
Innovative celebrity endorsement and consumer purchase

DR. JEGANATHAN GOMATHI SANKAR¹, MS. INDHUJA. M²

¹Associate Professor, Saveetha School of management, Saveetha Institute of Medical and Technical Sciences, Saveetha University, Chennai-77

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

Email ID: gomathisankarj.ssm@saveetha.com, indhumarks@gmail.com

Abstract: The research paper titled to study about the impact of consumer buying behaviour on celebrity endorsement. The objective of the study to study and examine the purchase intention of celebrity endorsement in respect to brand quality, brand usage and brand recognition. The tools used in the study are frequency analysis, independent t-test, one-way ANOVA, regression analysis. It is found that consumer behaviour relates to the brand perception, brand quality and brand image.

Keywords: Brand quality, Purchase intention, Advertisements, Consumer buying behaviour, Celebrity endorsement

INTRODUCTION

In today's world the celebrities are being treated as a role model. People are changing their living style related with their favourite celebrity. This thing creates a great impact on the buying behaviour of the persons. This attracts the customers and ultimately increases the company productivity. Celebrities are not always creating any kind of effect on persons mind in terms of buying. But mostly it gives a great impact on perception of choosing any product. We are always thinking that if our favourite celebrity is using them. Then we should use that to be like them. From last 150 years advertising is changing in different phases from the classical to modern. Now a day it's the best strategy used by marketers to influence customers by showing celebrities with their products. Consumer Buying Behaviour refers to the actions taken (both on and offline) by consumers before buying a product or service. This process may include consulting search engines, engaging with social media posts, or a variety of other actions. Celebrity endorsement is the Promotion strategy to attract the customers. By analysing the current market, now it's become the need of the marketers to use the different famous personalities to relate with their brands to create unique identity of the brand and to do famous his company's brand or product, which results high expenditure for the company to use that strategy, however nowadays it is used to be a powerful strategic tool to get maximum profit. Buying behaviour is a process by which a people search for the product/services they need or want, make decision to buy the required and most suitable one from different alternatives, use and the dispose it.

REVIEW OF LITERATURE

Scholars have proposed several theories attempting to explain how celebrity endorsement in advertising works. (McCracken, 1989) has proposed a three-stage meaning transfer model. It proposes that an endorser's credibility and expertise first transfer meaning to his or her public image; the endorser then transfers the meaning to the brand being endorsed. Finally, the meaning is transferred to consumers. Celebrity endorsement enhances the perceived quality of the brand and is correlated with intention- to-use (e.g., Kamins et al., 1989; Ohanian, 1991). Yoo and Donthu (2001) defined consumer-based brand equity as a combination of brand loyalty, brand awareness, perceived quality of a brand, and meaningful memories linked to a brand. Celebrity endorsers who are credible improve brand credibility, and greater credibility increases consumer-based brand equity. The positive correlation between the endorser's credibility and consumer-based brand equity is mediated by the brand credibility (Spry et al., 2011).

According to (McCutcheon et al., 2002) consumers' relationships with celebrities can be classified into two types. Entertainment-oriented individuals enjoy learning about celebrities and discussing the information with others casually, while intense-attachment based individuals think continuously and associate Para socially with the celebrities. Hung et al. (2011) found that entertainment-oriented consumers superficially evaluate the meaning transfer involved in a celebrity endorsement, while intense-attachment based consumers evaluate it carefully with detailed considerations. Another previous study delineated gender differences in attitudes toward celebrity endorsements. Female consumers responded more favorably to celebrity endorsements than males, and they preferred female celebrity endorsers to males (Klaus and Bailey, 2008).

As per the (Ringold and Weitz, 2007) a brand is a "name, term, sign, symbol, or design, or a combination of them,

intended to identify the good and services of one seller or group of sellers and to differentiate them from those of competition”.

Apart from basic elements (instrumental properties, physical characteristics, and packaging) a client's opinion about a brand may also be based on secondary association, that is, associations related to entities not directly linked to the brand. Such entities may include companies, countries of origin, channels of distribution, other brands, and spokespersons (Keller, 1998). The linkage to a secondary entity leads to occurrence of secondary brand association as these entities have their own knowledge structure in the minds of consumers (Keller 1993) and may lead the consumer to believe that the features or characters of the entity may be also true for the brand, thereby leveraging secondary brand association to create brand equity. As mentioned, one means of causing a secondary brand association is to utilize a famous personality as an endorser of a brand.

Celebrity endorsement refers to the use of a well-known and well-liked personality among the masses to induce their likeness and image towards the sale of a product (brand) or a service. **Byrne** et al (2003, p.289) states that celebrities have the ability to develop, restore and add new scope to a brand. By endorsing a brand, celebrities save a company's valuable effort and time to create a trustworthy image and also enhance the credibility and integrity of a company by associating themselves with the brand. When celebrities endorse a brand, consumers tend to think that company is reliable.

Famous personalities are used in endorsements in support of various reasons. At times when celebrities leverage their appeal and personality to an unknown brand that leads to instant brand recognition and acceptance (**Dickenson, 1996**). Celebrities might also be used in cases where a brand has lost its demand in the market and celebrity endorsements help to re-engage and re-positioning of the brand (Jacobson et al., 2001). A number of researches report that customers have an unquenchable need to gain an insight about the lives of famous personalities (Gamson, 1994; Ponce de Leon, 2002). Which allows the celebrity to easily catch consumer attention (Kaikati, 1987), which is a very successful way of producing effective PR for brands (Chapman & Leask, 2001; Larkin, 2002; Pringle & Binet, 2005) as customer recall rate also increases when such adverts are displayed (Kamen et al., 1975); (O'Mahony and Meenaghan, 1998)

According to **research**, celebrity endorsements not only influence the emotions of consumers, they also have an impact on the attitude that consumers have towards an advertisement or a brand, which can in turn increase (or decrease) the purchase intentions and, consequently, increase (or decrease) sales.

(Nagdev and Singh, 2016) defined celebrity endorsement as – “any individual who enjoys public recognition and who uses this recognition on behalf of a consumer good by appearing with it in an advertisement. Conventional explanations of celebrity endorsement spin off effects are based on the effects of literature sources which reveal: Celebrity endorsement increases the attention paid to an ad (Buttle, Raymond, and Danziger 2000); Celebrities are generally attractive, which helps persuasion when consumers are worried about social acceptance and others' opinions (DeBono and Harnish 1988) or when the product is attractiveness-related (Kahle and Homer 1985, Kamins 1990); celebrities may be credible sources if they have expertise in a particular area, such as an athlete endorsing shoes (Ratneshwar and Chiaken 1991) or a beautiful model endorsing make-up (Baker and Churchill 1983) and Celebrities are often well-liked, possibly leading to identification and consumer persuasion in an attempt to seek some type of relationship with the celebrity (Belch and Belch 2007). Belk (1988) pointed out that consumer view the products they purchase as much more than just “bundles of utility” as economists proclaim, but also as “bundles of meaning” or attributes like sophistication, courageousness, frugality, and honesty, with which to fashion their self-identity. Companies attempt to label their products with different meanings by linking their products with celebrities who carry the meanings they desire. During celebrity endorsement, consumers have a perceived image about any celebrity endorser, and this image affect is transferred to the endorsed brand (Atkin and Block, 1983). Celebrities are people who enjoy public recognition by a large share of a certain group of people whereas attributes like attractiveness, extraordinary lifestyle are just examples, and specific common characteristics cannot be observed, though it can be said that within a corresponding social group celebrities generally differ from the social norm and enjoy a high degree of public awareness (Schlecht, 2003). Silvera and Austad (2004) highlight characteristics of advertisements that make them effective in delivering messages. The finding propose that endorsement advertising effectiveness can be strongly influenced by consumers' perceptions concerning whether the endorser truly likes the product. This research also suggests that advertisers should put more effort not only into selecting right endorsers, but also into providing strong arguments and explanations for which reason endorsers actually do like the products they endorse.

On the other hand, (Roll, 2006) provided a definition of endorsement by stating that: “Endorsement is a channel of brand communication in which a celebrity acts as the brand's spokesperson and certifies the brand's claim and position by extending his/her personality, popularity, stature in the society or expertise in the field to the brand. Gan (2006) investigates the Chinese consumer's behaviours toward celebrity and non-celebrity advertisement. The results show that Chinese consumers like celebrity who has more professional career skills, appearances, communication skills etc. Saleem (2007) highlighted that a celebrity endorsement is becoming very important part of marketing structure. She proposes that marketers should use celebrities in ads when there is no or very little product differentiation. But, when marketers have to focus on more diverse market, multiple celebrities'

endorsement (more than one celebrity in a single advertisement) could be an answer. Hunter and Davidson (2008) explore impact of negative information about celebrity to consumer perception about brand. Conclusion is that negative information might leads to negative attitude towards the brand. But that is not case if company is led by celebrity. Koernig and Boyd (2009) took an example of famous athlete and unknown model in order to examine the roles of product endorser "match" with celebrity and non-celebrity endorsers. The results show that a famous athlete is more effective when endorsing a sport brand than a non-sport brand. Relationship between celebrity endorsements and brands was examined by Mukherjee (2009), as well as the impact of celebrity endorsement on consumer's buying behaviour. In his opinion, celebrity endorsement is always a two-edged sword and it has a number of positives—if properly matched it can do miracle for the company, and if not, it may produce a very negative consequences for the brand and company at all.

(Edwards et al., 2009)revealed that although celebrity endorsements have become an integral part of advertising, there are some potential risks related with celebrity endorsement over which the advertiser does not have any control. Patra and K. Datta (2010) from their study concluded that selection of right and appropriate celebrity for brand endorsement is a challenging proposition. The advertisers and the agencies should consider various dimensions while celebrity selection. Sonwalkar, Kapse and Pathak (2011) concluded that celebrities act as major opinion leaders and plays a vital role in brand recall. They are helpful in initiating a desired state of need among people but do not bring credibility to any advertising message. Arora (2011) in her study stated that a celebrity can enhance the image of a product in many ways. It is the role of marketer to ensure the appropriate fit between the product and the celebrity. She further stated that Celebrity Endorsements, on one hand give support to the brand but in no way guarantees that the disadvantages associated with the same could be avoided.

(Agrawal and Dubey, 2012)stated in their findings that the celebrity endorsement is an effective tool to affect positively the consumer's decision towards a product; Bollywood stars are the rulers of the advertisement domain in India and the male endorsers are more popular and effective than their female counterparts And recently Abhishek and Sahay(2013) study contributed to the literature by (a) bring in the notion of congruence between the celebrity and the consumer as a driver of effectiveness of celebrity endorsements and (b) by offering propositions using the dimensions of culture (like individualism-collectivism, power distance and long term orientation) to suggest ways in which this congruence manifests itself. Shukre and Dugarthe (2013) suggested the right use of celebrity can escalate the Unique Selling Proposition of a brand to new heights; but a cursory orientation of a celebrity with a brand may prove to be claustrophobic for the brand. Marketers should take care of the gender of the celebrities endorsing the product as it matters to the consumers. Important factors namely Pleasant, Proficient, Elegant, Gender biased, Multiple endorsers, Charismatic, Execution, Acceptable should be taken care of while endorsing a celebrity. Iqbal, Farooq & Ahmed (2014) concluded that credibility of endorsing celebrity matters for the consumer before the endorsed product also the experience of the celebrity with that product usage. Companies using celebrity endorsement strategy for their promotion must carefully select the endorsing celebrity with relatively high credibility. Pradhan, Duraipandian & Sethi (2014) investigated the relative impact of three pairs of personality congruence: celebrity–brand, brand–user, and celebrity–user, on brand attitude and BPI, thereby supporting the applicability of McCracken's Meaning Transfer Model. The results indicate that while user–brand and brand–celebrity personality congruence have a significant impact on brand attitude and purchase intention, celebrity–user congruence does not. Further, brand attitude is found to be a partial mediator on the relationship between the pair-wise personality congruence on BPI. The findings have major implications for marketers in understanding the significance of personality congruence among celebrity–brand–user in the formation of brand attitude and purchase intention that can be used in positioning and in increasing the advertising effectiveness of brands using celebrity endorsement.

Advertisers regularly practice the strategies intended to attract customer's interest to their message and to differentiate their offerings from rival products with the anticipation of influencing buying behaviour of the customer. In today's competitive world, a quality is positioned on an approach, which 4 can accomplish these objectives. One challenge at such a plan includes the use of a celebrity representative. According to **Atkin and Block (1983)**, there are numerous bases as to why a famous endorser may be dominant. First, such a representative attracts consideration toward the commercials into the messy flow of communication. In addition, celebrities are conventionally observed as being greatly active individuals with eye-catching and likeable traits (Kamins et al. 1989). The use of famous persons in promotions is traced back to nineteenth century and these general promotional practices have revealed a large quantity of intellectual as well as realistic considerations. Mainly academic analysis of celebrity support encompasses the sphere of spokesperson credibility and charismatic representatives, and recommends that famous persons exercise their impact on customers through apparent traits (Ahmed 2012; Ohanian 1990, 1991). A number of research studies reveal that use of eye-catching celebrity serve as a foundation to enhance feelings towards the ads. This mind-set to the commercials is identified as psychological circumstances that be exercised by persons to systematize the manner, how to recognize the surroundings as well as organize the manner a person reacts towards it (Haghirian & Madlberger 2005). Today the mass media are flooded through descriptions of along with information concerning superstars, and because of a consequence, celebrities have high

repute, distinctive traits, and fascinating descriptions according to the community's opinion (Giles 2000; McCracken 1989).

METHODOLOGY AND DATA ANALYSIS

The research design used here was the causal design of the research. This type of research is used to measure the impact of a specific change on existing standards and assumptions. Most social scientists are seeking causal explanations that reflect the test of hypotheses. 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; David et al., 2020; 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; Sankar et al., 2020; Venugopalan et al., 2014)

FREQUENCY ANALYSIS

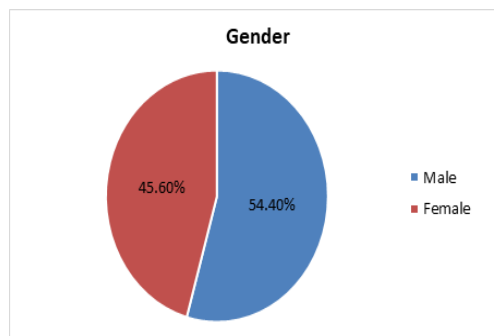


Fig.1: The above pie chart indicates the percentage of gender of the respondents. It is clear that majority of the respondents are male (54.4%) and minority of the respondents are female (45.6%).

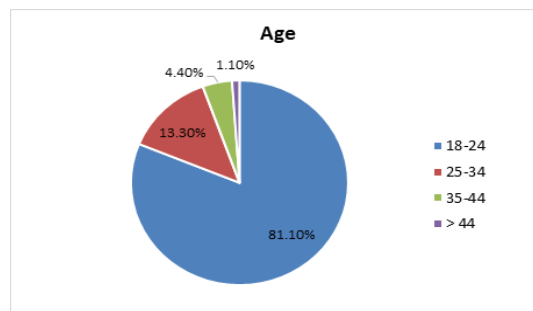


Fig.2: The above pie chart indicates the percentage of age group of the respondents. It is clear that majority of the respondents are those whose age group lies between 18-24 years old(81.1%) followed by the age group which lies between 25-34 years old(13.3%) and followed by the age group which lies between 35-44 years old(4.4%) and followed by the age group which lies above 44 years old(1.1%).

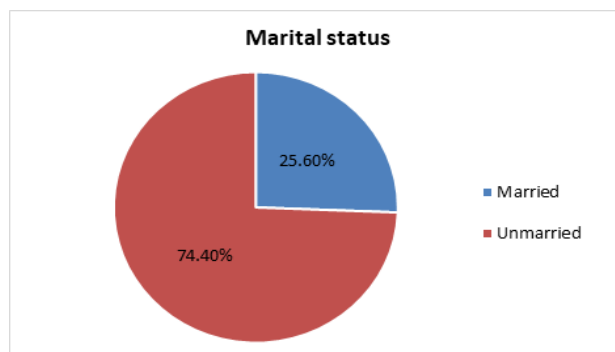


Fig.3: The above pie chart indicates the percentage of marital status of the respondents. From the table it is clear that majority of the respondents are those who are unmarried (74.4%) and minority of the respondents are married (25.6%).

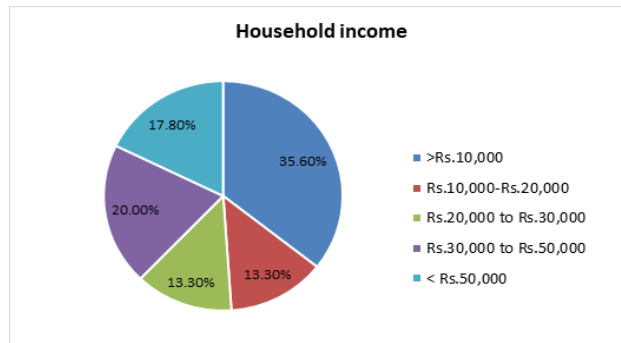


Fig.4: The above pie chart indicates the percentage of household income of the respondents. From the table it is clear that majority of the respondent's household incomes is less than 10000(35.6%) followed by income which lies between 30000-40000(20%) followed by household income above 50000(17.8%) and by both 20000-30000 and 10000-20000(13.3%).

REGRESSION ANALYSIS

DEPENDENT VARIABLE: Purchase Intention

INDEPENDENT VARIABLE: Brand Quality, Brand Recognition, Brand Usage

Table 1:

Model	R	R Square	Adjusted R Square	Significance
1	.425 ^a	.180	.152	0.00

INFERENCE

The above tables provide the R and R² values. The R value represents the simple correlation and is 0.425(“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. In this case 18% can be explained, which is average.

Table 2:

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.160	.623		1.861	.066
	Brand quality	-.040	.167	-.025	-.242	.809
	Brand recognition	.580	.151	.388	3.842	.000
	Brand usage	.149	.077	.191	1.941	.056

INFERENCE

The above table indicates regression analysis with B & Beta value for the independent and dependent variable which are assumed. From the analysis it is found that brand recognition (0.388) and brand usage (0.191) is having positive linear relationship with respect to purchase intention. The brand quality did not have any impact on purchase intention as it found to have an insignificant P value (0.809).

DISCUSSION

It is found that brand recognition (0.388) and brand usage (0.191) is having positive linear relationship with respect to purchase intention. The brand quality did not have any impact on purchase intention as it found to have an insignificant P value (0.809).

CONCLUSION

This research concluded that the Celebrity endorsed advertisements are more attractive than the noncelebrity endorsed advertisements. Respondents also voted that the best medium for watching the advertisements is TV and then Internet. It is further concluded that the highest relationship existed between the perception and the buying behavior. The lowest relationship is, between celebrity attractiveness and the perception. There is a significant relationship among all attributes of the celebrity. It is finally concluded that there is a significant relationship between celebrity endorsement and buying behavior. Respondents clearly conveyed that they do purchase those

products and services, which are endorsed by the celebrities. Results show that the celebrity endorsement has reasonable impact on customers as per their attitude and buying intention. Physical attractiveness, credibility and congruence of the celebrity with the reference to endorsed advertisement all have impact on customer perception about the advertised product. It has also been highlighted that celebrity endorsement advertisements boosting up the sales and purchase of product, people like to buy the products more if endorsed by the celebrity and it shows that today's customer is aware and influenced by media.

Celebrity endorsements pull in hundreds of crores of money every year, and are widely preferred by marketers to promote their products. Using celebrities for endorsing brands has become a trend for building the brands as well as the company's image. Promotion of a company's products through these celebrities is termed as celebrity endorsement. The company makes use of the celebrity's characteristics and qualities to establish an analogy with the products specialties with an aim to position them in the minds of the target consumers.

Celebrity endorsement is truly a multifaceted and debatable research topic. Based on the literature review it can be concluded that even though celebrity endorsement as a marketing communication activity is viewed in a positive light, its influence over the purchase intention of the consumers are not so effective.

The purchase behavior of college students could differ based on their lifestyle. Demographic attributes of the college students are expected to affect their purchase behavior, which in turn is expected to affect their attitude towards celebrity endorsement in general. After mulling over the analysis, it was evident that all the participants were very much aware of the trend of celebrity's endorsing products. There appeared to be a clear demarcation between consumers, one being the 'celebrity enthusiast' and the product enthusiast'. The results of the study revealed that there exists strong association between gender and purchase intention. Gender and age of the consumers attributed to the quality consciousness behavior. Age and marital status of the consumers affect the importance given by them to the social values.

Demographic connection establishes that different stars appeal differently to various demographic segments i.e. age, gender, class; geography etc., Here the association between the demographic attributes of the college students and their attitude towards the celebrity endorsement in general was measured. The results of the study revealed that but for the status of the student all the other factors like age, gender, level of graduation and discipline of study seemed to affect their attitude towards celebrity endorsement.

College students' perception of celebrity endorsement is analyzed. Many respondents opined that presence of celebrities in the advertisement makes them to recognize and recall the brands. It is found to create brand awareness and help the products to have a brand image. This is in coherence with the other studies result.

REFERENCES

1. A.C.Gomathi, S.R.Xavier Rajarathinam, A.Mohammed Sadiq, 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. Agrawal, P., Dubey, S.K., 2012. Celebrities: the linking pin between brands & their customer. *International Journal of Management & Business Studies* 2, 56–60.
3. Danda, A.K., Ravi, P., 2011. Effectiveness of postoperative antibiotics in orthognathic surgery: a meta-analysis. *J. Oral Maxillofac. Surg.* 69, 2650–2656.
4. 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.
5. David, A., Ahmed, R.R., Ganeshkumar, C., Sankar, J.G., 2020. Consumer purchasing process of organic food product: An empirical analysis. *Quality - Access to Success* 21, 128–132.
6. 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.
7. Edwards, S.M., Lee, J.K., Ferle, C.L., 2009. Does Place Matter When Shopping Online? Perceptions of Similarity and Familiarity as Indicators of Psychological Distance. *Journal of Interactive Advertising* 10, 35–50.
8. 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.
9. Kamen, J.M., Azhari, A.C., Kragh, J.R., 1975. What a spokesman does for a sponsor. *J. Advert. Res.* 15, 17–24.
10. Keller, K.L., 1998. Branding perspectives on social marketing. *ACR North American Advances.*
11. Krishnan, R., Chary, K.V., 2015. A rare case modafinil dependence. *J. Pharmacol. Pharmacother.* 6, 49–50.
12. 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.
13. McCracken, G., 1989. Who is the celebrity endorser? Cultural foundations of the endorsement process. *J.*

- Consum. Res. 16, 310–321.
14. McCutcheon, L.E., Lange, R., Houran, J., 2002. Conceptualization and measurement of celebrity worship. *Br. J. Psychol.* 93, 67–87.
 15. Nagdev, K., Singh, R., 2016. Impact of Celebrity endorsement on Students' Buying Behaviour: an Indian Perspective. Nagdev, Kritika & Singh, Raman Preet (2016), Impact of Celebrity endorsement on Students' Buying Behaviour: an Indian Perspective, *Anveshanam, The Journal of Management* 4, 48–61.
 16. 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.
 17. 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.
 18. Neelakantan, P., John, S., Anand, S., Sureshbabu, N., Subbarao, C., 2011. Fluoride release from a new glass-ionomer cement. *Oper. Dent.* 36, 80–85.
 19. 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.
 20. 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.
 21. O'Mahony, S., Meenaghan, T., 1998. The Impact of Celebrity Endorsements on Customers.
 22. 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.
 23. 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.
 24. 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.
 25. 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.
 26. 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.
 27. 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.
 28. 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.
 29. Ringold, D.J., Weitz, B., 2007. The American Marketing Association Definition of Marketing: Moving from Lagging to Leading Indicator. *Journal of Public Policy & Marketing* 26, 251–260.
 30. Roll, M., 2006. Asian Brand Strategy. In: Roll, M. (Ed.), *Asian Brand Strategy: How Asia Builds Strong Brands*. Palgrave Macmillan UK, London, pp. 96–128.
 31. Sankar, J.G., Valan, P., Siranjeevi, M.S., 2020. Various Models to Evaluate Quality in the Service Industry. In: *Digital Transformation and Innovative Services for Business and Learning*. IGI Global, pp. 181–194.
 32. Venugopalan, S., Ariga, P., Aggarwal, P., Viswanath, A., 2014. Magnetically retained silicone facial prosthesis. *Niger. J. Clin. Pract.* 17, 260–264.