

# The Impact of Reference Group on New Product Adoption

Naiyera Hassan Abdu Mohamed\*

German International University, Cairo, Egypt

\*Corresponding Author

Naiyera Hassan Abdu Mohamed, German International University, Cairo, Egypt.

Submitted: 2023, Oct 17; Accepted: 2023, Oct 24 ; Published: 2023, Nov 17

**Citation:** Mohamed, N. H. A. (2023). The Impact of Reference Group on New Product Adoption. *J Pediatr Neonatal Biol*, 8(4), 270-279.

## Abstract

The purpose of this study is to determine what the reference groups are, what the new product adoption is and what the social factors that can affect it are. To determine whether there is a direct relationship between formal and informal reference groups and new product adoption. Then, the two major types of reference groups, formal and informal, are identified. Finally, the theoretical framework will make its way toward investigating the variant reference group sub types and how they can influence new product adoption. A survey-based research strategy was adopted for a survey of 411 respondents. The sample's majority were aged less than 40 years with postgraduate education and worked in private organizations. The findings of this study supported the hypotheses of a relationship between opinion leaders, celebrities (formal reference groups) and family members and friends (informal reference groups) on new product adoption. Finally, it was concluded that opinion leaders had the highest significant influence in regard to product adoption. Celebrities as well as friends also had a significant impact on product adoption. Family, on the other hand, had an insignificant impact on product adoption. This study was performed to understand the impact of reference group influence on product adoption. The effect of reference group influence improves the adoption of new products.

**Keywords:** New Product Adoption, Reference Group, Informal Reference Group, Formal Reference Group, Celebrity Endorsement, Brand Communities, Opinion Leaders

## 1. Introduction

New product adoption is impacted by a multitude of internal and external factors. The internal influential variables encompass various elements that contribute to the formation of the buyer's personality, including perception, perceived value, motivation towards a specific product, self-esteem, and learning ability. Conversely, external variables that exert influence can encompass classmates, family members, opinion leaders, and celebrities, thus contributing to the formation of reference groups. Over time, scholars in the fields of psychology and sociology have placed increasing emphasis on the notion that individuals within a society are affiliated with distinct social groupings, known as reference groups, which exert influence on their attitudes and consumer behaviors. Reference groups play a significant role in shaping individuals' preferences towards specific brands or sets of products. For example, consumers who are making shopping decisions often look for products or brands that align with their sense of belonging to a certain group. The influence of reference groups can be classified into three distinct types: informational influence, normative influence, and value expressive influence. This phenomenon is contingent upon the inclination of the customer to imitate others within their own social reference group, individuals within an aspirational group they aspire to join, or individuals who lead a similar lifestyle. In the context of the home appliance market, it is observed that customers are significantly impacted by their reference groups.

Household appliances are conspicuous commodities that are readily observable by the general population. According to El-Sharkawy, Nafea and Hassan (2023), since the participants of this study were people working in private organizations when they adopt a new product, it will bring happiness to them, and this will lead to happiness at work (HAW), which will help in their progress at work. This study examines the impact of reference groups on the adoption of new products and explores the extent to which reference groups continue to exert influence on new product adoption in Egypt in the present day.

## 2. Theoretical Framework and Hypotheses Development

New product adoption

Adoption is a person's decision to regularly use or acquire a product. Nevertheless, adoption is just one step in the process [1]. The innovation-decision process, accord is the path that an individual or group follows from learning about an innovation to developing an attitude towards it to deciding whether to adopt or reject it, followed by putting the new idea into practice and receiving confirmation of the decision [2]. Adoption research has produced a number of valuable instruments for marketing theory and practice studies. Innovation may play a significant role in modern businesses. (Frambach et al., 2019) Environmental concerns are placing pressure on businesses to innovate and offer new products and services. With more similar products, shorter product life cycles, and more informed and savvy consumers,



there is a growing demand for successful, distinctive products. The long-term success of many businesses is contingent on their constant pursuance of product and operational innovation. Because only a small percentage of new product ideas are adopted, it is essential for potential adopters to comprehend the variables involved. Evidence suggests that, in addition to adopter-side factors, supply-side factors have a significant impact on innovation. Individual adoption decisions are influenced by personal characteristics, perceived innovative characteristics, personal influence, marketing and competitive actions, and personal influence. Consequently, both the characteristics of the adopter (expertise, risk-taking, and general and product-category-specific innovativeness) and the characteristics of the invention impact the likelihood of adoption of new products or innovations. (Image provided by the coalition.) This review will present research from both pro-adoption and pro-adoption perspectives.

The best course of action, according to thoroughly implement an idea [2]. State that adopter-side variables that influence product acceptability include cognitive processing level, ambiguity, and pattern of priority acquisition [3]. The variables proposed by Frambrach & Co. et al. (2019) are information, network participation, competitive environment, and perceived innovation characteristics. Description of innovations served as the basis for the perceived qualities of innovation [2]. Age and openness are characteristics of an adopter. Participation in a network is the interaction between individuals within a social system. The competitive environment is affected by both the level of competition and the level of innovation. Last, it is reasonable to assume that the extent to which prospective adopters have assimilated information about the innovation will impact the likelihood of adoption [4].

### 3. Reference Groups

Reference groups are individuals or groups that are contrasted and imitated by others and are generally accepted as reliable in a particular subject (Bapna & Umyarov, 2015). In recent years, individuals have had more direct and convenient access to the reference group depicted in numerous identities due to the proliferation of social networking programs and information access routes (Bilgicer et al., 2015). Personalities, idols, internet personalities, and opinion leaders exert a significant amount of influence on the public. People's reference groups significantly influence their beliefs, attitudes, and choices. Individuals will use the group as a reference and comparison object in self-evaluation to ensure that their behavior results are consistent with those of the reference group (Risselada, Verhoef, & Bijmolt, 2014). Individual behaviors are influenced by the reference group in two ways: informational influence and normative influence. (Van den Bulte & Wuyts, 2007) Informative influence occurs when individuals receive information about themselves or others in two ways from the reference group.

When communicating with the reference group, individuals obtain direct information. The second is that individuals receive indirect information from the actions of the reference group through the use of judgement. By receiving information from the

reference group, informative impact improves an individual's knowledge. Internalization is the simultaneous transfer and assimilation of knowledge (Goel & Goldstein, 2014). Individuals who do not perceive something in its entirety and who detect latent dangers will actively seek the assistance of a reference group and will acquire the necessary knowledge directly or indirectly. The informative influence will be effective if the knowledge gained from the reference group improves people's understanding, reduces ambiguity, or increases their ability to deal with latent risks.

When the reference group provides individuals with substantial rewards or punishments, normative influence occurs. Individuals positively heed the reference group's expectations to receive praise or avoid punishment (Hu & Van den Bulte, 2014). The most prevalent instance of normative impact is observed in social interaction. Individuals will sense the need to adhere to group standards and actively build identification with other members during the process of interpersonal engagement. Individuals frequently compare themselves to the reference group, engage in extensive self-evaluation, and make adjustments that mirror the reference group (Harmeling et al., 2017). Utility influence and value influence are the two categories of normative influence. Individuals are under pressure to adhere to group norms to ensure that their actions are "correct," that they meet the group's expectations, that they receive praise and acclaim, or that they avoid being punished. Compliance produces utility influence. Individuals are obedient when they are rewarded for meeting the group's expectations or spared punishment for adhering to group norms.

Individuals who adhere to the reference group on purpose to be identified are considered influential. Influence operates via identification. Individuals distinguish themselves when they actively conform to social norms. In essence, normative influence is a value judgement and emotive reaction that leads to and sustains the reference group's expected behavior. Despite the fact that attitudes and cognition dominate consumer decision making, the reference group has a substantial impact on consumers' purchase behavior. As a consequence of the reference group's product knowledge and group norms, consumers' purchasing intentions are increased. Lee, Bachrach, and Lewis (2014) found that the reference group has a greater impact on consumer behavior the greater the degree of socialization of consumers and the greater the interpersonal interaction.

### 4. Types of Reference Groups

#### 4.1 Formal Reference Groups

Formal reference groups are those that were formally constituted and can be governed by a particular organization. Formal reference groups include opinion leaders who can influence the psychological and behavioral state of the consumer due to their extensive knowledge, specialized expertise, or other qualities. Additionally, brand communities and celebrity endorsements can influence the psychological state of the consumer. Therefore, these formal reference groups have a direct impact on the adoption of novel products (Escala & Bettman, 2013). According to primary formal organizations have a more formal structure



[5]. Typically, the consumer is exposed to these categories. Promoters present membership in such organizations as a means of gaining product approbation. The buyer is not concerned with secondary formal organizations, as they meet infrequently, are organized and are nearly cohesive.

## 5. Opinion Leaders

According to Chaudhry an opinion leader is a person whose opinion is highly regarded, and individuals incorporate the opinion leader's views into their decision-making process in a variety of situations [6]. Nearly every group has its own set of opinion leaders. On the other hand, it is not necessary to identify opinion leaders in every social group; however, people may follow a person whose information is credible and trustworthy, such as experts in the automobile industry who exist as influencers on social media networks. The primary function of opinion leaders is to monitor and analyze the media, investigate the information they receive, and then communicate this information to their peers or respondents. Opinion leaders are viewed not only as information conduits between the media and target segments but also as highly influential influencers due to their substantial social compression. Opinion leaders steer consumers towards a particular option and then bolster that option with their social support to reinforce it.

## 6. Brand Communities

Brand communities have a significant impact on consumer purchase intentions, perceptions, and attitudes towards a brand. Brand communities are physical or virtual locations where admirers of a particular brand can communicate with one another and share their daily experiences with the brand. Gradually, marketing researchers and specialists began to accord brand communities with more attention. Deep within brand communities, consumers function as brand advocates. Consumers discuss their daily interactions with the brand, as well as their interpersonal activities, lifestyle, and spending habits. Thus, brand communities enrich marketers with a fundamental, investigative spectrum that aids and unwraps consumer purchase intentions. Celebrity Endorsement Promotions play an essential role in achieving the organization's missions and long-term objectives, particularly in the automotive market [7].

Employing a celebrity as a marketing instrument is the greatest advancement in the field of promotion. This, in turn, increases the buyer's intent to purchase and motivates purchasers and consumers to develop brand loyalty. Marketers affirm that using celebrities in their advertisements will establish a connection and unique link in consumers' minds between the celebrity used and the endorsed brand. People view celebrities as a reference group that influences their purchase intentions and the entire buying process. People believe that buying a product endorsed by a likeable celebrity will cause them to adopt the same lifestyle and values as the celebrity [8].

## 7. Informal Reference Groups

The informal group is referred to as the primary group, which does not have a specific mission or structure and consists primarily of face-to-face interactions, such as with family and

peer influencer groups, which have a significant impact on consumer behavior. The formal group is a secondary group that has little or no face-to-face interaction and consists primarily of individuals who are well known in society [9].

## 7.1 Family

The family has the most significant influence on virtually every individual. A family creates a socialization climate in which an individual will incubate, form his identity, and acquire values. Within the context of the family, a person will form attributes and opinions on a variety of topics, including social attachment, family interests, and his own desires (Rani, 2014). He highlighted that the family element strongly influences consumer behavior. Marketers regard this as a critical issue because more effort must be expended to persuade and influence the buyer's immediate family members who influence his purchasing decisions. For example, if a wife may influence the purchase of a particular product, marketers will attempt to indirectly target women in their promotional messages. One of the primary objectives of marketers is to influence influencers to attract a larger pool of potential consumers to their products [10].

## 8. Peer Influence

Peer influence is defined as the extent to which peers can influence the behavior, attitudes, beliefs, and actions of an individual. The impact of peer influence on product purchase decisions varies by product type; a publicly consumed necessity is a product that is observed while being consumed but is not commonly owned [5]. The impact of colleagues as a reference group varies across various brands and products. In recent years, evidence and experiments have confirmed that peer influence on buyers is more potent and significant when purchasing publicly used products than when purchasing privately consumed necessities [11]. In the mid-1990s, researchers discovered that there is a considerable equal peer influence on products whether they are consumed privately or publicly. Beginning in the twenty-first century, however, these findings and classic hypotheses were disproven. It has been determined that the buyer's adoption of a product is influenced by mild peer pressure. Peer influence was found to be significantly more influential on consumer behavior in regard to purchasing publicly consumed products such as mobile devices, hand watches, clothing, and vehicles.

## 9. Research Hypothesis

- 1- There is a relationship between opinion leaders and new product adoption.
- 2- There is a relationship between brand community and new product adoption
- 3- There is a relationship between celebrity endorsement and new product adoption
- 4- A relationship between family members and new product adoption
- 5- There is a relationship between friends' effect and new product adoption
- 6- There is a relationship between aspirational groups and new product adoption
- 7- There is an impact of formal reference groups on new product adoption.



8-There is an impact of informal reference groups on new product adoption.

## 10. Research Methodology

The research in hand is quantitative research includes procedures that emphasize topical measurements and the numerical, mathematical, or statistical analysis of the data collected via questionnaires and computerized mechanisms [12]. To develop this conclusive research, the researcher will undertake three significant steps. Initially, the researcher will gather data using confirmatory methods and explore secondary data sources to investigate the concept at hand and gain additional insight. The literature review has helped the researcher comprehend the topic under investigation by shedding light on how different types of reference groups can influence the purchase intentions of consumers, as well as the various types of influence that reference groups can emit. To acquire precise, factual, and systematic data that can provide an accurate depiction of the reviewed concept, as well as describe the characteristics of sampling units, it is necessary to conduct sampling. The research methods will be descriptive. There are three primary objectives of descriptive research: to describe, explain, and validate findings. The purpose of description is to organize the findings so that they can be matched with explanations and then to test or validate those explanations. As acquiring evidence of cause and effect (causal) relationships is regarded as the central objective of this study, the researchers will employ a causal research approach. In addition, Causality research designs help researchers understand why the world functions as it does by establishing a causal link between variables and excluding other possibilities.

## 11. Methods of Data Collection

First, the researcher conducted secondary research by exploring academic articles that are studying the same concept in hand to expand her insight boundaries about the research topic. Moreover, secondary data are used to obtain an initial understanding of the market of home appliances. It is often faster to analyze than primary data because, in many cases, someone else may have already started analyzing it. Then, the researcher will gather primary data to ensure fineness and reliability by using online questionnaires performed on Google Forms. In gathering quantitative data, self-administered questionnaires will be the major tool used by the researchers. Stated that a self-administered questionnaire (SAQ) refers to a questionnaire that

has been designed specifically to be completed by a respondent without intervention of the researchers collecting the data. A SAQ is usually a stand-alone questionnaire, although it can also be used in conjunction with other data collection modalities directed by a trained interviewer [13]. Within the self-administered questionnaire forum, nominal and Likert scales will be used as major tools to collect data from respondents. Moreover, Likert scales are survey questions that offer a range of answer options from one extreme attitude to another, such as “Strongly agree” to “Strongly disagree.” Typically, they include a moderate or neutral midpoint. The questionnaire will originally be established in English. However, the questionnaire will also be translated into the Arabic language because it is targeted toward Egyptian consumers who possess the Arabic language as their main reading and writing language.

## 12. Results

### 12.1 Research Structure

#### 12.1.1 Data Cleaning and Manipulation

The dataset had no missing data. However, the questionnaire was set to a Likert scale, so the responses were transformed to 5 representing strongly agree, 4 representing agree, 3 representing neutral, 2 representing disagree and 1 representing strongly disagree.

Approximately 20-30 respondents mentioned that they did not have any home appliances that were obviously misleading or a data entry error; therefore, their responses were eliminated.

For questions on the influence of formal and informal groups, the answers were categorized into 3 dummy variables. Each dummy variable represented how a group can influence. There will be 3 dummy variables; willingness to buy, evaluation of product and brand preference. The benefits of the brand communities are also categorized into 5 dummy variables; knowledge sharing, socialization, activities, economic value and daily experience.

1. The statements were grouped for each influence group. Then, an average of statements was computed for each observation to form a composite measure for each group.

The dataset did not suffer from outliers. Therefore, no elimination of responses was necessary.



## 13. Correlation Analysis

Correlations							
			opinionleader	celebrity	family	friends	productadoption
Spearman's rho	opinionleader	Correlation Coefficient	1.000	.320**	.066	.164**	.411**
		Sig. (2-tailed)		.000	.183	.001	.000
		N	412	412	412	412	411
	celebrity	Correlation Coefficient	.320**	1.000	.002	.302**	.387**
		Sig. (2-tailed)	.000		.966	.000	.000
		N	412	414	414	414	413
	family	Correlation Coefficient	.066	.002	1.000	.469**	.110*
		Sig. (2-tailed)	.183	.966		.000	.025
		N	412	414	414	414	413
	friends	Correlation Coefficient	.164**	.302**	.469**	1.000	.357**
		Sig. (2-tailed)	.001	.000	.000		.000
		N	412	414	414	414	413
	productadoption	Correlation Coefficient	.411**	.387**	.110*	.357**	1.000
		Sig. (2-tailed)	.000	.000	.025	.000	
		N	411	413	413	413	413

\*\* . Correlation is significant at the 0.01 level (2-tailed).

\* . Correlation is significant at the 0.05 level (2-tailed).

**Table 1: Spearman correlation coefficient**

The previous table shows that there is a significant positive relationship between product adoption and all the reference groups. However, family has a very weak relationship with product adoption, while the others are considered moderately related to product adoption.

## 14. Reliability and Validity Analysis

	Cronbach's Alpha	Composite Reliability	Average Variance Extracted
Opinion leaders	0.884	0.921	0.745
Product adoption	0.809	0.867	0.567
celebrity	0.863	0.917	0.786
family	0.608	0.802	0.670
friends	0.674	0.738	0.552

**Table 2: Reliability and validity of variables based on confirmatory factor analysis**

CFA is applied to observe the reliability and validity of factors obtained from the application of EFA. Reliability was measured by Cronbach's alpha. All of the variables had a Cronbach's alpha higher than 0.7. Therefore, all the statements are reliable for representing the factors in the study. To approach the validity of the statements in expressing the factors, both the composite reliability and the average variance extracted were computed. The AVE of each factor was above 0.5, and the CR was above 0.7. This shows how the statements were valid to be used for the factors.

## 1. Model Building



### Descriptive Statistics

	Mean	Std. Deviation	N
productadoption	2.79	.826	411
opinionleader	3.04	1.040	411
celebrity	2.20	1.091	411
family	4.03	.837	411
friends	3.15	.821	411

Table 3: Descriptive statistics for variables

### Excluded Variables<sup>a</sup>

Model		Beta In	t	Sig.	Partial Correlation	Collinearity Statistics Tolerance
1	celebrity	.293 <sup>b</sup>	6.534	.000	.308	.868
	family	.085 <sup>b</sup>	1.935	.054	.095	.997
	friends	.254 <sup>b</sup>	5.956	.000	.283	.975
2	family	.092 <sup>c</sup>	2.211	.028	.109	.996
	friends	.189 <sup>c</sup>	4.363	.000	.211	.891
3	family	-.003 <sup>d</sup>	-.071	.944	-.004	.717

a. Dependent Variable: productadoption

b. Predictors in the Model: (Constant), opinionleader

c. Predictors in the Model: (Constant), opinionleader, celebrity

d. Predictors in the Model: (Constant), opinionleader, celebrity, friends

Table 4: The excluded variables from each iteration of the stepwise model

The stepwise regression concluded that after 3 steps, the variables included in the model are opinion leader, celebrity and friends. Family was found to have an insignificant impact on product adoption.

### Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	Change Statistics			Sig. F Change
						F Change	df1	df2	
1	.460 <sup>a</sup>	.211	.209	.734	.211	109.484	1	409	.000
2	.535 <sup>b</sup>	.286	.282	.700	.075	42.690	1	408	.000
3	.564 <sup>c</sup>	.318	.313	.685	.032	19.040	1	407	.000

a. Predictors: (Constant), opinionleader

b. Predictors: (Constant), opinionleader, celebrity

c. Predictors: (Constant), opinionleader, celebrity, friends

Table 5: Model summary for the stepwise model

Thirty-two percent of the variation explained in product adoption was based on the model including opinion leaders, celebrities and friends' influence.



### ANOVA<sup>a</sup>

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	59.062	1	59.062	109.484	.000 <sup>b</sup>
	Residual	220.636	409	.539		
	Total	279.698	410			
2	Regression	79.961	2	39.980	81.667	.000 <sup>c</sup>
	Residual	199.738	408	.490		
	Total	279.698	410			
3	Regression	88.887	3	29.629	63.198	.000 <sup>d</sup>
	Residual	190.811	407	.469		
	Total	279.698	410			

a. Dependent Variable: productadoption

b. Predictors: (Constant), opinionleader

c. Predictors: (Constant), opinionleader, celebrity

d. Predictors: (Constant), opinionleader, celebrity, friends

**Table 6: Analysis of variance of the stepwise model**

The above ANOVA table shows that the model is adequate and significant; since the p-value is less than 0.05.

### Coefficients<sup>a</sup>

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.684	.112		15.032	.000
	opinionleader	.365	.035	.460	10.463	.000
2	(Constant)	1.452	.112		12.907	.000
	opinionleader	.280	.036	.353	7.862	.000
	celebrity	.222	.034	.293	6.534	.000
3	(Constant)	.970	.156		6.225	.000
	opinionleader	.274	.035	.345	7.838	.000
	celebrity	.177	.035	.234	5.096	.000
	friends	.190	.044	.189	4.363	.000

a. Dependent Variable: productadoption

**Table 6: Coefficients of the stepwise model**

At the 99% confidence level, there is a positive significant impact of opinion leaders, celebrities and friends on product adoption. The model is presented below.

$$\text{Product adoption} = 0.97 + 0.274 * \text{Opinion leader} + 0.177 * \text{Celebrity} + 0.19 * \text{Friends}$$

The model showed that opinion leaders had the highest influence in regard to product adoption. Family, on the other hand, had an insignificant impact on product adoption; thus, it was removed

from the model. The model showed that formal reference influence had a significant impact on new product adoption. The model showed that the informal reference model also had a significant impact on product adoption.

### 16. Discussion

The findings of this study show that; the majority of the sample was females. The sample's majority were aged less than 40 years with postgraduate education and worked in private organizations. Most of them did not intend to buy home appliances in the next



four months. The sample represented equal shares from each income level. However, those with incomes less than 7000 still dominated the sample. They were described to be influenced the most in their evaluation of the product by external factors. Their willingness to buy was, on the other hand, not easily affected. The brand communities were described to have advantages in terms of economic value since they inform them about promotions and sales. It was also used as knowledge sharing and socialization opportunities. Some used them for activities and knew the daily experiences of former owners of home appliance brands.

In addition, after collecting 411 respondents, a stepwise regression model was built. It showed that formal reference influence as celebrities and opinion leaders had a significant impact on product adoption. Opinion leaders were also found to have the highest influence on product adoption by individuals. Concerning informal reference influence, only friends had a significant impact on product adoption. There was not enough evidence to prove that family had a significant impact on product adoption. Thus, it was eliminated by the stepwise method.

In conclusion, the model showed that opinion leaders had the highest significant influence in regard to product adoption. Celebrities as well as friends also had a significant impact on product adoption. Family, on the other hand, had an insignificant impact on product adoption. The model showed that formal reference influence had a significant impact on new product adoption. The model showed that the informal reference model also had a significant impact on product adoption.

## 17. Limitations

This study was limited by

1. The research was conducted using online surveys. Therefore, the sampling technique was a convenient non-probabilistic sampling technique.
2. The research only took into consideration the home appliance sector, disregarding any other sectors.
3. Only celebrities, opinion leaders, and family and friends' influences were taken into consideration by the model.

## 18. Recommendations

There are a number of recommendations resulting from the results. A number of managerial implications and further research are offered by this study.

## 19. Practical Recommendations

1. Companies should depend in their marketing on opinion leaders and ads by Tik-Tok influencers or other Instagram influencers. This was shown to have the highest impact on the product adoption of individuals.
2. Companies should also look into using ads by celebrities. Celebrities mentioning that they use a certain product influence other individual to adopt the new product

## 20. Academic Recommendation

Product adoption and being influenced by formal or informal groups should be repeated in other sectors, not just home appliances. The research should be repeated on males to focus

on the effect of the relationships. The number of male individuals was relatively lower and under-presented in the sample. Therefore, repeating it on males could amplify the pattern for the different genders. In further research, other models should be used to explain the phenomenon, such as structural equation modeling and confirmatory factor analysis, to address Likert scale questions and understand the loadings for each statement. Not only product adoption should be studied. Other variables, such as brand switching, brand loyalty, and customer attitude towards products, should be the main focus of future research.

## 21. Conclusion

In conclusion, this study was performed to understand the impact of reference group influence on product adoption. The effect of reference group influence improves the adoption of new products. The reference groups were divided into formal and informal groups. Product adoption; was measured by the number of statements. Upon applying descriptive statistics, the majority prefer listening to opinion leaders. For them, opinion leaders are more trustworthy and know all the hype of new brands. Celebrities were also trusted due to being role models for the general public. Friends and peers have also been recognized as having a significant strong influence on individuals regarding product adoption in the home appliance industry. The family had an insignificant impact on their product adoption patterns. Observing brand communities, it was found to have many advantages. Mainly, it was agreed to be used for economic value, sharing the daily experiences of owners and knowledge sharing.

After modelling, the family indeed had an insignificant impact on new product adoption, while friends, celebrities and opinion leaders had a significant impact on product adoption. In accordance, formal and informal reference influences were found to have an impact on product adoption and can improve product adoption patterns in the household industry.

## References

1. Kotler, P., & Armstrong, G. (1994). Marketing management, analysis, planning, implementation, and control, Philip Kotler. London: Prentice-Hall International.
2. Rogers, Everett (2017), Diffusion of Innovations, Glencoe, EL: Free Press. (2017), Diffusion of Innovations, 3rd ed., New York: Free Press.
3. Gatignon, H., & Robertson, T. S. (1985). A propositional inventory for new diffusion research. Journal of consumer research, 11(4), 849-867.
4. Webster Jr, F. E. (1969). New product adoption in industrial markets: a framework for analysis. Journal of Marketing, 33(3), 35-39.
5. Opoku, R. (2012). Young Saudi adults and peer group purchase influence: a preliminary investigation. Young Consumers, 13(2), 176-187.
6. Chaudhry, S., & Irshad, W. (2013). Opinion leadership and its role in buyer decision making. Academy of Contemporary Research Journal, 2(1), pp 18-23.
7. Habibi, M. R., Laroche, M., & Richard, M. O. (2014). The roles of brand community and community engagement in building brand trust on social media. Computers in human



- behavior, 37, 152-161.
8. Ahmed, N., Farooq, O., & Iqbal, J. (2014). Credibility of celebrity endorsement and buying intentions an evidence from students of Islamabad, Pakistan. *International Letters of Social and Humanistic Sciences*, 20(6), 1-13.
  9. Evangelista, F., & Dioko, L. A. (2011). Interpersonal influence and destination brand equity perceptions. *International journal of culture, tourism and hospitality research*, 5(3), 316-328.
  10. Reza, S. A., & Valeecha, S. (2013). Influence of social reference groups on automobile buying decision—research on young executives. *World review of business research*, 3(4), 197-210.
  11. Makgosa, R., & Mohube, K. (2007). Peer influence on young adults' products purchase decisions.
  12. Babbie, E. R. (2020). *The practice of social research*. Cengage AU.
  13. Kim, I., & Kuljis, J. (2010). Applying content analysis to web-based content. *Journal of Computing and Information Technology*, 18(4), 369-375.
  14. Ahmed, A., & Ibrahim, M. (2016). Business value of Facebook: A multiple case study from a developing country. *Pacific Asia Journal of the Association for Information Systems*, 8(4), 4.
  15. Ahmad, N., Yousif, M., Shabeer, K., & Imran, M. (2014). A comprehensive model of consumer purchase intention towards counterfeit mobiles in Pakistan. *Journal of Basic and Applied Scientific Research*, pp 131-133.
  16. Andersson, E. L., Arvidsson, E., & Lindström, C. (2006). Coca-Cola or Pepsi; that is the Question: A study about different factors affecting consumer preferences.
  17. Blackwell, R. D., & Miniard, P. W. (2006). *Consumer behavior* (10th international Ed.). Mason, OH: Thomson/ South-western.
  18. Chakravarthy, S., & Prasad, B. (2011). The Impact of Opinion Leader on Consumer Decision Making Process. *International Journal of Management & Business Studies*, 1(3), pp 61-64.
  19. Credé, M., Bashshur, M., & Niehorster, S. (2010). Reference group effects in the measurement of personality and attitudes. *Journal of Personality Assessment*, 92(5), P. 993
  20. De Vries, L., Gensler, S. & Leeftang, E.S.H. (2012). Popularity of brand posts on brand fan
  21. Pages: an investigation of the effects of social media marketing. *Journal of Interactive Marketing*, 26, 2, pp. 83-91.
  22. Park, D. H., Lee, J., & Han, I. (2007). The effect of on-line consumer reviews on consumer purchasing intention: The moderating role of involvement. *International journal of electronic commerce*, 11(4), 125-148.
  23. Escalas, J. E., & Bettman, J. R. (2003). You are what they eat: The influence of reference groups on consumers' connections to brands. *Journal of consumer psychology*, 13(3), 339-348.
  24. Fathi, F., & Kheiri, B. (2015). Celebrity endorsement and its effect on consumer behavior: A literature review. *International Journal of Review in Life Sciences*, 5(10), 619-626.
  25. Fazio, R. H., & Zanna, M. P. (1981). Direct experience and attitude-behavior consistency. In *Advances in experimental social psychology* (Vol. 14, pp. 161-202). Academic Press.
  26. Fazio, R. H., & Zanna, M. P. (1981). Direct experience and attitude-behavior consistency. In *Advances in experimental social psychology* (Vol. 14, pp. 161-202). Academic Press.
  27. Hamzah, Z. L., Alwi, S. F. S., & Othman, M. N. (2014). Full text. *Journal of Business Research*, (11)(67), 2299-2310.
  28. Kaplan, A. M., & Haenlein, M. (2010). Users of the world, unite! The challenges and opportunities of Social Media. *Business horizons*, 53(1), 59-68.
  29. Khan, S. K., Rukhsar, A., & Shoaib, M. (2016). Influence of celebrity endorsement on consumer purchase intention. *IOSR Journal of Business and Management*, 18(1), 6-9.
  30. Keller, K. L. (1993). Conceptualizing, measuring, and managing customer-based brand equity. *Journal of marketing*, 57(1), 1-22.
  31. Keller, K. L. (2003). Brand synthesis: The multidimensionality of brand knowledge. *Journal of consumer research*, 29(4), 595-600.
  32. Li, J., & Liu, C. (2016). Intergenerational influence on adolescents' proenvironmental behavior. *Social Behavior and Personality: an international journal*, 44(4), 589-601.
  33. Liang, T. P., & Turban, E. (2011). Introduction to the special issue social commerce: a research framework for social commerce. *International Journal of electronic commerce*, 16(2), 5-14.
  34. Framework for social commerce. *International Journal of Electronic Commerce*, 16, 2, pp. 5-14.
  35. Pinki, R. (2014). Factors influencing consumer behavior. *International Journal of Current Research in Academic Review*, 2(9), 52-61.
  36. Salmon, D. (2008). Reference groups: Aspirational and non-aspirational groups in consumer behavior. *XULAnEXUS*, 5(1), 4.
  37. Reed, J. (2012). *Doing research in business and management: An essential guide to planning your project*.
  38. Scalici, F., & Schulz, P. J. (2017). Parents' and peers' normative influence on adolescents' smoking: results from a Swiss-Italian sample of middle schools students. *Substance abuse treatment, prevention, and policy*, 12, 1-9.
  39. Schulz, H. M. (2015). Reference group influence in consumer role rehearsal narratives. *Qualitative Market Research: An international journal*, 18(2), 210-229.
  40. Senecal, S., & Nantel, J. (2004). The influence of online product recommendations on consumers' online choices. *Journal of retailing*, 80(2), 159-169.
  41. Shukla, P. (2011). Impact of interpersonal influences, brand origin and brand image on luxury purchase intentions: Measuring interfunctional interactions and a cross-national comparison. *Journal of world business*, 46(2), 242-252.
  42. Silverman, G. 2001. *The Secrets of Word-of-Mouth Marketing*. USA: AMACOM.
  43. Solomon, M., Bamossy, G. & Askegaard, S. 2002. *Consumer Behavior: A European Perspective*. Upper Saddle River, N.J: Pearson Prentice Hall.
  44. Stok, F. M., De Ridder, D. T., De Vet, E., & De Wit, J. B. (2012). Minority talks: the influence of descriptive social



- 
- norms on fruit intake. *Psychology & health*, 27(8), 956-970.
45. Thomas, V. L., Jewell, R. D., & Wiggins Johnson, J. (2015). Hidden consumption behaviour: an alternative response to social group influence. *European Journal of Marketing*, 49(3/4), 512-531.
46. Turner III, D. W., & Hagstrom-Schmidt, N. (2022). Qualitative interview design. *Howdy or Hello? Technical and professional communication*.
47. Wu, J. J., Chen, Y. H., & Chung, Y. S. (2010). Trust factors influencing virtual community members: A study of transaction communities. *Journal of Business Research*, 63(9-10), 1025-1032.
48. Fen Crystal Yap, S., & Kwai Choi Lee, C. (2014). Leveraging the power of online social networks: a contingency approach. *Marketing Intelligence & Planning*, 32(3), 345-374.
49. Younus, S., Rasheed, F., & Zia, A. (2015). Identifying the factors affecting customer purchase intention. *Global Journal of Management and Business Research*, 15(2), 8-13.
50. Zaglia, M. E. (2013). Brand communities embedded in social networks. *Journal of business research*, 66(2), 216-223.
51. Zhao, X., Deng, S., & Zhou, Y. (2017). The impact of reference effects on online purchase intention of agricultural products: The moderating role of consumers' food safety consciousness. *Internet Research*, 27(2), 233-255.
52. Zyman, S. (1999). The end of marketing as we know it. (No Title).

**Copyright:** ©2023 Naiyera Hassan Abdu Mohamed. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.