

Research Article

Silver Generation and Native Generation Z: A Study on Intra-generational Differentiation of Consumption Intention under the Differences in Social Media Usage

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Abstract

In this study, generation-based differences in consumption intentions are examined among consumers belonging to the Silver Generation (55-70 years old) and the Native Generation Z (18-25 years old). Using the extended Theory of Planned Behavior (TPB) approach in the context of social commerce and integrated TPB-TAM framework for purchase intention in an online environment, a cross-sectional survey was conducted among 280 participants. Based on the results of k-means clustering analysis, three types of consumers were identified among members of the Silver Generation: Digital Adopters, Selective Users, and Digital Observers. In the same way, three consumer types were identified among the Native Generation Z consumers: Social Commerce Enthusiasts, Content Creators, and Passive Consumers. Results of the multiple regression analysis demonstrated that social media usage had a significant impact on consumption intentions ($\beta = 0.38$, $p < 0.001$, $R^2 = 0.31$). Also, based on bootstrap mediation analysis, it was found that the role of social influence accounted for 22% of the total impact (indirect effect = 0.19, 95% CI [0.11, 0.28]). In addition, digital literacy moderated the relationship between usage and intention only among members of the Silver Generation ($\beta = 0.22$, $p = 0.016$).

Keywords

intra-generational differentiation, consumption intention, social media usage, silver generation, Generation Z

1. Introduction

The fast growth of social media has drastically changed how consumers make their decisions. Features such as interactivity, algorithmic personalization, and social commerce

have significantly altered the way products are discovered, evaluated, and selected (Hu & Zhu, 2022). Generation Z members make their decisions differently from older generations (Thangavel et al., 2022); meanwhile, older people possess complicated psychologies and personalities in using the information provided by social media (Anter et al., 2025). Social media involvement is linked to purchasing intentions through mediators like self-disclosure (Wan et al., 2025). Overall, these results suggest that different generations experience unique effects of social media on consumption.

One such limitation is the lack of differentiation within generations. While most studies consider generations as a homogenous group, some studies indicate that Baby Boomers differ in their digital technology adoption rates (Santosa et al., 2021), while Generation Z members vary in their reaction to technological innovations (Theocharis et al., 2025). In addition, social networking sites have not received adequate attention as drivers of intricate consumer behavior on a sub-group level (Zahoor & Shah, 2024). This study seeks to fill this void through the identification of behavioral sub-groups within generations and the analysis of how varying degrees of social media use lead to divergent consumption intentions.

1.1. Theoretical Framework

This paper integrates three theories. First, the theoretical foundation considers the Theory of Planned Behaviour (TPB). According to the TPB, behavioral intentions are influenced by attitudes, subjective norms, and perceived behavioural control. The meta-analytical study of structural equation modelling confirmed the effectiveness of the TPB framework within social commerce. Specifically, the extended TPB2 framework, which also considers social support as a predictor, explains 59.0% of the variability in behavioral intentions and 28.4% of the variability in attitudes towards adopting social commerce (Leong et al., 2023). Attitude refers to the consumer's evaluation of products available on social media platforms, subjective norms indicate peer and influencer pressure, and perceived behavioural control refers to digital literacy and social media platform skills. The TPB framework offers an insight into the reasons why sub-populations within one generation exhibit distinct consumption intentions when they have contrasting attitudes and subjective norms.

The second viewpoint is a synthesis of TAM and TPB. Empirical evidence suggests that the integration of the constructs of perceived usefulness, perceived ease of use, perceived enjoyment, and TPB can significantly enhance predictive capabilities regarding intentions to purchase products through the Internet. Perceived enjoyment may significantly contribute to explaining attitudes, while platform image plays a significant role in explaining variation in purchasing intentions (Nguyen et al., 2023). In this case, both social and technological factors

are taken into account. As for the Silver generation, the role of perceived ease of use increases due to varying levels of digital literacy. When it comes to Generation Z, perceived usefulness appears to be significant, as all members of this generation have relatively high levels of digital literacy.

The third theoretical perspective is derived from Social Influence Theory in relation to technology engagement. Previous research on technology engagement among older people indicates that the impact of social influence is critical for explaining technology use, where digital literacy serves as a moderator. This theoretical framework examines two dimensions of social influence – informational influence, which implies taking information as an argument, and normative influence, which implies acting in accordance with other people’s expectations. Both types of social influence are emphasized on social media platforms, due to their characteristics including product reviews, peer influence, and observed consumption (Zhou et al., 2024). In this respect, the research adds value to current theories through its examination of social influence as a mediator and generation-based differences.

1.2. Research Questions and Hypotheses

Building further upon the proposed framework above, the current study attempts to answer the following research questions: RQ1: What are the distinctive behavioral sub-groups within each generation in relation to social media usage? RQ2: In what ways do consumption intentions differ amongst the various sub-groups? RQ3: Through what means is social media usage impacting consumption intentions of the sub-groups?

H1: The use of social media has a positive impact on consumption intentions among sub-groups of different generations.

H2: Social influence will mediate the effect of social media usage on consumption intentions.

H3: Social trust will mediate the effect, with more pronounced moderation among sub-groups characterized by high engagement.

H4: Digital literacy will moderate the effect, with more pronounced moderation observed among the Silver Generation compared to Generation Z.

2. Data and Methods

2.1. Research Design and Data Collection

The research adopted the methodology design of a cross-sectional survey. Silver Generation comprised members aged between 55 to 70 years, while the Native Generation Z was made up of people aged between 18 to 25 years. The data collection techniques used

included convenience sampling and snowballing techniques. The instrument was administered online using social media with inclusion of attention check questions. Test sample consisted of 20 respondents. Data collection period was three weeks, and this yielded 280 responses (140 responses per generation). Consent from all the respondents was secured, and ethical considerations were adhered to during data collection.

The software G*Power 3.1 was used to conduct sensitivity power analysis of the regression model. It was found that power is adequate for the test conducted ($1-\beta=0.99$) since four independent variables were involved ($N=280$; $k=4$; $\alpha=0.05$). It was also found that the subgroup with the lowest sample size ($n=40$ –Digital Observers) had power values of 0.72, less than the desirable level of 0.80.

2.2. Variable Measurement

Usage behavior was assessed using a multidimensional scale. Frequency of use was evaluated through four items using a five-point Likert scale ranging from never (1) to very often (5), such as “How often do you visit social media sites?” This was adapted from the validated scales of social commerce (Hu & Zhu, 2022). Preference for platforms was assessed in terms of information seeking, social interaction, and business activities using a rank-order scale. Functional engagement was measured using a total of six items that involve consumption, contribution, and creation in relation to products, including “I seek information about products via social media” and “I create content about products or brands,” according to the TPB-TAM scale (Nguyen et al., 2023).

The variable of consumption intention was measured using eight questions from previous literature concerning social commerce (Hu & Zhu, 2022; Nguyen et al., 2023), such as attitude-oriented questions (“I would consider purchasing goods suggested by social media”) and hypothetical situations (“How likely would you buy the item if your acquaintance introduces the item with positive comments?”). On the other hand, the variables of social influence (five questions) and digital literacy (six questions) were developed using the questionnaire designed to examine social influence and digital literacy among the elderly (Zhou et al., 2024). For the measurement of social trust (four questions), the questionnaire adopted in the study evaluating the technology readiness of senior citizens using social media platforms (Ramírez-Correa et al., 2023) served as a reference point. All items used five-point Likert scales.

Measurement model evaluation was performed using confirmatory factor analysis (CFA), utilizing AMOS 26.0 software. According to the fit indices, the model was found to be acceptable, with $\chi^2/df=1.87$, CFI=0.94, TLI=0.92, RMSEA=0.056 (90% CI [0.045, 0.067]),

and SRMR=0.048. In addition, all standardized factor loadings were above 0.60, while average variance extracted (AVE) scores ranged between 0.51 and 0.63, which supports convergent validity. Furthermore, discriminant validity was confirmed since the square root of the AVE score of each construct is greater than its correlation with any other construct. Cronbach's alpha values for all scales ranged from 0.78 to 0.89, indicating acceptable internal consistency.

2.3. Statistical Analysis

The K-Means clustering technique was used to group customers into clusters where the ideal number of clusters was confirmed through silhouette coefficients and elbow method. Hierarchical clustering was used to ensure the stability of the cluster solution. Multiple regression was used to estimate their impacts on consumption intentions, followed by the calculation of VIFs (VIF all <3.0). Mediation analysis involved bootstrapping with 5,000 resamples using PROCESS model 4 of SPSS software version 26.0. PROCESS model 1 was used for moderation analysis.

3. Results

3.1. Sample Characteristics and Clustering

A total of 280 valid responses were collected for each generation. Regarding educational qualification, the Silver Generation sample (n=140) had mixed educational backgrounds, where 54% completed at least a bachelor's degree. The cluster analysis revealed three segments in each sample with a mean silhouette score of 0.61. For the Silver Generation, the clusters were Digital Adopters (n=51; 36.4%) using social media actively; Selective Users (n=49; 35.0%) using it moderately; and Digital Observers (n=40; 28.6%) consuming passively. As for the Gen Z, the clusters included Social Commerce Enthusiasts (n=47; 33.6%) purchasing goods through social media activities; Content Creators (n=48; 34.3%) actively creating content; and Passive Consumers (n=45; 32.1%) consuming but not creating anything. Table 1 presents the demographic and behavioral characteristics of each cluster.

Table 1

Cluster Characteristics

	Adopters	Selective	Observers	SC Enth.	Creators	Passive
Generation	Silver	Silver	Silver	Gen Z	Gen Z	Gen Z

n (%)	51(36.4)	49(35.0)	40(28.6)	47(33.6)	48(34.3)	45(32.1)
Female%	62.7	57.1	55.0	53.2	60.4	51.1
Bachelor+%	68.6	42.9	37.5	85.1	79.2	73.3
SM hrs/day	2.4	1.1	0.6	3.8	3.2	1.9
Platforms	3.8	2.1	1.4	4.9	4.3	2.7

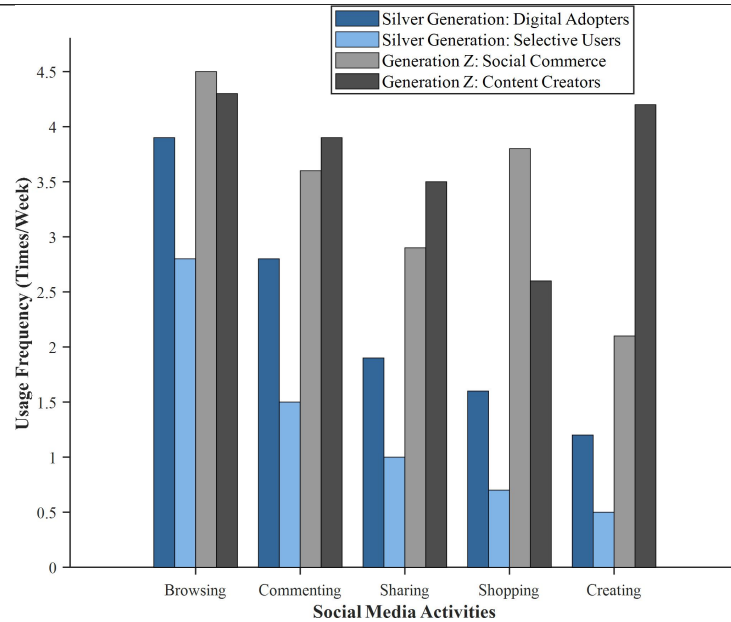
3.2. Social Media Usage Patterns

Platform choices displayed considerable variance between groups. The Silver Generation Digital Adopters preferred Facebook (84%) and WhatsApp (71%), whereas Digital Observers mostly preferred WhatsApp (62%). The Generation Z Social Commerce Enthusiasts were keen on Instagram (89%) and TikTok (82%); Content Creators favored YouTube (87%) and Instagram (85%); Passive Consumers preferred Instagram (74%) and TikTok (68%) in their browsing activities.

There were also variances regarding engagement intensity. As for the Silver Generation, there was rather a conservative approach to platform usage, as Digital Adopters left 2.8 comments per week and shared 1.9 posts weekly, while Selective Users' activity was mostly related to consumption. In turn, generation Z users were characterized by higher intensity: Social Commerce Enthusiasts clicked the links to products 4.2 times per week; Content Creators produced content 3.1 times per week. Functionally speaking, the Silver Generation was focused on seeking information and maintaining social interactions, whereas Generation Z was interested in entertaining, validation, and exploration, as illustrated in Figure 1.

Figure 1

Social Media Usage Patterns

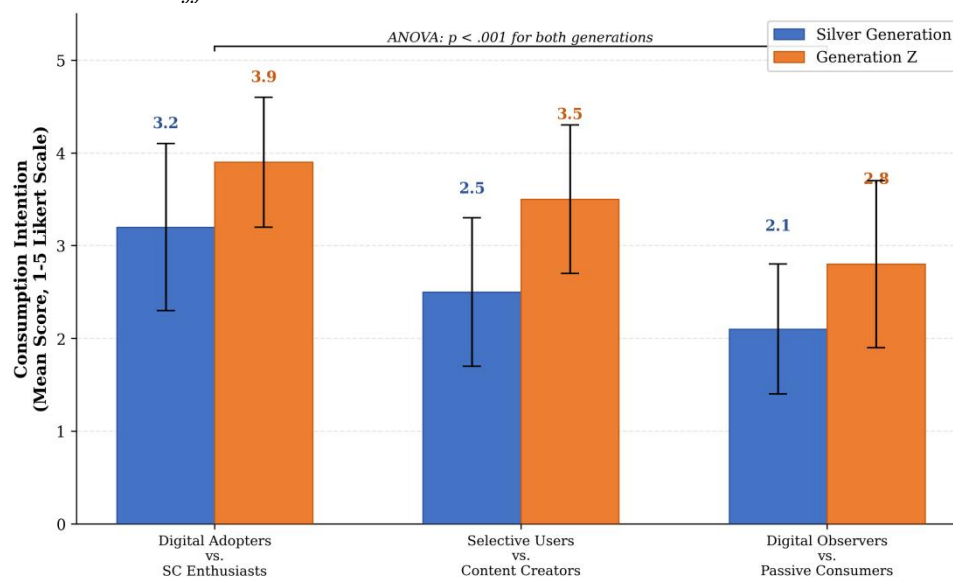


3.3. Consumption Intention Differentiation

Intra-generational variability was seen. In the Silver Generation, the Digital Adopter ($M = 3.2$, $SD = 0.9$), the Selective User ($M=2.5$, $SD=0.8$), and the Digital Observer ($M=2.1$, $SD=0.7$) represented different clusters. Within the generation z, there were three clusters: the Social Commerce Enthusiast ($M=3.9$, $SD=0.7$), the Content Creator ($M=3.5$, $SD=0.8$), and the Passive Consumer ($M=2.8$, $SD=0.9$). There was a significant difference between the clusters based on ANOVA: Silver Generation, $F(2, 137)=14.82$, $p < 0.001$, $\eta^2=0.18$; generation z, $F(2, 137)=18.47$, $p < 0.001$, $\eta^2 = 0.21$. Figure 2 displays the consumption intention scores across sub-groups with error bars.

Figure 2

Consumption Intention Differentiation



Error bars represent ± 1 SD. ANOVA confirmed significant between-cluster differences for both the Silver Generation ($F(2, 137) = 14.82, p < .001$) and Generation Z ($F(2, 137) = 18.47, p < .001$).

3.4. Regression Analysis

The overall model explained 31% of variance ($R^2=0.31$, Adjusted $R^2=0.29$, $F(7, 272)=17.42, p<0.001$). Social media usage intensity was the strongest predictor ($\beta=0.38, p<0.001$), followed by platform diversity ($\beta=0.24, p<0.001$) and functional engagement ($\beta=0.19, p=0.002$). All VIF values remained below 3.0. H1 was supported. Table 2 presents the full results.

Table 2

Multiple Regression Results

Predictor	β	SE	t	95% CI	p	VIF
SM Usage Intensity	0.38	0.07	5.43	[0.24, 0.52]	<.001	1.82
Platform Diversity	0.24	0.06	4.00	[0.12, 0.36]	<.001	1.67
Functional Engagement	0.19	0.06	3.17	[0.07, 0.31]	.002	2.14
Prior Shopping Exp.	0.11	0.05	2.20	[0.01, 0.21]	.029	1.23
Gender	0.06	0.08	0.75	[-0.10, 0.22]	.454	1.08
Education	0.04	0.06	0.67	[-0.08, 0.16]	.504	1.31
Income	0.08	0.05	1.60	[-0.02, 0.18]	.111	1.19

Note. $R^2 = .31$, $Adj. R^2 = .29$, $F(7, 272) = 17.42, p < .001$.

3.5. Mediation Analysis

The total effect was significant ($c=0.86, p<0.001$). After accounting for both mediators, the direct effect remained significant ($c'=0.51, p<0.001$), indicating partial mediation. Social influence perceptions: indirect=0.19 (95% CI [0.11, 0.28]), 22.1% mediated. Social trust: indirect=0.16 (95% CI [0.09, 0.24]), 18.6% mediated. Both confidence intervals excluded zero. H2 and H3 were supported. Social influence mediation was stronger for Generation Z (indirect=0.24) than the Silver Generation (indirect=0.13). Social trust mediation was strongest among Silver Generation Digital Adopters (indirect=0.21). Table 3 presents the full path results.

Table 3

Mediation Results (Bootstrap 5,000)

Path	Effect	SE	t	95% CI
Total (c): $X \rightarrow Y$	0.86	0.11	7.82***	[0.64, 1.08]
a_1 : $X \rightarrow \text{Soc. Influence}$	0.54	0.09	6.00***	[0.36, 0.72]
b_1 : $\text{Soc. Influence} \rightarrow Y$	0.35	0.08	4.38***	[0.19, 0.51]
Indirect ₁ (22.1%)	0.19	0.05	—	[0.11, 0.28]
a_2 : $X \rightarrow \text{Soc. Trust}$	0.41	0.10	4.10***	[0.21, 0.61]
b_2 : $\text{Soc. Trust} \rightarrow Y$	0.39	0.09	4.33***	[0.21, 0.57]
Indirect ₂ (18.6%)	0.16	0.04	—	[0.09, 0.24]
Direct (c'): $X \rightarrow Y$	0.51	0.10	5.10***	[0.31, 0.71]

Note. X = SM usage; Y = consumption intention. *** $p < .001$.

3.6. Moderation Analysis

The SM usage $\times$ digital literacy interaction reached marginal significance overall ($\beta = 0.13$, $p = 0.064$). For the Silver Generation, the interaction was significant ($\beta = 0.22$, $SE = 0.09$, $p = 0.016$, 95% CI [0.04, 0.40]); for Generation Z, non-significant ($\beta = 0.04$, $p = 0.618$). H4 was partially supported.

4. Discussion

Clustering of three clusters per generation rejects the assumption of behavioral consistency within generational groups, following the findings related to intra-generational heterogeneity of behaviors in smartphone purchases (Anchal & Tiwary, 2025). Clusters among Silver Generations resemble those among older people who use social media sites, where clustering confirms that seniors have different cluster distribution, characterized by different levels of optimism, innovativeness, and unease (Ramírez-Correa et al., 2023). Digital Adopters represent the technology-ready category of seniors, whereas Digital Observers are part of the hesitant category. This conclusion is supported by the idea that the motivation for adopting new technologies among the elderly is associated with psychological and experience-related considerations rather than age alone (Huang, 2023; Santosa et al., 2021).

The segmentation of Generation Z involves functional orientation rather than the stages of adoption as a result of widespread baseline digital adoption. Indeed, according to

TPB-TAM theory, in the case of high baseline capability, the segmentation of individuals would be based on their perception of usefulness, and not perceived ease of use (Nguyen et al., 2023). In particular, mediation by social influences was greater in Generation Z (indirect=0.24) than in the Silver generation (indirect=0.13). It aligns well with empirical studies indicating that subjective norms were among the strongest predictors of intentions regarding social commerce behavior (Leong et al., 2023). It should be attributed to the fact that Generation Z members operate in an ecosystem dominated by peer influence and driven by influencers' recommendations.

The most apparent mediation effect of trust among the Silver Generation indicates that social media is a platform for building trustful relationships rather than an avenue for targeting the older generation through digital marketing. The significance of digital literacy as a moderator variable is evident for the Silver Generation ($\beta=0.22$) and non-significant for Generation Z ($\beta=0.04$), indicating a ceiling effect, just like previous findings that showed digital literacy as a moderator of social influence on the elderly population but not young consumers (Zhou et al., 2024). Moreover, the findings validate the hypothesis that behavioral clustering reveals hidden customer segments when using demographic segmentation (Uddin et al., 2024). In application, the existing consumption intention ranges from $M=2.1$ to 3.9 , indicating that behavioral strategies will produce higher conversion rates than age-based strategies.

4.1. Limitations

Convenience sampling and snowballing might lead to the problem of underrepresentation of inactive individuals among the Silver Generation. In addition, the number of participants in the smallest sub-sample ($n=40$) is not sufficient for obtaining statistically significant results ($\text{power}<0.80$). Thus, findings related to the sub-samples should be considered exploratory. The cross-sectional design prevents making any causal inferences. The study was conducted within a single culture.

5. Conclusion

The intra-generational differentiation approach seems more appropriate than the age group approach in understanding the digital consumer behavior. First, this theoretical framework considers both the existence of behavioral groups within each generation and the role of differences in their behavior resulting in diverse outcomes due to perception of social influence and social trust. Digital literacy is important for generation in the sense that perceived behavioral control declines as digital literacy increases within each generation.

Practically, since there is a substantial difference in the consumption intentions among behavioral groups ($M=2.1$ to 3.9), behavioral segmentation rather than demographic segmentation is recommended. Future studies may find it beneficial to consider other cultures and products.

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Data availability

No datasets were generated or analysed during the current study.

Declarations

Conflict of interest

The author declares that there is no Conflict of interest.

Ethics approval

Not applicable.

Consent to participate

Not applicable.

Consent for publication

All authors have given their consent.

Additional information

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