perceived success of SMEs in the engineering sector in Sri Lanka;
- To assess the impact of the reliable delivery on the perceived success of SMEs in the engineering sector in Sri Lanka;
- To measure the impact of innovation on the perceived success of SMEs in the engineering sector in Sri Lanka; To assess the impact of the brand reputation on the perceived success of SMEs in the engineering sector in Sri Lanka; and,
- To measure the moderating effect of the industry type on the impact of the brand reputation on the perceived success of SMEs in the engineering sector in Sri Lanka.

This study is significant as this can lead the government to formulate regulations to build a favourable business environment and enacting positive policies for the success of SMEs. Entrepreneurs and managers, on the other hand, can use the findings of this study to more concentrate on the rightly selected success factor for their business success. Those who wish to join in this sector, in the future, can use these study findings in developing their feasibility studies more accurately.

## LITERATURE REVIEW

### Organisational Success of SMEs

Alfoqahaa (2018), cited in Chittithaworn et al. (2011) mentioned that, the criteria used to assess success of SMEs considerably vary in different studies. It is further problematic and complex to measure the success of organisations (Jenning & Beaver, 1997). However, Al-mahrouq (2010) explained the importance of ascertaining such causal factors of success of the SMEs to be used by the economic planners and the individual entrepreneurs. Anyhow, Stefanovic et al. (2010) declared that there is no single agreed-upon definition of business success in agreement.

Business success is commonly defined as the result of the way of doing business and cooperation. Anbuudayasankar (2010), the success reveals the capability of a company to promptly demands to customer demands and then to design, prototype, manufacture, test and deliver a high quality product to the market within the shortest time period possible. Khan et al. (2011) reveals that the concept of success is commonly referred to an organisation's financial performance in business studies. Khan et al. (2011) point out that there are at least two important dimensions of success: financial vs. other success; and short-term vs long-term success.

Eriksson (2012) identifies two main distinct groups of success factors for SMEs as internal success factors (include brand management and knowledge management) and external success factors. Khan et al. (2011) state that in Bangladesh, the characteristics of the entrepreneurs and the SMEs in operation have influenced significantly towards business success of SMEs. Khan et al. (2011) highlight such characteristics of the entrepreneurs as individual characteristics, personal traits, entrepreneur orientation and entrepreneur readiness as well as demographic characteristics, such as age, gender, individual background, level of education and previous work experience. Such characteristics of SMEs include the origin of enterprise, length-time in operation, size of enterprise, and capital sources. McMahon (2001) also found that, enterprise size significantly linked to better business performance.

As cited by Eriksson (2012) indicates that the success of SMEs can be measured by five factors, namely, age, growth in terms of turnover, the owner-manager's self-evaluation of business success, the owner-manager's satisfaction with business success, and the firm's competitive power in the market of the main products.

Jenning and Beaver (1997) as cited by Eriksson (2012) mention that success of SMEs can be defined in terms of return on investment and growth in turnover, volume, profit and employment, so that criteria upon financial analyses and ratios such as sales growth, profitability, cash-flow, productivity can be utilised.

Al-mahrouq (2010) to highlight success factors, affecting some entrepreneurs in Malaysia that are: personal initiative, human capital, competency, government support programmes, entrepreneurs' educational level and working experience, and the entrepreneurs' exposure on their parents' business.

Stonehouse (2002) reports that there is a strong positive relationship between the success of SMEs and the degree of long-term planning. Stonehouse (2002) highlight the importance of long-term planning and setting of longer-term objectives to achieve a fit between an organization's strategy and its environment and thereby for the survival and progression of an organisation.

## Small and Medium-Scale Enterprises (SMEs)

Quarthey and Kirkpatrick (2000) mentions that there is no single, uniformly acceptable, definition of a small firm.

Quarthey and Kirkpatrick (2000) derived two definitions in terms of “economic” and “statistical” which can be cited as the first attempt to formulate a definition. As per the economic definition, the conditions would be true: (1) It has a relatively small share of their market place; (2) It is managed by owners or part owners in a personalised way, and not through the medium of a formalised management structure; (3) It is independent, in the sense of not forming part of a large enterprise. The “statistical” definition considered these 03 main areas: (a) quantifying the size of the small firm sector and its contribution to GDP, employment, exports etc.; (b) comparing the extent to which the small firm sector’s economic contribution has changed over time; (c) applying the statistical definition in a cross-country comparison of the small firms’ economic contribution.

Quarthey and Kirkpatrick (2000) brings out that the number of employees has been more commonly utilised to define the SMEs, however there are some discrepancies in the ranges of number of employees specified by various sources. European Commission (EC) derived the term ‘Small and Medium Enterprises (SME)’. The SME sector is made up of three components: (1) firms with 0 to 9 employees - micro enterprises (2) 10 to 99 employees - small enterprises (3) 100 to 499 employees - medium enterprises.

In Sri Lanka, SMEs have been defined as the enterprises which employ less than 300 employees and generate an annual turnover not exceeding Rupees 750 Million according to the National Policy Framework for Small Medium Enterprise (SME) Development.

## Critical Success Factors (CSF)

Grunert and Ellegaard (1992) as cited by Alfoqahaa (2018), key success factors can be understood as an activity, skill or resource that a company can invest in, in the market that business is operating in, that can describe a main part of the observable variances in perceived value and/or relative costs. Alfoqahaa (2018) who claimed that CSFs are set of key activities or elements which help a business to attain its pre-set goals and objectives. Raynus (2016) mentioned that they are factors or activities obligatory to assure the success of business, while Grunert and Ellegaard (1992) stated that CSFs are compulsory conditions for enhanced business performance. Leidecker and Bruno (1987) mentioned that CSFs comprise the properties, terms or variables which significantly impact the success of an organisation in establishing its position in the particular industry.

According to Jasra et al. (2011), although all the businesses require ever demanding efforts in all areas to be successful, complications arise, when SMEs attempt to focus on every aspect at the same time which causes a lack of focus. The SMEs should mainly concentrate on the specific factors which are critical to the success of SMEs, especially when they are remaining as small economic entities, competing with big companies in small markets.

Alfoqahaa (2018) stated that the factors determining the success of SMEs can be commonly clustered into two (02) types either by concentrating on internal factors at the organizational level or by focusing external factors in the environment. Chong (2012) argued that there is no agreement among researchers on single group of factors which contribute to the

success of SMEs. Alfoqahaa (2018) claimed that the CSFs with main customers are excellence of customer service, reliable delivery, product innovation and reputation of the brand.

### **Excellence of Customer Service and Success of SME**

As cited by Alfoqahaa (2018), mentioned that excellence of customer service is a critical factor to business success and argued that integrating a favourable first impression, courteous treatment, a positive attitude and ethical behaviours (doing the right thing) is the foundation for an influential customer service. The better service enhances customer loyalty which would increase sales volumes and revenue. Parasuraman (2000) declared that excelling in customer service with genuine commitment is essential in attaining the business success and accomplishing sustainability in the market in long term. Excellent customer service providing continuous best service is crucial for small businesses, as the customer loyalty contributes to the revenue of most small businesses, good customer service saves money for small businesses and small businesses cannot exist long-term with negative criticisms (Ghee et al, 2019).

### **Reliable delivery and success of SME**

As cited by Alfoqahaa (2018), claimed that distribution is a crucial function in the entire logistics system and the fundamental connection between manufacturer and customers. Distribution involves all the logistics in the entire process of supplying the product or service to the right place, at the right time and for the lowest cost. The logistics and supply chain are important to the success of a business organisation. The speed and the reliability of the delivery process is considered as the most important of the logistics processes, as it closely links with the potential losses. Chopra (2003) claimed that effective distribution is a foremost driver of profitability in a business organisation through favourable customer experiences. Fast and reliable delivery with minimum variance in delivery times is essential (Davis et al., 2005).

### **Innovation and success of SME**

Rogers (1998) as cited by Alfoqahaa (2018), innovation is the application of novel ideas to the products, process or any other activity of the business organisation. The product innovation is the entire process of introducing a new product/service to the market, product commercialization, design and development, operationalization, marketing, distribution and selling. Innovation is the use of novel technological know-how, market knowledge and business models which can provide a new product/service to customers (Warren et al., 2004). Alfoqahaa (2018) cited Rogers (1998) and claimed that the output of innovative activity can be assessed by the success of the organisation in terms of profits, revenue growth, share performance, market capitalization or productivity using percentage of sales from those products, intellectual property statistics and firm performance. Philip (2011) mentioned that product-related innovation activities can be linked to the success of a business.

### **Reputation of the Brand and Success of SME**

Alfoqahaa (2018) stated that brand reputation is the positive assessment of the public regarding the product or service linked with its quality and value. Brand reputation promotes the demand and lasting attractiveness. Further, it is declared that the competitive brand with

reputation is a critical element for the growth in market share. Muhonen et al. (2017) and argued that the function of branding in small and medium-sized enterprises (SMEs) vary from the common agreement that all the organizations should focus on strong brands as an important aspect of their business strategic planning. However, in closer examination, SMEs demonstrate attention in branding, especially when they expand the business (Wong & Merrilees, 2005). Berthon et al. (2008); Ojasalo et al. (2008) claimed that SMEs also build strong brands through creativity.

### **The Effect of Industry Type on the Relationship between Brand Reputation and the Success of SME**

Hirvonen and Laukkanen (2017) noted that ‘Industry type’ which is a market related external factor refers to whether an organisation operating either in the production or service industry and these factors are imperative for SMEs. The branding in service-oriented organisations varies from the branding in product (goods) oriented organisations due to characteristics such as high labour intensity and repetitive interactions between service employees and customers. On the other hand, Marquardt et al. (2011) stated that “service firms cannot rely on product attributes in creating meaning for the brand”. It is the brand that mainly communicates and explains the service to the customer in service-oriented organisations, while a physical product can be evaluated comparatively conveniently. This highlights the importance of branding especially in the context of service-oriented organisations.

## **CONCEPTUALISATION AND RESEARCH METHODOLOGY**

### **Conceptual Framework of the Study**

Previous researchers have identified some critical success factors (CSF) which contribute to the success of SMEs such an identified set of CSFs are excellence of customer service, reliable delivery, product innovation and reputation of the brand (Citation). These variables which have been identified from previous studies have been illustrated in the Figure 1 with the assumption that all the other factors remain constant. As per the model, the afore-mentioned set of CSFs has been taken as independent variables, while SME success has been taken as dependent variable. The relationship among variables as highlighted in hypotheses are indicated in Figure 1 as below Source: Author (2020).

### **Hypotheses of the Study**

Based on the theoretical and empirical evidences, below mentioned hypotheses were advanced in order to realise the research objectives and to draw conclusions of the study.

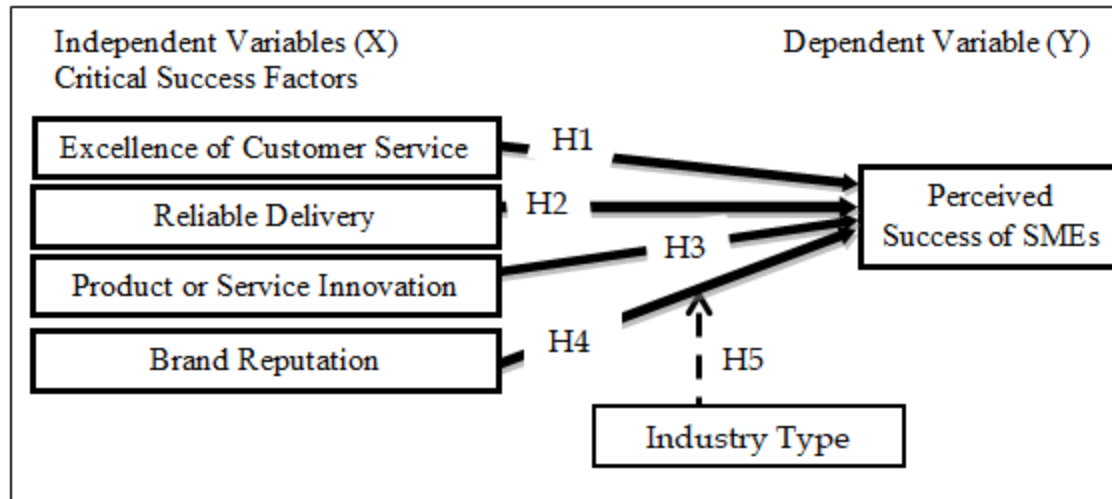
*H1: There is a significant positive impact of excellence of customer service on the perceived Success of SMEs.*

*H2: There is a significant positive impact of reliable delivery on the perceived Success of SMEs.*

*H3: There is a significant positive impact of product/ service innovation on the perceived Success of SMEs.*

*H4: There is a significant positive impact of brand reputation on the perceived Success of SMEs.*

*H5: Industry type significantly moderates the relationship between brand reputation and the perceived Success of SMEs.*



**FIGURE 1**  
**CONCEPTUAL FRAMEWORK OF THE STUDY**

### Research Design

The current study valued post-positivism to deductively test hypothesis, derived from the literature in a cross-sectional and survey analysis. The unit of analysis was the organisations, and data sources were the owners or the owner-managers.

### Population, Sample and Sampling Technique

Out of the 155 small and medium-scale enterprises, included in the directory of Sri Lanka Chamber of Small and Medium-scale Industries (SLCSMI), 94 SMEs all that are in the category of engineering sector were selected as the population. The questionnaires were administered among the whole population of 94 SMEs, and the researchers received responses from 79 SMEs which fulfilled the sample size as specified in Morgan's Table presented by Krejcie and Morgan (1970). Thus, the response rate was found to be 84%.

### Measurement Scales of Variables

The scale response items for the dependent variable which is the perceived success of SMEs and the independent variable that is critical success factors were adopted from Alfoqahaa (2018) which have been originally determined in Li et al. (2006); Rogers (1998); Warren et al. (2004). The scale response items for the moderator that is the Industry Type were selected from the research by Muhonen et al. (2017) and Hirvonen and Laukkanen (2017), who argued that these factors are important for SMEs.

### Operationalization of Variables

The variables determined in the conceptual framework of the current study are operationalized in the Table 1.

## Methods of Data Analysis

The objectives one and two were analysed using descriptive analysis while the rest of the objectives were analysed by testing the hypothesis using correlation and regression analyses. The Statistical Package of Social Sciences (SPSS) – Version 20 was used for all analysis including the reliability and construct validity.

CONCEPT	VARIABLE	INDICATOR	ITEMS	REFERENCE
Success of SME	Perceived success of SME	The level of self-evaluation or satisfaction about business success of the owner or Manager	01 - 05 items in part II of the questionnaire	Alfoqahaa, S. (2018)
Critical Success Factors	Excellence of customer service	The degree of courteous treatment, positive attitudes and ethical behaviour	06 - 11 items in part II of the questionnaire	
	Reliable delivery	The extent to which a product or service is delivered to the right place, at the right time & for the lowest cost	12 - 15 items in part II of the questionnaire	
	Product innovation	The level of application of new ideas to the products (or services), process or firm's activities	16 – 20 items in part II of the questionnaire	
Brand Reputation	Brand Reputation	The degree of brand goodness & reliability from the entrepreneur's perspective	21 - 25 items in part II of the questionnaire	
Brand Reputation	Industry Type	Whether the organisation is product oriented or service oriented	Item No. 06 in part I of the questionnaire	

Source: Authors' Development based on the Literature Review.

## DATA ANALYSIS AND RESULTS

### Reliability Analysis

Cronbach's Alpha Coefficients for all four (04) Independent Variables (IVs), namely excellence of customer service, reliable delivery, product/ service innovation and brand reputation are found to be 0.795, 0.748, 0.814 and 0.932 respectively. The Cronbach's Alpha Coefficient of the Dependent Variable (DV), namely success of SME, is found to be 0.856. As all the Cronbach's Alpha values obtained are greater than (>) 0.7 which is the specified threshold level, it is determined that none of the items from the variables were removed in order to further enhance the reliability.

### Validity Analysis

The results of construct validity were obtained by an Exploratory Factor Analysis (EFA) performing KMO (Kaiser-Meyer-Olkin Measure of Sampling Adequacy) and Bartlett's Test for sphericity. The KMO Coefficients for success of SMEs (Dependent Variable) and for three (03) Independent Variables namely, excellence of customer service, product/service innovation and brand reputation were 0.836, 0.808, 0.802 and 0.831 respectively, whose values are greater than (>) the threshold value which is 0.7. However, the KMO coefficient for the IV, reliable delivery



was found to be 0.695 which can be rounded off to 0.7. The p values obtained from Bartlett's Test for Sphericity were checked against 0.05 which is the threshold level. For all the IVs and DV, the p value was 0.000 which is lesser than 0.05. It means that the error margin is less than 5% which is an accepted level as valid and reliable.

### Test for Normality

First, Skewness and Kurtosis were checked. The Kurtosis values obtained for the DV and four (04) IVs were 0.058, 0.922, 1.969, 0.504 and 1.802 and the Skewness values were -0.502, -0.983, -1.011, -0.830 and -1.221 respectively. As all these Skewness values are in between (-3) and +3, and Kurtosis values are less than 10. Hence, the distribution is considered to be normal.

### Analysis of Research Objective 01

The objective 01 is "To identify the critical success factors (CSFs) which contribute for the success of small & medium-scale enterprises (SMEs) in the engineering sector of Sri Lanka"

Based on the empirical evidences from previous research, excellence of customer service, reliable delivery, product/ service innovation and brand reputation have been identified as the Critical Success Factors to be concerned (Anggraeni & Selamat, 2021). The mean values obtained for each variable are 4.019, 4.126, 4.212 and 4.293 respectively. Brand reputation has scored the highest, product/ service innovation being the second highest, reliable delivery being the third in ranking and the brand reputation is the fourth which is the lowest.

### Analysis of Research Objective 02

The objective 02 is "To measure the level of success of small & medium-scale enterprises (SMEs) as perceived by the owner or the Manager"

As per the frequency distribution analysis for the dependent variable, success of SME, the mean value of the distribution obtained from the descriptive statistics was 3.883 in the 5-point Likert scale. It suggests that the respondents "Agree" that their SMEs are success as per their perception. Since the standard deviation 0.683 lies in between +2 and (-2), the distribution is considered as approximately normal. To identify the level of the perceived success of SME's, the researcher has ranged the responses by the respondents. Thus, the researcher forms four (04) ranges, including 1-2, 2-3, 3-4, 4-5. Then the researcher named the ranges as "Poor", "Fair", "Good" and "Excellent".

		<b>FREQUENCY</b>	<b>PERCENT</b>	<b>VALID PERCENT</b>	<b>CUMULATIVE PERCENT</b>
Valid	Excellent	29	36.7	36.7	36.7
	Good	40	50.6	50.6	87.3
	Fair	10	12.7	12.7	100.0
	Total	79	100.0	100.0	

Source: Survey Data (2020)

According to Table 2 12.7% of respondents have perceived that the level of success of SME as fair. Further, 36.7% of respondents have perceived that success of SMEs as excellent. However, majority (50.6%) of the respondents have perceived that level of success in SMEs of engineering sector in Sri Lanka is good.

### Analysis of Research Objective 3.1

The objective 3.1 is “To measure the impact of excellence of customer service on the perceived success of small & medium-scale enterprises (SMEs) in the engineering sector”

As per the descriptive statistics of the independent variable, excellence of customer service, the mean value of the distribution was 4.019. This indicates that the average level of the responses on excellence of customer service is recorded as ‘Agree’. Since the standard deviation 0.589 lies in between +2 and (-2), the distribution is considered as approximately normal.

The correlation coefficient between the two (02) variables is 0.594. It is a moderate positive relationship, as it is much closer to +0.5. This correlation is statistically significant, as the p value of 0.000 is lesser than the benchmark of 0.01. Hence the inference is that there is a significant moderate positive association between excellence of customer service and success of SME.

The H1 is “There is a significant positive impact of excellence of customer service on the perceived Success of SMEs.”

The regression coefficient (R Square) value was 0.353 which implies that 35% of the variation of success of SME can be statistically explained by excellence customer service. It has an impact of 35% on success of SME. As the p value obtained, that is, 0.000 is lesser than 0.05, the  $r^2$  value of this model was accepted. Therefore, the excellence of customer service significantly predicted success of SME. Hence, the hypothesis 1 is accepted.

### Analysis of Research Objective 3.2

The objective 3.2 is “To assess the impact of the reliable delivery on the perceived success of small & medium-scale enterprises (SMEs) in the engineering sector”

As per the descriptive statistics of the independent variable, reliable delivery, the mean value of the distribution was 4.126. This indicates that the average level of the responses on reliable delivery is recorded as ‘Agree’. Since the standard deviation 0.655 lies in between +2 and (-2), the distribution is considered as approximately normal.

The correlation coefficient is 0.539 which is closer to +0.5, it can be considered as a positive moderate relationship. The p value 0.000 is lesser than 0.01 threshold level, so it is a statistically significant correlation. It is a significant moderate positive relationship between the reliable delivery and the success of SME.

The H2 is “There is a significant positive impact of reliable delivery on the perceived Success of SMEs.”

The regression coefficient of 0.290 suggests that 29% variation in success of SME is explained through the reliable delivery. Statistically it has an impact of 29% of success of SME, while the balance is contributed by other factors. As per the ANOVA table, the fitted regression model is significant since the p value of 0.000 which is less than the 0.05. The regression model statistically and significantly predicts the outcome variable which means the reliable delivery significantly predicts success of SME. Hence, the hypothesis 2 is accepted.

### Analysis of Research Objective 3.3

The objective 3.3 is “To measure the impact of innovation on the perceived success of small & medium-scale enterprises (SMEs) in the engineering sector”

As per the frequency distribution analysis of the descriptive statistics for the independent variable, product/ service innovation, the mean value of the distribution was 4.212. This indicates that the average level of the responses on product/ service innovation is recorded as ‘Agree’. Since the standard deviation 0.663 lies in between +2 and (-2), the distribution is considered as approximately normal.

The correlation coefficient of 0.432 indicates that it is moderate positive relationship, since it is much closer to 0.5. The p value of 0.000 is lesser than 0.01 which implies that correlation is statistically significant. It can be concluded of a significant moderate positive relationship between product/ service innovation and success of SME.

The H3 is “There is a significant positive impact of product/ service innovation on the perceived Success of SMEs.”

The coefficient regression is found to be 0.186 which means that 18% of success of SME is explained by product/ service innovation in the model. The regression is statistically significant as the p value of 0.000 is lesser than 0.05. It means that the product/ service innovation impacts the success of SME. Hence, the hypothesis 3 is accepted.

### Analysis of Research Objective 3.4

The objective is 3.4 is “To assess the impact of the brand reputation on the perceived success of small & medium-scale enterprises (SMEs) in the engineering sector”

As per the frequency distribution analysis of the descriptive statistics for the independent variable, brand reputation, the mean value of the distribution was 4.293. This indicates that the average level of the responses on product/service innovation is recorded as ‘Agree’. Since the standard deviation 0.669 lies in between +2 and (-2), the distribution is considered as approximately normal.

The correlation coefficient for the value of 0.456 suggests that it is a moderate positive relationship, as it is much closer to 0.5. The correlation is found statistically significant, as the p value of 0.000 is lesser than the benchmark of 0.01. It can be inferred that the relationship between the brand reputation and the success of SME is a significant moderate positive relationship.

The H4 is “There is a significant positive impact of brand reputation on the perceived Success of SMEs.”

Even though, the conceptual framework for the current study included moderating variable for this independent variable of brand reputation and the dependent variable, success of SME, the impact in the absence of the moderator was analysed and interpreted in this section. It was found that regression coefficient is 0.208, that is, 20.8% of the variation in brand reputation is explained by the regression model. Therefore, brand reputation imposes an impact of 20.8% on the success of SME. The regression model is significant since p value is 0.000 which is less than the benchmark value of 0.05. It showed that the regression statistically and significantly predicted the outcome variable, which means that the brand reputation significantly predicted success of SME. Hence hypothesis 4 is accepted.

## Analysis of Research Objective 04

The objective 04 is “To measure the moderating effect of the industry type on the impact of the brand reputation on the perceived success of small & medium-scale enterprises (SMEs) in the engineering sector of Sri Lanka”

Based on the previous literature, two (02) subsections were identified under the moderating variable of industry type, namely, (1) product-oriented organisations and (2) service-oriented organisations.

The H5 is “Industry type significantly moderates the relationship between brand reputation and the perceived Success of SMEs.”

The regression coefficient ( $r^2$ ) which indicates an impact of 29.4% from industry type on the relationship between brand recognition and the success SME with regard to product-oriented organisations, whereas it is 16.8% with regard to service-oriented organisations. Although the percentages vary, the inferences of Hypothesis 5 have to be arrived considering the significance level.

The p values obtained for the impact of the subsections (that is, product oriented and service oriented) of the moderating variable, industry type is found to be 0.001 and 0.006 respectively. As both the values are lesser than 0.05, both of the impacts have to be considered as significant. It reveals that the impact of brand reputation on the success of SME is significant, irrespective of whether the organization is product oriented or service oriented. Hence, the impact is statistically significant irrespective of the industry type. It can be concluded that the industry type does not significantly moderate the relationship between brand reputation and the perceived Success of SMEs, making the Hypothesis 5 not accepted.

## Discussion of the Findings

The main objective of the study was to assess the impact of customer service, reliable delivery, innovation and brand reputation on the perceived success of SMEs in the engineering sector of Sri Lanka. As per the results of the analysis, significantly moderate positive association between excellence of customer service and success of SME was found. Similar result has been obtained in the study done by Alfoqahaa (2018) in Palestine and also in the research implemented by Ghee et al. (2019) based in Kota Bharu, Kelantan, Malaysia. These studies emphasised the importance of customer service on organizations and urge the businesses to interact with the customers in a friendly and helpful way. Further the finding was in line with research conducted by Ogunnaikie et al. (2014) and Anggraeni and Selamat (2021) which highlighted the positive impact of excellence of customer service on the success of SME in Indonesia.

Reliable delivery was found to have a positive significant impact on the perceived success of SMEs in the engineering sector in Sri Lanka. Similar result of significant positive impact of reliable delivery on the perceived Success of SMEs was found in the study conducted by Alfoqahaa (2018) in Palestine and also in the research implemented by Ghee et al. (2019) in Kota Bharu, Kelantan, Malaysia. Davis et al. (2005) and Stalk (1993) also found that reliable delivery contributes to the success of MSMEs. Anggraeni and Selamat (2021) also found the same result in Indonesian context.

Results of this study confirmed that the innovation have a positive significant impact on the perceived success of SMEs in the engineering sector in Sri Lanka. Anggraeni and Selamat

(2021) have also supported the study findings. Further similar result has been derived by Alfoqahaa (2018) in Palestine. The findings of the study implemented by Ghee et al. (2019) based in Kota Bharu, Kelantan, Malaysia was also aligning with the findings of this study confirming that there is a significant and moderate positive relationship between product innovation and the successful of SME.

As per the results of the study brand reputation was found to have a positive significant impact on the perceived success of SMEs in the engineering sector in Sri Lanka. This finding was supported by the findings of Alfoqahaa (2018) in Palestine and Anggraeni and Selamat (2021) in Indonesia. Further the research implemented by Ghee et al. (2019) in Kota Bharu, Kelantan, Malaysia also confirmed that there is a significant moderate positive relationship between brand reputation and perceived success of SMEs.

Final objective of the study was to measure the moderating effect of the industry type on the impact of the brand reputation on the perceived success of SMEs in the engineering sector in Sri Lanka. The findings of this study confirmed that the industry type does not significantly moderates the relationship between brand reputation and the perceived Success of SMEs.

In addition to that, the significant impact of independent variable on the dependent variable, even in the absence of the moderator statistically proved that the moderator does not affect the significance level. Similar results have been obtained in the study implemented by Muhonen et al. (2017) in Finland which highlighted that the industry type does not moderate the impact of brand reputation on success of SMEs. Hence, it is beneficial for SMEs to invest in brand identity development, irrespective of whether they are service oriented organisations or product-oriented organisations.

## CONCLUSION, IMPLICATIONS AND RECOMMENDATIONS

### Conclusion

The study concluded that the critical success factors of; excellence of customer service, reliable delivery, product/service innovation, and brand reputation have significant positive impacts on the success of SMEs in the engineering sector in Sri Lanka.

However, the industry type was found not significant in moderating the impact of brand reputation on the perceived success of SMEs.

### Implications and Recommendations

The highest impact of the excellence of customer service on the success of SMEs compels the SME owners and managers not to compromise best customers service and reliable delivery over its resource deficits. They need to be strategic to minimise customer complaints, increase repeat orders, and further customer referrals through best customer service and delivery. Employee and leadership development on delighting customers through the best service quality and delivery should be the core of all strategies.

SMEs should be lean enough to offer innovative product and services. Increasing product and service innovation will be a pressurised condition for SMEs due to their low financial capabilities. Therefore, a contextual approach on utilising the opportunities within a niche market segment will enable SME owners and managers to be innovative enough to compete with the large organisations.

SME are further pressurised not to ignore well focused marketing as the brand reputation plays a key role in their success. Again, identifying the attributes of their niche market segments are important to tailor made the branding strategies and customize overall delivery using the agility that SMEs have over the large companies. Using available modern technological advances, social and electronic media, and learning from ‘hidden champions’ in SMEs the world will be key in enhancing their innovation capabilities and developing brand reputation.

In the government stimuli packages and SME development programs, the capacity enhancement of SME entrepreneurs with regard to the aforementioned CSFs should be the core rather than providing mere financial sponsorships. The policy makers should formulate policies considering these CSFs in SME and entrepreneurship development.

### Limitations of the Study

A larger population of SMEs in the engineering sector should have been taken into consideration as this study considered only the SMEs that have been registered with the Sri Lanka Chamber of Small and Medium-scale Industries (SLCSMI) in the engineering sector. Besides, the majority of such registered SMEs are from service-oriented organisations and that the findings of the current study may have limitations in generalising them to a larger context. A qualitative analysis would have been more beneficial to discover context-based findings that may differ from theoretically deduced hypothesis.

### Future Direction

Selection of more CSFs from the literature while covering many more SMEs to extend this study to a larger context can generate more fruitful findings. Including more moderating and mediating variables into this kind of study may generate more varied research outcomes. Conducting an in-depth qualitative study can generate more relevant and context-based findings that may lead to further scrutinised implications for the practice and policy making.

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