

## Quality Management and Customer Satisfaction in SMEs in the Textile Industry

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### ABSTRACT

*The textile industry is an important sector in Peru, which thanks to the quality of its products, continues to be the preferred supplier for many countries. However, for some years its production has been decreasing, which has made it impossible to consolidate as a stable sector. The purpose of the research was to determine the influence of quality management on customer satisfaction in small and medium-sized enterprises within the textile sector of Lima-Perú. A quantitative methodology was used, of non-experimental design, correlational level and cross-sectional, with a sample of 259 clients. The instrument used was the questionnaire on a Likert scale for the 2 variables; with a reliability of 0.810 and 0.6, respectively. Among the results, it was detailed that there is a weak and significant correlation between quality management and customer satisfaction ( $r = 0.321$ ,  $p \leq 0.001$ ). With regard to linear regression, it was determined that 8.9% of the leadership level explains customer satisfaction ( $\beta = 0.27$ ,  $p = 0.01$ ). In addition, 11.7% of the level of worker participation explains customer satisfaction ( $\beta = 0.344$ ,  $p = 0.001$ ). This research provides a clear contribution by filling the gap due to the evident lack of research aimed at evaluating the implementation of these variables in developing countries, especially in Latin America and specifically in Perú.*

*Keywords: Quality management, customer satisfaction, leadership, textile industry; SMEs*

*Jel classification: M30, M31, L67*

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### Introduction

China, Bangladesh, Vietnam and Turkey lead global textile production. While in China they reach a turnover of almost 9 million dollars a month, in Peru only 328,000 dollars are reported, representing 0.8% of world

production in this industry and in turn 4.8% of the country's GDP (Martinez-Condor et al., 2020). In this sense, competition within the textile sector of these countries with Peru is very high, leaving Peru with a small portion of global demand (Inocente et al.,

2020). Compared to other sectors, the textile industry in Peru has suffered a significant decline, the competition of imports from China, India and Vietnam being one of the main reasons, given that the prices offered by these countries are much lower than Peruvian prices (Martinez-Condor et al., 2020). Peru's commercial competitiveness in textile production subsectors however, is high; due to the quality that characterizes its fabrics, Peru meets a significant part of the demand from European and North American countries that remain loyal customers due to these characteristics (Inocente et al., 2020). This has made customers more aware of product quality, and in turn leads companies to consistently adopt new initiatives in order to improve their quality. (Shafiq et al., 2019).

In today's world, the main challenge for organizations is to cope with increasing customer demand. This incentivizes many organizations to change the activities of the manufacturing process, especially in developing countries (Patyal & Koilakuntla 2017). As previously described, the textile industry is an important sector in Peru, which thanks to the quality of its products, continues to be the preferred supplier for many countries. However, for some years its production has been decreasing, which has made it impossible to consolidate as a stable sector (Martinez-Condor et al., 2020). Therefore, this study aims to analyze two important factors in the textile trade, such as quality management and customer satisfaction, and thus be able to answer questions such as: does quality management affect customer satisfaction? Does the leadership of a company affect customer satisfaction? Does the level of participation of a company's workers affect the level of customer satisfaction? Although it is true that various investigations have been carried out that analyze the correlation and/or incidence between quality management and customer satisfaction in different areas (Afthanorhan et al., 2019a; Afthanorhan et al., 2019b, Aljumah et al., 2020; Al-Tit 2015; Endara et al., 2019; Gündüz & Gündüz, 2017; Hussain et al., 2015; Ismail & Yunan, 2016; Jaleel et

al., 2021; Janahi & Al Mubarak, 2017; Kant & Jaiswal, 2017; Kundi et al., 2014; Kundu & Datta, 2015; Ngo & Nguyen, 2016; Patyal & Koilakuntla, 2017; Shahneaz & Salma, 2013; Shafiq et al., 2019; Yuen & Van Thai, 2015). It has been apparent the lack of research aimed at evaluating the implementation of these variables in developing countries, especially in Latin America and specifically in Perú (Benzaquen, & Charles, 2020). In Peru, the increase in different companies leads to competition between them, which is why their certification as quality firms is necessary, thus allowing improvement of the quality of their products. Additionally, companies have been interested in the various benefits that this certification provides, such as a more pleasant working environment, cost reduction, productivity growth, among others (Benzaquen, & Charles, 2020), and the textile area is not exempt from this need / requirement. However, it has not been possible to appreciate an investigation that has been carried out in a company in the textile sector that establishes the incidence of quality management on customer satisfaction through a linear regression in Peru.

### Literature review

The quality of a product is essential for the well-being of human beings; taking into consideration that advances in quality awareness were motivated by quality products with Feigenbaum in the mid-20th century (Li et al., 2018). These challenges related to quality raise the question of evaluator the improvement process and techniques used to manage this quality at each stage carried out to develop the product, considering the effort of the employees and the time of each cycle with the objective of satisfying customer expectations and demand (Gunasekaran et al., 2019).

The workplace and the worker are all challenges that management in both small and large companies must face, therefore, quality can be considered as one more challenge that is interrelated with these.

Additionally, quality represents a strong component that influences people's satisfaction (Haque & Oino, 2019; Channa & Sajid, 2020); likewise, it can represent a competitive advantage for a company (Islam et al., 2012). The quality of both the service and the product is of great importance, since these factors influence the customer's purchase or consumption decisions, as indicated Parasuraman et al., 1988. Quality can be defined as the difference between the expectations that customers have and the experience perceived by them, both of the product and of the service obtained. Additionally, excellent quality influences the improvement of the organization's productivity (Channa & Sajid, 2020).

Within scientific literature there are different studies that define customer satisfaction. According to Pajuodis 2015, customer satisfaction arises from a comparison process measured by the quality of the service and / or use of the product; Kotler & Keller, (2012), argued that this comparison can generate a feeling of pleasure or disappointment according to customer expectations, and when it comes to customer satisfaction (Abdallat & Emam, 2001), it is something which arises prior to the purchase decision and is manifested after having used the service or product (Bendaravičienė & Vilkytė, 2019).

Customer satisfaction is something which allows differentiating the interest and preference of a certain product or service by the customer. It is important to maintain and increase this satisfaction, as it is a factor that strongly influences the performance of companies, which allows them to evaluate their position in the market, as well as increasing higher profits and sales. Managing customer satisfaction is an important responsibility and characteristic within organizations and is something which should be carried out by each of the people involved (Channa & Sajid, 2020).

On the other hand, the relationship between quality of service and customer satisfaction

has been evaluated by different authors in different market contexts, as mentioned in the introduction section. Shahneaz & Salma (2013), findings from the evaluation of a department store revealed that elements of quality such as competence and customer knowledge significantly influence overall customer satisfaction. The findings of Aljumah et al., (2020), indicated that the quality of service in the Islamic bank of South Africa positively influences perceived customer satisfaction. Kundi et al., (2014), different attributes of service quality in a higher education institution examined, obtaining positive and significant relationships between the studied attributes and customer satisfaction as a result.

Under this context, the objectives of this research were the following: to determine the impact of quality management on customer satisfaction; determine the impact of the leadership level on customer satisfaction; and determine the incidence of the level of participation of workers on customer satisfaction; all this focused on a company in the textile sector located in Lima, Peru.

Therefore, the main hypothesis of this study is:

H1: Quality management has significant effect on Customer Satisfaction.

## Methods

### Design

This is quantitative research, carried out at a correlational and transversal level. By the same token, the design is non-experimental, according to Salkind (2010), non-experimental designs are used to answer questions about groups or whether there are differences between groups. The conclusions are descriptive in nature, taking into account that to conclude on the causal relationships based on non-experimental research, it is carried out in a post hoc manner.

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### Sample and procedures

This study focused on Small and Medium Enterprises (SMEs) in the textile sector of Lima, Peru, since these companies are still in development. Through surveys you can find out the current state of companies and consequently, make improvements. In order to obtain information about the customer who buys from a company in the textile sector, the survey technique (Zaitoun & Aqel, 2015) was taken into account for each study variable. A non-probabilistic and convenience type sampling was carried out, selecting a total of 259 people. The respondents were informed about the purpose of this study, in the same way data was collected through online surveys and the information provided through the responses was kept confidential.

### Instrument

A questionnaire was used for each variable, starting with Ferrero (2019). In the case of the Quality Management variable, the questionnaire consisted of two dimensions (Level of leadership and Level of worker participation), each consisting of six items.

For the Customer Satisfaction variable, the questionnaire was made up of three dimensions (Purchases, Stocks and Sales), in turn made up of seven, six and two dimensions respectively. The instruments used were validated by a judgment of 4 experts; while the Cronbach's alpha statistic was used for reliability. The same that was developed in Quansah (2017) and Trizano-Hermosilla & Alvarado (2016). It is important to mention that the data have been processed through the SPSS v.24 statistical program at a 95% confidence level. The Spearman Rho statistic was used to evaluate the correlation of the study variables and linear regression to find out which of the independent variables best predicted the value of the dependent variable.

### Results

A reliability of 0.810 was obtained for the Quality Management variable questionnaire and 0.6 for the Customer satisfaction variable questionnaire. According to Osho (2016), values above 0.6 are considered satisfactory.

**Table 1. Correlation between Quality Management and Customer Satisfaction**

			<b>Customer satisfaction</b>	<b>Quality management</b>
Spearman's Rho	Customer satisfaction	Correlation coefficient	1.000	,321**
		Sig. (bilateral)		0.000
		N	259	259
	Quality management	Correlation coefficient	,321**	1.000
		Sig. (bilateral)	0.000	
		N	259	259

\*\* . The correlation is significant at the 0.01 level (bilateral).

The results shown in Table 1 respond to the research hypothesis. Table 1 shows a significant, positive and weak correlation with Spearman's Rho statistic (de Winter et al., 2016; Baskar et al., 2020) with 95% confidence between quality management and customer satisfaction. This means that the

changes made to improve quality management to a greater or lesser extent will be reflected in a greater or lesser measure of customer satisfaction. According to Gogtay & Thatte (2017), the closer the value is to +1, the stronger the correlation.

**Table 2. Multiple linear regression model**

Model	R2	Standardized coefficients		
		Beta ( $\beta$ )	t	Sig.
Quality management	0.108	-0.149	-0.994	0.321
Leadership level	0.089	0.270	2.597	0.010
Workers participation level	0.117	0.344	3.329	0.001

From table 2, it is understood that a high level of leadership ( $\beta = 0.270$ ,  $p = 0.01$ ) and worker participation ( $\beta = 0.344$ ,  $p = 0.001$ ) in the textile sector company is significantly associated with a level high customer satisfaction. On the other hand, a low level of quality management explains a high level of customer satisfaction with a 10.8% probability.

Through the linear regression model, placing globally as predictors the quality management, level of leadership, level of worker participation, an R2 is 0.149 and F = 14.924 with a significance of 0.000. This means that the model explains 14.9% of customer satisfaction significantly.

### Discussion

The objective was to determine the impact of quality management on customer satisfaction, whose correlation value obtained ( $r = 0.321$ ,  $p = 0.000$ ) is positive, weak and significant. In addition, it was determined that 8.9% of the leadership level explains customer satisfaction ( $\beta = 0.27$ ,  $p = 0.01$ ). Also, 11.7% of the level of worker

participation predicts customer satisfaction ( $\beta = 0.344$ ,  $p = 0.001$ ); all this focused on a company in the textile sector located in Lima, Peru. This result agrees with Islam et al., (2012) and Afthanorhan et al., (2019a), who confirmed a positive and significant relationship in the quality of service with regard to client satisfaction as well as within the library environment. The general services therefore, were important in creating a high increase in performance. Channa, & Sajid, (2020), found a strong relationship between quality and cost with satisfaction in the textile industry in Pakistan. Together with Kundu & Datta (2015), who found that electronic quality management is strongly correlated with customer satisfaction, allowing them to confirm that trust is a mediating variable of service quality when analyzing the same model with gap value and perception value. In addition to Hussain et al., (2015), through the modeling of structure equations, they indicated that the quality of service, the perceived value and the brand image have a significant positive impact on customer satisfaction, which a turn can lead to brand loyalty. In the same way with Suwandej

(2015), who modeled the total quality management for a municipality, which allowed to explain that successful public organizations require leaders, teamwork, training, appropriate incentives and evaluation and effective communication. Similarly, with Al-Tit (2015), who concludes that the dimensions of service quality in addition to customer satisfaction have a positive influence on customer retention. As with Ngo & Nguyen (2016), who revealed that customer satisfaction and quality of service are very important benchmarks of customer loyalty and, in turn, customer satisfaction predicts the impact of quality of service on customer loyalty. Together with other authors such Janahi & Al Mubarak (2017); Ismail & Yunan (2016); Yuen & Van Thai, (2015) and Kant & Jaiswal, (2017).

### Conclusion

The purpose of the research was to determine the influence of quality management on customer satisfaction in small and medium-sized enterprises within the textile sector of Lima-Perú.

This study empirically determined the impact of quality management on customer satisfaction was determined, whose correlation value ( $r = 0.321$ ,  $p = 0.000$ ) is positive, weak and significant focused on SMEs within the textile sector of Lima, Peru. This means that the changes made to improve quality management will be reflected in customer satisfaction. In addition, it was determined that 8.9% of the leadership level explains customer satisfaction ( $\beta = 0.27$ ,  $p = 0.01$ ), in the same way 11.7% of the level of worker participation predicts customer satisfaction ( $\beta = 0.344$ ,  $p = 0.001$ ).

The results of the research serve as a reference for que las PYMEs del sector textile de Perú to adopt changes to improve quality management; in such a way that it is reflected in an improvement in customer satisfaction levels. This study serves as a reference for future research on quality management and / or customer satisfaction in

the textile industry, especially in developing countries such as Peru.

### Author contributions

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### References

1. Abdallat, MAM, Emam, HES. (2001). Consumer Behavior Models in Tourism Analysis Study. *Department of Tourism and Hospitality, Faculty of Tourism and Archeology*. King Saud University press release
2. Afthanorhan, A, Foziah, H, Rusli, R, Khalid, S. (2019a). The effect of service quality on customer satisfaction in three campuses of UniSZA. *International Journal of Innovation, Creativity and Change*, 7(10), 42-56. Retrieved from
3. [https://www.ijcc.net/images/vol7iss10/71004\\_Afthanorhan\\_2019\\_E\\_R.pdf](https://www.ijcc.net/images/vol7iss10/71004_Afthanorhan_2019_E_R.pdf)

4. Afthanorhan, A, Awang, Z, Rashid, N, Foziah, H, Ghazali, P. (2019b). Assessing the effects of service quality on customer satisfaction. *Management Science Letters*, 9(1), 13-24. DOI: 10.5267/j.msl.2018.11.004.
5. Al-Tit, AA. (2015). The effect of service and food quality on customer satisfaction and hence customer retention. *Asian social science*, 11(23), 129. doi:10.5539/ass.v11n23p129
6. Aljumah, A, Nuseir, MT, Islam, A. (2020). Impacts of Service Quality, Satisfaction and Trust on the Loyalty of Foreign Patients in Malaysian Medical Tourism. *International Journal of Innovation, Creativity and Change*, 11(2), 451-467.
7. Baskar, S, Dhulipala, VS, Shakeel, PM, Sridhar, KP, Kumar, R. (2020). Hybrid fuzzy based spearman rank correlation for cranial nerve palsy detection in MIoT environment. *Health and Technology*, 10(1), 259-270. doi:10.1007/s12553-019-00294-8
8. Bendaravičienė, R, Vilkytė, B. (2019). Measurement of customer satisfaction with service quality: Study of fashion chain stores in Lithuania. *International journal of management, accounting and economics*, 6, 113-128. Retrieved from: <https://etalpykla.lituanistikadb.lt/object/LT-LDB-0001:J.04~2019~1606733737542/J.04~2019~1606733737542.pdf>
9. Benzaquen, J, Charles, V. (2020). A stratified bootstrapping approach to assessing the success of TQM implementation in Peruvian companies. *Total Quality Management & Business Excellence*, 33 (1-2), 178-201. <https://doi.org/10.1080/14783363.2020.1816165>
10. Channa, H, Sajid, SS. (2020). The Factors of Customer Satisfaction Driving Purchase in Textile Business: The Case study of Denim Garments from Pakistan. *International Journal of Applied Business and Management Studies*, 5(2), 81-103. Retrieved from: [http://www.ijabms.com/wp-content/uploads/2020/12/05\\_CHANNA-SAJID-1.pdf](http://www.ijabms.com/wp-content/uploads/2020/12/05_CHANNA-SAJID-1.pdf)
11. de Winter, JC, Gosling, SD, Potter, J. (2016). Comparing the Pearson and Spearman correlation coefficients across distributions and sample sizes: A tutorial using simulations and empirical data. *Psychological methods*, 21(3), 273. <https://doi.org/10.1037/met0000079>
12. Endara, YM, Ali, AB, Yajid, MS. (2019). The influence of culture on service quality leading to customer satisfaction and moderation role of type of bank. *Journal of Islamic Accounting and Business Research*, 10(1), 134-154. <https://doi.org/10.1108/JIABR-12-2015-0060>
13. Ferrero, D. (2019). *Gestión de la calidad y la satisfacción del cliente de la empresa de seguridad tacna SAC, 2018*. Tesis para optar al título de Ingeniero de la Producción y Administración. Perú
14. Gogtay, NJ, Thatte, UM. (2017). Principles of correlation analysis. *Journal of the Association of Physicians of India*, 65(3), 78-81. Retrieved from: [https://www.kem.edu/wp-content/uploads/2012/06/9-Principles\\_of\\_correlation-1.pdf](https://www.kem.edu/wp-content/uploads/2012/06/9-Principles_of_correlation-1.pdf)
15. Gunasekaran, A, Subramanian, N, Ngai, WTE. (2019). Quality management in the 21st century enterprises: Research pathway towards Industry 4.0. *International journal of production economics*, 207, 125-129. <https://doi.org/10.1016/j.ijpe.2018.09.005>

16. Gündüz, GŞ, Gündüz, Ç. (2017). Examining the perception of quality and customer satisfaction within the framework of total quality management in textile sector. *Textile and Apparel*, 27(2), 101-107. Retrieved from: <https://dergipark.org.tr/en/download/article-file/318721>
17. Haque, AU, Oino, I. (2019). Managerial Challenges for Software Houses Related to Work, Worker and Workplace: Stress Reduction and Sustenance of Human Capital. *Polish Journal of Management Studies*, 19(1), 170-189. doi:10.17512/pjms.2019.19.1.13
18. Hussain, R, Al Nasser, A, Hussain, YK. (2015). Service quality and customer satisfaction of a UAE-based airline: An empirical investigation. *Journal of Air Transport Management*, 42, 167-175. <https://doi.org/10.1016/j.jairtraman.2014.10.001>
19. Inocente, RL, Ávalo,s ÁO, Habrahamshon, KP, Melchor, GO. (2020). Análisis de las exportaciones del sector textil peruano (Analysis of exports of the Peruvian textile sector). *Análisis Económico y Financiero*, 3(1), 32-49. <https://doi.org/10.24265/raef.2020.v3n1.20>
20. Islam, MA, Khadem, M, Sayem, A. (2012). Service quality, customer satisfaction and customer loyalty analysis in Bangladesh apparel fashion retail: an empirical study. *International Journal of Fashion Design, Technology and Education*, 5(3), 213-224. <https://doi.org/10.1080/17543266.2012.723754>
21. Ismail, A, Yunan, YM. (2016). Service quality as a predictor of customer satisfaction and customer loyalty. *LogForum*, 12(4), 269-283. Doi:10.17270/J.LOG.2016.4.7
22. Jaleel, AA, Khatibi, A, Azam, SM. (2021). Structural equation modelling the interrelationships between service quality, customer satisfaction and behavioural intention among maldivians seeking medical tourism services. *International Journal of Innovation*, 15(3). 62-80.
23. Janahi, MA, Al Mubarak, MMS. (2017). The impact of customer service quality on customer satisfaction in Islamic banking. *Journal of Islamic Marketing*. <https://doi.org/10.1108/JIMA-07-2015-0049>
24. Kant, R, Jaiswal, D. (2017). The impact of perceived service quality dimensions on customer satisfaction: An empirical study on public sector banks in India. *International Journal of Bank Marketing*. <https://doi.org/10.1108/IJBM-04-2016-0051>
25. Kotler, P, Keller, KL. (2012). *Marketing management*. New Jersey: Pearson Education Inc.
26. Kundi, GM, Khan, MS, Qureshi, QA, Khan, Y, Akhtar, R. (2014). Impact of service quality on customer satisfaction in higher education institutions. *Industrial Engineering Letters*, 4(3), 23-28. Retrieved from: <https://core.ac.uk/reader/234685190>
27. Kundu, S, Datta, SK. (2015). Impact of trust on the relationship of e-service quality and customer satisfaction. *EuroMed Journal of Business*. <https://doi.org/10.1108/EMJB-10-2013-0053>
28. Li, D, Zhao, Y, Zhang, L, Chen, X, Cao, C. (2018). Impact of quality management on green innovation. *Journal of cleaner production*, 170, 462-470.
29. <https://doi.org/10.1016/j.jclepro.2017.09.158>



31. Martinez-Condor, B, Mamani-Motta, F, Macassi-Jaurequi, I, Raymundo-Ibañez, C, Perez, M. (2020). Lean Production Model Aligned with Organizational Culture to Reduce Order Fulfillment Issues in Micro-and Small-sized Textile Businesses in Peru. *In IOP Conference Series: Materials Science and Engineering* (796, 1, p. 012016). IOP Publishing
32. Ngo, VM, Nguyen, HH. (2016). The relationship between service quality, customer satisfaction and customer loyalty: An investigation in Vietnamese retail banking sector. *Journal of Competitiveness*.  
<https://doi.org/10.7441/joc.2016.02.08>
33. Osho, A. (2016). Strategy Implementation and Organizational Growth: A study of Banks in Port Harcourt. Retrieved April 02, 2022, from:  
[https://www.researchgate.net/publication/303610873\\_Strategy\\_Implementation\\_and\\_Organizational\\_Growth\\_A\\_study\\_of\\_Banks\\_in\\_Port\\_Harcourt](https://www.researchgate.net/publication/303610873_Strategy_Implementation_and_Organizational_Growth_A_study_of_Banks_in_Port_Harcourt)
34. [https://www.researchgate.net/publication/303610873\\_Strategy\\_Implementation\\_and\\_Organizational\\_Growth\\_A\\_study\\_of\\_Banks\\_in\\_Port\\_Harcourt](https://www.researchgate.net/publication/303610873_Strategy_Implementation_and_Organizational_Growth_A_study_of_Banks_in_Port_Harcourt)
35. Pajuodis, A. (2005). *Prekybos marketingas*. Vilnius: Eugrimas.
36. Parasuraman, A, Zeithaml, VA, Berry, L. (1988). SERVQUAL: A multiple-item scale for measuring consumer perceptions of service quality. *1988* 64(1), 12-40.
37. Patyal, VS, Koilakuntla, M. (2017). The impact of quality management practices on performance: an empirical study. *Benchmarking: An International Journal*. <https://doi.org/10.1108/BIJ-11-2015-0109>
38. Quansah, F. (2017). The Use Of Cronbach Alpha Reliability Estimate In Research Among Students In Public Universities In Ghana. *African Journal of Teacher Education*, 6. Available at SSRN: Retrieved from: <https://ssrn.com/abstract=3479491>
39. Salkind, NJ. (2010). *Encyclopedia of research design* (Vol. 1). SAGE. Ed.
40. Shafiq, M, Lasrado, F, Hafeez, K. (2019). The effect of TQM on organizational performance: empirical evidence from the textile sector of a developing country using SEM. *Total Quality Management & Business Excellence*, 30(1-2), 31-52. <https://doi.org/10.1080/14783363.2017.1283211>
41. Shahneaz, MA, Salma, U. (2013). Service quality in mega shops: A study of consumer satisfaction in apparel retailing. *European Journal of Business and Management*, 5(4), 248-254. Retrieved from: <https://core.ac.uk/reader/234624600>
42. Suwandej, N. (2015). Factors influencing total quality management. *Procedia-Social and Behavioral Sciences*, 197, 2215-2222. <https://doi.org/10.1016/j.sbspro.2015.07.361>
43. Trizano-Hermosilla, I, Alvarado, JM. (2016). Best alternatives to Cronbach's alpha reliability in realistic conditions: congeneric and asymmetrical measurements. *Frontiers in psychology*, 7, 769. <https://doi.org/10.3389/fpsyg.2016.00769>
44. Yuen, KF, Van Thai, V. (2015). Service quality and customer satisfaction in liner shipping. *International Journal of Quality and Service Sciences*. <https://doi.org/10.1108/IJQSS-02-2015-0024>
45. Zaitoun, NM, Aqel, MJ. (2015). Survey on image segmentation techniques. *Procedia Computer Science*, 65, 797-806. <https://doi.org/10.1016/j.procs.2015.09.027>