



RESEARCH ARTICLE

The Effects of Flow Dimensions on TV/Web Series Binge-Watching Behavior on Freemium Streaming Services

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ARTICLE INFO	ABSTRACT
Received: Apr 24, 2024	Binge-watching is a global phenomenon nowadays. Many researchers have explored this phenomenon from the perspective of viewers' motivation and the behavior they developed. However, there is limited analysis concerning the impact of flow dimensions and the role of self-control when viewers are absorbed in binge-watching behavior. This research aims to observe the effects of flow dimensions (telepresence, enjoyment, concentration, and time distortion) on binge-watching behavior that may trigger the purchase intention of TV/Web Series from freemium streaming services and whether self-control provides a moderating effect on the forming of purchase intention. By distributing online questionnaires with convenience sampling to customers of freemium streaming applications, we get 300 usable responses. We analyzed the data using PLS-SEM to test the hypotheses. The results showed that telepresence and time distortion had positive effects on binge-watching behavior. Low self-control moderates the impact of time distortion on binge-watching behavior formation. This research deepens the understanding of flow theory by providing dimension-level impacts within a specific context of watching movies on freemium streaming services. From this research, streaming service companies can comprehend that binge-watching affects purchase intention. Binge-watching that is affected by telepresence and time distortion can be taken into consideration when contemplating the strategy.
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INTRODUCTION

The Internet is used to access entertainment services, such as online streaming (BPS, 2019). Streaming services have become the paid product with the highest Internet user percentage (Hootsuite & We Are Social, 2018). These services are used daily, with the public willing to pay a substantial monthly fee to access preferred broadcasts (Populix, 2022). On a daily basis, different TV/Web Series viewers adopt the services using a release format that grants immediate access to subsequent episodes (Flayelle et al., 2020).

Based on the data collected by Populix (2020), 52% of respondents prefer marathon-viewing and engage in binge-watching. Data from (Statista, 2020) showed that 43.4% of Indonesia's population binge-watched online series for 1 to 3 hours. The serial content delivered in multiple episodes and seasons created an appeal for binge-watching (Kour & Chhabria, 2022). This appeal of serialized content also challenges self-control in viewers (Flayelle et al., 2020), and a lack of self-control leads individuals to continue watching (Merrill & Rubenking, 2019). In this context, the flexibility and ease of use have led to binge-watching behavior.

Content with clear narratives and episodes connected from beginning to end has become the uniqueness of TV/Web Series (Merrill & Rubenking, 2019). This connectedness and dependence on finishing the entire episodes prompt the existence of a business model known as free-to-fee or freemium on streaming services. In the movie-streaming services, the company offers free and paid versions. At the beginning of use, the company attracts customers with free services (Wu et al., 2020); however, the continuance watch will require a paid service.

The term freemium arises from combining two English words, namely “free” and “premium” (Montag et al., 2019). The model is often used on numerous platforms, such as streaming services and online games. In addition, the freemium scheme allows users to obtain free services and charges a fee for value-added services. However, customers must pay a certain fee to view a higher-quality broadcast (Zhou et al., 2023). The purpose of freemium is to create differing values in two groups of customers based on their willingness to pay (Layrisse et al., 2021).

The importance of understanding the development of purchase intention by binge-watching series through flow theory has been observed (Panda & Pandey, 2017). Flow applications on continuance and purchase intention were used in the contexts of online games (Ghazali et al., 2019), e-retailing (Kazancoglu & Demir, 2021), and live shopping. The flow concept can also be applied to TV/Web Series on freemium streaming services, especially when there is a binge-watching behavior.

By focusing on freemium streaming services, the researchers expect to obtain more detailed and in-depth results on how addictive behavior, or binge-watching in this case, creates purchase intention. Freemium services such as Vidio, Viu, and WeTV allow customers to subscribe after enjoying several viewings of broadcasts available within the free category. This service differs from conventional subscription services such as Netflix and Disney+ Hotstar, which are accessed after subscribing. The problem should be considered when exploring the dimensions of flow, binge-watching, self-control, and purchase intention toward TV/Web Series on freemium streaming services.

Despite numerous publications on the subject, the relationship between flow dimensions and binge-watching behavior still needs to be explored. The correlation between flow and binge-watching behavior is also well-established; however, additional research is necessary to determine how strongly each flow dimension influences this relationship. The formation of movie purchase intention driven by binge-watching behavior has been the subject of many previous publications. However, there has been little discussion of the role of self-control in the linkage of binge-watching behavior to purchase intention. Subsequently, research is required to comprehend the impact of each flow dimension (i.e., telepresence, enjoyment, time distortion, and concentration) in driving binge-watching behavior.

LITERATURE REVIEW

Flow Theory

Flow experiences refer to psychological states in which an individual becomes entirely immersed in an activity and displays a high level of attention (Csikszentmihalyi, 1990). Flow is an optimal state in which customers experience cognitive engagement, deriving enjoyment from temporary actions and events, feeling highly motivated, focused, deeply interconnected, and in control of the situation (Kazancoglu & Demir, 2021). Flow refers to a holistic psychological state characterized by full consumer engagement in an activity (Csikszentmihalyi et al., 2000); (Kazancoglu & Demir, 2021). In this context, the holistic state is explained in the flow experience dimension (Nakamura & Csikszentmihalyi, 2002).

Flow happens in various contexts in which full engagement may be formed. In gaming activity, flow is formed by the balance between customers' skills and the level of challenges encountered. This condition determines the enjoyment of activities and hence affects the intention to replay (Alan et al.,

2022). In live shopping, flows are triggered by the IT affordance provided by live streaming and trigger impulse buying behavior (Simanjuntak, 2024). In online learning, flow contributes to learning motivation and increases academic success (Özhan, Ş. Ç., & Kocadere, 2020). In conclusion, a flow state is experienced when attention is concentrated on a single activity (Rufi et al., 2014), which can trigger certain behaviors in users.

Researchers differ in the way they measure the flow experience. Some papers used unidimensional constructs, and others proposed multidimensional constructs. In this research, we used the multidimensional approach, following Kazancoglu and Demir (2021), who propose four dimensions. First, telepresence, which refers to the feeling of being present in a location that is physically distant or virtual, has been recognized as a design goal for artificial environments (Han et al., 2020). Flow experiences can manifest in various ordinary environments, and they can even occur when individuals passively observe sights without active participation, similar to watching movies. Second, enjoyment, the concept arises from logical consequences that flow is inherently enjoyable (Csikszentmihalyi et al., 2000). Therefore, it is essential to see the role of the enjoyment dimension (Csikszentmihalyi et al., 2000). Third, concentration refers to the complete attentiveness towards a narrow place intensively and may determine the flow quality (Csikszentmihalyi, 2014). Fourth, time distortion refers to the feeling that time passes faster than usual. Most research uses time distortion as one of the core elements of flow experience (Novak et al., 2000; Ozkara et al., 2017).

The dimensions of flow experience aim to investigate the reasons behind the behaviors of customers who willingly and happily act without anticipating any reward (cash, career opportunities, and others). This theory emphasizes the values that become ingrained in an individual over time, irrespective of their activities (Nakamura & Csikszentmihalyi, 2002). Flow experience is deemed an independent variable in this research.

Binge-watching

Psychologists and medical professionals define “binge” as an addictive behavior (Panda & Pandey, 2017). Even though the term “binge” refers to aspects that tend to be regarded as unfavorable (such as binge-eating and binge-drinking), this consumption-watching pattern is common among the current populace (Forte et al., 2021). According to Panda & Pandey (2017), binge-watching is defined Oxford Dictionary (2013) as the act of seeing multiple episodes of entertainment content in succession, usually through DVDs or digital streaming. In the context of online viewing, Schweidel & Moe (2016) proved that the activity of viewing causes more viewings, which shows that other than the characteristics of the viewers, binge-watching behavior is also a behavior that can be built.

Self-control

Self-control refers to an individual's capacity to manage their behaviors, emotions, and decision-making within specific circumstances, although the matter can sometimes contradict their desires or themselves (Tangney et al., 2004). The ability to consistently enact self-control in various challenging or disturbing situations maintains focus on long-term goals (Mischel, 2014). Self-control within technological advancement and media usage can be adopted as a psychological variable to capture individuals' behavioral differences (Nanda & Banerjee, 2020). If individuals can apply self-control, they can protect themselves from negative behavior (Baláž, 2023).

Purchase Intention

Purchase intention is the behavior of consumers that occurs as a response toward objects that show the desire of consumers to make purchases (Kotler & Keller, 2009). This desire is influenced by several factors, such as attitudes, motivations, perceptions, experiences, and habits (Schiffman & Kanuk, 2010; Mirabi et al., 2015)). According to Kotler & Armstrong (2012), purchase intention can be observed from how consumers give their attention to products (attention), give rise to a feeling of

attraction towards the product (interest), have the intention to try (desire), and decide to make a purchase (action).

Hypothesis Development

Telepresence is the perception of a virtual environment interacting more authentically or prominently than the physical counterpart (Novak et al., 2000). The concept can be present in virtual environments such as television (Kim & Biocca, 2006) and TV/Web Series. Previous research (Ghazali et al., 2019) showed that telepresence created continuous intention as part of flow. In this context, binge-watching behavior is formed. Therefore, we hypothesized:

H1: Telepresence has a positive effect on binge-watching behavior.

Enjoyment is a dimension of flow used in online environments (Moon & Kim, 2001; Wu & Chang, 2005; Sánchez-Franco, 2008; Domina et al., 2012 & Ozkara et al., 2017). Previous research stated that the concept affected behavioral and continuance intention (Wu & Liu, 2007; Chen et al., 2016 & Ghazali et al., 2019). Continued desire for a product is maintained when customers experience enjoyment during the initial purchase. This condition is also related to viewing activities and binge-watching behavior (Panda & Pandey, 2017). Therefore, we hypothesized:

H2: Enjoyment has a positive effect on binge-watching behavior.

Concentration is used to measure the depth of flow in web environments (Jung et al., 2009; Bölen & Özen, 2020). According to Hsu et al. (2012), cited by Kazancoglu & Demir (2021), concentration positively affected continuance intention. This condition is consistent with other research, where focused concentration prompted addictive (Hoffman & Novak, 1996; Panda & Pandey, 2017) or binge-watching behavior. Therefore, we hypothesized:

H3: Concentration has a positive effect on binge-watching behavior.

Time distortion occurs when customers become engrossed in an activity to the extent of losing track of time (Csikszentmihalyi et al., 2000; Pelet et al., 2017). This dimension affects continuance intention in online environments (Csikszentmihalyi et al., 2000, Ghazali et al., 2019), and the condition occurs in customers who view episodes consecutively for multiple hours to the point of creating binge-watch behavior (Starosta & Izydorczyk, 2020; Subramanian et al., 2020). Therefore, we hypothesized:

H4: Time distortion has a positive effect on binge-watching behavior.

Binge-watching can affect user behavior and response (Lim, 2021). According to Forte et al. (2021), the concept could give rise to other addictive behaviors. Research conducted by Lim (2021) and Menon (2022) stated that customers who experienced binge-watching were expected to subscribe to a video streaming service provider. Therefore, we hypothesized:

H5: Binge-watching behavior has a positive effect on purchase intention.

The ease of access to streaming services allows exposure to TV/Web Series broadcasts for long periods. Customers immersed in binge-watching activities encounter challenges in halting the engagement (Merrill & Rubenking, 2019). The loss of temporal awareness and cessation of the viewing process coincide with time distortion, influencing binge-watching behavior.

Addictive or binge behavior has been connected multiple times with the role of self-control as a moderator variable. This condition refers to the ability to alter the response to behavior, thought, and emotion (Nanda & Banerjee, 2020). Meanwhile, customers with low self-control are driven to continue viewing activity (Merrill & Rubenking, 2019). Therefore, we hypothesized:

H6: Low Self-control moderates the effects of time distortion on binge-watching behavior.

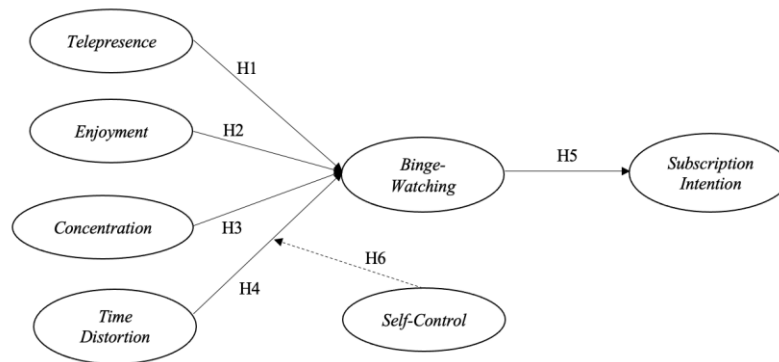


Figure 1. Conceptual Framework

We draw Figure 1 based on the derived hypothesis, showing the research's theoretical framework using seven variables: telepresence, enjoyment, concentration, time distortion, binge-watching, self-control, and purchase intention.

METHODS

Descriptive research was used to obtain an in-depth description of the phenomena (Sekaran & Bougie, 2016). We used quantitative research methods to accurately measure behavior, knowledge, opinion, or notions to test the hypothesis (Cooper & Schindler, 2014). In this research, we used a survey with data collected through a research instrument in the form of a questionnaire. The population of interest is subscribers to freemium movie-streaming services in Indonesia (e.g., Viu, WeTV, Vidio, and Iqiyi). Using the convenience sampling technique, an online questionnaire was distributed, and the selected samples were customers who had engaged in viewing activities of TV/Web Series for a minimum of 2 consecutive hours in a single period. Following Hair et al. (2019), a minimum number of samples was determined using the rule of thumb, which is 5-10x the number of indicators.

Data was collected from individuals over a specified period (cross-sectional studies). Because this research utilizes the natural environment, the rate of interventions is deemed to belong in the minimal category (minimal interference).

Measurement

A total of 33 indicators were used in this survey. Indicators were derived from previous research: measurement items for flow dimensions comprised 17 items (i.e., telepresence - 5 items, enjoyment - 4 items, concentration - 4 items, and time distortion - 4 items), were drawn from Kazancoglu & Demir (2021). Six indicators for Binge-watching were drawn from Flayelle et al. (2019), five indicators for self-control were drawn from Nanda & Banerjee (2020), and five indicators for purchase intention were drawn from Ghazali et al. (2023).

Quantitative data is measured on a numerical scale (numbers). This research uses quantitative data from questionnaire responses on a Likert Scale of 1-5 (score 5 = strongly agree, and score 1 = strongly disagree). After responses were completed, data were systematically compiled through a web-based questionnaire hosted on the Google Forms platform.

We translate the original questions to Bahasa Indonesia, using back-to-back translation. Before distributing the questionnaire, we conducted a pilot test to ensure the understanding of the sentences. The questionnaire was divided into multiple sections. The initial phase involves the collection of respondents' demographic and psychographic profiles, while the subsequent phase

involves the collection of responses for measurement items. A pre-test of 40 respondents was conducted to test the validity and reliability of the questionnaire.

RESULTS

The study begins with a pretest with forty participants to evaluate the reliability and validity of the indicator questions in the questionnaire measuring tool. After the indicator items are proven good and can be used, the process of data collection was completed by way of online surveys, which involved 426 respondents, who are users who have subscribed to freemium streaming services and have two consecutive hours of viewing experience during the past one month, followed by performing an elimination of answers that belong to the outlier category, which resulted in us obtaining only 300 data samples with detailed profiles as shown in Table 1. Out of the 300 samples, 59% are female, and the remaining 41% are male. The samples are then dominated by respondents who are between the ages of 18 and 27 (representing 59% of the sample); roughly 55% of respondents have a bachelor's degree as their most recent education; 52% work for private companies; and 50.3% have monthly average expenses between Rp 2,000,000 and Rp 5,000,000. Moreover, users of Vidio dominantly represent the freemium applications utilized with an average view frequency of 3 - 4 times in a single week and a viewing duration that lasts up to >5 hours in one week, as well as those who have subscribed for more than four months. Table 1 displays more specific information on the respondents' attributes.

Table 1. Respondent Demographics

	Indicator	Percentage (%)	Number of Respondents
Gender	Male	41	123
	Female	59	177
Age	18-27 Years	59	177
	28-37 Years	29.7	89
	38-47 Years	9	27
	>47 Years	2.3	7
Latest education	Primary & Middle School	0	0
	High School/Vocational School	27	81
	Diploma	15	45
	Bachelor's Degree	55	165
	Master's Degree	3	9
Occupation	PhD	0	0
	Student/University Student	20.67	62
	Entrepreneur	19	57
	Private-sector Employee	52	156
	Civil Servant	3.67	11
Monthly Expenses other than routine expenses	Others	4.67	14
	<Rp2,000,000	22	66
	Rp2,000,000 - Rp5,000,000	50.3	151
	>Rp5,000,000	27.67	83

Using a two-stage process, we assessed the measurement qualities (validity and reliability) of the constructs. We tested the suggested hypotheses in the structural model before utilizing PLS-SEM to analyze the data. This tool is capable of managing intricate models that encompass various constructs, indicator variables, and structural pathways without the strict requirement for the data set to follow a normal distribution; the PLS-SEM method is well-established in social science research. PLS-SEM is widely regarded as the most advanced and comprehensive variance-based SEM.

It employs a general approach and is also recognized as a causal-predictive approach that prioritizes model prediction.

Confirmatory factor analysis was employed to assess the measures' validity and reliability. To determine if the measurement items meet the reliability criteria, values for Cronbach's Alpha (CA) and composite reliability (CR) were calculated. The composite reliability and rho A value must also be considered when using PLS-SEM, as Cronbach's Alpha is considered to provide a less precise measure of reliability.

If the AVE value is 0.50 or above, it means that at least 50% of the variability in the construct's component items can be explained by the construct. This is how the convergent validity was assessed. A number greater than 0.708 indicates validity. Factor loading is used to evaluate the construct validity of the measuring items. Based on Hair et al. (2019), we examined Heterotrait-Monotrait (HTMT) values to test discriminant validity.

The results of the validity and reliability test are displayed in Table 2. It demonstrates that all measuring items had Average Variance Extracted (AVE) >0.5 and factor loadings ≥0.708, indicating that the convergent validity requirements were satisfied. The HTMT ratio was less than 0.85 in Table 3, indicating that the standards for discriminant validity were satisfied. Every variable satisfies the reliability requirement with a Cronbach's Alpha coefficient of ≥0.7 and a Composite Reliability value of >0.7. Therefore, we conclude that all the measurement items met the requirements, allowing further analysis.

Table 2. Validity and Reliability Test Result

Variables	Item	Loadings	CA	CR	AVE	
Telepresence (TP)	TP1	When I watch a TV/Web series, I feel like an actor/actress in the TV/Web series that I am watching.	0.854	0.886	0.888	0.686
	TP2	When I watch a TV/Web series, I feel like my body is in the space I live in, but my mind is in the TV/Web series I'm watching.	0.807			
	TP3	Watching the TV/Web series made me feel like I forgot where I was.	0.822			
	TP4	After watching the TV/Web series, I felt like I was back in the "real world" after traveling.	0.814			
	TP5	I forget about my surroundings when watching TV/Web series.	0.842			
Enjoyment (EN)	EN1	I felt happy when I watch.	0.791	0.832	0.881	0.657
	EN2	I feel good when I watch.	0.766			
	EN3	I feel energized when watching TV/Web series	0.826			
	EN4	I feel interested in continuing to watch the TV/Web series.	0.857			
Concentration (CT)	CT1	I don't think about anything other than watching TV/Web series at the time of watching.	0.832	0.818	0.823	0.646
	CT2	I don't hear anything when watching TV/Web series.	0.784			
	CT3	I concentrate fully when watching TV/Web series.	0.804			

Variables	Item		Loadings	CA	CR	AVE
	CT4	When watching TV/Web series, I focus my attention on the TV/Web series I am watching.	0.794			
Time Distortion (TD)	TD1	When watching a TV/Web series, I feel like time goes by really fast.	0.735	0.717	0.732	0.539
	TD2	When watching TV/Web series, I tend to lose track of time.	0.704			
	TD3	Time flies when I watch TV/Web series.	0.701			
	TD4	While watching TV/Web series, I forget all my daily activities.	0.793			
Binge-watching	BW1	Because I want to know what happens next that I want to keep going when an episode ends.	0.719	0.819	0.822	0.525
	BW2	I usually spend more time watching TV/Web series than planned.	0.711			
	BW3	I felt the need to watch the next episode immediately to keep my curiosity at bay.	0.713			
	BW4	I didn't get enough sleep due to watching movies for a long time.	0.721			
	BW5	I feel like I need to watch more episodes to feel satisfied.	0.714			
	BW6	I can't help but want to watch TV/Web series all the time.	0.769			
Low Self-control	SC1	If the TV/Web series is good, I can lose track of time and end up watching the TV/Web series endlessly.	0.774	0.780	0.793	0.528
	SC2	Watching TV/Web Series changes my tendency. I can set aside time to finish watching TV/Web Series.	0.707			
	SC3	I enjoy the activity of watching TV/Web series. Once I'm engrossed, it's hard not to watch the next episode.	0.739			
	SC4	Watching TV/Web series is something that is relaxing and entertaining at the same time. Also, some TV/Web series are addictive to me.	0.706			
Purchase Intention	PI1	I intend to subscribe to the TV/Web Series in the future.	0.712	0.783	0.788	0.535
	PI2	I predict that I will subscribe to TV/Web series in the future.	0.726			
	PI3	I will consider subscribing to the TV/Web Series in the future.	0.729			
	PI4	I will most likely purchase a TV/Web Series subscription.	0.769			
	PI5	I would consider spending some money on a TV/Web Series subscription.	0.719			

Table 3. Discriminant Validity - Heterotrait-monotrait ratio (HMT) - Matrix

	BW	CT	EN	PI	SC	TP	TD	SC x BW
BW								
CT	0.758							
EN	0.218	0.375						
PI	0.544	0.628	0.277					
SC	0.745	0.744	0.174	0.628				
TP	0.735	0.794	0.150	0.573	0.700			
TD	0.761	0.733	0.442	0.524	0.607	0.709		
SC x BW	0.692	0.615	0.128	0.450	0.547	0.556	0.742	

Hypothesis testing was conducted using the PLS-SEM Software - Smart PLS4 Version 4 after the measurements in this study met the standards. In addition to verifying the statistical significance ($p < 0.05$), we examine the path coefficient and the R2 value. We conduct an interaction method to test self-control's moderating impact to verify the hypothesis.

Table 4 summarizes the findings from the hypothesis tests conducted. The analysis reveals that the H2 and H3 hypotheses were rejected since the T statistics and P values did not meet the requirement. Conversely, hypotheses H1, H4, H5, and H6 were accepted and supported by the data. These four hypotheses had T-statistic values exceeding 1.96, and all p-values were lower than the significance level of 0.05.

Table 4. Hypothesis Testing Result

Hypothesis	Relationship	Original Sample (O)	Sample Mean (M)	Std. Deviation (STDEV)	T Statistics	P Values	Conclusion
H1	Telepresence -> Binge-watching	0.196	0.203	0.084	2.323	0.020	Supported
H2	Enjoyment -> Binge-watching	-0.001	-0.001	0.060	0.021	0.984	Not Supported
H3	Concentration -> Binge-watching	0.147	0.148	0.082	1.796	0.073	Not Supported
H4	Time Distortion -> Binge-watching	0.146	0.144	0.072	2.034	0.042	Supported
H5	Binge-watching -> Purchase Intention	0.438	0.432	0.076	5.760	0.000	Supported
H6	Low Self-control x Time Distortion -> Binge-watching	-0.118	-0.114	0.031	3.837	0.000	Supported

The first hypothesis testing results show that telepresence positively and significantly affects binge-watching behavior. Consistent with the statement of Ghazali et al. (2023), the results of this study stated that telepresence could create continuous intention. Although Ghazali et al. (2023) findings are for the Dota 2 video game context, this research increase the external validity of the previous findings, by confirming the result in a new context, the TV/Web Series context. Whether it be the Dota 2 video game or the activity of viewing TV/Web Series, both are presented in a virtual environment that allows their consumers to feel telepresence, which then affects continuous intention or binge-watching behavior. Festyan et al.'s study (2023) highlights the importance of interactivity in creating customer live-streaming engagement. When people feel that there is good communication between the streamers and the audiences, they will stay longer and, therefore, engage with the show. In the context of movie streaming, this is depicted in the formation of binge-watching behavior.

Findings from H2 testing stated that enjoyment had no positive effect on binge-watching behavior. Abuhamdeh (2020) discussed enjoyment as one of the debatable flow characteristics, and plenty of researchers have taken this component from the flow experience. Since enjoyment is not necessarily autotelic, the flow experience may not always be enjoyable at the time it is consumed. The finding in Panda & Pandey (2017) is contradictory to this, which may be a result of the characteristics of the respondents. This research focused on university students and was dominated by working individuals. Chang & Peng (2022) found that working individuals had a sense of responsibility towards work and did not experience binge-watching.

We found no support for H3; concentration is not proven to affect binge-watching behavior. This result indicates an inconsistency between prior research conducted by Hsu et al. (2012), cited by Kazancoglu & Demir (2021), which shows that concentration can create continuance intention. According to Gao (2014), cited by Kim (2019), content quality can affect concentration quality. The differing research context, outside the context of TV/Web Series, may be why concentration does not affect binge-watching behavior. According to the Cleveland Clinic (2022), a medical academic center in Ohio, USA, games and TV shows differ in their ability to stimulate interactive activities and require special attention or concentration on details and task management. This difference in concentration can affect their continuance intention.

The fourth hypothesis testing results show that time distortion positively and significantly affects binge-watching behavior. This result aligns with the findings of research conducted by Ghazali et al. (2019), which shows the effect time distortion has on conditions towards continuance intention.

The fifth hypothesis testing showed that binge-watching affected purchase intention. This result was consistent with previous research, which showed that binge-watching affected purchase intention on streaming services (Lim, 2021; Menon, 2022).

The sixth hypothesis testing showed that low self-control negatively moderated time distortion toward binge-watching behavior. The result indicated an inconsistency with the previously explained hypotheses. Low self-control was inversely proportional to the connection between time distortion and binge-watching behavior in this context. This connection was different for all customers with differing low self-control levels.

DISCUSSION

This research enriches prior theories by investigating more specific dimensions of flow toward binge-watching behavior. Telepresence and time distortion are proven to have positive and significant effects on the occurrence of binge-watching behavior on TV/Web Series. Although present in different online environments, this is in alignment with prior research conducted by Panda & Pandey (2017), Ghazali et al. (2019), and Ghazali et al. (2023). This difference is instead shown in the conditions of enjoyment and concentration, which, on the contrary, do not affect binge-watching behavior. The differing demographic of viewers in this research, with the study conducted by Panda & Pandey (2017), is suspected to affect the relationship between enjoyment and concentration on binge-watching behavior. The limited sample size and sample representation might have caused the inconsistencies in these findings.

The findings of this study indicate that binge-watching contributes positively and significantly to purchase intention, consistent with previous research (Lim, 2021; Menon, 2022). Although the study generally refers to video streaming, the results are identical when focusing on TV/Web Series on freemium streaming services.

This research also shows the negative moderating role of low self-control on time distortion towards binge-watching behavior. Respondents involved with this research have high values on low self-control, where each indicative item has an average value of >4 on a maximum scale of 5, which shows

that they have deeply low self-control. This result indicates that the more an individual experiences low self-control, the weaker the impact of time distortion because the individual who has low self-control will experience binge-watching without feeling time distortion.

The video streaming service industry in Indonesia is quite competitive. In freemium streaming services, high usage levels do not necessarily show high levels of purchase or subscription. The findings of this research show that binge-watching affects purchase intention. Binge-watching, which is affected by flow dimensions, i.e., telepresence and time distortion, can be considered by companies that provide freemium streaming services. One of its applications is assessing the access level provided for free and paid content.

As viewer engagement with a broadcast begins to increase and the viewers begin to enter a virtual environment, or in this case, to experience telepresence, it is the right momentum for freemium streaming service providers to grant access to such broadcasts exclusively to subscribers. Referring to the definition of telepresence, which is the presence and engagement in a virtual environment, to measure how much telepresence a consumer experiences while watching a TV/web series, we can analyze how much and how deeply the audience discusses the TV/Web Series. Companies can explore this through Google Trends or Social Media listening. When the TV/Web Series enters the phase of being widely discussed or the emergence of certain fandoms, then it is the right time to set the next episode exclusively to subscribers.

Hartono et al. (2023) stated that Social Exchange Theory can explain the watching behavior in freemium movie streaming. Social exchange is a short- and long-term relationship in which tangible resources (e.g., money) and intangible resources (e.g., customer engagement) are exchanged (Blau, 1964). People may be more willing to buy premium services (or subscribe longer) because they are grateful to get the free service.

In addition to telepresence, the Company is expected to consider the time-distortion variable through the viewing intensity of the TV/Web Series. When most viewers have continued the next episode immediately after the previous episode ends or have watched several episodes without pausing, this is a clue that the viewers have experienced time distortion, so it is the right time to set the next episode exclusively to subscribers. Offering exclusive content like specific episodes in a TV/web series only to subscribers creates a strong incentive for viewers to subscribe. This exclusivity piques and motivates them to subscribe, ultimately driving revenue growth.

CONCLUSION

This research aims to understand the effects of flow dimensions, which are telepresence, enjoyment, concentration, and time distortion, on binge-watching behavior and the impact of binge-watching behavior on purchase intention. Testing results show that there are four acceptable hypotheses and two unacceptable hypotheses. Telepresence and time distortion are proven to have positive and significant effects on binge-watching behavior. Unlike the previously stated flow dimensions, enjoyment and concentration are established not to affect binge-watching behavior. This research also shows that binge-watching behavior positively affects purchase intention. In addition to observing direct effects, this research also marks the moderating role of low self-control. The moderating role of low self-control on time distortion towards binge-watching behavior is proven to be significant, yet has a negative or, in this case, weakening influence on time distortion.

Limitations

This study has several limitations. Firstly, this research has a limited sample size and sample representation, which only requires streaming service customers who have engaged in 2 consecutive hours of viewing activity in the past month. Future research can increase the requirement of respondents in terms of higher viewing duration and frequency at a given time to obtain a more

representative sample. Secondly, this research has yet to observe the function of binge-watching as a mediator on the relationship of each flow dimension toward purchase intention. Several prior research studies (Ozkara et al., 2017; Kazancoglu & Demir, 2021) Demonstrate how the various dimensions of flow impact purchase intention within a distinct online setting. Upon observation, future research can consider this matter to see the direct role of flow dimensions in purchase intention. Thirdly, future research can be conducted on premium streaming services to obtain a deeper understanding. This research refers to how people can access TV/web series content on premium streaming and freemium streaming services.

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