# A Study of Factors Affecting Consumer Behavioural Intentions Towards Adoption of Gamification

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## Abstract

**Advanced technology with a high degree of accessibility of the Internet across countries has led to the emergence of e-commerce and m-commerce. The global brands and the start-ups are equally attracted to this change in the way the goods and services can be marketed, making market access through the Internet a core part of the strategy for marketers. The same has led to various digital promotional techniques for customer engagement. Among various digital promotional techniques, gamification is one technique where customers are expected to play online games to win the reward points for getting discounts for their purchases. An attempt was made to identify various factors influencing the consumer behavioural intentions towards adoption of gamification as one of the means to get products at discounted prices. In this study, factor analysis was used to find the major factors that influence the consumer behavioural intentions to adopt gamification as one of the digital promotional techniques. The study found eight major factors that influence the adoption of gamification, they are Personal Perspective, Usefulness, Easy to Use, Price Consciousness, Perceived Critical Mass, Flow Experience, Awareness, and Personal Innovativeness. This study brought in a different perspective by exploring the role of possible factors influencing gamification adoption in the Indian market, helping marketers, the major factors, and their influence on the consumer's behavioural intentions of adoption of gamification as one of the digital promotion techniques.**

***Keywords :*** **gamification, price consciousness, usefulness, awareness, personal perspective, perceived critical mass, easy to use, personal innovativeness**

**Paper Submission Date : March 7, 2017 ; Paper sent back for Revision : June 1 , 2017 ; Paper Acceptance Date : June 7, 2017**

Technology advancement has not only changed the shopping behaviour and pattern of consumers, but has also provided different shopping platforms like e-commerce or m- commerce. At present, India leads in the growth of Internet connections and mobile phone devices. Mobile phones are becoming ubiquitous with majority of the population owning one. According to a Nilsen report (2012), nearly one out of five people has a smart phone in urban India, in total, 27 million smart phone users are from urban India, majorly falling into the age group of 18 to 24 years. Meeker (2014) noted that India has the third largest smart phone user base after China and U.S., with 117 million smart phone users, out of which approximately 8 million people use these smart phones for e - banking, online shopping, and travelling.

E- commerce has opened a lot of options for many e -retailers due to which the competition between the e-retailers is increasing day by day. To beat the competition, companies are designing innovative digital sales promotion techniques, among which gamification is one of those with a high degree of customer engagement. Gamification is a technique where customers are expected to play online games to win the reward points for getting discounts on their purchases. These games are designed to be interactive and entertaining to the target audience, to keep the customers engaged, and positively influence their behavioural intentions. Gamification helps marketers

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in promoting their products, wherein the conversion rate expected can be high, as the games designed are focusing on customer's engagement. This would fetch a greater rate of loyalty customers.

Online games are becoming a part of the daily routine of the youngsters, and these are very appealing to them. Although gamification technique was coined by Nick Pelling in 2002, but it did not gain popularity until 2010. Gartner (2010) expected that more than 70% of the top 2000 companies will be using at least one gamification application by 2014. As per M2 research (2011), overall market for gamification tools services and applications was projected as 5.5 billion by 2018. These facts show that there is a huge potential for gamification to be adopted by online shoppers as the mode of getting discounts while shopping, as gamification deals with the fun of gaming coupled with rewards as discounts for a potential purchase. Salesforce Marketing Cloud (2014) report stated that 46% of the users used the m - coupon as mode of getting discounts.

Although very little is known about the attitude of consumers towards emerging techniques in marketing channels, a few companies are testing water in these new trends. There is considerable research that has been done on various online promotional activities and a few on gamification, but a little is known about the factors that influence adoption by consumers. In recent years, gamification has received a considerable attention among marketers and to make it a viable promotional strategy, there is a need to study the factors that influence the consumer behaviour towards the same. To address this research problem, the paper seeks to do a detailed analysis to find the factors that drive the "gamification" adoption among customers as one of the mode of getting discounts while shopping online.

## Literature Review

Till 2010, gamification was not in much use within the industry. Gamification is commonly defined as "the use of game design elements in non-game contexts" (Deterding, Khaled, Nacke, & Dixon, 2011). Gamification was popularized by contemporary authors like Zichermann (2013) in the book, *Game Based Marketing*, explaining the role of game mechanics in marketing as a part of loyalty programs. McGonigal's book, *Reality is Broken: Why Games Make us Better and How they can Change the World* (2011) emphasized the use of games to engage online customers.

The theory of reasoned actions explains that user behaviour is influenced by subjective norms and attitudes. Innovation diffusion theory also suggests that adoption decisions are influenced by social norms. Psychological and economical science believes there are two types of social influences - social norms and critical mass. Hsu and Lu (2004) studied the user behavioural intentions to play online games using various factors, including social influence and found that social norms have a direct impact on adoption of online games and stated that users may feel it as an obligation to play games to keep themselves updated with newness of the community. Hamari and Koivisto (2013) also explained social influence as a key motivation to use gamification and found that social factors positively influence the amount of perceived recognitions received and the attitude of the users to adopt gamification and to recommend it to other people.

Similarly, the study by Trandis (1980), Hsu and Lu (2004), and other theories found a positive influence of social norms on the attitude and behaviour of individuals. Lafreniere, Verner-Filion, and Vallerand (2012) suggested that game players are generally motivated to continue and develop relationships with their friends. Maan (2013) recommended social connection as a key element to bring out business transformation through gamification, proving that gamification leverages social networks to create competition, which ultimately may increase a user's level of engagement.

Proneness, in general, can be defined as a response of a deal prone consumer to the promotional techniques and deals. Hackleman and Ducker (1980) defined that a deal prone consumer is one who is more likely to find a deal "impossible to refuse". Jayasingh and Eze (2012), found in their study on adoption behaviour towards coupons, that coupon proneness has a significant role in influencing the users' attitude towards the use of m-coupons.

Lichtenstein, Netemeyer, and Burton (1990) found in their research that redeeming coupon behaviours were induced by value consciousness rather than the proneness to coupons ; whereas, Jayasingh and Eze (2010) found that coupon proneness has a significant impact on attitude of the users.

Price consciousness was coined by Wells and Tigert in 1971. A person is said to be price conscious, who, by nature, always wants to buy products at lower prices. Lichtenstein et al. (1990) defined price consciousness as "the degree to which the customer focuses on paying a low price". The price conscious shoppers are coupon chasers and look for a large number of discounts and sales (Ramaswamy & Srinivasan, 1998). Customer price consciousness is a key issue in sale promotions. Sinha and Batra (1999) found price consciousness as the key driving factor for purchase decision of products. Similarly, Jayasingh and Eze (2010) found that users with high level of price/ value consciousness were more prone to use online promotions like m - coupons. Bilgihan, Okumus, Nusair, and Bujisic (2013) indicated that engagement and emotional hooks are important to keep customers engaged to one website for online shopping.

Shome and Roy (2012) indicated price consciousness as one of the important factors influencing consumer behaviour due to which the marketers sell distress inventories to these customers. The research results of Palazon and Delgado (2009) indicated that price consciousness is the key driving trait which moderates the effectiveness of price discounts and premiums at moderate and benefit levels.

Trust in e-commerce is defined as the belief with which web users will perform some activities in accordance with consumers' confidence (Gefen, 2002). Many researchers believe that trust is a prerequisite of e-commerce, and thus, is very much required for a successful business (Morgan & Hunt, 1994). The measurement scale for trust construct was given by Gefen in 2000 and found that trust has a significant influence on the intentions to use e - commerce. Similarly, Sungwoo (2010) found that trust was positively related to intentions to use m - commerce. Trust is crucial in gamification because users are expected to share their personal information in the process, which could be possibly abused by various agencies. Credit card fraud worries and concerns impact the trust component in gamification. Ahamad and Zafar (2013) found that trust is an important influencing factor for shopping online. Wu and Liu (2007) found that trust had no direct impact on intention, however, it had a significant impact on attitude of the player.

Some studies found that users who trusted online gaming websites would consider the site's information about the games to be believable (Wu & Liu 2007). Previous studies found the trust factor to influence attitudes and intentions. The relationship between trust and attitude was also implied by Fishbein and Ajzen (1975). Wu and Liu (2007) found trust as not influencing the intentions directly, but it had an impact through attitude.

Enjoyment is critical not only in offline activities, but also in the online context (Blakney & Sekely, 1994 ; Forman & Sriram, 1991). It can be defined as the degree to which performing an activity is perceived as providing pleasure and joy aside from performance consequences (Venkatesh & Davis, 2000). The items to measure the concept of 'enjoyment' were given by Childers, Carr, Peck, and Carson (2001). People mostly tend to get motivated by the intrinsic interests (Huang & Cappel, 2005 ; Kim, Park, Kim, Moon, & Chun, 2002). Previous research has shown that users who have interest or intrinsic motivations are more driven to such kind of behaviour (Deci & Ryan, 1985).

Previous studies found mixed results on the role of enjoyment on the intention behaviour. Igbaria, Iivari, and Maragahh (1995) found no significant influence on system use. Jarvenpaa and Todd (1997) found a significant effect ; Sungwoo and Rutherford (2010) found that enjoyment was positively related to intentions to use m - commerce. Wu and Liu (2007) found online gaming enjoyment as the strongest predictor of intentions to play. Previous studies found the direct impact of enjoyment on behavioural intentions of online customers (Dick & Basu, 1994) and the emotional response of pleasure was more likely to get motivated by intrinsic motivation to play more (Huang & Cappel, 2005 ; Kim et al., 2002) Hsiao and Chiou (2012) also found that the attitude of a player was directly related to the perceived game enjoyment. Besides this, Lee, Cheung, and Chen (2005) found that enjoyment not only directly influenced behaviour, but also had an indirect influence through attitude. Wu and Liu

(2007) found online gaming enjoyment as the strongest predictor of intentions and greatly affected the attitude of the players.

## Research Design and Data Analysis

The objective of this study is to determine the factors that explain the adoption of gamification. The study was conducted during the time period of 2015 - 2016 and the area selected for study was Bangalore, the Silicon Valley of India, with a sample size of 400 respondents. The data was checked for any outliers with box plot method, which revealed 33 cases as outliers. The final number of the responses considered for the data analysis was 367. The items for the study were developed from various constructs adopted mainly from prior studies related to various IT adoption behaviour to ensure content validity.

Construct validity was performed with convergent and discriminant validity by using the correlation matrix method. Data was checked for normality. Skewness and kurtosis of all the items of the data was within the acceptable limits of -1 to +1. The Table 1 represents the profile of the respondents. The Statistical Package for Social Science (SPSS), version 21, was used to analyze the data. A reliability test was conducted to ensure that the constructs and item responses could be used for further analysis. The Cronbach's alpha for the items used is 0.936 and exceeds the suggested value of 0.70 recommended by Hair, Black, Babin, and Anderson (2010).

**Table 1. Profile of the Respondents**

| Measure | Scale | Frequency *(N)* Total = 367 | Percentage (%) |
|---|---|---|---|
| **Gender** | Male | 180 | 49 |
| | Female | 187 | 51 |
| **Age** | ≤ 24 | 161 | 43.9 |
| | 25-35 | 127 | 34.6 |
| | 36-45 | 47 | 12.8 |
| | 46 - 55 | 17 | 4.6 |
| | 55 and above | 15 | 4.1 |
| **Highest Education** | Graduation | 114 | 31.1 |
| | Post-graduation | 235 | 64 |
| | Other | 16 | 4.4 |
| **Occupation** | IT Professional | 64 | 17.4 |
| | Self- employed | 30 | 8.2 |
| | Student | 182 | 49.6 |
| | Homemaker | 28 | 7.6 |
| | Other | 63 | 17.2 |
| **Family income per annum** | <5 lacs | 89 | 24.3 |
| | 6-15 lacs | 134 | 36.5 |
| | 16-25 lacs | 59 | 16.1 |
| | 26-35 lacs | 42 | 11.4 |
| | >35 lacs | 43 | 11.7 |

**Table 2. Reliability Statistics**

| Cronbach's Alpha | No of Items |
|---|---|
| .936 | 36 |

The final 36 items are then selected for further analysis and factor analysis is used for extracting the major factors. The Table 2 represents the reliability of the data for 36 items used as independent variables for this research. The extracted factors are checked again for their reliability.

## Factor Analysis

This research aims to find the factors influencing gamification with multiple items, therefore, to find these factors, principal component analysis is done. Reliability of these final factors is also checked again individually. The Table 3, Table 4, and Table 5 represent the final outcomes of the factor analysis with 36 items.

**(i) KMO and Bartlett's Test :** KMO and Bartlett's test is done to measure the strength of the relationship among the variables. The Table 3 represents the outcome of the KMO and Bartlett's test.

**Table 3. KMO and Bartlett's Test**

| | | |
|---|---|---|
| Kaiser-Meyer-Olkin Measure of Sampling Adequacy. | | .861 |
| Bartlett's Test of Sphericity | Approx. Chi-Square | 8564.793 |
| | *Df* | 630 |
| | Sig. | .000 |

The Table 3 shows that Bartlett's test of sphericity has the *p* - value of 0.000, which is less than the significance level (0.05) ,therefore, it can be concluded that the correlation matrix for the variables chosen for factor analysis is not an identity matrix, and the variable chosen for the factor analysis has correlation among them, which is the prerequisite for the factor analysis. The Table 3 also shows that the KMO value for the selected items is 0.861, which is between 0.8 - 0.9, which means that the variables selected for measuring the motives of the customers are appropriate.

**(ii) Factor Analysis – Rotated Component Matrix and Total Variance Explained :** The Table 4 shows the rotated component table for the extracted factors. Looking at the Table 4, we can see that 36 items have been loaded onto eight different factors, with different loading values for each variable. The items with low loading value, that is, < 0.5 have been suppressed as the variables with less loading value (< 0.5) are considered to be inappropriate for explaining that factor accurately. Most of the items have got its loading values > 0.6 except for few, which have a loading value range from 0.5 to 0.6. These extracted factors are used as variables for further analysis.

It is noticed that out of the total eight factors extracted, the first factor accounts for maximum variance (13.101%), followed by the second (10.328% variance), third (8.509% variance), fourth (7.8% variance), fifth (7.715% variance), sixed (7.691% variance), seventh (7.182% variance), and eighth (6.648% variance) factors. All the remaining factors are not significant. It is also noticed that these eight factors altogether explain 68.974% of the total variance ; the remaining 31.026% of the information is lost due to the reduction of the data during the factor analysis. By the thumb rule, more than 60% of the variance explained by extracted factors is acceptable.

**(iii) Summary and Labelling of Factors :** Interpretation of the factors does not only involve the examining or extracting the factors, but also to examine which item has been attributed to the factor and labelling the extracted factor accordingly. The Table 5 represents the summary of the factor analysis - 36 items loaded on eight different factors. The Table 5 represents the finally labelled factors with their loading values under those factors. The variables under the newly extracted factor are again checked for their reliability and it was noticed that for all the factors, the Cronbach's alpha value is > 0.8 except for the factor Personal Innovativeness with $\alpha$ value = 0.772. The

**Table 4. Rotated Component Matrix[a] and Total Variance Explained**

| | Component | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| I will go for online gaming/gamification because of peer pressure. | .758 | | | | | | | |
| Online game websites do what they say. | .716 | | | | | | | |
| I believe in the information that the online game website provides. | .715 | | | | | | | |
| I will go for gamification just to follow the trend. | .661 | | | | | | | |
| My classmates/friends/family/ others think that I should play an online game to get discounts. | .658 | | | | | | | |
| Using gamification fits into my work style. | .630 | | | | | | | |
| I trust online websites for playing games. | .614 | | | | | | | |
| I think that gamification fits well with my life style. | .602 | | | | | | | |
| Gamification seems to be compatible with all aspects of my work. | .553 | | | | | | | |
| Using gamification makes shopping more enjoyable. | | .770 | | | | | | |
| Overall, gamification is useful. | | .757 | | | | | | |
| Using gamification would save money. | | .749 | | | | | | |
| Using gamification would make my shopping easier. | | .714 | | | | | | |
| Mental effort taken to use rewards or deals through gamification is less. | | .571 | | | | | | |
| I have favourite brands, but most of the time, I buy the brand for which I get a discount. | | | .722 | | | | | |
| I enjoy using rewards/discounts, regardless of the amount I save by doing so. | | | .696 | | | | | |
| I find myself checking the prices online across different shopping sites. | | | .684 | | | | | |
| I save money by shopping around for bargains. | | | .610 | | | | | |
| When I use rewards, I feel that I am getting a good deal. | | | .607 | | | | | |
| I usually watch the advertisements for announcements of sales. | | | .528 | | | | | |
| Most people in my community play online games frequently. | | | | .789 | | | | |
| Most people in my class/office play online games frequently. | | | | .769 | | | | |
| Most people in my group play online games frequently. | | | | .680 | | | | |
| While playing online games, my body feels good. I don't seem to hear anything. | | | | | .762 | | | |
| While playing online games, world seems to cut off from me. | | | | | .747 | | | |
| While playing online games, I am totally involved in what I am doing. | | | | | .715 | | | |
| While playing online games, my mind isn't wandering. I am not thinking of something else. | | | | | .701 | | | |
| Learning to play games is easy for me. | | | | | | .756 | | |
| Playing online games is easy. | | | | | | .630 | | |
| Overall, gamification is easy to use. | | | | | | .628 | | |
| I am aware of benefits of using gamification in online shopping. | | | | | | | .855 | |
| I am aware of this new promotion technique, that is, gamification. | | | | | | | .837 | |
| I am aware of the various games/contests being used by various marketers as promotions. | | | | | | | .709 | |
| When I hear about new mobile technology, I look for possibilities to experiment with it. | | | | | | | | .825 |
| I usually like to be the first one to try new technology. | | | | | | | | .717 |
| I like to experiment with new information technology. | | | | | | | | .669 |
| **Total** | **4.716** | **3.718** | **3.06** | **2.80** | **2.77** | **2.76** | **2.58** | **2.39** |
| **% of Variance** | **13.10** | **10.32** | **8.50** | **7.80** | **7.71** | **7.69** | **7.18** | **6.64** |
| **Cumulative %** | **13.10** | **23.42** | **31.94** | **39.74** | **47.45** | **55.14** | **62.33** | **68.97** |

Extraction Method: Principal component analysis.

Rotation Method: Varimax with kaiser normalization.

[a.] Rotation converged in 8 iterations.

**Table 5. Summary and Labelling of the Factors**

| Factor | Factor Name | Items/variables | Factor Loading | Cronbach's Alpha |
|---|---|---|---|---|
| F1 | Personal Perspective | I will go for online gaming/gamification because of peer pressure. | .758 | 0.899 |
| | | Online game websites do what they say. | .716 | |
| | | I believe in the information that online game websites provide. | .715 | |
| | | I will go for gamification just to follow the trend. | .661 | |
| | | My classmates/friends/family/ others think that I should play online games to get discounts. | .658 | |
| | | Using gamification fits into my work style. | .630 | |
| | | I trust in online websites for playing games. | .614 | |
| | | I think that gamification fits well with my life style. | .602 | |
| | | Gamification seems to be compatible with all aspects of my work. | .553 | |
| F2 | Usefulness | Using gamification makes shopping more enjoyable. | .770 | 0.869 |
| | | Overall, gamification is useful. | .757 | |
| | | Using gamification would save money. | .749 | |
| | | Using gamification would make my shopping easier. | .714 | |
| | | Mental effort taken to use rewards or deals through gamification is less. | .571 | |
| F3 | Price Consciousness | I have favourite brands, but most of the time, I buy the brand for which I get discount. | .722 | 0.814 |
| | | I enjoy using rewards/discounts, regardless of the amount I save by doing so. | .696 | |
| | | I find myself checking the prices online across different shopping sites. | .684 | |
| | | I save money by shopping around for bargains. | .610 | |
| | | When I use rewards, I feel that I am getting a good deal. | .607 | |
| | | I usually watch the advertisements for announcements of sales. | .528 | |
| F4 | Perceived Critical Mass | Most people in my community play online games frequently. | .789 | 0.848 |
| | | Most people in my class/office play online games frequently. | .769 | |
| | | Most people in my group play online games frequently. | .680 | |
| F5 | Flow Experience | While playing online games, my body feels good. I don't seem to hear anything. | .762 | 0.817 |
| | | While playing online games, the world seems to cut off from me. | .747 | |
| | | While playing online games, I am totally involved in what I am doing. | .715 | |
| | | While playing online games, my mind isn't wandering. I am not thinking of something else. | .701 | |
| F6 | Easy to Use | Learning to operate games is easy for me. | .756 | 0.798 |
| | | Playing online games is easy. | .630 | |
| | | Overall, gamification is easy to use. | .628 | |
| F7 | Awareness | I am aware of the benefits of using gamification in online shopping. | .855 | 0.855 |
| | | I am aware of this new promotion technique, that is, gamification. | .837 | |
| | | I am aware of the various games/contests being used by various marketers as promotions. | .709 | |
| F8 | Personal Innovativeness | When I hear about new mobile technology, I look for possibilities to experiment with it. | .825 | 0.772 |
| | | I usually like to be the first one to try new technology. | .717 | |
| | | I like to experiment with new information technology. | .669 | |

factor - Personal Perspective has got the maximum α value of 0.899, which shows that these variables are highly reliable for further analysis.

**(iv) Reliability and Factor Analysis for Dependent Variable :** The items under dependent factor are also tested for correlation. The Table 6 represents the KMO and Bartlett's test of sphericity. The Table 6 shows that the Bartlett's test of sphericity is significant at the 5% significance level and concludes that the correlation matrix for these items is not an identity matrix, and the KMO value being within the range of 0.7 and 0.8 is adequate for further analysis.

The reliability test is done for the dependent factor, that is, behavioural intentions. Behavioural intentions are measured using a three item scale. The Table 7 represents the reliability for the intentions. It is noticed that the Cronbach's alpha for all the three items is >0.8 implying that the items are highly reliable for further analysis.

The Table 7 also shows that the items are loaded under one single factor, which confirms the dependent variable as behavioural intentions. All the loadings for the three items are >0.8, indicating that these items are highly correlated to explain the dependent variable, and the total variance explained by the dependent factor is 80.534%.

**Table 6. KMO and Bartlett's Test**

| | | |
|---|---|---|
| Kaiser-Meyer-Olkin Measure of Sampling Adequacy. | | .737 |
| Bartlett's Test of Sphericity | Approx. Chi-Square | 583.804 |
| | *Df* | 3 |
| | Sig. | .000 |

**Table 7 . Component Matrix and Variance Explained**

| Factor | Factor Name | Items | Factor Loadings | Cronbach's Alpha |
|---|---|---|---|---|
| **F1** | **Behavioural** | I intend to use gamification in doing my shopping. | .913 | 0.879 |
| | **Intentions** | I intend to download games for getting into gamification. | .899 | |
| | | I intend to get more details about gamification. | .880 | |
| | | **Total** | **2.416** | |
| | | **% of variance** | **80.534** | |
| | | **Cumulative %** | **80.534** | |

## Discussion

The factor analysis extracted eight different factors from 36 items derived from various literatures. The factors are labelled as Personal Perspective, Usefulness, Price Consciousness, Easy to Use, Perceived Critical Mass, Flow Experience, Awareness, and Personal Innovativeness.

The results of the factor analysis give a new variable extracted from nine items. The rotated factor loading table shows that the respondents did not deliberately separate these proposed items from each other, else, they all would not load on the same factor. In addition to this, the new factor ranks number one in the factor order and accounts for 13.1% variance explained. It would be quite safe to treat these items as one independent construct and name it as Personal Perspective.

Factor two, that is, Usefulness is extracted from five items, which are drawn from both usefulness and enjoyment, which is in line with previous studies. Some studies identified enjoyment as a separate construct, especially in the context of online games or mobile games. Generally, for games and other voluntarily accessed technology, the word usefulness sounds out of context, as people do not play games for any external goal. Liang and Yeh (2011) argued in their study that playfulness was one of the most important motives which

influenced consumer behaviour to play online games, which is almost synonymous with the construct - 'enjoyment'. However, Liu and Li (2011) suggested these two constructs - usefulness and enjoyment in line with the present study - but they found that the construct - 'perceived enjoyment' better explained the variables than usefulness and ,therefore, the authors retained 'enjoyment' as the main construct. Similarly, Pan and Chiou (2011) retained perceived enjoyment as the major motive for the adoption of online games. However, the present study does not only involve games as voluntarily accessed technology, but also involves its use to get benefits in the form of getting discounts while shopping online. Therefore, this study can also be connected to TAM based research, where the concept of usefulness is used in terms of measuring the efficiency of technology. Therefore, this study retained the construct Usefulness as the major motive.

Similarly, factor three, that is, Price Consciousness is extracted from seven items which have been derived from previously used constructs such as price consciousness and proneness to deals, which can be used as synonyms as both deal with the consumer's consciousness towards price of the goods. These results are also consistent with results of previous literatures. Jayasingh and Eze (2010) observed that consumer price consciousness is a key issue in sales promotions and store brand purchases. Likewise, it can be observed from the results that the respondents considered these two variables as one related to their value consciousness, therefore, this factor is named as Price Consciousness.

Factors F4 (Perceived Critical Mass), F5 (Flow Experience), F6 (Easy to Use), F7 (Awareness), and F8 (Personal Innovativeness) have similar items from original theories and research studies (Amoroso, 2014 ; Jayasingh & Eze, 2012 ; Meijer & Shliapnikov, 2014 ; Pan & Chiou, 2011 ; Shen, Cheung, Lee, & Chen, 2009) with high loading, without any significant cross-loaded items. Therefore, these factors are retained in the original names - Easy to Use, Perceived Critical Mass, Flow Experience, Awareness, and Personal Innovativeness.

## Managerial Implications

The results of this study show that consumers are motivated both by intrinsic and extrinsic motivations. The extrinsic motivations could be like usefulness with respect to getting discounts, offers or rewards ; and intrinsic motivations like critical mass or social impact and innovativeness. Marketing managers should be aware about the importance of social influences and the perceived critical mass. When consumers have experience of gamification, word of mouth spreads among their community, creating awareness about a product and brand ; in many cases, leading to customer loyalty through increased customer engagement, especially in case of price conscious and deal prone customers. Hence, the marketers can have a competitive advantage in the market by considering these motivations while designing their digital promotional strategies. The validated model from this study provides a valuable framework for marketing managers who seek to evaluate the prospects of successful introduction of gamification as one of the digital promotion techniques.

## Limitations of the Study and Scope for Further Research

The study was limited to the urban areas of Bangalore city; hence, it has a limitation in terms of influence of various factors identified due to demo-geographical diversity. The study is based completely on the perception of the consumers, and not the marketers ; hence, there is scope for an additional study focusing on the hedonic factors influencing the consumer behaviour towards adopting of gamification. The results of the study lay foundation for further analysis to study the impact of the factors identified on the behavioural intentions for adoption of gamification.

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