

# Mapping the Airport Operations and Service Quality Management during Pandemic (COVID19) – Netaji Subhas Chandra Bose International Airport (CCU) in 2020

Arijit Das<sup>1</sup>, DR. Sunil Kumar<sup>2</sup>

<sup>1</sup>LPU, Research Scholar, Aviation and hospitality Faculty, Aptech Aviation and hospitality Academy  
Kolkata, India, arijit86@gmail.com

<sup>2</sup>Asst. Prof LPU, School of hotel management and tourism department . Lovely Professional  
University, Punjab, India sunil.25053@lpu.co.in

## Article Info

Volume 83

Page Number: 7173 - 7180

Publication Issue:

May - June 2020

## Article History

Article Received: 19 November  
2019

Revised: 27 January 2020

Accepted: 24 February 2020

Publication: 18 May 2020

## Abstract:

The airport passenger services in Kolkata city of India, has seen a drop in passenger volume in March 2020 due to the pandemic COVID19. The dreaded disease impacts the existing service dimensions of airport operations for domestic and international passengers as additional activities of screening, sanitising the passengers at pre-boarding and de-boarding stages is a statutory mandate by Government of India, Ministry of Home affairs. This research explores the service dimensions using ASQ scale to conduct a cross-sectional survey for inbound and outbound air travellers amidst pandemic COVID19 and as to how the Kolkata airport ground services is able to meet passenger expectations, with current service delivery options along with additional COVID19 protocol to be accommodated in all its operations. It maps passenger perception about service quality in pandemic crisis period and how airport environment operations has functioned to meet the priorities.

**Keywords:** Airport operations, service quality, COVID19, Kolkata airport, passenger satisfaction

## I. INTRODUCTION

Airlines passengers and cargo form the key revenue driver for any airlines and the airport operations. However, the issue of revenues and profits are closely interlinked as the output of the operation needs to meet the demand criteria. Rendeiro Marti'n-Cejas, (2006) stated that it is evident the airlines' passengers do not have the option to choose the airports as the strategic position of the airports serves a catchment area by geography. The issue is important for both domestic and international passengers, as the models of growth require the demand from the movement of passengers, cargo between destinations across nations forcing to relook

at cost, efficiency, and service delivery rendered. Issues of airport infrastructure choking the outcome of the services (Schiffman and Kanuk, 2004), and testing of management capabilities requires a trade-off, to gain in cost based efficiencies to meet the customer-defined operations outputs (Sulzmaier, 2001). It is evident no airport operations is ideal, and the scope of improvement, align its business goals, service operations towards sustainability, requires to create a holistic solution for end-users, the customers. For most of the airport improvement agenda, relying on the quality of airline service (flight and ground) impacts the customer experience. Netaji Subhas Chandra Bose international airport (IATA: CCU), is the oldest airport in India,

established in 1924. Awarded the best-improved airport' in AsiaPacific region by Airport Council International. Modernisation of infrastructure has led to two operational runways each capable of serving 35 flights per hour and 15 flights per hour respectively (Kolkata airport CCU, 2020). The new integrated 'L shaped ' six-level terminal has 233,000 square metre area, capable of serving annually around 25million passengers. It has CUTE (common user terminal equipment) to facilitate the check-in and arrival/departure protocols to be served better in seamless workflow methods.

This study has attempted to understand the existing ground airport operations metric to accommodate the additional requirements for COVID19 protocols, a severe pandemic that is life-threatening. The operations in this airport service consist of passenger queuing time, service lead time, airport physical facilities that needed to be safeguarded with more pro-customer mind-set operation activities, that impacts the airport reputation against the current challenge of including COVID19 contamination issues.

## II. Literature review

The past research shows airport service quality has been mapped in the airport operations that has a range of tools to meet the customer-specific requirements.

### 2.1 Service quality at the airport:

The airport offers the infrastructure, where the diverse stakeholders are creating interaction points for the customer to deliver a variety of services. Each of airport service is a need, desire of the customer that is linked to airline passenger and cargo, auxiliary service, airport facility. While there are various interlinked activities like arrivals, passing, connection, and transit (Callan and Kyndt, 2001), while service quality has been segregated as the customer convenience, check-in time, employee kindness, visibility of information, serviceability, security built into the airport service system. Brady and Cronin (2001) added departure operations within

the airport, while Callan and Kyndt, (2001) stated symbolic icons to guide the flow of passengers to be crucial. Issues like cancellation of flights or delays are universal and a source of key customer dissatisfiers in customer experience continuum. Zeithaml et al. (1990) stated that customers compare the expectations of the organisation against the performance delivered. Gronroos (2007) defined that there is a gap of expectation and experience in service quality, that is the performance of service delivery. SERVQUAL framework by Parasuraman (2002), identified five elements - tangibles, reliability, assurance, responsiveness and empathy.

ASQ (American service quality) surveyed a huge number of airports in all continents to understand the key determinants of quality (Coulthard, 2004). Lee et al. (2000) research showed that evaluation along with qualitative subjective interpretation that is perceived, that has led to a higher level of engagement as a key factor which helps to resolve the defects in service and improve the service quality continuum. It also led to an understanding that all airport operations in different countries can be graded as per LOS (levels of service) offered. Fodness and Murray (2007) linked the airline passenger survey results of expectations at ground and flight to develop reliable and validate a scale. The challenge is to create a universal solution by amalgamating the passenger perception of fliers across nations and airports. Guided by a vision, ACI (Airports council international) the creation of the ASQ program was developed (Airport Council International, 2020). There is fundamental differences in other models and frameworks in mapping customer-defined quality – SERVQUAL, SERVPERF and ASQ as the latter has been able to align those key variables from the longitudinal study in airlines passenger feedback meeting sector-specific indicators (Kang and James, 2004).

### 2.2 Ground service quality:

The air travel is dependent on the airport service that involves the airport infrastructure, also explained as 'elaborate servicescape' (Wuest, 2001)

which leads to hospitality, tourism and airlines services to merge. Much of it depends on the building architecture, and its design that defines the physical environment, for the people it is built and range of services for delivery (Grönroos, 2007). The previous academic literature shows the research work of service quality in service to expand in the hospitality and tourism sector, as most of them focus on the management, airport service settings. Brady and Cronin (2001) stated that within inflight operations independently, ground services add value especially, to customer needs and experiences. The ground operations of the airport is a mix of complex activities, with varied service dimensions, aimed and targeted towards diverse segments of passenger satisfaction. Airports have tried to improve the operational performance and identify the gaps in the performance that links the passenger satisfaction dissatisfaction continuum using the value creation framework (Kristensson et al. 2016). This movement has led to baseline threshold parameters to be outlined to meet the minimum service level standards in any airport (Francis et al. 2002) (Humphreys and Francis, 2002).

The airport terminals therefore essentially try to identify the optimal functional design, maintaining the architectural beauty along with the productivity quotient which is a key factor in the meeting the airline travellers requirements. Chen and Chang (2005) stated that servicescape design for each airport differs, and is measured in terms of customer satisfaction-dissatisfaction (Andronikidis and Bellou, 2010), with operations in the ground level a core issue related to the airport architectural design that defines management's capability in service quality. Correia et al. (2008) referred the functions and design perspective in terms of servicescape, while Fodness and Murray (2007) related the ground service signage system to contribute to passenger convenience in seeking information. Jeon and Kim (2012) added that airport functionality depends on the outer aesthetics, and how it evokes passenger's emotional state and safety inside the premises. Correia et al. (2008) focussed on passenger

convenience factor like distance to be covered in the airport, walking and staircases, space availability, information guidance, seats and facilities in departure lounge that defines the functionality of ground service quality.

### **2.3 Airlines Passenger satisfiers and dissatisfiers:**

The operations of a servicescape impact the users, which either falls in customer satisfaction or customer dissatisfaction. Past research shows in the service sector, customer behaviour is an indication of the service delivered to meet the requirements or demands (Zeithaml et al. 2003). However, customer satisfaction is subjective as it varies due to individual differences between people, and it is interpreted differently as per perception and expectation set. Yeh and Kuo (2003) stated that service delivery is not customer satisfaction but it is the behavioural output which requires a deeper understanding of customer needs (Chiu and Lin, 2004), especially when it is international airports operation. Using the Herzberg's two-factor theory, in the workplace and employee context shows the job satisfiers and dissatisfiers, which were further identified for hospitality and tourism in seasonal workers showed intrinsic drivers to meet performance criteria (Lundberg et al. 2009). The Earliest study by Cadotte and Turgeon (1988) showed the application of this theory in hospitality, where it was found urgency in operations defined by speed, pricing, and availability of parking are key in hospitality and tourism sectors as failure to provide these created higher dissatisfiers. Mikulic and Prebezac (2008) suggested that key service operatives like building design and passenger comfort associated with it, shopping or entertainment possibilities with seating arrangement is a dominant factor in airport operations. Han et al. (2012) argued the availability of comfort and convenience for airlines passengers at the core of perceptions.

## 2.4 Pandemic - COVID19:

The additional readiness about epidemic COVID19 from airport's operations is critical as it impacts life, health and survival issues for all humans (Dinarto et al. 2020). Hence it impacts airlines passengers arriving and departing within the existing airport servicescape, while Rocklöv et al. (2020) have studied COVID19 impact on Diamond Princess cruise ship estimating requirement for public health countermeasures. The COVID19 requires to maintain a social distance of 2metres from each individual, sanitisation of hands, covering of faces by masks, fumigation of all areas in servicescape where passengers have passed through in airport servicescape.

**Research Gap:** There is no research involving Kolkata (CCU) airport operations regarding the measurement of airport service quality, ground service quality, airlines passenger satisfaction which is identified as a research gap.

## III. Methodology

The research methods applied in this research context has used a questionnaire-volumbased survey for both international and domestic passengers. The attributes of the questionnaire is embedded with ASQ elements to test the service dimensions of Netaji Subhas International Airport (CCU) with COVID19 operational readiness. It consists of six service dimensions and 42 airport ground operations service delivery elements which is also a part of ACI and Skytrax annual surveys for all airports around the world. The questionnaires were distributed and at entry and exit points of CCU terminal for both international and domestic airlines passenger flying in and flying out of Kolkata city. The airline passengers have been asked to rate the parameters based on the Likert scale 5point scale (where the 5 very satisfactory and 1 unsatisfactory). The use of one way ANOVA (analysis of variance), t-test has been used.

## IV. Analysis

The demographics of airlines passengers taking part voluntarily in the research were 153 domestic and 405 international airlines passengers passing through CCU Kolkata airport. The demographic shows limited travel by domestic travellers due to air travel ban in the month of March while international travellers were mostly rushing back to home, study, business purposes. Most of them have used CCU airport before, while gender, age, educational qualification and income is analysed.

The ASQ scale has 38 attributes distributed into segments taking pre-boarding and post-boarding passenger experiences as per activities has been added with COVID19 service dimensions for domestic, international passengers. The six dimensions are ground transportation, airport check-in services, departure security checks, signage and information, airport services, arrival services along with COVID19.

The analysis of the dimensions in the CCU airport show accurate flight information, airport restroom cleanliness and terminal cleanliness is most highly rated by airlines international and domestic passengers with mean scores over. While COVID19 pandemic awareness has led to international passengers, where they rated airport readiness to screen fellow passengers by airport readiness very low (3.11 mean). They ranked perception of COVID19 facilities at (4.09 mean), and quarantine facilities (mean 3.28). The least rated services by international passengers in Kolkata airport were massage services, parking fees, taxi services. The domestic airlines passengers experience rated check-in to be extremely important, while departure security checks to be least satisfactory.

The analysis of variance shows the satisfaction mapping of the passengers passing through the Kolkata airport with respect to the service dimensions reaching a significant difference ( $P<0.05$ ). Additionally a Scheffe post hoc was tested to find possible differences in the domestic and international airlines passenger types. There was no

significant differences in terms of Kolkata airport (CCU) for demographics parameters (age, gender, education, monthly income), though the frequency of travel had different threshold there showed significant difference. Similarly, the purpose of travel for domestic and international airlines passengers had shown significant differences for ground transportation, airport service facilities, where the passengers were business travellers. Again the higher frequency fliers reports higher satisfaction in Kolkata airport service facilities, check-in service, than that of the rest.

The male passengers showed differences in satisfaction against the female gender, in regards to check-in service (4.04) against the (3.91), while airport security checks depicted for male (4.01) against female (3.95). The implication shows that males prefer methodical activities and prefer the airport management Airport check-up for international inbound passengers for both genders showed (0.01) P value. The implications show that international male passengers, placed importance in airport checking, airport security checks and is more satisfied than female airlines passenger passing through the Kolkata airport management of sequential events.

The passenger **age** factor showed differential satisfaction levels in airport check-in (4.02), and airport arrival services (4.05) for age (21-40) when compared with the other age groups, with P value at 0.02. In fact for all airport check-in services and airport arrival services is slightly higher in terms of satisfaction along with the COVID19 preparation of service facility for international passengers for all age group (21-40,41-60,>61) with P values at (0.02). The **monthly income** has shown differences in international passengers only for below 30000 monthly income group placing importance on airport check-in, arrival services and highly on COVID19 service facility of the Kolkata airport. Similar results were obtained for passengers with income (50001-70000) in check in services, and COVID19 service facilities of the Kolkata airport. These income

groups from international background formed the opposite of their high and low income continuum but their perception and needs were fulfilled by Kolkata management service staff which showed high level of satisfaction.

The passengers with different **purposes** show that satisfaction level especially the business passengers rated the service of Kolkata airport for ground transportation (3.98), airport check-in services (4.12), departure security checks (4.06), signage and information (4.89), airport services (4.15), arrival services (4.12) and COVID19 preparation service wise (4.53). It implies fast track services for international passengers against the rest of airlines passengers passing through Kolkata airport with the following purposes ‘reaching home’, ‘leisure’ and ‘study’.

The domestic airlines passenger however showed difference in terms of experiencing in the airport ground services of Kolkata airport. The male domestic airlines passenger expressed satisfaction in check-in (3.99), security check (3.97), facilities (3.71), arrivals (3.9) and COVID19 preparation level (3.99) compared to female (3.90), security check (3.91), facilities (3.78), arrivals (2.58) and COVID19 (4.11). Both the males and females expressed satisfaction on COVID19 preparation higher preference of such airport service and its management has a P value of 0.01. The implications of the above results show that COVID19 preparedness of Kolkata airport along with check-in services, security check-up,

The domestic air passengers by age group showed significant differences for airport check-in (3.55), airport security checks (3.96), airport service facilities available (3.97), arrival service (3.99) and COVID19 (4.01) for the age group of (21-40), with the last two service dimensions being rated critical and satisfied as per Kolkata airport offerings. The next age group (41-60) is middle adult age domestic passengers who have travelled through the airport and rate, airport check-in (3.59), airport security checks (3.71), airport service facilities available (3.95), arrival service (3.75) and COVID19 (4.22).

The over 61 domestic passengers ‘senior citizen’ placed importance in only airport check-in (41.11), security check-up (3.99), airport signage (3.89), airport service facility (3.99), arrival service (3.89) and COVID19 service (4.02) has a score of 0.01 P value to it. It implies a general trend of young and old wanting quicker service in service encounters like airport check-in, security check-up, aggregate services, arrival service and COVID19 showing similar trends of preferences due to impact of latter dimension on other airport dimensions.

The domestic passengers for the demographic segmentation by monthly income shows the following results with less than 30000 by value passenger segment to place importance on airport check-in (4.01), and COVID19 (3.99), while for (30000-50000) income group, airport check-in (3.88), airport service facility (3.84), arrival services (3.89) along with COVID19 (4.01) to be important. The income group of 50001-70000, showed that service dimensions like airport check-in (3.98), airport security checks (3.89) and arrival services (3.99) with COVID19 (4.19) to achieve (0.01) P value. This service dimension has showed satisfaction as per perception of the services consumed at Kolkata airport ground services. The trend that emerges strongly is for services like faster airport check-in process, the mandatory security check process, airport aggregate services, and arrival services along with newly added service COVID19.

The factors like travel purpose for the domestic passengers showed that reaching home (return journey) segment placed importance to airport signage (4.15), airport service facility (3.98), airport COVID19 services (4.59). The leisure air travellers placed airport check in (3.91), airport signage (3.99), airport services (4.15), arrival services (3.98) and COVID19 services (4.09) that has reached a P value score of (0.01). The Business purpose domestic travellers using Kolkata ground airport services placed importance on airport check-in (3.98), airlines facility services (3.89), arrival services (3.9) and COVID19 (4.22). The student domestic passenger segment only found quick airlines check-

in (3.98) to be important amongst all service dimensions.

The travel frequency factor for the domestic airline passengers in Kolkata airport shows that annually once (least travelled) passengers placed importance on airport check-in services (4.01) and COVID19 (4.38) over the other service dimensions. The domestic passengers who travels (2-3) times have place COVID19 service dimensions (3.81), for (4-5) times arrival services (3.99) and COVID19 services (4.11) be as per expectations. Most frequent passenger in Kolkata airport (>6times) showed preference towards airlines (3.97), COVID19 services (4.01), which has a P value of (0.01).

## V. Conclusion

The survey brings out the customer preference of service dimensions in Kolkata airport for domestic and international passengers. It is evident that service dimensions like airport check-in activities has been rated as most satisfied is also a need that links wait time in queues that the service scape design has been able to eliminate. The airport security checks a mandatory compliance activity for both domestic and international passengers shows high in satisfaction, linking personal perception about safety, a norm they expect airport ground services to perform at pre boarding stage. The airport services facility management has been rated with satisfaction from business travellers, which indicates that these passengers access and seek higher service standards, faster service when compared to other fellow passenger types. The arrival services has been found to be critical after de-boarding, as both international and domestic passengers wanted faster service and has rated Kolkata ground service post consumption as per expectation set. The final service dimensions COVID19 services links the other service dimensions of Kolkata airport like check-in, security checks, and arrival services as much of the passenger free flowing movement is restricted by these activities that is an important part of service quality dimensions for operations for compliance perspective and also for customer expectations set. It

can be concluded that Kolkata airport has been able to comply with the COVID19 guidelines to screen passengers for safety, as it created checking activities to avoid contamination spread that stresses other service dimensions.

The passenger perception about service quality therefore differed in domestic terminal, international terminal and their service scape design, employee training leaving scope of improvement of the existing service delivery capabilities amidst COVID19 pandemic. It is evident that international airlines processing activities are a bit longer, than that of domestic one. The nature of COVID19 spread through air based contamination forces the CCU airport to define its ability to define service quality that safeguards employees, domestic and international passengers. Results show satisfactory passenger perception about COVID19 setup at CCU, in terms of understanding crisis currently prevalent globally. The heightened passenger needs, expectations and offering core airport facility services meeting COVID19 protocol of social distancing and sanitisation within Kolkata airport operating framework (time, cost, effort) requires sustainability continuum. However, the passenger perceptions differed about services between domestic and international travellers in Kolkata ground operations as extraneous factors like (flight delays, inflight service, and flight length) do have spiralling impact on the passengers' expectation have not been taken into consideration in this research.

## VI. References

- [1] Airport Council International (2020), Available at <https://aci.aero/customer-experience-asq/> [Accessed on 21March 2020]
- [2] Andronikidis, A. and Bellou, V., 2010. Verifying alternative measures of the service-quality construct: consistencies and contradictions. *Journal of Marketing Management*, 26(5-6), pp.570-587.
- [3] Bezerra, G.C.L. and Gomes, C.F., 2016. Measuring airport service quality: A multidimensional approach. *Journal of Air Transport Management*, 53, pp.85-93.
- [4] Brady, M.K. and Cronin Jr, J.J., 2001. Some new thoughts on conceptualizing perceived service quality: a hierarchical approach. *Journal of marketing*, 65(3), pp.34-49.
- [5] Cadotte, E.R. and Turgeon, N., 1988. Key factors in guest satisfaction. *Cornell Hotel and Restaurant Administration Quarterly*, 28(4), pp.44-51.
- [6] Callan, R.J. and Kyndt, G., 2001. Business travellers' perception of service quality: a prefatory study of two European city centre hotels. *International Journal of Tourism Research*, 3(4), pp.313-323.
- [7] Chen, F.Y. and Chang, Y.H. (2005), "Examining airline service quality from a process perspective", *Journal of Air Transport Management*, Vol. 11 No. 2, pp. 79-87.
- [8] Chiu, H.C. and Lin, N.P., 2004. A service quality measurement derived from the theory of needs. *The Service Industries Journal*, 24(1), pp.187-204.
- [9] Correia, A., Kozak, M. and Ferradeira, J., 2013. From tourist motivations to tourist satisfaction. *International Journal of Culture, Tourism and Hospitality Research*.
- [10] Coulthard, L.J.M., 2004. Measuring service quality: A review and critique of research using SERVQUAL. *International Journal of Market Research*.
- [11] Dinarto, D., Wanto, A. and Sebastian, L.C., 2020. Global Health Security–COVID-19: Impact on Bintan's Tourism Sector. *RSIS Commentaries*, 033-20.
- [12] Fadel, M., Salomon, J. and Descatha, A., 2020. Coronavirus outbreak: the role of companies in preparedness and responses. *The Lancet Public Health*, 5(4), p.e193.
- [13] Francis, G., Humphreys, I. and Fry, J., 2002. The benchmarking of airport performance. *Journal of air transport management*, 8(4), pp.239-247.
- [14] Grönroos, C., 2007. Service management and marketing: customer management in service competition. John Wiley & Sons.
- [15] Han, S., Ham, S., Yang, I. and Baek, S. (2012), "Passengers' perceptions of airline lounges: importance of attributes that determine usage and service quality measurement", *Tourism Management*, Vol. 33 No. 5, pp. 1103-1111.

- [16] Humphreys, I. and Francis, G. (2000), “Traditional airport performance indicators: a critical perspective”, *Transportation Research Record: Journal of the Transportation Research Board*, Vol. 1703 No. 1, pp. 24-30.
- [17] Humphreys, I. and Francis, G., 2002. Performance measurement: a review of airports. *International journal of transport management*, 1(2), pp.79-85.
- [18] Jeon, S. and Kim, M.-S. (2012), “The effect of the servicescape on customers’ behavioral intentions in an international airport service environment”, *Service Business*, Vol. 6 No. 3, pp. 279-295.
- [19] Kang, G.D. and James, J., 2004. Service quality dimensions: an examination of Grönroos’s service quality model. *Managing Service Quality: An International Journal*.
- [20] Kolkata airport (CCU) (2020) , Available at <https://www.aai.aero/en/airports/kolkata> [Accessed on 21 March 2020]
- [21] Kristensson, P., Parasuraman, A., McColl-Kennedy, J.R., Edvardsson, B. and Colurcio, M., 2016. Linking service design to value creation and service research. *Journal of Service Management*, 27(1), pp.21-29.
- [22] Lee, H., Lee, Y. and Yoo, D., 2000. The determinants of perceived service quality and its relationship with satisfaction. *Journal of services marketing*.
- [23] Lundberg, C., Gudmundson, A. and Andersson, T.D. (2009), “Herzberg’s Two-Factor Theory of work motivation tested empirically on seasonal workers in hospitality and tourism”, *Tourism Management*, Vol. 3 No. 6, pp. 890-899.
- [24] Mikulic, J. and Prebežac, D., 2008. Prioritizing improvement of service attributes using impact range-performance analysis and impact-asymmetry analysis. *Managing Service Quality*, 18(6), pp.559-576.
- [25] Parasuraman, A., Zeithaml, V. and Berry, L., 2002. SERVQUAL: a multiple-item scale for measuring consumer perceptions of service quality. *Retailing: critical concepts*, 64(1), p.140.
- [26] Rendeiro Marti ‘n-Cejas, R. (2006), “Tourism service quality begins at the airport”, *Tourism Management*, Vol. 27 No. 5, pp. 874-877
- [27] Rocklöv, J., Sjödin, H. and Wilder-Smith, A., 2020. COVID-19 outbreak on the Diamond Princess cruise ship: estimating the epidemic potential and effectiveness of public health countermeasures. *Journal of travel medicine*. Available at <https://academic.oup.com/jtm/advance-article-pdf/doi/10.1093/jtm/taaa030/32817920/taaa030.pdf>
- [28] Schiffman, L. G. & Kanuk, L. L., 2004. *Consumer Behaviour*. 8 ed. New Jersey:: Prentice Hall
- [29] Sulzmaier, S. (2001), *Consumer-oriented Business Design: The Case of Airport Management*, Physica-Verlag HD, New York, NY.
- [30] Wuest, B.S., 2001. Service quality concepts and dimensions pertinent to tourism, hospitality, and leisure services. *Service quality management in hospitality, tourism, and leisure*, pp.51-66.
- [31] Yeh, C.H. and Kuo, Y.L. (2003), “Evaluating passenger services of Asia-Pacific international airports”, *Transportation Research Part E: Logistics and Transportation Review*, Vol. 39 No. 1, pp. 35-48.
- [32] Zeithaml, V., Parasuraman & Bitner, M. J., 2003. *Services Marketing*. McGraw-Hill
- [33] Zeithaml, V.A., Parasuraman, A., Berry, L.L. and Berry, L.L., 1990. *Delivering quality service: Balancing customer perceptions and expectations*. Simon and Schuster.