





# “Perceived usefulness of social media in financial decision-making: differences and similarities”

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# PERCEIVED USEFULNESS OF SOCIAL MEDIA IN FINANCIAL DECISION-MAKING: DIFFERENCES AND SIMILARITIES

## Abstract

Financial decision-making through social media blogs and opinions is an area not much explored by the researchers. This study intends to understand the perceived usefulness of social media in financial decision-making amongst individuals and groups based on demographic similarities and social parameters. This paper aims to understand the perception of various subgroups in society within the large population sample. The paper applies Mann-Whitney and Kruskal-Wallis non-parametric tests to examine the proposed research questions from a dataset of 201 individuals residing in two most populated states in Northern India. The analysis reveals the differences between different groups categorized based on generation, financially dependent, educational background, occupation, and geographical location. In terms of social media's perceived utility in financial decision-making, results suggest that segregated groups based on cohort generation and occupation have significant variations relative to others. Based on the educational context, all other segments, number of financially dependent, geographical location, were found insignificant. The novelty of the paper lies in investigating the perceived usefulness of social media in financial decision-making amongst various homogenous groups based on demographics in a developing country. The study outcomes can be useful for the financial service providers and social media platforms in comprehending consumer behavior to devise an innovative marketing strategy for financial products targeting specific segments through enhanced coordination between them.

**Keywords** segmentation, social networking, financial product, developing country, India

**JEL Classification** D14, L82, M31, M37

## INTRODUCTION

Social media is no longer serving the sole purpose of interacting with near and dear ones or prospective employers significantly it has diversified itself into an effective platform for targeting the specific customer segments through an effective communication strategy designed truly upon the observations from the prospective buyers (Ismail et al., 2018), which enables the marketers to develop an innovative marketing strategy for their products. Globally the organizations are extending their reliance on social media platforms, and even regulatory authorities like the Securities and Exchange Commission (SEC) are allowing information dissemination on social media (Paul, 2015), thereby acknowledging its immense reach. Social media is not only taken as a powerful source for building the goodwill of the organization (Horn et al., 2015), but it is equally vital for the consumers of the financial services as it helps in reducing the asymmetry in the dissemination of information and makes them aware of the present trend of the stock market (Blankespoor et al., 2014). Researchers in the past have argued that since the social media communication targeted at various consumer groups can achieve effective customer engagement

(Bai & Yan, 2020); hence, it can also affect customer's purchase intentions (Hasan et al., 2019); thus, social media platforms and marketers are found using artificial intelligence to market their products and services. However, there remains some gap in the literature regarding evaluating the impact of social media usage on financial decision-making, which can further aid marketers and social media platforms in devising customized marketing plans.

Amongst the 17 goals set by the United Nations for sustainable development, the 5th goal is gender equality (Johnston, 2016). In many countries, women do not have the right to participate in economic matters of the household, and this problem is even more so prominent in India (Khan et al., 2020). As per the reports of the World Economic Forum, India has improved as a nation in terms of political participation of women, although, in economic participation, the country stands at 149th place globally that in itself is proof of the prevalent gender gap (World Economic Forum, 2019). Thus, it would be interesting to study that due to the significant representation of Generation Z in the total population (Social Statistics Division, 2017), this gender gap has been reduced in financial decisions involving social media or not due to their technological advancement.

People born between 1960 and 1980 belong to Generation X (Gardiner et al., 2015). They are much more independent than their previous generations and tend to better balance work and personal life (Lancaster & Stillman, 2005). Generation Y is the first global generation (Jiri, 2016) born between 1980 and 1995. People from Generation Y do not shy away from long-term commitment (Martin, 2005). They are not prepared to work longer hours than their previous counterparts (Gordon & Anderson, 2004). On the other hand, people born between 1995 and 2010 are better known as Generation Z (Bejtkovský, n.d.). They are much more digitally active, socially engaged, culturally, and environmentally responsible, and technologically upgraded (Kapil & Roy, 2014). When it comes to technology adoption and usage, they are much more ahead of the previous generations (Jiri, 2016). Therefore, it would be worth evaluating how they use social media for financial decision-making as many recent studies have shown the relationship between financial satisfaction, anxiety, and digital engagement (Khan et al., 2020; Khan & Akhtar, 2020).

In the past, the researchers have tried on many occasions to establish some relationship between demographic factors and investment behavior (Bishnoi, 2013). In India, many empirical studies have been done in the past, which revealed the relationship between demographics and financial decision-making (Kaur et al., 2016). The researchers in the past have argued that investor's attraction towards corporate announcements is affected by various demographic factors like age, income, education, marital status, family size (Pradhan & Kasilingam, 2015). The researchers have also established that women are much more hesitant when it comes to the adoption of new technology due to their risk-averse nature compared to men (Ali et al., 2019). However, the authors failed to find any comprehensive study evaluating the mediating role of demographic factors upon financial decision-making via social media usage. Thus, it would be worth evaluating how the demographics affect using social media for financial decision-making purposes as it would be extremely helpful for the marketers of financial services to devise an innovative marketing plan for specific customer segments.

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## 1. LITERATURE REVIEW

These days, social media is used not merely as a platform for informal communication, but users also share formal views and opinions about various issues (Kwahk & Kim, 2017). People share information about products, services, and organizations via social media blogs (Kwahk & Kim,

2017). There are various studies and reports available, which have described that quite often, the information available on social media has a strong impact on the purchase intentions of the buyers (Reports, 2014). More so, the researchers in the past have also argued that social media users value the information shared about the company or product by fellow users over any other source of

information (Chu & Kim, 2011). So, these days the corporates are using social media much more to create a positive image in the eyes of prospective buyers (Paul, 2015).

Researchers in the past have argued that social media communication on the part of the organization can lead to consumer engagement (Bai & Yan, 2020) and may also lead to positively affecting the purchase intention of the buyers (Hasan et al., 2019). Some studies conclude that due to the uncertainty involved in financial decision-making, the information required is much more for taking a calculated decision (Stolper & Walter, 2017). Previous studies have accepted digital resources as an effective source of information for financial decision-making through online blogs and expert opinions (van Rooij, Lusardi, & Alessie, 2011). Though, there are studies that argued that women are much more anxious in adopting new technology than men (Ali et al., 2019). However, the authors failed to find any conclusive literature whereby the social media usage of males and females is compared to financial decision-making.

Generation Z, digital natives as they are better referred to, are much more digitally active and well versed with the social media and applications than the adults of Generation Y or X (Kapil & Roy, 2014). The authors in the past have hinted that Generation Z has a better ability to grasp and process digital information as compared to any previous generations (Bejtkovský, n.d.). The studies in the past have revealed that people from Generation Z have seen a severe economic crisis in the form of the recession of 2008 and witnessed the big downfall of financial investments of their family members; therefore, they may better understand the importance of correct and effective financial decision-making (Turner, 2018). However, some of the recent studies have hinted that males and females of Generation Z are no exception when it comes to distress involved in financial decision-making (Khan et al., 2020). The authors failed to find any conclusive literature comparing social media usage in financial decision-making amongst generations; therefore, it becomes quite logical to inquire into the area.

Researchers in the past have tried to evaluate the impact of behavioral factors on investment de-

isions (Bishnoi, 2013). Many of the researchers have examined the role of demographic factors on the investment decision of individuals (Metawa et al., 2019). The studies conducted in the past have found that demographic factors like age, gender, level of education have a significant impact on the investment behavior of the individuals (Metawa et al., 2019). In India, many empirical studies were conducted to examine the impact of demographics on investment behavior. Some of the authors argued that age, gender, income, marital status, and number of dependents are the key factors influencing the investment behavior of an individual in India (Kulkarni, 2014). Even the impact of corporate announcements varies upon the individual investors due to the difference in demographic factors (Pradhan & Kasilingam, 2015). Likewise, the effect of social media information on various groups may vary based on the demography as few of the researchers concluded that females are much more risk-averse when it comes to adopting new technology for decision-making (Ali et al., 2019). Apart from the key demographic variables identified, some researchers have argued that even the geographical location of the investor has a role to play in their investment behavior (Lan et al., 2018). However, the authors failed to find any conclusive literature wherein the impact of demographic factors on social media usage for financial decision-making is examined, so there remains a requirement for a study that can address this gap and provide a roadmap for policymakers and marketers in the field.

## 2. AIMS AND HYPOTHESES

The study aims to understand the perceived usefulness of social media on financial decision-making amongst individuals classified into various groups based on their demographic differences in the context of India.

Thus, based on the literature review and identified research gap, the following research hypotheses was framed:

*H1#: The perceived usefulness of social media in financial decision-making has significantly differed among individuals classified based on various demographic groups.*

- H1a: *Amongst males and females.*
- H1b: *Amongst various age groups (classified as Gen X, Y, Z).*
- H1c: *Higher in individuals with a smaller number of financially dependent family members.*
- H1d: *Higher in individuals with masters and above qualification.*
- H1e: *Differs based upon occupation.*
- H1f: *Differs amongst married and unmarried.*
- H1g: *Differs amongst individuals based on their living location.*

### 3. RESEARCH METHODOLOGY

To achieve the research objective, the data were collected from the individuals residing in two neighboring states Delhi and Uttar Pradesh, and it took almost two months (May and June 2020) to complete the data collection. The study covered all the individuals aged between 18 and 55 years old that belong to three Generations X, Y, and Z. Online Google Forms were sent through

social media channels like LinkedIn following the convenience sampling technique. The study used a 5-point Likert scale using self-evaluation statements (from 1 (strongly disagree) to 5 (strongly agree)). The first 40 questionnaires were used for the pilot test. To gain confidence in the items, a reliability test was conducted, and the outcome revealed a Cronbach's alpha of 0.852. Questionnaires with missing values were removed, and after filtering, 201 complete questionnaires were utilized to investigate the set objective. The scale was adapted from existing studies; details can be seen in Table 1. Later, the data normality test revealed that the data is not normally distributed (see Table 1). The study intended to contribute to the existing literature on the prevalent inequality in Indian society. The study used research questions to identify the differences and compared each group to conclude the differences; for two types of groups, Mann-Whitney U test was used, and for more than two groups, Kruskal-Wallis technique of statistical analysis was applied. The scales were chosen from different sources, which can be seen in Table 2.

As the study divided the total sample into various groups to comprehend the perceived usefulness in each segment of the society, the detailed sample profile can be seen in Table 3.

**Table 1.** Tests of normality

Variable	Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilk			Applied Mann-Whitney U test and Kruskal-Wallis test
	Statistic	df	Sig.	Statistic	df	Sig.	
Per.Use	.112	201	.000	.953	201	.000	

Note: a. Lilliefors significance correction.

**Table 2.** Measurement scale

Code	Items	Sources
PU1	I like to use social networking sites to increase my knowledge of financial products, services, and brands.	Ahmed and Zahid (2014), Arvola et al. (2008), Chan (2001), Chen and Peng (2012), Dean, Raats, and Shepherd (2012), Kim and Ko (2012), Mostafa (2006), Mostafa (2009), Paul, Modi, and Patel (2016), Taylor and Todd (1995)
PU2	I prefer the idea of using SNS reports for stock choice.	
PU3	The availability of expert reports on SNS for stock investment is helpful.	
PU4	I know that most people close to me approve of investing based on SNS reports.	
PU5	I always follow my family and friends over social media and choose similar investment options.	
PU6	Conversation or opinion exchange with others is useful through social networking sites.	
PU7	Positive opinion over social networking sites would increase my purchase desire towards a particular financial product.	



**Table 3.** Sample profile

Characteristic	Frequency	Percent	Cumulative percent
<b>Gender</b>			
Male	125	62.2	62.2
Female	76	37.8	100.0
Total	201	100.0	
<b>Generation</b>			
Z	97	48.3	48.3
Y	91	45.3	93.5
X	13	6.5	100.0
Total	201	100.0	
<b>Dependent</b>			
Zero	72	35.8	35.8
One	32	15.9	51.7
Two	53	26.4	78.1
Three	24	11.9	90.0
Four and above	20	10.0	100.0
Total	201	100.0	
<b>Qualification</b>			
Bachelor and below	46	22.9	22.9
Master and above	155	77.1	100.0
Total	201	100.0	
<b>Educational background</b>			
Business and economics	125	62.2	62.2
Social sciences	22	10.9	73.1
Engineering and technology	34	16.9	90.0
Natural sciences	6	3.0	93.0
Pharma and medical	14	7.0	100.0
Total	201	100.0	
<b>Occupation</b>			
Private job	79	39.3	39.3
Govt. job	21	10.4	49.8
Self-employed	41	20.4	70.1
Unemployed	60	29.9	100.0
Total	201	100.0	
<b>Marital status</b>			
Single	133	66.2	66.2
Married	68	33.8	100.0
Total	201	100.0	
<b>Living location</b>			
North	119	59.2	59.2
South	11	5.5	64.7
East	38	18.9	83.6
West	17	8.5	92.0
Central	16	8.0	100.0
Total	201	100.0	

## 4. RESULTS

Results can be seen in detail in Tables 4 and 5. For gender, qualification, marital status, Mann-Whitney U test was applied for the comparison,

and for all other groups, the Kruskal-Wallis test was employed.

The effect size was calculated manually to understand the size of the differences. Here,  $Z = z$ -statistics, and  $n$  is the number of cases. According to Cohen (1988), the effect size is low if the value of  $r$  varies around 0.1, medium if  $r$  varies around 0.3, and large if  $r$  varies more than 0.5. Therefore, the effect size is negligible and low. The study calculated  $r$  values to bring more clarity:

$$r = \frac{Z}{\sqrt{n}}$$

**Table 4.** Mann-Whitney U test results

Grouping variables	Mann-Whitney U test			
	U	Z	p	r
Gender	4345.500	-1.012	.311	0.07
Qualification	3415.500	-.432	.666	0.03
Marital status	3829.500	-1.776	.076	0.13

The results revealed insignificant differences in the mentioned segments, which reflect that there is no difference between males and females among individuals with different qualifications and marital status about the perceived usefulness of social media in financial decision-making. Further inquiries were made to identify the differences among various groups classified based upon generation, number of financially dependent, educational background, occupation, and living location to understand the differences in their perceived usefulness of social media in financial decision-making. Generation and occupation manifested significant differences. The results reveal significant differences in the perceived usefulness between the generations, Chi-squared = 11.613,  $p = .003$ , with a mean rank of 115.19 for Gen X, 89.19 for Gen Y, and 77.77 for Gen Z. Regarding occupation, Chi-squared = 9.441,  $p = .024$ , with a mean rank of 85.95 for a private job, 102.17 for a government job, 109.72 for self-employed, and 114.45 for unemployed.

Based on educational background, all other segments, number of financially dependent, and living locations were found insignificant concerning the perceived usefulness of social media in financial decision-making. Educational background, Chi-squared = 3.292,  $p = .510$ , with a mean rank of

98.80 for the group having a degree with business and economics background, 121.23 for social sciences group, 94.94 for engineering and technology, 97.92 for natural sciences group, 104.89 for the group having pharma and medical background. Similarly, a group classified based on the number of financially dependent were also found insignificant: Chi-squared = 1.222,  $p = .874$ , with a mean rank of 102.38 for the segment having no financially dependent, 109.56 for the segment having one financially dependent, 96.46 for two financially dependent members, 96.27 for three financially dependent and 100.05 for the segment having four and above financially dependent family members. Finally, the segment classified based on living location also reflected insignificant differences: Chi-squared = 8.619,  $p = .071$ , with a mean rank of 103.25 for the north, 141.77 for the south, 95.33 for the east, 79.50 for the west, 92.53 for central.

Furthermore, after Kruskal-Wallis test results, the epsilon-squared estimate of the effect size was also calculated through the formula given further. The  $p$ -value does not provide information on the actual strength of the variable's relationship and does

not determine the effect of one variable on another. To understand these aspects, the effect size can be measured (M. Tomczak & E. Tomczak, 2014):

$$E_R^2 = H / (n^2 - 1) / (n - 1), \quad (1)$$

where  $H$  – the value from Kruskal-Wallis test,  $n$  – the total number of observations,  $E_R^2 - 0$ , indicating no relationship to 1, indicating a perfect relationship.

All the  $r$  values reflect a weak relationship between variables, and the effect of one variable on the other is weak, having a very small or negligible impact.

Since the two grouping variables, generation, occupation, reflect significant differences, the present study compares each group pairwise differences. The further comparison reflects a significant difference between Generations Y and Z ( $p = .007$ ) and no significant differences in other pairs. For occupation, the only pair having a significant difference was the private job and unemployed segment with  $p = .025$ ; the rest of all pairwise comparisons found insignificant results.

**Table 5.** Kruskal-Wallis test results

Grouping variables		n	Mean rank	Chi-squared	Kruskal-Wallis test			
					df	p	r	Results
Generation	X	97	115.19	11.613	2	.003	0.058	Significant
	Y	91	89.19					
	Z	13	77.77					
Occupation	Private job	79	85.95	9.441	3	.024	0.047	Significant
	Govt. job	21	102.17					
	Self-employed	41	109.72					
	Unemployed	60	114.45					
Educational background	Business and economics	125	98.80	3.292	4	.510	0.016	Insignificant
	Social sciences	22	121.23					
	Engineering and technology	34	94.94					
	Natural sciences	6	97.92					
	Pharma and medical	14	104.89					
No. of financially dependent	Zero	72	102.38	1.222	4	.874	0.006	Insignificant
	One	32	109.56					
	Two	53	96.46					
	Three	24	96.27					
	Four and above	20	100.05					
Living location	North	119	103.25	8.619	4	.071	0.043	Insignificant
	South	11	141.77					
	East	38	95.33					
	West	17	79.50					
	Central	16	92.53					

## 5. DISCUSSION

The study made an investigation to answer the framed research questions on how society perceives the usefulness of social media in financial decision-making by classifying groups into various homogenous segments based on their demographic features – considering the ever-growing influence of social media on consumer behavior and choice making. The findings of the study answered the framed research questions. They revealed that except for a few segments of generation and occupation, all other segments do not reflect any significant difference regarding the perceived usefulness of social media in financial decision-making. The output supports the previous literature, which established that generation differences play a vital role and cause variations (Jiri, 2016). This output may be due to the digital advancement in the population belonging to Generation Z; this finding goes in line with the study which indicates that Generation Z is superior to previous generations in terms of digital usage (Levickaite, 2010), which is also supported by the further output, which displayed a significant difference between Generations Y and Z.

Similarly, segments based on occupation also reflect significant differences in perceived social media usefulness in financial decision-making. Being among the first of its kind, the present study gives useful insights to service providers and marketers for better marketing through better segmenting, positioning, and targeting. The present study follows the recommendations given by (Hanafizadeh et al., 2019), a study on ICT plans and implementations that it is crucial to focus on the local issues and concerns while framing policy for the more prominent segments. This may lead to fewer social challenges. Other classifications, though, reflect the insignificant relationship and failed to support the framed research questions, still attract further investigation like the living location was found at the edge. It might reflect significant results if the limitations of the present study can be removed. Other segments based on educational background and number of financially dependent also do not reflect significant differences. The present study attempts to dig further and compare and bring out a clearer picture of how various homogenous segments perceive social media's usefulness in financial decision-making.

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## CONCLUSION

This study concludes that significant differences exist among various subgroups in society about the perceived usefulness of social media. It could be a vital aspect for marketers and service providers to serve and understand their customers better. Many studies are conducted on social media influence on consumer goods, but very few studies are about financial products. Thus, the present study contributes to this limited literature and how individuals perceive the usefulness of social media in financial decision-making.

The outcomes of the study can be useful in several ways. The marketing firms are constantly looking for innovative and possible ways to reach the customer. Social media platforms could be a potential promotion and sales point for financial services, financial advisory, etc. The present study attracts the marketers' attention towards the social media platform and how they can use it to reach the targeted segments with their customized promotion of financial services. Social media platforms can also serve as a direct connection, thereby removing the middlemen, ultimately saving the cost, resulting in greater returns to everyone involved. Financial service marketers can create a niche market over social media platforms. Thus, the results support social media platforms as a potential place to reach consumers and marketers and must be utilized as a strategic point of contact with prospective buyers. Social media platforms can be used in building competitive advantage and long-term strategic advantage.

Even though the study focused on the practical aspects and gave valuable insights for the policymakers and marketers, it suffers from certain limitations such as a small sample size representing the limited geographical location of India and usage of the self-evaluated statement. It is believed that the study



makes way for further studies at a higher and broad level, which can be useful for marketers and service providers. From the methodological point of view, more diligent methods can be cast-off to examine the differences. Advance statistical methods can give more rigorous findings in similar studies. The present study identifies further research needs on how each individuals group behaves over social media regarding financial services choice and how marketers can use it as an innovative marketing tool.

## AUTHOR CONTRIBUTIONS

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