

Consumer Satisfaction among the Young Youth Using Smart Phones: A Study

Stuti Jain¹, Shiv Singh Sarangdevot^{2*}

^{1,2}XXJRN Rajasthan Vidyapeeth Univeristy (Deemed to be), Udaipur, Rajasthan, India

*Corresponding Author: prof_sssarangdevot@gmail.com

Available online at: www.ijcseonline.org

Accepted: 20/Jan/2019, Published: 31/Jan/2019

Abstract- The smart phone industry is the fastest growing sector in India. During this 25 years of journey mobile phones were transformed into personal computers. It is growing at a very rapid pace and has a significant contribution to the Gross Domestic Product of India every year. There is a great evolution of varied smart phones by different brands depending upon customer awareness and customer satisfaction. The new smart phones are featured with artificial intelligence, HD display, virtual assistant features like SIRI, Google assistant etc., high powered cameras, HD quality photos, Cloud storage feature and better battery life. As per study conducted by the mobile ecosystem forum, highest penetration rate of smart phone users was in the age group of 16-35 years of old. The study of customer satisfaction is relevant for organizations to maintain long term and healthy relationship with customers. In the carried out study, a survey was presented to understand the significant relationship between smart phone features and Indian youth customer. Presented paper also presents the comparative analysis which gives an overview of key findings by various researches along with their concept used for analysis.

Keywords- Word of Mouth, Customer Satisfaction, Smart Phones, Smart phone Features, Awareness, Perceived Image

I. INTRODUCTION

The smart phone industry is the fastest growing sector in India. Smart phones in the present day are at the centre stages of life of every human being. It is growing at a very rapid pace and has a significant contribution to the Gross Domestic Product of India every year. There is high development rate in the industry of smart phones. The development in the smart phones have grown from the year 1992 to 2019 at a very fast pace. There is a great evolution of varied smart phones by different brands depending upon customer awareness and customer satisfaction. The smart phone makers are making the smart phones on the basis of different consumer needs and motives. They study all the factors affecting consumer behavior for the marketing of the smart phones. The first iPhone was made by Steve Jobs in 2007 at Macworld with better costs, display, battery life and other features for customers. This phone was offered at two different prices depending on the memory size [1]. Web browsing can be thought as one of the distinguishing features from its predecessor mobile phones. Afterwards the future of smart phones is for all new generation with new innovations. The new smart phones are featured with artificial intelligence, HD display, virtual assistant features like SIRI, Google assistant etc., high powered cameras, HD quality photos, Cloud storage feature and better battery life. Moreover, there are best features in the current smart phones in the market like high RAM, fast processor, GPS facility, high storage etc.

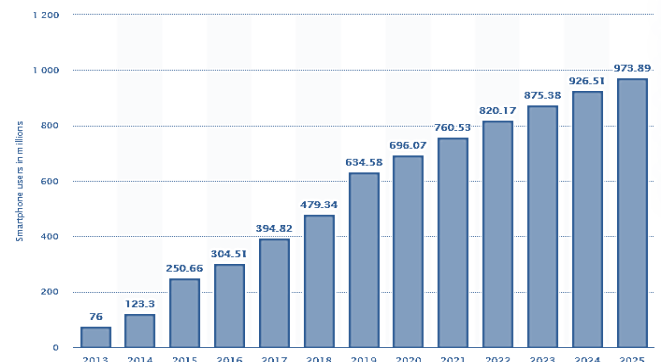


Fig. 1. Smart phone users in India from 2015 to 2025(an approx. estimate) [2].

Table 1 Smart phone market shares in India (brand wise) [3].

India Smartphone Shipments Market Share (%)						
Brands	2019 Q4	2020 Q1	2020 Q2	2020 Q3	2020 Q4	2021 Q1
Xiaomi	27%	31%	29%	23%	26%	26%
Samsung	18%	16%	26%	24%	20%	20%
vivo	21%	17%	17%	16%	15%	16%
Realme	8%	14%	11%	15%	11%	11%
Oppo	12%	12%	9%	10%	10%	11%
Others	14%	10%	8%	12%	18%	16%

As per study conducted by the mobile ecosystem forum, highest penetration rate of smart phone users was in the age group of 16-35 years of old [4]. Level of satisfaction achieved affects the future decision-making process of a customer. Some times or must say, most of the times it affects the WOM marketing towards a particular product [5]. It is very important for any organization to analyze the impact of their product and service on the customer. Every customer has different buying behavior. Therefore, it becomes necessary for the organization to analyze customer satisfaction and awareness of brands in the minds of customers. The customer satisfaction is related to the performance of the product and service. Customer satisfaction means how happy the customers are with the product and service offered by the seller. It is a feeling of pleasure or disappointment associated with the offered product and service. Now one important question arises, what factors drives customer satisfaction in smart phones? As per literature, most of the studies support that, overall performance was considered to be most contributing factor in customer satisfaction [6]. The studies suggest that there are six major factors which contributes in customer satisfactions i.e. Marketing, Mobile phone features, Cost price, Brand, Durability & Portability, Social factors.

Key contributions of the presented paper are:

- Discussed different approaches available in literature along with their mentioned strengths
- Summary of performance parameters on which various approaches were evaluated
- Challenges involved
- Future scope

The presented paper was structured as follows. Introduction section highlights the need of customer satisfaction. In background details and related work section talk though the proposed approaches which were recommended in literature in order to understand the customer satisfaction. Comparative analysis section highlights the key findings of proposed approaches and performance on different parameters. Conclusion section finally concludes the presented paper.

II. BACKGROUND DETAILS & RELATED WORK

This section describes the available literature work in the area. There was a lack of study which can conclude the impact of marketing on Word of Mouth. In the study [7], authors had put an effort to find out the impact of marketing on customer satisfaction. As per their findings marketing has positive relationship with WOM. In their carried out work they have also discussed the managerial implications.

In the study [8], authors mentioned the role of customer self-efficacy in mobile phone service customization. As per their

research, there were very few studies which discuss the relationship between satisfaction and self-efficacy. In the study [9], authors carried out the influence of ease of use (EU), perceived image (PI) and perceived cost on customer satisfaction (CS). As per their findings PC and CS affects the intention to use (IU) factor. The conducted study was based on the 400 Thai people.

In study [10], authors carried out study over 389 customers to understand the most preferred features which contributed in purchase of smart phones. Their study also aims to understand the compromise between certain factors while purchasing smart phones. In their research findings, the performance of processor was the most preferred feature considered by the Taiwanese before purchasing the smart phones. The price and battery were the second and third most contributing factors which were considered by the Taiwanese people before purchasing the smart phone.

In study [11], authors evaluated the role of large screen size in customer satisfaction. In their conducted study, they mentioned that in today's time customer who were using large screen were more satisfied with their smart phones compare to those who uses lesser screen size in order to carryout day today tasks.

In study [12], authors pointed out that there were a smaller number of studies available in literature that evaluated the information provided by the user interface of smart phone. They conducted their study by keeping three dimensions i.e., user interface, application quality in terms of information and user satisfactions.

In study [13], authors developed model based on fuzzy cognitive maps to conduct the study of customer satisfaction who uses smart phones. In their observations, authors mentioned that quality of features which smart phone contains has positive impact on its user satisfactions.

In study [14], authors conducted the study over five smart phone features i.e., color screen, voice activated dialing, camera, browsing and connectivity which can impact the customer satisfaction. In study [15] authors conducted their study by keeping student's satisfaction in focus. In their descriptive findings, it was observed that student qualification and gender considered to be least significant factors in study of satisfaction amongst smart phone users. In study [16], authors conducted a study based on the Coimbatore citizen's satisfaction who were using Samsung mobile phone. As per their conducted study conclusion, major customers were satisfied with Samsung smart phones due to two major factors i.e., easy to handle and service. Sony smart phones were ranked as first in satisfaction followed by blackberry's phone.

In study [17], authors conducted a study based on the Bangladesh citizens in order to find out that, how factors such as price and service quality affects the customer satisfaction. The authors observed that fair price has positive impact on customer satisfaction whereas no significant impact was found on satisfaction while using service factor. In study [5], authors observed that emotional value perceived by the customer towards a smart phone has highest impact on customer satisfaction. Their conclusion was based on the 270 question sets answers recorded from Malaysian people.

In study [2], a detailed comparison (brand wise/US customer) based on customer satisfaction was presented. This satisfaction comparison was based on randomly conducted interviews of US citizens who were using smart phones. The figure below shows the comparison chart brand wise on ASCI (American Customer Satisfaction Index) scale. In study [19], authors tries to investigate the contributing factors which affects customer satisfaction. The study was based on the South African people. As per their findings, overall satisfaction was considered as most contributing factor in customer satisfaction.

As per report [20] published, Oppo smart phone was declared as most satisfactory phone amongst Indian users. The ranking were based on Net Promoter Score. The survey was conducted by Num Research. The NPS score was based on the 500 responses collected in online mode. They have also reported that 52% of Indian population uses only one smart phone while 42% uses two smart phones at a time.

The similar facts findings were reported in the article [21]. As per their findings, Oppo emerged as a rank 1 brand in customer satisfaction, followed by Vivo, Xiaomi and Samsung respectively. Figure 6 shows the smart phone brand wise breakups for the year 2020 (India). As per reports [21], fast charge was considered as latest features by the Indian user.

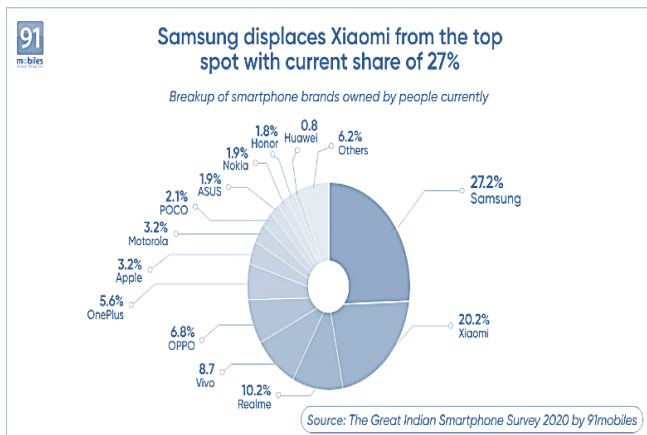


Fig. 2. Smart phone breakups in India [21]

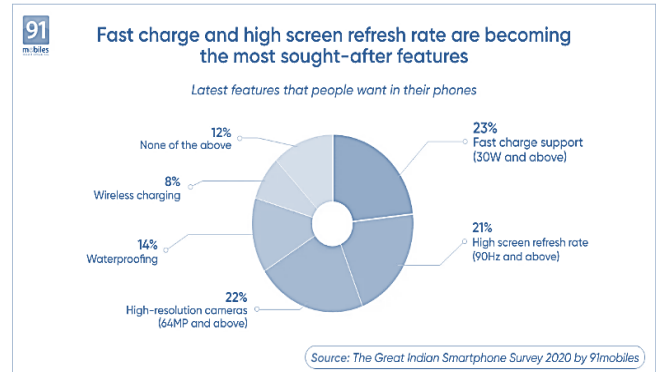


Fig. 3. Latest features desired by Indian users in their smart phone [21]

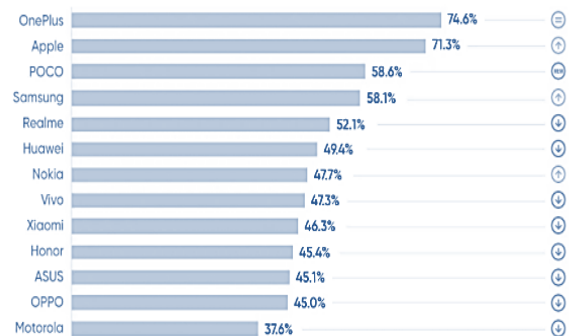


Fig. 4. Smart phone users satisfied with their smart phones (brand wise) [21]

In study [22], the authors reported Samsung brand smart phones users were more satisfied as compared to other users. They also reported that Samsung Company was better in terms of marketing strategy but Apple Company offers better software customization. Customer were satisfied with the design structure of Apple smart phone. In the study [23], authors conducted a study which talks about the smart phone features that were preferred by male customers of Finland. As per their findings, battery life was the most sought features which were considered by the male respondents.

In study [24], authors conducted studies over 310 South Korean residents for finding factors which contributes to customer satisfaction. As per their findings based on the responses of these 310 residents suggests that usability and interactivity were the two major features that were majorly contributed to customer satisfaction.

Study [25] stated the impact of various factors on customer loyalty that ultimately has a significant impact on the satisfaction of customers. The study explained the effect of customer satisfaction on the loyalty of customers in Bangladesh. To prove the argument, author studied six factors- communications, price, value-added service, convenience, sales promotion and consumer service.

Descriptive statistics and simple linear regression tools are used for data analysis. Their result indicated that all the stated factors have positive association with the customer loyalty. The studies found that customer is the king for the consumer-oriented companies. The author examined the study by using Convenience sampling to collect demographic characteristics and general information about 150 respondents.

Study [26] evaluated the effect of brand equity of different mobile phones on the satisfaction of consumers. The author attempted to monitor the different dimensions of brand equity. The self-administered questionnaire is employed using convenience-sampling technique in New Delhi and other adjoining cities of India. Mall-intercept survey is also performed to understand the consumer behavior towards different brands of mobile companies and collected data is analyzed using SPSS software. Descriptive research was the research methodology. The author observed that it is difficult for the mobile companies to operate easily in the market because of high competition and brand-conscious consumers. The two implications were found with this study-

The companies must put their efforts in building brand loyalty that has a significant impact on brand equity. It helps the organization to increase market share, attract new customers and strengthen the image of the brand in relation to competitors.

Secondly, companies must understand the importance of other dimensions of brand equity that includes brand awareness and brand association.

Study [27] investigated the relevance and result of customer satisfaction in mobile industry and highlighted the relationship between customer satisfaction and customer loyalty. Positive customer satisfaction results in increase in profits for the firm, repeated purchase and positive word of mouth marketing. The author identified different methods to estimate customer satisfaction that includes performance analysis, focus groups and critical incidence method. Customer satisfaction depends upon various factors like offers, charges, data rent, user-friendly service etc. It is a subjective approach. It has to be analyzed through customer's feedback. The author has used the structured questionnaire to analyze satisfaction among the users. He concluded that customer satisfaction has a positive association with customer retention and loyalty.

III. COMPARATIVE ANALYSIS

Reference	Domain	Concept	Major Findings
[7]	Marketing efforts + customer satisfaction	WOM	Efforts put in marketing has positive relationship with WOM
[8]	Service customization	Relation between satisfaction and self-efficacy	Self-efficacy has positive impact on mobile phone service customization.
[9]	Smart phone application	Factors that contributed to use of smart phone application	PC and CS affects the IU and EU and PI hardly affects IU
[10]	Smart phone purchase	Factors that affect the purchase of smart phone	Factors in decreasing order of their importance: processor performance, price, battery
[11]	Smart phone interface information	Does mobile interface meet with customer satisfaction	Mobile interface design impact customer satisfaction
[13]	Customer satisfaction using smart phones	FCM	Smart phone functionality affects customer satisfaction
[14]	Customer satisfaction using smart phones	Factors that contributed to CS	Smart functionality i.e., affects customer satisfaction
[16]	Student satisfaction using smart phones	Inferential statistics, descriptive statistics	Education qualification and gender was observed as least significant factors in study of student satisfaction using smart phone.
[17]	Customer satisfaction using smart phones	PCA, SEM	Price has positive impact on CS while service hardly impact CS.
[5]	Customer satisfaction using smart phones	Discriminant analysis	Customer perceived
[19]	Customer satisfaction using smart phones	Descriptive statistics	Overall performance was the major factor contributing to customer satisfaction
[20]	Customer satisfaction using smart phones	NPS	Loyalty was considered as a major contributing factor in customer satisfaction.
[28]	Customer satisfaction using smart phones	statistics	Sales after service was considered as a major contributing factor in customer satisfaction.
[29]	Customer satisfaction using smart phones (Turkey)	Statistics	Battery life was considered as major contributing feature in customer satisfaction.
[30]	Customer satisfaction using smart phones (South Korea)	Descriptive statistics	Simplicity and interactivity were considered as major contributing factor in customer satisfaction.

***Abbreviation-** WOM: Word of Mouth; PC: Perceived Cost; EU: Ease of Use; PI: Perceived Image; IU: Intention to Use; CS: Customer Satisfaction; FCM: Fuzzy Cognitive Map; PCA: Principal Component Analysis; SEM: Structural Equation Modeling

IV. CONCLUSION

The carried out study tries to answer some of the important questions i.e. what factors drives customer satisfaction in smart phones, does age and income has contribution in satisfaction, does there exist significant relationship between smart phone features and CS, if yes then what are the smart phone features that contributed to, what are the features which are considered by young youth in purchasing new smart phones etc. Although literature contains various studies which talks about customer satisfaction using smart phones but lacks studies regarding smart phone features and their contribution in customer satisfaction (young age group). Studies also lacks the information regarding how the smart phone features forces youth customer to purchase the new smart phone.

ACKNOWLEDGMENT

This work was supported by ABC University, XXXX, and India. We would also like to thanks our professors.

REFERENCES

- [1]. Andrew, O. (2018). The History and Evolution of the Smartphone: 1992-2018. [online] Textrequest.com. Available at: <https://www.textrequest.com/blog/history-evolution-smartphone/>.
- [2]. Statista. (2021, June 29). Smartphone users in India 2015–2025. <https://www.statista.com/statistics/467163/forecast-of-smartphone-users-in-india/>.
- [3]. India Smartphone Market Share: By Quarter. (2021, June 1). Counterpoint Research. <https://www.counterpointresearch.com/india-smartphone-share/>.
- [4]. Statista. (2019). India: smartphone users by age group 2019 | Statista. [online] Available at: <https://www.statista.com/statistics/1135692/india-smartphone-users-by-age-group/>.
- [5]. Wang, L. and Prompanyo, M. (2020). Modeling the relationship between perceived values, e-satisfaction, and e-loyalty. *Management Science Letters*, pp.2609–2616.
- [6]. Smartphone Brands American Customer Satisfaction Index. (2021). Retrieved 8 July 2021, from <https://www.theacsi.org/acsi-benchmarks/benchmarks-by-brand/benchmarks-for-smartphones>.
- [7]. X. Yang, X. Zhang and F. Zuo, "Word of Mouth: The Effects of Marketing Efforts and Customer Satisfaction," 2009 International Joint Conference on Artificial Intelligence, 2009, pp. 687-690, doi: 10.1109/IJCAI.2009.45.
- [8]. D. Han, Y. Wang and H. Xu, "Service customization, customer perceived value, and satisfaction: From the perspective of customers' self-efficacy," *ICSSSM11*, 2011, pp. 1-4, doi: 10.1109/ICSSSM.2011.5959376.
- [9]. M. Moslehpour, K. Amri and P. Promprasorn, "Factors influencing intention to use of smartphone applications in Thailand," 2017 IEEE International Conference on Industrial Engineering and Engineering Management (IEEM), 2017, pp. 1108-1112, doi: 10.1109/IEEM.2017.8290064.
- [10]. F. Ho, C. N. Wang, C. T. Ho, Y. C. Chiang and Y. F. Huang, "Evaluation of Smartphone feature preference by a modified AHP approach," 2015 IEEE International Conference on Industrial Engineering and Engineering Management (IEEM), 2015, pp. 591-594, doi: 10.1109/IEEM.2015.7385716.
- [11]. J. Bauer, S. Thelen and A. Ebert, "Evaluation of large display interaction using smart phones," 2011 IEEE Conference on Visual Analytics Science and Technology (VAST), 2011, pp. 265-266, doi: 10.1109/VAST.2011.6102466.
- [12]. I. Zamzami and M. Mahmud, "User Satisfaction on Smart Phone Interface Design, Information Quality Evaluation," 2012 International Conference on Advanced Computer Science Applications and Technologies (ACSAT), 2012, pp. 78-82, doi: 10.1109/ACSAT.2012.68.
- [13]. A. Inoue, M. Saito and M. Iwashita, "Behavior Analysis on Mobile-Carrier Choice & Mobile-Phone Purchase," 2015 3rd International Conference on Applied Computing and Information Technology/2nd International Conference on Computational Science and Intelligence, 2015, pp. 422-427, doi: 10.1109/ACIT-CI.2015.79.
- [14]. Ling, C., Hwang, W. & Salvendy, G. Diversified users' satisfaction with advanced mobile phone features. *Univ Access Inf Soc* 5, 239–249 (2006). <https://doi.org/10.1007/s10209-006-0028-x>
- [15]. Colleen Page. 2005. Mobile research strategies for a global market. *Commun. ACM* 48, 7 (July 2005), 42–48. DOI:<https://doi.org/10.1145/1070838.1070864>
- [16]. Thilagavathi, A., & Kanchana*, V. S. (n.d.). A STUDY ON CUSTOMER SATISFACTION TOWARDS SMARTPHONE USERS. PARIPEX INDIAN JOURNALRESEARCH,1.https://www.academia.edu/37947295/A_study_on_customer_satisfaction_towards_smart_phone_users
- [17]. Haque, A., Nuruzzaman and Kalam, A. (2011). Customer Satisfaction Mobile Phone Services: An Empirical Study on Grameen Phone (GP) and Banglalink (BL) in Bangladesh. *International Business Management*, 5(3), pp.140–150.
- [18]. Dr.S.NAMASIVAYAM, Dr.S.NAMASIVAYAM., M.PRAKASH, M.PRAKASH. and M.KRISHNAKUMAR, M.KRISHNAKUMAR. (2011). A Study on Customer Satisfaction Towards Samsung Smart Phones with Reference to Coimbatore City. *Indian Journal of Applied Research*, 4(5), pp.91–93.
- [19]. Ijumba, B. (2021). Factors affecting choice of and satisfaction with mobile phones: an investigation of university of KwaZulu-Natal (Pietermaritzburg) students. Retrieved 8 July 2021, from <https://researchspace.ukzn.ac.za/handle/10413/15172>.
- [20]. Kajarekar, R. (2019, August 28). Oppo, OnePlus Users Are Most Satisfied In India; 42% Indians Own More Than 1 Smartphone! *Trak.in - Indian Business of Tech, Mobile & Startups*. <https://trak.in/tags/business/2019/08/28/oppo-oneplus-users-are-most-satisfied-in-india-42-indians-own-more-than-1-smartphone/>
- [21]. Team. (2020, December 21). 91mobiles The Great Indian Smartphone Survey 2020: a summary | 91mobiles.com. 91mobiles.Com |. <https://www.91mobiles.com/hub/91mobiles-great-indian-smartphone-survey-2020/>
- [22]. Chauhan, V. (2020). STUDY OF CUSTOMER SATISFACTION TOWARDS SMARTPHONE USERS. *International Journal of Advanced Research in Commerce, Management & Social Science (IJARCMS)*, 03, 25–31. <https://inspirajournals.com/uploads/Issues/1895492360.pdf>
- [23]. Matti Haverila. Mobile phone feature preferences, customer satisfaction and repurchase intent among male users. *Australasian Marketing Journal (AMJ)*, Volume 19, Issue 4, 2011, Pages 238-246, ISSN 1441-3582, <https://doi.org/10.1016/j.ausmj.2011.05.009>. (<https://www.sciencedirect.com/science/article/pii/S1441358211000462>).

- [24]. Dongwon Lee, Junghoon Moon, Yong Jin Kim, Mun Y. Yi. Antecedents and consequences of mobile phone usability: Linking simplicity and interactivity to satisfaction, trust, and brand loyalty, *Information & Management*, Volume 52, Issue 3, 2015, Pages 295-304, ISSN 0378-7206, <https://doi.org/10.1016/j.im.2014.12.001>.
- [25]. Hossain, M. M. & Suchy, N. J. (2013). INFLUENCE OF CUSTOMER SATISFACTION ON LOYALTY: A STUDY ON MOBILE TELECOMMUNICATION INDUSTRY. *Journal of Social Sciences*, 9(2), 73-80. <https://doi.org/10.3844/jssp.2013.73.80>
- [26]. Ahmad, F., & Sherwani, N. U. (2015). An Empirical Study on the effect of Brand Equity of Mobile Phones on Customer Satisfaction. *International Journal of Marketing Studies*, 7(2). <https://doi.org/10.5539/ijms.v7n2p59>
- [27]. Almossawi, M. M. (2012). Customer Satisfaction in the Mobile Telecom Industry in Bahrain: Antecedents and Consequences. *International Journal of Marketing Studies*, 4(6). <https://doi.org/10.5539/ijms.v4n6p139>
- [28]. Singh, J. (2020, December 1). Indians Spend Rs. 2,400 on Average for Servicing Out-of-Warranty Smartphones: Counterpoint. *NDTV Gadgets* 360. <https://gadgets.ndtv.com/mobiles/news/india-smartphones-after-sales-service-spend-customer-satisfaction-rate-counterpoint-report-2332611>.
- [29]. Erkan Bayraktar, Ekrem Tatoglu, Ali Turkyilmaz, Dursun Delen, Selim Zaim. Measuring the efficiency of customer satisfaction and loyalty for mobile phone brands with DEA, *Expert Systems with Applications*, Volume 39, Issue 1, 2012, Pages 99-106, ISSN 0957-4174, <https://doi.org/10.1016/j.eswa.2011.06.041>. (<https://www.sciencedirect.com/science/article/pii/S0957417411009419>).
- [30]. Dongwon Lee, Junghoon Moon, Yong Jin Kim, Mun Y. Yi. Antecedents and consequences of mobile phone usability: Linking simplicity and interactivity to satisfaction, trust, and brand loyalty, *Information & Management*, Volume 52, Issue 3, 2015, Pages 295-304, ISSN 0378-7206, <https://doi.org/10.1016/j.im.2014.12.001>.