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# A study on customer satisfaction on e-payment applications

# MR.RAM BABU CHERUKUR<sup>1</sup>, Ms. SRILAKSHMI HARSHITHA P<sup>2</sup>

<sup>1</sup>Assistant professor, Saveetha School of Management, Saveetha Institute of Medical and Technical Sciences, Saveetha University, Chennai-77

<sup>2</sup>MBA Student, Saveetha School of Management, Saveetha Institute of Medical and Technical Sciences, Saveetha University, Chennai-77

Email ID: rambabucherukur.ssm@saveetha.com, srilakshmi1628@gmail.com

**Abstract:** The present study focuses on the customer satisfaction towards mobile wallets. This study examines the factors that influence customers satisfaction while using mobile wallets. Nowadays everyone uses their smartphones to make their day today transactions using mobile wallets. Mobile wallets create a huge impact among the people. The present study is carried by a survey conducted among the mobile wallet users to identify the satisfactory levels of them. The study focuses on the level of satisfaction and factors that satisfy the customers in using mobile wallets.

Keywords: customer satisfaction, mobile wallets, satisfactory levels

# **INTRODUCTION**

India is gradually clearing its way towards a credit only economy, from those substantial physical wallets to virtual wallets; we're changing at a critical movement. Recall those days, when we would convey those massive wallets brimming with money and credit? In any case, all gratitude to versatile wallets, for lessening our cargo while making payments and exchanges simpler. Presently, we can pay for practically any item or administration, move cash, make charge payments, book tickets and so forth at the solace of our home. Gone are the days when you needed to sit tight for quite a long time just to get your hands on that 'first day, first show' ticket of your preferred film.Mobile wallets have made our carries on with a lot simpler, with its one-tap highlight and fast handling all at one-go. Versatile wallets are intended to empower a safe and incorporated progression of exchanges with problem freecycle. A mobile wallet uses a financial balance, credit/charge card data to handle payments consistently while completely making sure about all the subtleties of the client. These wallet helps bring down the paying preparing time, diminish extortion and are efficient when contrasted with other physical wallets. Demonetisation by the Indian government additionally gave a push to these wallets, and from that point forward, the client base of these wallets have been continually expanding. Prior to demonetisation, money exchanges represented practically 95% of exchanges, 85% of individuals were as yet paid in real money, and practically 70% of customers casted vote cash on delivery as the most liked method of payment. However as indicated by certain assessments, the India mobile wallet industry is set to develop by 150% one year from now, with the exchanges adding up to \$4.4 billion. Consequently, it's of crucial significance to think completely about such a significant resource. Peruse on to assemble total data about versatile wallets, and how they can be valuable for you.Consumer satisfaction can be knowledgeable about an assortment of circumstances and associated with the two merchandise and ventures. It is a profoundly close to home appraisal that is incredibly influenced by client desires. Satisfaction likewise depends on the client's insight of the two contacts with the association and individual results. A few scientists characterize a fulfilled client inside the private area as one who gets noteworthy added value to his/her main concern-a definition that may apply similarly to public administrations.

Customer Satisfaction varies relying upon the circumstance and the item or administration. A client might be happy with an item or administration, an encounter, a buy choice, a sales rep, store, specialist organization, or a quality or any of these. Customer satisfaction is characterized as an estimation that decides how upbeat clients are with an organization's items, administrations, and abilities. Customer Satisfaction data, including studies and appraisals, can enable an organization to decide how to best improve or change its items and administrations. An association's primary centre must be to fulfil its clients. This applies to mechanical firms, retail and discount organizations, government bodies, administration organizations, charitable associations, and each subgroup inside an association. Mobile wallets have many features such as Convenience in paying with a versatile wallet is simply an issue of a single tick. You simply need to connect your credit/check cards, ledger subtleties into the wallet once, and it will be spared to let you do exchange bother free whenever later on. Boundless Facilities With an e-wallet conveys all your Mastercards data just as archives like your Aadhaar Card, Driving License, and significantly more. Actually, a few applications like Paytm permit you to do shopping and snatch limits under a similar rooftop consistent transaction is another feature in which E-wallet preparing is quick to the point that

you can immediately move cash to anybody over the globe. According to the portable wallet application designers, a wallet application gives the chance to interconnect the financial balances, Mastercards, versatile records, bills, and so forth and better deal with all your money related exchanges. Next comes the security. With the world getting computerized and clients sparing all their budgetary and individual data in the applications, the digital assailants are more keen on hacking the applications and satisfying their underhanded desires. According to an overview, 55% of clients conceded that the security issues is the explanation confining them from using versatile wallets and incline toward portable payments Our application designers propose building a secret phrase ensured application whose put away data can't be perused by the different applications. Likewise, including highlights like sending OTP (once secret phrase) to connected contact number or filtering the unique mark/QR code for the validation of the client are acceptable alternatives to go for. Conveyability is the next key feature of E-wallet. We can make our versatile application more compact by permitting the clients to handily include cash and make exchanges. As indicated by the top portable application advancement organizations, this is the prime motivation behind why clients are oftentimes using e-wallet applications nowadays. Rewarding System In E- wallet is like since the prizes can draw in and connect with clients viably, it is needed to include this component in each portable application. You can attempt distinctive compensating strategies, such as giving some movement focuses or money back. Our research idea is based on the rich knowledge acquired by our peer teams across the university.(A.C.Gomathi, S.R.Xavier Rajarathinam, A.Mohammed Sadiqc, Rajeshkumar, 2020; Danda et al., 2009; Danda and Ravi, 2011; Dua et al., 2019; Ezhilarasan et al., 2019; Krishnan and Chary, 2015; Manivannan, I., Ranganathan, S., Gopalakannan, S. et al., 2018; Narayanan et al., 2012, 2009; Neelakantan et al., 2013, 2011; Neelakantan and Sharma, 2015; Panchal et al., 2019; Prasanna et al., 2011; Priya S et al., 2009; Rajeshkumar et al., 2019; Ramadurai et al., 2019; Ramakrishnan et al., 2019; Ramesh et al., 2016; Venugopalan et al., 2014)

#### **OBJECTIVES:**

- 1. To measure the satisfaction level of customers towards mobile wallets.
- 2. To analyse the importance of mobile wallets in day to day transactions.
- 3. To investigate the customer experience while using mobile wallets.

#### LITERATURE REVIEW

(Nimako et al., 2012) conducted a study named "An evaluation and investigation of consumer satisfaction with administration conveyance of mobile media transmission networks in Ghana" with the goal to survey and break down consumer satisfaction with administration conveyance of different versatile broadcast communications inside Ghana. The finding showed that, independent of versatile telecom networks in Ghana; consumer satisfaction was discovered to be low; neither equivalent to nor superior to want and desire for the client. The study inferred that general consumer satisfaction was altogether extraordinary among versatile media transmission in Ghana.

(Chaterjee, 2010) entitled "An investigation of Market Share and factor influencing the decision of cell specialist co-op among youthful age gathering of Kolkata" recognized the most significant and least significant components influencing decision of specialist organization working in Kolkata. The outcome uncovered that the variables like great organization inclusion and family or companions using a similar organization are of most extreme significance to the clients while the proposal of free association with the handset being the least significant one.

(Paulrajan and Rajkumar, 2011) did a study under the title "Administration Quality and Customers Preference of Cellular Mobile Service Providers" uncovered that, purchaser's recognition is broadly fluctuated as per the correspondence quality, call administration, offices, value, client care and specialist co-op's trait.

(Chaudhari and Ambekar, 2013) did a study with the title "Client Preferences towards different Mobile Service Providers" demonstrated that in India, various cell organizations are contending to offer effective and quality types of assistance to their clients. The study concludes that customers lean toward a specific cell phone specialist coop based available to come in to work levies, network inclusion, esteem included administrations and the purchasers are exceptionally impacted by their relatives.

(Egena, 2013) conducted an investigation named "Consumer satisfaction in Mobile Telephony: An Analysis of significant Telecommunication Service Providers in Nigeria". The investigation likewise demonstrated a negative relationship between exchanging expectation and consumer satisfaction.

(Pandiya et al., 2012)did an investigation with the title "An investigation of consumer satisfaction on telecom specialist organizations" for evaluating the consumer satisfaction towards versatile specialist organization and how the clients are profited in clinical understudy. Nonetheless, the client has indicated a level of disappointment with administration nature of organization, talk time, association charge, simple accessibility of energized coupon, simple accessibility of retailers moving revival vouchers.

(Doan, 2014)he directed an investigation to comprehend buyer reception on mobile wallets in the Finland region.. The investigation gauges the economic situation of versatile wallets clients. Study inferred that the trust factor uncovered the positive or negative effect on appropriation of client, contingent upon the client satisfaction and client's circumstance. (Govender and Sihlali, 2014)they investigated the variables decide the appropriation of versatile banking (mbanking) administrations among understudies who are all the more actually learned. In light of the augmentation of the Technology Acceptance Model, the hypothetical structure is created to explore the elements that decide understudy's acknowledgment of mobile banking.

(Liébana-Cabanillas et al., 2012)The study explored the arbitrator impact of the client's age between the abstract principles and the office of utilization. This study has demonstrated that more seasoned buyers are the more grounded connection between office to use and abstract principles. So the versatile innovation supplier should focus on more seasoned shoppers to make information about usable new devices.

(Meutia, 2016) the study has explored exactly the encounters of clients' satisfaction on e-cash selection in Indonesia. The study recommended that trust factors have significant level followed by the other energizers factors. The investigation reasoned that trust and doubt unequivocally affected the degree of clients' satisfaction on e-cash selection in Indonesia.

(Liu and Tai, 2016) they have directed an investigation in Vietnam to break down the elements impacting the purchaser's expectation to use mobile payment administrations. The outcome shows that among the four outer factors similarity affects usability and saw value is discovered to be a positive effect on the aim to use M-payment. The investigation featured that trust and wellbeing have no immediate effect on handiness except for it directly affects the expectation to use versatile payment.

(Singh, 2016) They have directed a study to recognize different components' effect on the reception of mobile wallet payment among clients. The study was directed in the Kurali city, District of Punjab. The study discoveries show that mobile wallets are considered as the fates of money.

(Ahuja and Joshi, 2018) have learned about the client observation concerning Mobile wallets. In this investigation they inspected that the components investigation method is used to arrange the variables which impact client sentiment towards Mobile wallets. The study has been led about the various kinds of versatile wallets in India.

#### **RESEARCH METHOD**

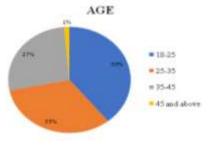
The descriptive research design is used in this study. Sampling techniques used in this study is convenience sampling. The data collection method used in this study is a questionnaire method. The items in the questionnaire are measured using a five-point Likert scale. The data was collected from 162 respondents who were contacted and was given the opportunity to participate in the survey. The collected data is analysed using SPSS version 23. The collected data were classified, tabulated, analysed with some of the statistical tools such as frequency analysis, mean, ANOVA and regression analysis

#### FREQUENCY ANALYSIS



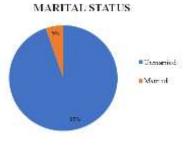


From figure 1 it is analysed that majority of the respondents are female (54.9%) and male respondents were few compared to female (45.1%).





From figure 2 it is analysed that the majority of the respondents are those age group lies between 18-25 (33.3%) followed by the age lies between 25-35(27.8%) followed by age group 35-45 (22.8%) followed by age group 45 and above (16.0%).



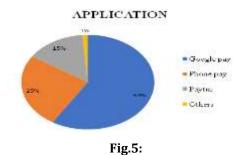


From figure 3 it is analysed that the majority of the respondents are unmarried (57.4%) and followed by the married respondents were few compared to unmarried (42.6%).





From figure 4 it is analysed that the majority of the respondents are from others (58%), followed by private employees (18.5%), followed by business (17.9%), followed by government employees (5.6%).



From figure 5 it is analysed that the majority of the respondents are google pay users (57.4%), followed by phone pay users (24.7%), followed by paytm users (14.2%) and other application users (3.7%).

S.NO	CUSTOMER SATISFACTION ON E-PAYMENT APPLICATION	MEAN	RANK
1	Transactions through E-payment apps are faster	3.66	1
2	E-payment apps provide cash back	3.09	8
3	Are you satisfied with the service of E-payment apps	3.55	3
4	Private E-payment apps are efficient than government E- payment apps	3.23	7
5	E-payments apps promote cashless payment to next level	3.46	5
6	E-payment Apps provide discount offers	3.28	6
7	Do you think that using online payment app can offer you a wider range of	3.48	4
	banking services and payment option		
8	E-payment apps are user friendly	3.61	2
9	It is risky to use E-payment apps	3.01	9

#### **INTERPRETATION:**

From table 1 it is evident that the component availability of faster, user friendly, satisfaction, service, cashless payments, discount, efficiency, cash back, risk .So, it is implied that customer satisfaction is mostly influenced based on speed factor and user friendliness.

# Table 2: Anova Analysis

S.NO	FACTORS	<b>F-VALUE</b>	SIGNIFICANCE
1	Customer satisfaction vs age	1.931	0.127
2	Convenience & Efficiency vs age	2.201	0.90
3	Customer satisfaction vs gender	0.152	0.697
4	Convenience & Efficiency vs gender	1.149	0.285

# **INTERPRETATION:**

Table 2 shows the one-way ANOVA analysis of age vs customer satisfaction and convenience and efficiency and one-way ANOVA analysis of gender vs customer satisfaction and convenience and efficiency. From the analysis it is clear that both the 'p' values of customer satisfaction (0.127) and convenience and efficiency (0.90) are greater than 0.05. It is interpreted that there is no significant difference among age with respect tocustomer satisfaction and convenience and efficiency. So age of consumers doesn't influence the customer satisfaction (0.697) and Convenience & Efficiency (0.285) are greater than 0.05. It is interpreted that there is no significant difference and efficiency. So, gender of respondents doesn't influence the customer satisfaction (0.697) and Convenience & Efficiency (0.285) are greater than 0.05. It is interpreted that there is no significant difference among gender with respect to customer satisfaction and convenience and efficiency. So, gender of respondents doesn't influence the customer satisfaction from the analysis doesn't influence the customer satisfaction and convenience and efficiency. So, gender of respondents doesn't influence the customer satisfaction and convenience and efficiency.

# **REGRESSION ANALYSIS**

# **Table 3: Model Summary**

MODEL	R	<b>R SQUARE</b>	ADJUSTED R SQUARE	SIGNIFICANCE	
1	0.739 <sup>a</sup>	0.546	0.543	0.00	

#### **INTERPRETATION:**

The above tables 3 provides the R and  $R^2$  values. The R value represents the simple correlation and is  $0.739^a$  ("R" column), which indicates the degree of correlation. The  $R^2$  value (the "R Square" column) indicates how much of the total variation in the dependent variable can be explained by the independent variable. The adjusted R square value 0.543 which indicates 54.3% of the variance in dependent variable has been explained by independent variables.

#### Table 4: Anova Test

		Model	Sum of Squares	df	Mean Square	F	Sig.
Ī	1	Regression	57.249	1	57.249	192.479	0.00 <sup>a</sup>
		Residual	47.589	160	0.297		
		Total	104.838	161			

# **INTERPRETATION:**

The above table 4 indicates that the regression model predicts the dependent variable significantly well. Here the 'p' value (0.00) which is lesser than 0.05. (i.e., it is a good fit for the data).

Table	5:	<b>Regression Analysis</b>	
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		Model	<b>Unstandardized Coefficients</b>		Standardized Coefficients	t	Sig.
			В	Std. Error	Beta		
1	1	(Constant)	0.918	0.188		4.873	.000
		Convenience & efficiency	0.780	0.056	0.739	13.874	.000

# **INTERPRETATION:**

The above table 5 indicates regression analysis with B & Beta value for the independent and dependent variables which are assumed. As a rule of thumb, we say that a b coefficient is statistically significant if its p-value is lesser than 0.05. From the analysis it is found that Convenience & efficiency(0.739) has a positive linear relationship with customer satisfaction.

#### FINDINGS

- The frequency and percentage analysis of gender of respondents shows that majority of the respondents are female (54.9%) and male respondents were few compared to female (45.1%).
- The frequency and percentage analysis of age of respondents shows that the majority of the respondents are those age group lies between 18-25 (33.3%) followed by the age lies between 25-35(27.8%) followed by age group 35-45 (22.8%) followed by age group 45 and above (16.0%).

- The frequency and percentage analysis of marital status of respondents shows that majority of the respondents are unmarried (57.4%) and followed by the married respondents were few compared to unmarried (42.6%).
- The frequency and percentage analysis of most preferred E-payment application usage of the respondents shows that the majority of the respondents are google pay users (57.4%), followed by phone pay users (24.7%), followed by paytm users (14.2%) and other application users (3.7%).
- It is evident from the analysis the mean value of variables such as faster, user friendly, satisfaction, service, cashless payments, discount, efficiency, cash back, risk influence customer satisfaction. So, it is implied that customer satisfaction is mostly influenced by factors based on speed and user friendliness.
- From the one-way ANOVA analysis of age vs customer satisfaction and convenience and efficiency it is clear that both the 'p' values of customer satisfaction (0.127) and convenience and efficiency (0.90) are greater than 0.05. So age of consumers doesn't influence the customer satisfaction and convenience and efficiency.
- From the one-way ANOVA analysis of gender vs customer satisfaction and convenience and efficiency it is clear that both the 'p' values of Customer satisfaction (0.697) and Convenience & Efficiency (0.285) are greater than 0.05. So, gender of respondents doesn't influence the customer satisfaction and convenience and efficiency.
- The R value represents the simple correlation and is 0.739a ("R" column), which indicates the degree of correlation. The R2 value (the "R Square" column) indicates how much of the total variation in the dependent variable can be explained by the independent variable. The adjusted R square value 0.543 which indicates 54.3% of the variance in dependent variable has been explained by independent variables.
- The regression model predicts the dependent variable significantly well. Here the 'p' value (0.00) which is lesser than 0.05. (i.e., it is a good fit for the data).
- From the Regression analysis it is found that the convenience & efficiency (0.739) having positive linear relationship with the customer satisfaction. It is found that the convenience & efficiency factor helps to satisfy the customer satisfaction. As the convenience & efficiency factor increases the customer satisfaction also increases due to their positive linear relationship.

# CONCLUSION

The combination of widespread internet access, increased bandwidth, and devices that can capitalize on that bandwidth to deliver a new customer experience is driving the explosion in wallet development and customer usage. It's impossible to predict the path of development with certainty, but there are a few signposts and landmarks that can guide the vision. The study was conducted to analyze the customer satisfaction towards mobile wallets. Mobile wallets have become an important tool for transactions in our day today life. This study has been carried out to examine the experience of customers while using mobile wallets. From the analysis the customer satisfaction of mobile wallets depends on its user-friendliness, speed, security, efficiency and convenience while using the mobile wallets. It can be concluded that our analysis provides important insight on the customer satisfaction, service, cashless payments, discount, efficiency, cash back, risk factors. These factors measure the satisfactory level of the consumers. Thus, the result of this study is emphasized and further supported the importance of customer satisfaction towards mobile wallets.

# REFERENCES

- 1. A.C.Gomathi, S.R.Xavier Rajarathinam, A.Mohammed Sadiqc, Rajeshkumar, 2020. Anticancer activity of silver nanoparticles synthesized using aqueous fruit shell extract of Tamarindus indica on MCF-7 human breast cancer cell line. J. Drug Deliv. Sci. Technol. 55.
- 2. Ahuja, A., Joshi, R., 2018. Customer perception towards mobile wallet. IJRDO-Journal of Business Management 4, 44–52.
- 3. Chaterjee, D.C., 2010. A Study of Market Share and Factors Affecting the Choice of Cellular Service Provider Among Young Age Group of Kolkata. Hyderabad 9, 41–56.
- 4. Chaudhari, M.A., Ambekar, S.A., 2013. Customer preferences towards various mobile service providers. ASM's International E-Journal of Ongoing Research in Management and IT 1–10.
- 5. Danda, A.K., Ravi, P., 2011. Effectiveness of postoperative antibiotics in orthognathic surgery: a metaanalysis. J. Oral Maxillofac. Surg. 69, 2650–2656.
- 6. Danda, A.K., S, R., Chinnaswami, R., 2009. Comparison of gap arthroplasty with and without a temporalis muscle flap for the treatment of ankylosis. J. Oral Maxillofac. Surg. 67, 1425–1431.
- 7. Doan, N., 2014. Consumer adoption in mobile wallet : a study of consumers in Finland. Turun ammattikorkeakoulu.
- Dua, K., Wadhwa, R., Singhvi, G., Rapalli, V., Shukla, S.D., Shastri, M.D., Gupta, G., Satija, S., Mehta, M., Khurana, N., Awasthi, R., Maurya, P.K., Thangavelu, L., S, R., Tambuwala, M.M., Collet, T., Hansbro, P.M., Chellappan, D.K., 2019. The potential of siRNA based drug delivery in respiratory disorders: Recent advances and progress. Drug Dev. Res. 80, 714–730.

- 9. Egena, O., 2013. Customer satisfaction in mobile telephony: An analysis of major telecommunication service providers in Nigeria. Asian Journal of Management Research 4, 1–11.
- 10. Ezhilarasan, D., Apoorva, V.S., Ashok Vardhan, N., 2019. Syzygium cumini extract induced reactive oxygen species-mediated apoptosis in human oral squamous carcinoma cells. J. Oral Pathol. Med. 48, 115–121.
- 11. Govender, I., Sihlali, W., 2014. A study of mobile banking adoption among university students using an extended TAM. Mediterr. J. Soc. Sci.
- 12. Krishnan, R., Chary, K.V., 2015. A rare case modafinil dependence. J. Pharmacol. Pharmacother. 6, 49-50.
- Liébana-Cabanillas, F., Martínez-Fiestas, M., Rejón-Guardia, F., Muñoz-Leiva, F., 2012. Gender as a moderating element of customer satisfaction with electronic banking? An empirical study. The International Journal of Management Science and Information Technology (IJMSIT) 1–34.
- 14. Liu, G.-S., Tai, P.T., 2016. A study of factors affecting the intention to use mobile payment services in Vietnam. Econ. world 4.
- Manivannan, I., Ranganathan, S., Gopalakannan, S. et al., 2018. Mechanical Properties and Tribological Behavior of Al6061–SiC–Gr Self-Lubricating Hybrid Nanocomposites. Trans Indian Inst Met 71, 1897– 1911.
- 16. Meutia, I.F., 2016. The Implementation of Community Policing in Indonesia. PhD Thesis Submitted to Kanazawa University.
- 17. Narayanan, V., Kannan, R., Sreekumar, K., 2009. Retromandibular approach for reduction and fixation of mandibular condylar fractures: a clinical experience. Int. J. Oral Maxillofac. Surg. 38, 835–839.
- 18. Narayanan, V., Ramadorai, A., Ravi, P., Nirvikalpa, N., 2012. Transmasseteric anterior parotid approach for condylar fractures: experience of 129 cases. Br. J. Oral Maxillofac. Surg. 50, 420–424.
- 19. Neelakantan, P., John, S., Anand, S., Sureshbabu, N., Subbarao, C., 2011. Fluoride release from a new glassionomer cement. Oper. Dent. 36, 80–85.
- Neelakantan, P., Sharma, S., 2015. Pain after single-visit root canal treatment with two single-file systems based on different kinematics--a prospective randomized multicenter clinical study. Clin. Oral Investig. 19, 2211–2217.
- 21. Neelakantan, P., Subbarao, C., Sharma, S., Subbarao, C.V., Garcia-Godoy, F., Gutmann, J.L., 2013. Effectiveness of curcumin against Enterococcus faecalis biofilm. Acta Odontol. Scand. 71, 1453–1457.
- 22. Nimako, S.G., Azumah, F.K., Donkor, F., Adu-Brobbey, V., 2012. Confirmatory factor analysis of service quality dimensions within mobile telephony industry in Ghana. Electronic Journal of Information Systems Evaluation 15, 197.
- 23. Panchal, V., Jeevanandan, G., Subramanian, E.M.G., 2019. Comparison of post-operative pain after root canal instrumentation with hand K-files, H-files and rotary Kedo-S files in primary teeth: a randomised clinical trial. Eur. Arch. Paediatr. Dent. 20, 467–472.
- Pandiya, D.K., Deep Apartment, 4Th Floor, L.b. road, Silchar, Cachar, Assam 788005, Kumar, D.B., Choudhury, M.H., 2012. A study of customer satisfaction on telecom service providers. PARIPEX-INDIAN J. OF RES. 3, 57–60.
- 25. Paulrajan, R., Rajkumar, H., 2011. Service quality and customers preference of cellular mobile service providers. Int. J. Innov. Technol. Manage. 6, 38–45.
- 26. Prasanna, N., Subbarao, C.V., Gutmann, J.L., 2011. The efficacy of pre-operative oral medication of lornoxicam and diclofenac potassium on the success of inferior alveolar nerve block in patients with irreversible pulpitis: a double-blind, randomised controlled clinical trial. Int. Endod. J. 44, 330–336.
- 27. Priya S, R., Krishnan, C., S, J.R., Das}, J., 2009. Growth and characterization of NLO active lithium sulphate monohydrate single crystals. Crystal research and technology 44, 1272–76<sup>°</sup>.
- Rajeshkumar, S., Menon, S., Venkat Kumar, S., Tambuwala, M.M., Bakshi, H.A., Mehta, M., Satija, S., Gupta, G., Chellappan, D.K., Thangavelu, L., Dua, K., 2019. Antibacterial and antioxidant potential of biosynthesized copper nanoparticles mediated through Cissus arnotiana plant extract. J. Photochem. Photobiol. B 197, 111531.
- Ramadurai, N., Gurunathan, D., Samuel, A.V., Subramanian, E., Rodrigues, S.J.L., 2019. Effectiveness of 2% Articaine as an anesthetic agent in children: randomized controlled trial. Clin. Oral Investig. 23, 3543– 3550.
- 30. Ramakrishnan, M., Dhanalakshmi, R., Subramanian, E.M.G., 2019. Survival rate of different fixed posterior space maintainers used in Paediatric Dentistry A systematic review. Saudi Dent J 31, 165–172.
- Ramesh, A., Varghese, S.S., Doraiswamy, J.N., Malaiappan, S., 2016. Herbs as an antioxidant arsenal for periodontal diseases. J Intercult Ethnopharmacol 5, 92–96.
- Singh, J.G., 2016. An Empirical Study of Customer Adoption of Mobile Wallet Payment Services: A Case Study of the City Kurali of Punjab. A Quarterly Peer Reviewed Multi-Disciplinary International Journal; Bhubaneswar 3, 88–95.
- 33. Venugopalan, S., Ariga, P., Aggarwal, P., Viswanath, A., 2014. Magnetically retained silicone facial prosthesis. Niger. J. Clin. Pract. 17, 260–264.