Factors Influencing Online Gifting Intention on TikTok Application among Gen-Z: the Role of Hedonic Motivation, Parasocial Interaction, and Loyalty with Social Presence as Moderator Variable

Nattawat Wongwilatnurak[1*]
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Abstract

This study examined 1) the influence of hedonic motivation and parasocial interactions on online gift intention to NPC streamers in TikTok application and 2) the role of social presence as a moderator variable which has an effect on hedonic motivation, online gift intention, and loyalty. It employed a quantitative approach by using a questionnaire to reach 404 Gen-Z respondents. To answer the research objectives, the statistic procedures of *PLS-SEM* and *Bootstrapping* in the software *SmartPLS4* were utilized as the primary tool in this study. The findings found that parasocial interaction positively influenced hedonic motivation (β=0.298). Moreover, parasocial interaction positively influenced online gift intention (β=0.429). Furthermore, parasocial interaction positively influenced loyalty (β=0.425) which has an effect on online gift intention (β=0.326). However, there is no significant between hedonic motivation and online gift intention. Focusing on the effect size known as f^2 which was a rank in accordance with small to large numbers: 1) the couple variables of parasocial interaction and loyalty (f^2=0.219); 2) the couple variables of parasocial interaction and online gift intention (f^2=0.213); lastly 3) the couple variables of parasocial interaction and hedonic motivation (f^2=0.082). However, there is no effect size in the other moderator variables. Lastly, this article can build a body of knowledge regarding factors influencing online gifting intention on TikTok which benefit content creators, viewers, and platform providers.

Keywords: Influence, Gift, Online, Streamer, TikTok

Introduction

According to a survey of social media usage reported by Kemp (2024), TikTok application is popular with users around the world, reaching 1.092 billion users worldwide. In Thailand, as Tan (2022) reports that TikTok users have continued to grow among Generation Z. The *YouGov Realtime Omnibus* survey indicates that Generation Z are active users, with 53% “spending two or more hours on TikTok daily,” compared to 41% of Millennials, 32% of

[1] Department of Broadcasting and Streaming Media Production, Faculty of Communication Arts, Bangkok University
[*]Corresponding Author, Email: nattawat.w@bu.ac.th

Gen X, and 16% of Baby Boomers (Tan, 2022). This indicates that the TikTok application is popular among Generation Z in the country. Additionally, one of the most watched content types on the app features non-playable characters (NPCs). NPC streamers are content creators who mimic repetitive actions of a non-playable character in video games and cartoons. When viewers send their gifts to NPC streamers within their livestreams, the gifts will appear on a screen with excited visual and vocal presentations. When streamers see these gifts, they imitate their character, react to the gift, and thank the donor. Importantly, this content's popularity is driven by large-scale gift sending. There will be a huge of visual gifts popping up on a screen quickly. Streamers react suddenly-often with robotic or cartoonish gibberish. This entertains viewers and elicits laughter. For example, streamers might exclaim "Ice cream so good" upon receiving an ice-cream gift or "Yeehaw, yes" upon receiving a cowboy hat. It leads to a sense of humor among viewers. This is why each NPC performer develops a signature style to attract more viewers. This will be increasing trends for many TikTok creators to do a simulation of the NPC. The well-known creators – like *PinkyDoll*, *Kai Cenat*, *Natuecoco,* and more– can make money between 2,000 and 3,000 USD per livestream (Walker, 2023). This would be an interesting point to find what factor can persuade their followers to purchase a virtual gift to them. However, NPC streaming is new in Thailand, and few studies have examined how Thai Generation Z engage with NPC streamers. Also, there is slight paperwork in exploring a factor of virtual gift intention via a viewpoint of TikTok users. Moreover, this study can fill a gap in the concept of social presence being a moderator variable in testing hypotheses which show how it simulates and/or differs from prior studies. Therefore, this study will examine the influence of hedonic motivation and parasocial interactions on gift intention to NPC streamers in TikTok application among Generation Z and will study the role of social presence as a moderator variable which has an effect on hedonic motivation, online gift intention, and loyalty. In addition to the significance of this study, the results can contribute an advantage to support NPC streamers in gaining more followers, to support social psychology for their viewers, and also to enhance digital marketing in business monetization.

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Literature Review

1. Hedonic Motivation

Based on a literature review about online consumers' purchase intention, it is not possible to skip a theory of Hedonic Motivation which is in addition to UTAUT2. This theory focuses on the intrinsic motivation of users and is divided into two contexts (Zeigler-Hill, 2020). First, it refers to a general principle in human behavior that moves to rewards or away from punishments. Second, it is seeking pleasure and avoiding pain. This concept has underpinned examinations of human behavior over the past decades. However, this theory has been currently employed in social science and marketing approaches by emphasizing a state of fun or pleasure (Tamilmani, Rana, Prakasam, & Dwivedi, 2019). It has been also found to be an

important determinant of technology acceptance and usage (Venkatesh, Thong, & Xu, 2012). Numerous scholars use this theory to measure user happiness and the time spent purchasing products or services online. One of the outstanding examples is a paperwork of Zhang, Zhang, and Daim (2023, p. 6), it demonstrates that "hedonic value is positively correlated with purchase intension". They also stress that it is the major factor in persuading customers intend to shop while continually enjoying the content or experience. This indicates that hedonic motivation can affect a point of either onsite or online purchase intention.

2. Parasocial Interaction (PSI)

Focusing on the original theory of Parasocial Interaction (known as "PSI"), this theory is introduced by Horton and Richard (1956) who emphasized interaction between viewers and media personae in mass media industry. That is, viewers would like to have a good interaction and relation with their famous stars. Due to the limitation of entertainment in that period, there were media products like talk shows, romance novels, films, and musical performances (Stever, 2017). It means there is no online entertainment and no activity on the Internet. Currently, this theory is still used in describing effective buying intentions in both offline and online contexts. That is, viewers do not need to wait for a letter reply or to wait for another meet-and-greet event; they can communicate with them in real-time if media figures are on a livestream. This can lead to a creation of strong bonds between viewers and figures, as Fu and Hsu (2023) admit that parasocial interaction is an essential factor to boost viewers' impulsive buying. More frequent viewing may lead to greater purchasing potential (Lin, 2021).

Moreover, there are many studies discussing the correlation between PSI and hedonic motivation. One of the correlations is social interaction such as humor, fun, and attractiveness. When both viewers and creators have the same sense, it can build trust and purchasing intentions over time (Laradi, Alrawad, Lutfi, & Agag, 2024). Additionally, enjoyment of watching beauty products with their preferred stars can lead to a point of purchase, as Indriyarti and Murtiningsih (2024) suggest. This indicates that PSI can drive a sense of enjoyment which can lead to a purchase intention afterwards.

3. Loyalty

One of the factors influencing purchasing and repurchasing decisions is a sense of loyalty in consumers' minds. Oliver (1999, p. 34) defines the term 'loyalty' as "a deeply held commitment to re-buy or re-patronize a preferred product/service consistently in the future, thereby causing repetitive same-brand or same band-set purchasing, despite situational influences and marketing efforts having the potential to cause switching behavior". The loyalty variable is considered by many scholars as a measurement scale in various areas. For example, Yu, Jung, Kim, and Jung (2018) claim that fan communities built around streamers require members to express loyalty through various methods such as giving gifts, responding in chat, and supporting streamers' activities. Furthermore, Lin (2021) notes that a combination of

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enjoyment, loyalty, and trust has positively influenced virtual gift donation intention. Additionally, Zhang and Liu (2024) argue that loyalty is linked to parasocial interaction, stating that parasocial interactions can increase personal attachment, relationship, investment, and loyalty towards media figures. Lastly, Ko, and Wu (2017) confirm that Internet celebrities can maintain viewers' loyalty if viewers engage in parasocial interaction. The previous studies indicate that loyalty is a valuable variable for this research. Therefore, it is plausible that loyalty could be an important factor affecting online gift intention in this study.

One of the factors in purchasing and repurchasing is about a sense of loyalty in consumers' minds, as Oliver (1999, p. 34) defines the term 'loyalty' as "a deeply held commitment to re-buy or re-patronize a preferred product/service consistently in the future, thereby causing repetitive same-brand or same band-set purchasing, despite situational influences and marketing efforts having the potential to cause switching behavior". Loyalty variable is considered by many scholars to be a measurement scale in several areas. For example, Yu et al. (2018) claim that a fan community built around streamers needs members to express their loyalty in various methods such as giving gifts, responding chat, and supporting streamers' activities. Furthermore, Lin (2021) notes that a combination of enjoyment, loyalty and trust has positively influenced virtual gift donation intention. Additionally, loyalty variable is set as a linkage with parasocial interaction in which Zhang and Liu (2024) argue that parasocial interactions are able to increase personal attachment, relationship, investment, and loyalty towards media figures. Lastly, Ko and Wu (2017) confirm that Internet celebrities can maintain viewers' loyalty if the viewers have a sense of parasocial interaction. Previous studies indicate that loyalty is a valuable variable to have in this research project. It is possible to be one of the important factors which can affect to a factor of online gift intention in this study.

4. Social Presence and Their Influences

The theory of social presence was initially introduced in the field of telecommunication, but it has shifted to a field of communication studies on online platforms. Social presence is defined as "the salience of the other in mediated communication and the consequent salience of their interpersonal interactions" (Short, Williams, and Christie, 1976, p. 65). In other words, it is an explanation on relationships between hosts and viewers on the Internet such as content creation, viewer's perception, purchase decision, gift giving intention, and more. This focuses on three areas of social presence and their influences including 1) hedonic motivation, 2) PSI, and 3) loyalty.

As to the relation between social presence and hedonic motivation, a sense of enjoyment in watching live streams plays a crucial role in the creation of social presence in which Liu, Yang, and Ling (2020) state that hedonic activities (i.e., happiness, enjoyment, and fun) can be a trigger in representing social presence in their followers. It also includes both visual sense and communication function effects in live streams. In addition to the study of Cao, Zhang, Liu, and Shang (2022), the combination of social presence and hedonic sense on

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online platforms is hardly detached. That is, they are leading to social commerce marketing that effectively persuades viewers to elicit purchase intention.

Moreover, Lin (2021) points out that there is a linkage between social presence and PSI, especially a connection between streamers and their followers. That is, the followers will support their favorite streamers if they have a close and good relationship with each other. It can be noticed in several forms, including dynamic symbols, icons, and texts (Zhang, Xiang, & Hao, 2019). In other words, online activities in streamers' lives can be a significant factor in encouraging their followers to stay longer and potentially make purchases in the future.

Besides, there are some previous studies indicating that social presence has an influence on a concept of loyalty in online platforms in which Attar, Amidi, and Hajli (2023, p. 98) state that "online technologies ... are a few prominent tools utilized by the companies to build consumers' loyalty, trust and relationships by increasing users' social presence of interaction". Although the study of Attar does not refer to social media products, it is clear that customer loyalty develops if the brand can provide a sense of closeness through of social presence via the Internet. This is similar to the work of Lin (2021) which notes that enjoyment, loyalty and trust are found to positively influence virtual gift intention. It can be said that the social presence with an influence of hedonic motivation, PSI, and loyalty forms an interconnected relationship that is difficult to separate.

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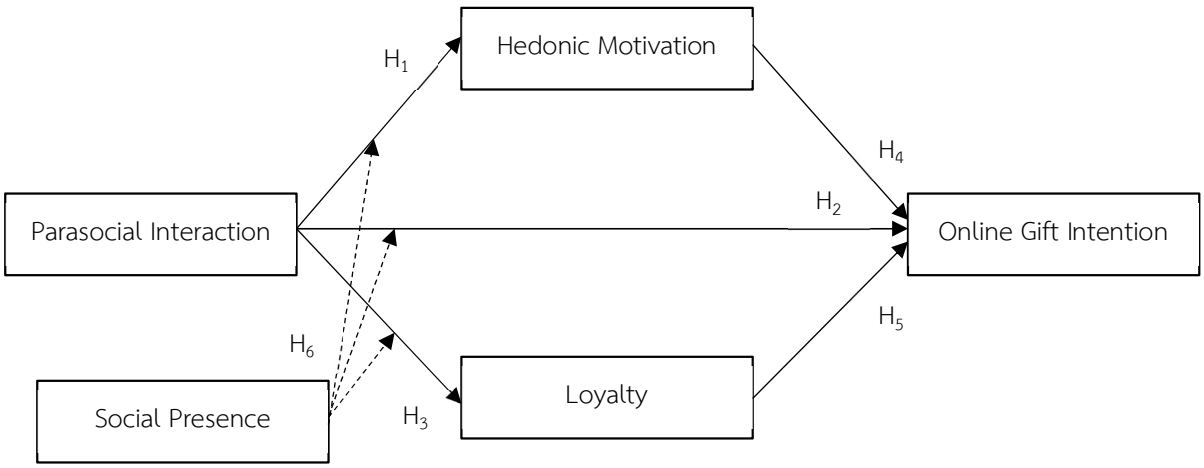
Based on the related literature reviews aforementioned, all the hypotheses which were developed and formed by the literature reviews were proposed:

Research Model

Figure 1

Research model of the current study



Hypotheses

1. H_1: Users' perception of parasocial interaction on TikTok positively influences hedonic motivation.

2. H_2: Users' perception of parasocial interaction on TikTok positively influences online gift intention.

3. H_3: Users' perception of parasocial interaction on TikTok positively influences loyalty.

4. H_4: Users' hedonic motivation positively influences their online gift intention.

5. H_5: Users' loyalty positively influences their online gift intention.

6. H_6: Social presence as a moderator variable has an influences of parasocial interaction on hedonic motivation, loyalty, and online gift intention.

As shown in Figure 1, this research model reflects influences via several variables, including H_1: the influence between parasocial interaction and hedonic motivation, H_2: the influence between parasocial interaction and online gift intention, H_3: the influence between parasocial interaction and loyalty, H_4: the influence between hedonic motivation and online gift intention, H_5: the influence between loyalty and online gift intention, and H_6: the influence of social presence which has an influence on H_1, H_2, and H_3. Importantly, all the influence of those hypotheses are examined based on the literature reviews mentioned previously.

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Methodology

1. Research Sample

This study aims to explore factors influencing an intention of online gifting to NPC streamers by focusing on TikTok users who are Generation Z audiences. To meet an effective sample size in this study, it employed a method of Soper (2024) known as *'a-priori sample size for Structural Equation Models'* which was calculated by inputting 5 parameter values, including 1) anticipated effect size [i.e., 0.1], 2) desired statistical power level [i.e., 0.8], 3) number of latent variables [i.e., 5], 4) number of observed variables [i.e., 33], and probability level [i.e., 0.05]. The calculation suggested at least 308 samples; however, this study tried to acquire more than the minimum ones in order to increase the reliability of the results in which 404 samples were collected.

2. Research Instrument

Quantitative approach by using a questionnaire was adopted into this research. There were nine sections in the questionnaire. To verify respondents' attentiveness, attention-checking questions were embedded in the questionnaire. The first section included filter questions regarding: 1) whether respondents fell within the Generation Z age range, 2) whether they had watched NPC streamers, and 3) whether they had given either free or paid gifts on TikTok. This section asked respondents to input their data with blank fields and dropdown lists. There was a rejection of the questionnaire which did not pass the filter questions. The second section contained questions regarding users' behavior when using the TikTok application. From the third to the last sections, the questions related to parasocial interaction, social presence and loyalty were adopted by Lin (2021) while the questions regarding hedonic

motivation were driven by Venkatesh, Thong, and Xu (2012). Questions related to online gift intention were developed based on Lu, Wu, and Zhao (2022). Question lists from the third to final section were rated on a 5-point Likert scale ranging from strongly disagree to strongly agree. Moreover, there were no issues with ethical concern, including 1) anonymous respondents, 2) respondents which knew the objectives of this study, 3) data in the questionnaire which were not shared and only used in this study, and 4) respondents which received a gift card if they complete the questionnaire with passing a set of filter questions.

3. Data Collection

A convenience sampling was conducted in this study. The researcher joined numerous live streaming channels in TikTok which show NPC's content. Based on TikTok (2025)'s regulation, there are two types of TikTok accounts: personal and business accounts. This study focused on the personal accounts of NPC streamers because there are no brands supporting this type of content in Thailand. Also, they can be entered into a monetization scheme; thus, their personal TikTok accounts were selected. Permission to collect data on the channels was granted by either streamers or administrators. Upon approval, the streamers provided the researcher with specific dates and times when they would share the Google Form hyperlink in their chat box during live sessions. Some questionnaires were rejected as a result of incompatibility with the sample criteria and were required to do the data collection again if needed.

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4. Data Analysis

There was a 30-questionnaire pretest which provided a result of Cronbach's alpha with 0.76; then the data collection was started. To thoroughly examine the reliability of each construct, Cronbach's alpha was used to assess the reliability of each construct, yielding the following values: Hedonic Motivation (0.79), Parasocial Interaction (0.76), Social Presence (0.65), Loyalty, and Online Gift Intention (0.71). These results indicate that constructs of the questionnaire meet the minimum threshold for acceptable reliability shown in Table 1. After completion of the collection, all the questionnaires (i.e., 600 samples) were filtered and cleaned to meet the sample criteria mentioned above; it remained 404 samples. They were imported to Microsoft Excel to run a process of coding and also transferred to *SmartPLS4* by analyzing both *PLS-SEM* and *Bootstrapping* analysis. *SmartPLS4* was chosen to be the statistical tool because of 1) an ability to run a complex relationship between variables, 2) to investigate mediation and moderation effects, 3) to support a function of multi-group analysis, and 4) to evaluate model fit by estimating path coefficients and creating detailed reports. When the process of the analysis was done, hypothesis testing and findings were reported in this article.

Results

To address the research objectives, a report of each construct, mean, standard deviation (SD), factor loading, average variance extracted (AVE), composite reliability (CR) and Cronbach's alpha were described in this section, as Hair, Black, Babin, & Anderson (2019) reveal that there are many values to meet the reliability and standard before running a hypothesis test. In addition to the standard value of factor loadings of the observed variables, Hair, Black, and Babin (2010) recommend values greater than 0.7 as the standard threshold. There were four factor-loadings which were slightly below the standard, including PI1 (0.694), PI4 (0.676), LO1 (0.638), and SP1 (0.655). However, all four values exceeded 0.6, which Chin, Gopal, and Salisbury (1997) consider acceptable in different research contexts and fields. Those four loadings were retained for subsequent analysis. The factor loadings of all other observed variables exceeded the standard threshold of 0.7 (ranging from 0.726 to 0.884) and were included in the analysis as shown in Table 1.

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Table 1

Constructs and items

Construct	Item	Mean	S.D.	Loading	AVE	CR	Cron. α
Hedonic motivation	HM1	3.470	0.983	0.820	0.712	0.881	0.798
	HM2	3.488	0.916	0.884			
	HM3	3.597	0.964	0.825			
Parasocial interaction	PI1	3.460	1.044	0.694	0.511	0.839	0.760
	PI2	3.332	1.038	0.742			
	PI3	3.304	1.092	0.730			
	PI4	3.161	1.042	0.676			
	PI5	3.577	1.063	0.730			
Loyalty	LO1	3.356	1.023	0.638	0.538	0.822	0.714
	LO2	3.295	1.046	0.800			
	LO3	3.171	1.026	0.760			
	LO4	3.460	1.090	0.726			
Social Presence	SP1	3.453	0.870	0.655	0.588	0.809	0.659
	SP2	3.515	0.963	0.794			
	SP3	3.399	0.948	0.839			
Online gift intention	GI1	3.319	1.094	0.743	0.601	0.900	0.867
	GI2	3.178	1.116	0.733			
	GI3	3.347	1.130	0.760			
	GI4	3.005	1.130	0.815			
	GI5	3.042	1.135	0.806			
	GI6	3.057	1.141	0.789			

According to Hair, Black, and Babin (2010), the standard value of AVE and CR should be 0.5 and 0.7 respectively. The AVE of the constructs in this study was from 0.511 to 0.712 while CR values ranged from 0.809 to 0.900. Therefore, they met the standard and were fulfilled with all the constructs. Additionally, Cronbach's alpha values are recommended by Hair to reach at 0.7. As found in this study, there were four constructs which met the standard. Although there was one construct (i.e., social presence at: 0.659) slightly below the standard value, the score range between 0.6 to 0.8 is acceptable asserted by Raharjanti et al. (2022). Thus, the construct of social presence was retained in processing for subsequent analysis. In addition to a measurement of the discriminant validity test admitted by Fornell and Larcker (1981) who are ones of profound thinkers in the concept of AVE-SV method being an important criterion of *PLS-SEM* analysis, an absolute value of the correlation coefficients between the constructs could lower than the square root of the AVE. In this case, the findings demonstrated that the values were a range from 0.162 to 0.601 while the square roots of the AVE were a range from 0.715 to 0.884. This indicated that the coefficients between the constructs were clearly less than the square roots of the AVE. It can be said that this research model met the aforementioned standard and validity, as depicted in Table 2.

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Table 2

Correlation coefficients and discriminate validity

Construct	HM	LO	PI	SP	GI
Hedonic motivation (HM)	0.844				
Loyalty (LO)	0.253	0.734			
Parasocial interaction (PI)	0.321	0.527	0.715		
Social Presence (SP)	0.197	0.406	0.401	*0.767*	
Online gift intention (GI)	0.162	0.556	0.601	0.325	*0.775*

This study applied a model fit or goodness of fit (GoF) which uses the formula: GoF =sqrt(avg(AVE) x avg(R^2)). As Wetzels, Odekerken-Schröder, and Van Oppen (2009) point out, the acceptance of a GoF value is larger than 0.36. GoF value obtained in this research was 0.743 which met the standard. Additionally, the evaluation of standardized path coefficients, *t-statistics* and *p-value* were tested through the proposed hypotheses shown in Table 3.

Table 3

Results of testing the proposed hypotheses

Hypothesis	Path	f^2	β	t-statistic	p-value	Results
H1	PI ⟶ HM	0.082	0.298	5.653	0.000***	Supported
H2	PI ⟶ GI	0.213	0.429	8.744	0.000***	Supported
H3	PI ⟶ LO	0.219	0.425	9.813	0.000***	Supported
H4	HM ⟶ GI	0.006	-0.063	1.506	0.132	Unsupported

Hypothesis	Path	f^2	β	t-statistic	p-value	Results
H5	LO ⟶ GI	0.128	0.326	6.903	0.000***	Supported
H6	Moderating ⟶ HM	0.003	0.048	1.064	0.288	Unsupported
	Moderating ⟶ GI	0.004	-0.042	1.502	0.133	Unsupported
	Moderating ⟶ LO	0.004	-0.051	1.391	0.164	Unsupported

Remark. *p<0.05, ** p<0.01, *** p<0.001

f^2<0.02=no effect, f^2>0.02=small, f^2>0.15=medium, f^2>0.35=large effects.

To report the hypothesis H1 to H3 in the table above, it showed that parasocial interaction significantly affected hedonic motivation (β=0.298, t=5.653, p<0.001), online gift intention (β=0.429, t=8.744, p<0.001), and loyalty (β=0.425, t=9.813, p<0.001). In this test, H1 to H3 were supported. However, the influence of hedonic motivation on the online gift intention toward NPC streamers was not significant (β=-0.063, t=1.506, p>0.05). In other words, H4 was not supported. Focusing on the hypothesis H5, loyalty had a positive influence on online gift intention. H5 was supported. On the other hand, social presence as moderating variables did not influence on 1) hedonic motivation, 2) online gift intention, and 3) loyalty. Consequently, H6 was not supported.

As for a test of Effect Size (f^2) referring to the formula $f^2=(R^2_{included}-R^2_{excluded})/1-R^2_{included}$, Hair, Hult, Ringle, and Sarstedt (2022) point out that the effect size can estimate a size of influence. Specifically, f^2 values of 0.02, 0.15, and 0.35 represent small, medium, and large effects, respectively. In this paper, it found that there were two medium effects in the relationship between parasocial interaction and online gift intention. At the same time, parasocial interaction has a medium effect on loyalty. Additionally, a small effect size of 0.082 was observed between parasocial interaction and hedonic motivation, while other relationships did not exhibit a notable effect size.

The explanatory power (R^2) of latent variables was calculated and shown in Figure 2. It could be demonstrated that parasocial interaction on live streaming explained 11.1 percent (R^2=0.111) of the variance in hedonic motivation. Both parasocial interaction and hedonic motivation explained 44.7 percent (R^2=0.447) of the variance in the perspective toward the NPC streamers. Lastly, the parasocial interaction explained 32.6 percent (R^2=0.326) of the variance in loyalty. Therefore, the constructs of this research model were found to be coherent and appropriately represented the online gift intention of TikTok users.

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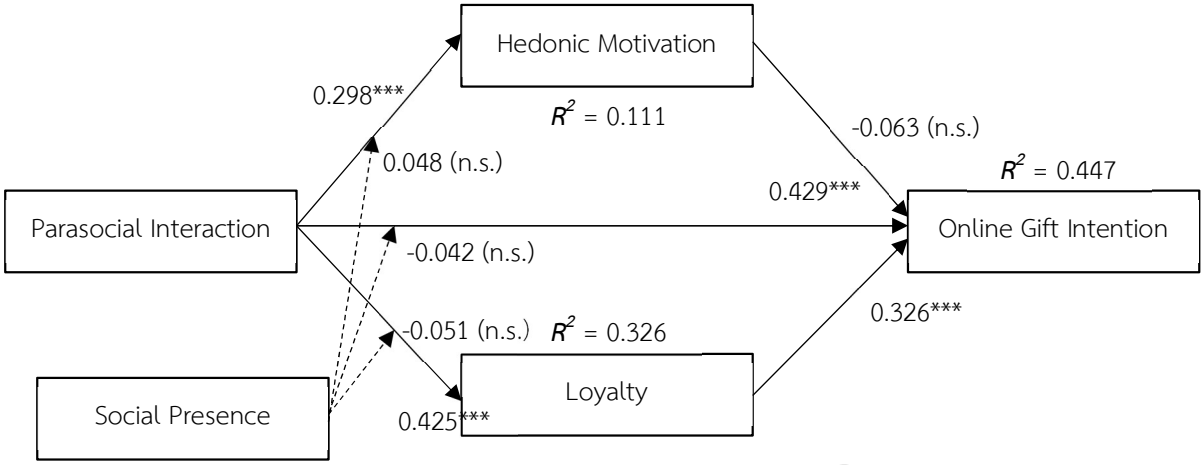
Figure 2

Path coefficients of the research model



Remark. *t-statistic>1.96, p-value<0.05, **t-statistic>2.48, p-value<0.01, ***t-statistic>3.24, p-value <0.001; n.s.=no significance.

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To summarize, the results of this study indicated that parasocial interaction significantly and positively affected hedonic motivation. However, the hedonic motivation did not have an effect on online gift intention. In contrast, parasocial interaction positively and significantly affected loyalty, which in turn significantly influenced online gift intention. Lastly, social presence, as a moderator, had no significant effect on: 1) hedonic motivation, 2) online gift intention, or 3) loyalty. The reason why the results have both significance and insignificance will be discussed in the following part.

Discussion

Surprisingly, there were two hypotheses in this study which were not significant, including 1) the relation between hedonic motivation and online gift intention, and 2) social presence as a moderator variable in relation to 1) hedonic motivation, 2) online gift intention, and 3) loyalty. Regarding the lack of a significant relation between hedonic motivation and online gift intention, Chan (2023) notes that it is possible that NPC content is a kind of nonsense catchphrases. That is, people may enjoy watching the content, but all of them are not willing to pay for this kind of content. Some view it as just entertainment, offering no other benefits to the audience. As a discussion through the viewpoint of Venkatesh et al. (2012), it can be said that hedonic motivation in the NPC content is a part of new coming trends which can be accepted or rejected from users, but it is not relevant to an online gift intention. Moreover, Horváth and Adıgüzel (2018) suggest that it is possible to fail in the relationship because of different social content, psychological advantage and digital environment, or complex purchasing decision in different countries. These circumstances might contribute to the non-significance of the hypothesized relationship.

Regarding the non-significant finding for social presence as a moderator (in the relation between hedonic motivation, online gift intention, and loyalty), it is possible that users may enjoy watching a NPC streaming content in which Mäntymäki and Salo (2010, p. 106) assert that "social presence also helps customer loyalty retention for social commerce websites", but it may be not relevant in this case because of a different product/service and also different platform and customers. Additionally, the monetization in NPC streamer business is not similar to sales in actual shops in which Munaro, Martins, and Kato (2019), who study the influence of repurchase intention in jewelry retails, argue that store's atmosphere and service in a store can lead to a point of repurchase intention. Whereas the online gift intention in TikTok application is totally different; there is neither store atmosphere nor service to drive such behavior. It can be suggested that the moderator variable was found to be non-significant as a result of many factors that differed from those in previous studies, even though many studies employed the same concepts and theories.

On the other hand, the findings of this study revealed that parasocial interaction was positively correlated to hedonic motivation which was similar to previous studies. As Liu, Li, and Ding (2024) point out, parasocial interaction effectively enhances consumers' willingness to purchase because they have a sense of enjoyment. Moreover, Indriyarti and Murtiningsih (2024) notice that a feeling of hedonic motivation in customers' mind can influence a factor of purchase while Ko and Wu (2017) suggest that parasocial interaction is deemed as an important component to drive a sense of loyalty among viewers, especially more viewing and more loyalty. Lastly, Mäntymäki and Salo (2010) add that one of the key factors in enhancing the purchase of products or services in the social virtual world can be loyalty and repeat consumption. In other words, the combination of parasocial interaction and hedonic motivation positively influences an online gift intention. Consequently, the content of NPC streamers can make viewers happy and gain more audiences which can lead to a new focus of TikTok streamers nowadays.

Overall, it is a common that TikTok is a popular platform among Gen-Z users in Thailand in which Hossain (2022) argues that a short-formed video which is the effectiveness of marking strategies is the key factor in attracting users. There are a small number of TikTok studies in Thai literature but found some marketing strategies to persuade people to buy a product via online. Kanthawongs, Prasersith, and Kanthawongs (2024) claim that an issue of usefulness and innovation can be a significant trigger which leads to purchase attractiveness. Additionally, Tokunalai and Methavasaraphak (2024) suggest that a combination of perceived content quality, influencer, and enjoyment is deemed as the prominent part of purchasing decision towards livestreaming among Thai. In other words, some of the factors in asking people to buy a product or service via online can be a part leading to a point of purchase, but it is different in terms of NPC content which can be an influence on Thais' TikTok viewers to buy and send virtual gifts to their beloved streamers.

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Research Limitation

A limitation of this study was the considerable time required for data collection, primarily due to invalid responses from participants, despite offering a small gift upon questionnaire completion. Moreover, a further limitation was the difficulty in recruiting NPC streamers or channel administrators for data collection, as some TikTok channels did not permit surveys due to the perceived risk of a reduction in gift giving during their live streams. In addition to potential sampling bias, this study employed convenience sampling by observing live streams from a random selection of TikTok channels. Consequently, it is possible that other viewers or fans watching NPC content who were not included in the sample may differ in their characteristics. It is possible that these viewers may have a different way of thinking; thus, a data collection with the NPC's fans would be a different page.

Recommendation

Recommendation for Implementation

As for a general suggestion in this study, the use of *PLS-SEM* analysis is one of statistical tools in addressing hypotheses. In other words, this is not the only way to obtain the results. It is possible that there might be different outcomes if other statistical approaches might be applied, analyzed and interpreted. More factors, variables, and others can agree or disagree on findings. It is recommended that it would be beneficial if NPC contents could be examined and analyzed with different methods to confirm outcomes.

Recommendation for Further Research

As for suggestions for further studies, there are three issues which are worthwhile for future research. First, this study focuses on the side of TikTok's viewer as a buyer but did not examine NPC streamers. It would be beneficial for future research to collect and compare data from both buyers and streamers. Second, this research employed a quantitative method to answer the research objectives which does not provide in-depth explanations from participants. In other words, the qualitative method can provide the deepened reason why the respondents are motivated to purchase virtual gifts for their NPC streamers. Lastly, a scope of study could expand to cover all the users in every generation, rather than focusing solely on Generation Z.

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