Psychological Ownership Implications in an Access-Based, Digital Consumption Context

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Abstract

The study examines how consumption experiences influence psychological ownership in the context of access-based, digital consumption, utilizing Netflix as a frame of reference for this context. The study extends prior research of psychological ownership in this context by using a new frame of reference or target of ownership, film streaming and specifically Netflix. Furthermore, it extends prior research by providing quantitative results in the area of psychological ownership in this context, where previous literature had only studied it qualitatively.

The model was adapted from psychological ownership literature and analyzes the effect of the three antecedents of psychological ownership, investment of the self, intimate knowing of the target, and efficacy and effectance or control, on psychological ownership as well as a hypothesized mediation affect by these variables with regard to duration of use. Data was collected using a questionnaire developed by drawing on previous studies' questions that measured psychological ownership. The initial hypothesis, that psychological ownership was possible in this context, is accepted. Further hypotheses found two of the three antecedents of psychological ownership significant, with efficacy and effectance unexpectedly found to be insignificant. Although efficacy had the hypothesized smaller magnitude of effect on psychological ownership than investment of the self or intimate knowing, it still remained insignificant. Duration was found to be insignificant and thus none of the hypothesized mediation interactions were established. The lack of significance in efficacy and duration can inform marketers or product designers what the most important aspects to focus on in building psychological ownership for their access-based, digital products. Alternatively, the lack of significance of these variables may be associated with certain target characteristics of Netflix and further research is suggested in this area.

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1. Introduction

Consumers are more and more often selecting access over ownership when it comes down to product consumption. What was once a seemingly more stigmatized and economically wasteful form of consumption has become an increasingly popular option (Ronald 2008; Cheshire, Walters & Rosenblatt, 2010). The access-based form of consumption has arisen to some degree due to the increasing liquidity of society and more mindful and resourceful consumer spending habits in the face of global economic crises (Bardhi, Eckhardt & Arnould 2012; Bardhi & Eckhardt, 2012). Whatever the case may be, it brings up an important question: What are the implications of this with regard to consumer attitudes towards and relationship with the products that they consume?

An important facet and determinant of consumer attitudes and relationship with products that will be focused on is that of psychological ownership. In general, the area of psychological ownership has been increasingly examined in recent literature. The foundations of psychological ownership are taken from Jon Pierce and colleagues' definition as "that state in which an individual feels as though a target of ownership or a piece of that target is theirs" (Pierce, Kostova & Dirks, 2001, p. 86). While based in the field of psychology, the concept of psychological ownership is extremely applicable to a broad variety of fields. It has been widely studied in the context of organizational management, consumer behavior, marketing, and business in general. In their earlier papers, Pierce and his colleagues, studied psychological ownership predominantly with regards to organizations and understanding employee behavior and incentives (Pierce, Kostova & Dirks, 2001; Van Dyne & Pierce, 2004; Pierce, O'driscoll & Coghlan, 2004). The conclusions from this literature follow the theme that psychological ownership acts as an antecedent or driver towards job satisfaction and organizational commitment in employees (Van Dyne & Pierce, 2004). However, what is more important and integral to this study, is the expansion past organizational or employee behavior to the application of this theory to consumer behavior.

As the area of psychological ownership expands, it is increasingly applied to the field of marketing and understanding of consumer behavior and psychology. Shu and Peck (2011)

studied psychological ownership with regard to emotional attachment and the endowment effect finding that psychological ownership mediates legal ownership's (seller role's) effect on valuation, as well as duration's effect on valuation. Similarly, Fuchs, Prandelli, and Schreier (2010, p. 76) found that empowerment strategies caused consumers to assume more psychological ownership and exhibit stronger demand for the underlying products tested. Thus, psychological ownership has an applicable impact on consumer behavior and attitudes, but how does this materialize in an access-based, digital environment?

This question is particularly relevant, because in the realm of digital products ownership and relationship with a product is already immaterial due to the nature of the product itself. With the proliferation of non-ownership, immaterial consumption, it is important to study this question and understand how consumers experience psychological ownership in both the contexts of non-ownership and the intangible nature of the product, simultaneously.

Previously, research has been done in the area of psychological ownership and digitalization. Karhanna, Xu, and Zhang (2015) found that psychological ownership exists in the context of social media, and more specifically concluded that people's psychological ownership needs were fulfilled through the use of social media. Brasel and Gips studied the importance of product haptics in digital environments. They concluded that touch interfaces create stronger psychological ownership over chosen objects, and consequently increased endowment and willingness to accept (Brasel & Gips, 2014). However, most closely related to the proposed thesis is Sinclair and Tinson's (2017) study of psychological ownership in the context of music streaming consumption. Sinclair and Tinson (2017) qualitatively suggested that participants experience psychological ownership over music streaming platforms, while simultaneously identifying important features of the target of ownership as well as revealing loyalty, sense of empowerment, and social rewards as outcomes of the psychological ownership. While related to the aforementioned research, the research of this study will differentiate by focusing on the access-based streaming platform Netflix as a case-study. Netflix is a relevant frame for the study as it is a pervasive example of an access-based, digital platform, with over 117 million members in 190 countries (Netflix, 2018).

1.1. Research Relevance

This study extends the current body of literature in the area of psychological ownership and its application to marketing. As it stands, there does not exist a wide variety of academic literature regarding the topic of online streaming platforms and marketing, particularly not relative to consumer behaviors and psychological ownership. This occurs regardless of the fact that streaming services often represent the pinnacle in the product and service innovation of several media markets. The study also expands upon the literature from Sinclair and Tinson with regard to psychological ownership in the context of music streaming consumption and consumer value creation with regard to streaming services marketing. Sinclair and Tinson's (2017) research, the most comparable of the studies that discussed psychological ownership in music streaming, was only exploratory qualitative study and thus didn't add measurable conclusions or statistical correlations to the study. So, the study builds upon Sinclair and Tinson's study by producing quantitative evaluation of a comparable context.

The study differentiates itself by focusing on perceptions of ownership and consumer attitudes with regards to film streaming, whereas the current most comparable research only covers the area of music streaming. In addition to this, this study applies a quantitative measure to psychological ownership and its antecedents, which has yet to be done in the context of streaming content or more generally access-based, digital consumption. Accordingly, this study will further develop psychological ownership theory regarding how psychological ownership is experienced in an access-based, digital context, and correlations between consumption behavior and psychological ownership in the context. Understanding the patterns and quantitative correlations between psychological ownership and its antecedents in this novel, digital context is important as research has reported different results concerning the relationship between antecedents and ownership in different contexts (Jussila, Tarkiainen, Sarstedt & Hair, 2015). The study may also expand the literature to allow a comparative look at if any potential difference in behavior and attitudes exists regarding the two different types of entertainment media: music and film. This is important in informing how access-based digital services should be most effectively designed and marketed regarding consumer relationship and consumption.

1.2. Research Objectives

The main objectives of the study will be to identify how consumption experiences impact psychological ownership in the context of access-based, digital consumption. Another objective involves identifying what potential aspects of psychological ownership are most important in this context and how this can be used to create value. Namely, identifying how psychological ownership is impacted and how this can be used to inform marketers and marketing strategy as well as product design and user-experience in the area of access-based, digital consumption. All in all, the aim is to discuss marketing implications of these different aspects and characteristics of consumer psychology regarding access-based digital products. Furthermore, the goal is to provide a benchmark by inspecting the applicability of the traditional psychological ownership model to the area of access-based, digital consumption in a qualitative fashion that has yet to be previously undergone. In this way, the research can contribute to and aid in a better understanding of access-based consumption as well as psychological ownership under previously unstudied conditions.

Under the theoretical framework of psychological ownership, there exist three major experiences or mechanisms that lead to the emergence of psychological ownership: controlling the ownership target, coming to intimately know the target, and investing the self in the target (Pierce, Kostova & Dirks, 2003). These factors have been widely identified and utilized in studies researching and measuring psychological ownership. Furthermore, the three experiences are identified in Sinclair and Tinson's study in music streaming and psychological ownership as the antecedents by which they suggest the participants are experiencing psychological ownership (Sinclair & Tinson, 2017). Based on this, the research in this study will focus upon consumption experience in the frame of these three factors: controlling the ownership target, coming to intimately know the target, and investing the self in the target. A further aspect associated with both these consumption experiences and psychological ownership is duration of use. Thus, duration of use's impact on psychological ownership and the antecedents to it will be investigated.

The following is the research question posed by the study:

What is the effect of consumption experiences on psychological ownership in an access-based, digital consumption context?

Under this research question, there exist the following sub-questions:

How does "experienced control" impact psychological ownership in an access-based, digital consumption context?

How does the "intimate knowing of the target" impact psychological ownership in an accessbased, digital consumption context?

How does "investment of the self" impact psychological ownership in an access-based, digital consumption context?

How does duration of use impact psychological ownership and its antecedents in an accessbased, digital consumption context?

1.3. Thesis Structure

The structure of the thesis will be as follows. First of all, psychological ownership and its antecedents and access-based consumption will be defined and discussed in chapter 2, Literature Review. The literature will further elaborate upon the previous studies that have been conducted in these areas and those important and comparable to the context of this study. Next, from the literature background, hypotheses will be formulated for this study. Consequently, in chapter 3, the research design and methodology will be explained. Chapter 4 will provide an empirical analysis and results of the study. Finally, chapter 5 will provide a conclusion, discussing the main findings as well as limitations and suggestions for future research.

2. Literature Review

2.1. Introduction

The goal of this literature review is to help construct a theoretical background and contextual setting against which psychological ownership can be researched and explain and elaborate upon several key terms or theories. In the review, a general basis to access-based consumption is explained as well as theory regarding consumer psychological ownership and the different models that fit these two subjects. Delving further, comparable research in psychological ownership of streaming platforms taking a perspective of music streaming consumption is clarified, which can be important in both comparable analysis as well as providing a link for the extension of the current body of literature to the research in question. Finally, hypotheses are developed using this background literature.

Literature was primarily sourced from Google Scholar searches, and primarily academic articles were selected from top ranking journals in marketing as referred to in the 'Worldwide Faculty Perception of Marketing Journals' by Hult, Reimann, and Schilke (2009). Literature was selected as relevant in the fields of access-based consumption, ownership (perceived or psychological), media streaming, and any combination of these subjects.

2.2. What is access-based consumption?

At its most fundamental level, access-based consumption is defined as being "transactions that may be market mediated in which no transfer of ownership takes place" (Bardhi & Eckhardt, 2012, p. 881). Thus, more specifically, access-based consumption regards a consumer gaining access to an item, and in the event that the transaction is market-mediated, they are willing to pay for that access (Durgee & O'Connor, 1995). Thus, rather than owning products, consumers reap the benefits through payments that allow the right to use of the products or services (Lovelock & Gummesson, 2004). In layman's terms, access-based consumption can be equated to a rental experience, although not every context of access-based consumption is directly labeled as rental. This has significant implications regarding ownership and the consumers relationship and feelings towards ownership. It, for example, has

been demonstrated through several studies that consumer-product relationships as well as consumer preferences, values, and desires are shaped by the mode of consumption (Bardhi & Eckhardt, 2012). Furthermore, in Chen's (2009) study of experiential access to art in museums versus galleries, she uncovers that there is a difference in consumer desires for different modes of consumption. She further suggests that mode of consumption has an impact on consumers' perception of value (Chen, 2009). Another key differentiation lies between access and sharing, regarding mode of consumption. Namely, as put by Bardhi and Eckhardt, "in contrast to sharing, access features no transfer of ownership or joint ownership; the consumer simply gains access to the object" (Bardhi & Eckhardt, 2012, p. 882). Furthermore, according to Belk (2010), sharing may also be more philanthropic or prosocial as opposed to access, which can put an emphasize market forces and reciprocation. In this way, access generally stresses a more market-based or capitalistic approach whereas sharing may be considered more communal.

2.3. Defining ownership versus access

In the context of the research, it is vital to define ownership in both legal terms as well as consumer behavior and relationship to the product. This can consequently be examined with regard to access-based consumption. In referencing Bardhi and Eckhardt (2012), ownership describes a situation where the individual regulates the incentives and behaviors related to the object and thus has complete property rights over it. Ownership can also vary between joint and sole ownership, with the latter drawing clear boundaries between the self and others and the associated possible object-associated behaviors (Bardhi & Eckhardt, 2012). Furthermore, the legal owner has special rights that others lack. Drawing from the examples of Snare (1972), the owner garners the specific rights to control access by others and possibly deny access. Additionally, the owner has the general rights to use and sell the object, however, also has the right to retain any profits gained from the object's use; and furthermore, the right to change its structure in any way (Snare, 1972). In differentiating access versus ownership, access is associated with a more temporal consumption relationship as opposed to the long-term relationship associated with ownership (Chen, 2009). Thus, the nature of the consumers relationship with the product varies significantly between ownership and access contexts,

primarily noting a lack of rights associated with access. Historically access based consumption was viewed in a negative connotation, as an uneconomic, inferior form of consumption, however, recently this viewpoint has shifted away from this negative light (Bardhi & Eckhardt, 2012). That shift occurs very poignantly in relation to the area of digital based access consumption. This is particularly due to developments in technology, specifically regarding digital platforms, which have facilitated the organization of access-based systems, such as cloud-based streaming platforms, that are viable on a daily basis (Bardhi & Eckhardt, 2012). The wide-ranging availability and convenience of access-based systems have equipped consumers with a better arsenal with which to confront an increasingly more fluid existence and society. Thus, in the words of Bardhi and Eckhardt, "access has emerged as a way to manage the challenges of a liquid society" (Bardhi &Eckhardt, 2012, p. 883).

Bardhi and Eckhardt (2012) constructed a framework of consumptionscapes to help better understand the differing contexts of access-based consumption. The conceptualized dimensions are as follows: (1) temporality, (2) anonymity, (3) market-mediation, (4) consumer involvement, (5) type of accessed object, and (6) political consumerism. All of the dimensions exist as a continuum, with various types of access being situated at various points along the continua (Bardhi & Eckhardt, 2012). Temporality regards the duration of access and usage. This is defined by Bardhi and Eckhardt (2012) as being of short-term versus longitudinal duration. Short-term regards a single transaction such as for a hotel room and longitudinal indicates a situation where consumers have a membership in a community or club (such as Netflix) (Bardhi & Eckhardt, 2012). Another aspect of temporality is length of object use. This is characterized by long-term object use, for example car leasing, where a car is rented and used often for a few years, or alternatively by more short-term, limited use, which regards things such as renting a camera out for a few hours. The second dimension, anonymity, entails the extent to which the context of use is private or public (Bardhi & Eckhardt, 2012). Access consumptionscapes can also differ based on spatial anonymity. In referencing Price, Arnould, and Tierney (1995), the level of intimacy of a spatial context has an effect on how an individual consumes an object. For example, in a more intimate context closer to home, consumers may experience stronger senses of psychological or perceived ownership. The third dimension, market-mediation,

regards the continuum from not for profit to for profit. Thus, on the access consumptionscape one direction would be more of a sharing-based consumption, while the other direction on the continuum would be focused on the monetarily motivated access. Consumer involvement, the fourth dimension, includes the classification of the self-service to full-service characteristics of the consumption. The location along this continuum or level of consumer involvement with the object can impact the level of consumer commitment to and identification with the accessed object (Bardhi & Eckhardt, 2012). For example, in a completely full-service environment where the consumer has little involvement in the consumption experience, such as hotel renting, there is likely to be lower levels of commitment, identification, and ownership feelings. The fifth dimension, type of object refers to the nature of the object as experiential or functional (Chen, 2009), as well as whether the object is material or immaterial or digital (Bardhi & Eckhardt, 2012). As in any type of consumer-object relationship, whether it be under the context of ownership or access, the level of physicality and functionality will certainly impact how consumers interact with and feel about the object. For example, according to Belk (2010), some online contexts seem much more conducive to sharing than offline contexts. Finally, political consumerism regards the level to which consumer choice and market actions are used as a political tool (Micheletti, Føllesdal & Stolle, 2004). Bardhi and Eckhardt (2012) provided an example of this as forgoing ownership for access being used as a reflexive strategy of signaling access as a more environmentally sustainable or anti-market consumption alternative. Bardhi and Eckhardt's framework on consumptionscapes, based on the compilation of many scientific studies, displays that there is a key importance of the characteristics of consumption with regard to the consumers relationship with the object of the consumption.

2.4. Psychological Ownership

Pierce et al. (2003) assert that strong feelings of ownership can be cultivated for both material and immaterial possessions and that legality is not necessarily the defining measure of ownership. This is notably applicable to the growing prevalence of digital access media such as music streaming, which was researched by Sinclair and Tinson, and further areas such as film and TV, and other access-based digital products which have yet to be directly researched.

Psychological ownership, as per the words of Pierce et al., is "the state in which individuals feel as though the target of ownership or a piece of that target is 'theirs'" (Pierce et al., 2003, p. 86). The idea of psychological ownership has been developed into an overall conceptual model of the theory. This model is organized as the motivations of psychological ownership, which include efficacy and effectance, enhancing self-identity, and having a place to dwell, and the antecedents of psychological ownership, which include controlling the ownership target, investing the self in the target, coming to intimately know the target, and pride (Kirk, Swain & Gaskin 2015).

Efficacy and effectance and accordingly control refer to one of the main facet of the model driving psychological ownership; gaining control over one's environment and achieving desired outcomes though possession (Dittmar, 1992). In the words of Pierce, "exploration of, and the ability to control, one's environment gives rise to feelings of efficacy and pleasure, which stem from 'being the cause' and having altered the environment through one's controlactions" (Pierce et al., 2003, p. 89). Accordingly, efficacy and effectance is synonymous with the feeling of and ability to control a target of ownership. Thus, coinciding with the model, efficacy or having and exercising control over a target of ownership leads to the emergence psychological ownership.

Another piece of the framework regards enhancing self-identity and investing the self in the target. Referring to Sinclair and Tinson (2017), individuals' investment of the self regards an investment of labor, both time and physical effort, as well as psychological effort into a target of ownership. An example of this concerns the investment of self and psychic energy that goes into collecting, accessing, listening to, and sharing music, which consequently enhances psychological ownership according to Belk (1988). Such activity of self-investment in music can be comparable to similar interaction with films and TV shows, where an individual may spend time searching for, watching, and sharing TV series or films with others. Thus altogether, investment of the self can be regarded as an input of one's time or psychic energy into a target of ownership through various means.

Finally, coming to intimately know the target is a key antecedent that can influence an individual's psychological ownership towards an object (Pierce et al., 2003). In this way,

consumers may develop a feeling of place through the strong emotional connections with possessions (Pierce et al., 2003). The antecedent coming to intimately know the target can thus be best described as the individual understanding the target of ownership; and due to this understanding and association, psychological ownership is built.

While widely applicable to many fields, there has been a great increase in studies specifically focusing on psychological ownership in marketing. For one, Shu and Peck (2011) studied psychological ownership with regard to emotional attachment and the endowment effect. In this report, they conducted 9 separate studies, over psychological ownership and theories in consumer behavior and psychology. Table 1 summarizes the results of the nine studies with regards to psychological ownership in different contexts of consumer psychology and marketing.

Table 1. Summary of Shu and Peck's Studies and Result

Study number	Original research findings	Predicted mediators		Results of replications with process variables	
		P.O.	A.R.		
Study 1	Kahneman et al. (1990): endowed sellers (choosers) value an object more than buyers	+	+	 Legal ownership (seller role) increases valuation, psychological ownership, and positive affective reaction. Psychological ownership and positive affective reaction jointly mediate role's effect on valuation. 	
Study 2	Strahilevitz and Loewenstein (1998): valuation among sellers increases with duration of ownership	+		 Longer duration of ownership increases valuation and psychological ownership among sellers. Psychological ownership mediates duration's effect on valuation. 	
Study 3	Johnson et al. (2007): chooser valuation depends on order of queries	+		 Starting with value-increasing queries increases valuation and psychological ownership among choosers. Psychological ownership mediates query order effect on valuation. 	
Study 4	Carmon and Ariely (2000): attention to aspects foregone in a trade affects buying and selling prices	+ _S + _{tix}		 Attention to expenditure increases selling prices and psychological ownership for money. Attention to benefit increases buying prices, psychological ownership for tickets, and positive affective reaction. Psychological ownership for tickets and positive affective reaction mediate attention's effect on buying prices. 	
Study 5	List (2003): weaker endowment effects for experienced traders of collectable goods	-		 Market experience increases willingness to trade and decreases psychological ownership. Psychological ownership mediates experience's effect on trade 	
Study 6	Lerner et al. (2004): sadness and disgust affect buying and selling prices		-disg +sad	 Sadness increases valuation, psychological ownership, and positive affective reaction for choosers. Psychological ownership and positive affective reaction mediate the effects of sadness on chooser valuation. 	
Study 7	Brenner et al. (2007): positive or negative valence of endowed option affects willingness to switch		neg +pos	 Participants show lower willingness to trade for positive options and higher willingness to trade for negative options. For positive options, psychological ownership and positive affective reaction mediate willingness to trade. For negative options, negative affective reaction partially mediates willingness to trade. 	
Study 8	New study: investigation of endowment effect for unpleasant-to-touch objects	+	-	 Ownership role of seller for an unpleasant to touch item increases psychological ownership and negative affective reaction, but does not affect valuation. Psychological ownership and negative affective reaction significantly affect valuation for sellers. 	
Study 9	Dhar and Wertenbroch (2000): loss aversion stronger for hedonic than for utilitarian items	+	+	 Forfeiture and providing reasons both increase psychologica ownership; forfeiture also increases positive affective reactio Psychological ownership and positive affective reaction significantly affect choice of a hedonic vs utilitarian option. 	

Note. Reprinted from Psychological ownership and affective reaction: Emotional attachment process variables and the endowment effect, by Shu, S. & Peck, J., 2011, Journal of Consumer Research, 36(3), p. 450.

Furthermore, Fuchs, Prandelli, and Schreier (2010) studied how psychological ownership related to empowerment strategies and consumers' product demand. In their study, Fuchs et al (2010) found that allowing consumer empowerment in some decision-making processes regarding products resulted in increased psychological ownership and therefore increased willingness to pay and demand for the ensuing products.

2.5. Psychological Ownership in the Digital Environment

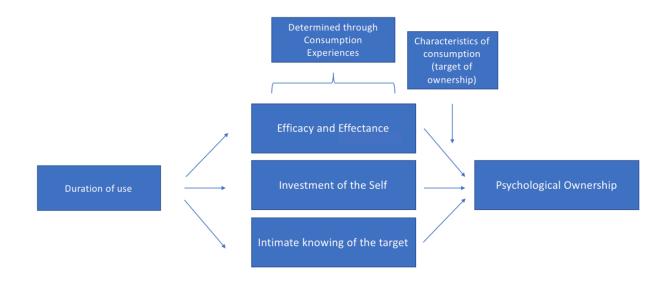
Psychological ownership has also begun to be more widely studied in the context of digitalization. Karhanna, Xu, and Zhang (2015) studied psychological ownership motivation with regards specifically to social media usage. They found that psychological ownership is in fact applicable to social media usage and that individuals fulfill their psychological ownership needs through the use of social media. Furthermore, they show through their research that an individual can develop feelings of ownership toward social media networks, digital content created and shared by the individual and co-created with others and other virtual territories (Karhanna, Xu & Zhang, 2015).

Brasel and Gips (2014) alternatively experimented with the cross section of digital and physical spaces, studying how various touch interfaces trigger psychological ownership and endowment. Through this research, Brasel and Gips touched on some of the important characteristics of perceived ownership (another term referencing the feeling of ownership) and its historical study with relation to touch. The results of the studies underlined that perceptions of digital products and marketing activities are filtered through the lenses of the devices and interfaces used to access them. They found that touch-based devices, such as tablets, can lead to higher psychological ownership feelings and furthermore higher product valuations when compared to traditional computer or keyboard interfaces (Brasel & Gips, 2014).

2.6. Comparable research: Psychological Ownership and Music Streaming Consumption

Sinclair and Tinson (2017) have directed a recent study on psychological ownership theory in the context of music streaming consumption. This study is comparable to the proposed study and will aid in formulating the research model as well. The findings of the study were organized into several categories: Materiality and the target of ownership, loyalty, empowerment, and social rewards. As far as materiality goes, they concluded that the importance of material possessions in facilitating the tangibility of immaterial consumption was reaffirmed (Sinclair & Tinson, 2017). Regarding loyalty, Sinclair and Tinson (2017) found that the psychic or mental energy that goes into organizing music consumption is indicative of how participants can generate strong and ultimately loyal relationships with particular streaming platforms. This psychic energy and loyalty can also implicitly be attributed to an increased sense of psychological ownership. In the context of empowerment, it is found that a sense of empowerment was experienced through music streaming applications because of the space in which it allows creation and sharing of content and the perception of control over consumption in a participant's everyday routine (Sinclair & Tinson, 2017). Furthermore, Sinclair and Tinson (2017) found that social rewards existed both via identity projection through music knowledge as well as the identity building processes of organizing and finding music. In fact, through the tools embedded therein, pride, an emotion acting as a psychological reward and increaser of psychological ownership, has the potential to be more public in the access-based, digital consumption context than with the private physical product collection (Kirk et al., 2015; Sinclair & Tinson, 2017). Drawing upon the literature background regarding psychological ownership and access-based consumption, the following model, Figure 1, was constructed.

Figure 1. Overview Model of Effects on/and of Psychological Ownership in Various Consumption Contexts



2.7. Hypothesis Formulation

Based on the pre-constructed model and aforementioned literature, the following section will develop the hypotheses that this study will test. The most general of the hypotheses, stems from this research's extension of the field of psychological ownership to a new context. Sinclair and Tinson (2017) studied psychological ownership with regard to a similar context of music streaming, and their results suggested that psychological ownership was being experienced. This research therefore, will hypothesize that psychological ownership will occur in the context of film and television streaming as well, and will do more than just suggest this; explicitly measuring quantitatively whether psychological ownership is being experienced.

From this the following is hypothesized:

H1: In the given context of access-based consumption, consumers will experience psychological ownership.

As theorized by Pierce et al. (2001), controlling the target (efficacy and effectance), investing the self in the target, and coming to intimately know the target of ownership are the three major routes through which psychological ownership emerges. In drawing upon and compiling literature, they conceptualized that the ability to be controlled can cause objects to become regarded as part of one's self and furthermore with greater levels of control the object is experienced as a part of the self to a greater degree (Pierce et al., 2001). Thus, alternatively, objects that are controlled by others, or those that cannot be controlled are not perceived as part of the self (Pierce et al., 2001). Consequently, Pierce et al. (2001) proposed a causal positive relationship between amount of control and psychological ownership.

Touching upon previous literature, Pierce et al. also found that people can feel that something is theirs by simply being associated and familiar with it (Pierce et al., 2001). Furthermore, "the more information and the better the knowledge an individual has about an object, the deeper the relationship between the self and the object and, hence, the stronger the feeling of ownership toward it" (Pierce et al., 2001, p. 301). Through this, Pierce et al. (2001) proposed a causal, positive relationship between the extent to which someone intimately knows the target and psychological ownership.

Furthermore, Pierce et al. argued that the "investment of an individual's energy, time, effort, and attention into objects causes the self to become one with the object and to develop feelings of ownership toward that object" (Pierce et al., 2001, p. 302). From this, Pierce et al. (2001) proposed that there was a causal and positive relationship between this investment of the self and psychological ownership of the target.

Solidifying and confirming these propositions, Brown et al. (2013) found such a relationship between the routes to psychological ownership and psychological ownership itself, in a study regarding organizational behavior and job complexity. They found that each of the routes, efficacy and effectance, investment of the self, and intimate knowing of the target, uniquely and significantly predicts psychological ownership (Brown et al., 2013). This is the global model of psychological ownership that is being widely used in previous literature, and that has been used to develop the model for this study. Based on prior theory and research, the provided antecedents to psychological ownership, efficacy and effectance, investment of the

self, and intimate knowing of the target, would be expected to behave in a similar fashion in this consumption context.

From this the following is hypothesized:

H2: Investment of the self has a significant positive impact on psychological ownership.

H3: Intimate knowing of the target has a significant positive impact on psychological ownership.

H4: Efficacy and effectance has a significant positive impact on psychological ownership.

Because efficacy and effectance regards the ability to control one's environment, it is important to understand and naturally involves the general interface and makeup of the target of ownership. In her control model of ownership, Furby (1978, as described in Pierce, Kostova & Dirks 2003, p. 92) "argued that the greater the amount of control a person can exercise over certain objects, the more they will be psychologically experienced as part of the self." In this case, the target, a digital product, lacks the ability by which one can experience total efficacy and effectance, in a physical sense; being an intangible interface. Furthermore, the context of access-based ownership may disallow certain expressions of control, as users lack legal ownership to the product. The lack of legal ownership, while not removing the possibility for psychological ownership, may remove the possibility of some control factors, such as Snare's (1972) examples of the ability to completely regulate use and access and transform the object's structure. Alternatively, the investment of one's self and intimate knowing of the target are not as clearly or directly affected by these characteristics of access-based, digital consumption that impact efficacy and effectance and make experiencing control more problematic.

From this the following is hypothesized:

H5: Efficacy and effectance will display less of an impact on psychological ownership compared to intimate knowing.

H6: Efficacy and effectance will display less of an impact on psychological ownership compared to investment of the self.

Furthermore, temporality is an important factor in the relationship between the consumer and product. Bardhi and Eckhardt conceptualized the difference in short-term versus long term duration as well as short-term versus long-term length of object use both have significant effects on how consumers relate to a product (Bardhi & Eckhardt, 2012). Additionally, Shu and Peck found, in a different context, that an increase in the temporal factor, or longer durations of ownership, result in increased psychological ownership and valuation (Shu & Peck, 2009). Shu and Peck (2009) applied a quantitative study utilizing a physical object, in this case a pen, as the target of ownership. In that study, they endowed the pen to participants for variable amounts of time, namely, short endowment versus long endowment. After this, participants filled out a questionnaire measuring several factors, including psychological ownership. As the results of this, they found that there was a significant positive effect of duration on psychological ownership; thus, those participants with long endowment measured significantly higher levels of psychological ownership than those with short endowment (Shu & Peck, 2009).

From this the following is hypothesized:

H7: Duration of use has a significant positive impact on psychological ownership.

Extrapolating this, the same temporal relationship regarding psychological ownership would be expected to exist in this context of ownership. Because psychological ownership is determined via the three consumption experience variables, this temporal factor can be further applied to and thus is expected to affect the consumption variables. As investment of the self into the target is related to time; it regards investment of our time, physical effort, and psychic energy into the product (Pierce et al., 2003), time has an impact on its emergence. Thus, investment of self is expected to mediate the relationship between duration of use and psychological ownership.

Similarly, an individual has more opportunity to intimately know the target if they interact with the target for a longer duration. According to Pierce et al., "people come to find themselves psychologically tied to things as a result of their active participation or association with those things" (Pierce et al. 2003, p.93). Furthermore, the more information possessed about the target of ownership, the more intimate the connection between the individual and

the target (Pierce et al., 2003). The greater longevity of use allows increased opportunity for active association and knowledge building about the target, granting greater opportunity to more intimately know the target. From this, it can be drawn that intimate knowing of the target is expected to mediate the relationship between duration of use and psychological ownership.

Regarding efficacy and effectance, a similar trend follows. Like with intimate knowing of the target, an individual has greater opportunity to exercise their control over the target with a greater duration of use. According to Pierce et al., "control exercised over an object eventually gives rise to feelings of ownership for that object (Pierce et al., 2003, p. 92)." Thus, feelings of efficacy and effectance build both due to the characteristics of the target and the magnitude of its controllability, as well as over time. In this way, efficacy and effectance is expected to mediate the relationship between duration of use and psychological ownership.

From this the following is hypothesized:

H8: Investment of the self mediates the duration of use's effect on psychological ownership.

H9: Intimate knowing of the target mediates the duration of use's effect on psychological ownership.

H10: Efficacy and Effectance mediates the duration of use's effect on psychological ownership.

3. Research Design & Methodology

3.1. Research Strategy

The study utilizes a quantitative research method. This is the most effective way by which the effects and magnitudes of the different variables hypothesized can be measured and additionally builds on prior research in the area of access-based, digital consumption and psychological ownership, which only took a qualitative approach. In order to create the background context of access-based, digital consumption, an interface was chosen. Rather than include any interface that falls under the category of access-based, digital consumption, a single interface was chosen in order to avoid potential differences in psychological ownership and antecedents due to different characteristics of the target of ownership. Netflix was chosen as the platform due to its widespread use and viability as an example of access-based, digital consumption.

3.2. Netflix Background

As Netflix will be used as the platform through which the context of access-based, digital consumption will be studied, it is important first to have some background information regarding Netflix and its viability. Netflix is, first and foremost, an online TV and film streaming service. Netflix is the world's leading internet entertainment service with over 117 million members in over 190 countries enjoying more than 140 million hours of TV shows and movies per day, including original series, documentaries and feature films (Netflix, 2018). The payment and subscription structure of Netflix, existing of fixed price per month in exchange for access to the platform, fits the definition of access-based consumption directly. The transaction made with Netflix allows the consumer access to their library of content available for streaming, however, the consumer gains no legal right over the content. Thus, fitting Lovelock and Gummesson's definition, consumers gain the benefits to ownership by gaining access to Netflix's content in exchange for their rental, or in this case, subscription fee (Lovelock & Gummesson, 2004). While there also exists a DVD service, this study will focus solely on

Netflix's online, streaming-based platform, through which Netflix fits the context of being digital and non-material by nature.

3.3. Research Methodology

In order to collect the data, a survey was developed and distributed regarding several aspects associated with streaming behaviors and attitudes. Psychological ownership will be measured using an adaptation of previous psychological ownership measure, which entail statements regarding ownership feelings measured on a 7-point Likert scale. The measurement items for psychological ownership are adapted from those used in Fuchs, Prandelli and Schreier's (2010) adaption of a Pierce and Van Dyne psychological ownership measurement to the ownership target of shirts, Brasel and Gips (2014) measurement method used with regards to haptic interface, and Shu and Peck's (2011) measurement scale. The sub-questions, which regard antecedents of psychological ownership, will be measured in a similar fashion, adapting pre-existing Likert scaled survey questions. The measurement of the questions regarding the antecedents, consumption experiences, is adapted primarily from Brown, Pierce, and Crossley's (2013) measures of efficacy, investment of the self, and intimate knowing used with regard to job complexity. The survey will also contain demographic information which will be analyzed through STATA (or an equivalent statistical software) to describe the participating sample utilized in the research. Furthermore, it will contain general questions regarding the users' behavior and usage of Netflix.

3.4. Data Collection & Analysis

The questionnaire will be distributed online, as this is the most effective way to reach the participant audience quickly and it simultaneously preserves the anonymity and removes potential biases from the responses. The data from the questionnaires will be analyzed using SPSS, in order to test the aforementioned hypotheses.

4. Empirical Analysis and Results

4.1. Descriptive Statistics

Out of a total 100 respondents who completed the questionnaire, 55 were male (55%) and 45 were female (45%). The average age of respondents was 26, with ages ranging between 14 and 76. Participants were primarily Dutch (43%) or American (47%), with 10% representing other nationalities. A grand majority of participants share their Netflix account (85%) with other users. About 39% of the respondents were administrators of the account or set up the account, with the other respondents (61%) having not set up or not being an administrator. 38% of respondents pay for the usage, in part or full, while the majority (62%) don't pay anything towards the account.

Respondents primarily watch Netflix via TV/laptop (41% and 51% respectively), with the other 8% watching on phone and tablet equally. Most respondents watch slightly, quite, or extremely frequently (52%), and about one-third of respondents watch infrequently to some degree (35%). 13% of participants responded that they watch neither frequently nor infrequently. A majority of respondents (76%) watch between 1-10 hours per week, with 11% watching more than 10 hours a week and 13% watching less than 1 hour a week.

4.2. Aggregating the Variables

In order for the Likert scale questions measuring psychological ownership, intimate knowing, investment of the self, and efficacy and effectance (control) to be combined into one variable, the scale reliability must first be calculated.

The following table, Table 2, refers to the results of the reliability analysis for the variables.

Table 2. Reliability Statistics of Psychological Ownership, Control(Efficacy), Intimate Knowing, and Investment of the Self variables

Measure	Cronbach's Alpha	N of Items	
PsychOwn	.876	5	
Control	.626	4	
IntKnow	.824	4	
Self	.868	4	

These results present strong levels of internal consistency for the variables of psychological ownership (PsychOwn), intimate knowing (IntKnow), and investment of the self (Self) (Cronbach's Alpha > 0.8) and a slightly lower level of internal consistency in the efficacy and effectance (control) variable (Cronbach's Alpha < 0.7).

After confirming the reliability of the variables, they can be averaged into a single variable observing an overall score. This score is subsequently used in the analysis of the model.

4.3. Regression

According to Field (2009), in order to use a multiple linear regression analysis from a sample to draw conclusions about a population, several assumptions must first be passed. These assumptions consist of: linear relationship between IV and DV, multivariate normality, no perfect multicollinearity, and homoscedasticity. Several tests were run to confirm the aforementioned assumptions. The results of the tests and charts regarding are available in the appendix.

4.3.1. Linear Relationships

In testing whether a linear relationship exists between the independent and dependent variables, scatterplots were used. From these scatterplots, the variables for control, investment of self, intimate knowing, and duration all appear to show a linear relationship with psychological ownership.

4.3.2. Normality

In order to pass the assumption of normality, the data must be follow a relatively normal distribution. By plotting the expected cumulative probabilities against the observed cumulative probability, it appears that the data follows the normality line. Thus, it passes the assumption of normality.

4.3.3. Multicollinearity Test

In order to pass the assumption regarding no perfect multicollinearity in the model, the VIF values in the collinearity statistics must be less than 10. As all VIF values of the variables are less than 10, the model passes the assumption of no perfect multicollinearity.

4.3.4. Homoscedasticity Test

In order to test for homoscedasticity, a scatterplot of the residuals was plotted. As the points are plotted randomly and evenly distributed throughout the plot, and there is no indication of a pattern or funnel-like pattern suggesting heteroscedasticity, the model passes the assumption of being homoscedastic (Field, 2009).

4.4. Regression Results

The results of the regression are the following: Having an R-squared value of .328 for the linear regression equation indicates that 32.8% of the variation in psychological ownership can be explained by the independent variables; control, intimate knowing, investment of the self, and duration. The adjusted R-squared value however is .300, suggesting a 30% explanation of the variation in psychological ownership that can be explained by the independent variables, and indicating a slight penalty on the model from the inclusion of not strongly correlated variables.

Furthermore, the model is found to be statistically significant (F = 11.606, p < .001), thus an indication that model significantly predicts the outcome variable and fits the data.

Table 3. Regression results of Duration, Intimate Knowing, Investment of Self, and Efficacy and Effectance against Psychological Ownership

<u>,,,</u>	Model Summary			
Variables	b	S.E.	В	
Constant	1.173	.580		
Control	.078	.106	.063	
IntKnow	.277**	.101	.264**	
Self	.379***	.092	.393***	
Duration	002	.004	040	
\mathbb{R}^2	.328			
Adjusted R ²	.300			
F	11.606***			
N	100			

Notes: *p < .05. **p < .01. ***p < .001

4.5. Analysis

H1: In the given context of access-based consumption, consumers will experience psychological ownership.

In considering the aggregated PsychOwn score, it is shown that on average; participants scored slightly below the neutral range of experiencing psychological ownership (M = 3.88, SD = 1.289). Thus, judging by that alone, consumers tend to slightly disagree with the statements identifying psychological ownership to Netflix. However, the scores range individual to individual, with some individuals showing high levels of disagreement and thus very low or non-existent psychological ownership. On the other hand, 45% of individuals showed a neutral level or higher in the scale ($PsychOwn \ge 4$), and thus clearly did show some level of psychological ownership experienced. Furthermore, in running a one-sample t-test to examine whether the mean is significantly different from the median value of the scale, 4, the following was found. There is an insignificant difference in mean psychological ownership score of the sample and the median of the scale (p = .354 > .05). There is no significant difference between the mean psychological ownership score and the median psychological ownership score of the scale, 4. Interpreting this further, the mean score being around 4 suggests that participants experience approximately equally agreement and disagreement with the psychological ownership measuring statements. Moreover, this suggests that, assuming normal distribution, around half of the participants, namely those who do answer in agreement, are experiencing psychological ownership.

Thus, the hypothesis is accepted that, yes, consumers can experience psychological ownership in the given context of access-based, digital consumption. However, this must be taken with the caveat that not every consumer will experience psychological ownership. The following hypotheses delve deeper into what influences the variations in psychological ownership.

H2: Investment of the self has a significant positive impact on psychological ownership.

Consulting the regression results in table 2, it shows that in the model, investment of the self and psychological ownership are significantly correlated. Investment of the self significantly predicts psychological ownership, b = .379, t(95) = 4.096, p < .001. Furthermore, the direction of the relationship is also as hypothesized, b < 0, and accordingly the relationship between investment of the self and psychological ownership is positive.

Thus, hypothesis 2, investment of the self has a significant positive impact on psychological ownership, is confirmed.

H3: Intimate knowing of the target has a significant positive impact on psychological ownership.

Consulting table 2, it shows that in the model, intimate knowing of the target and psychological ownership are significantly correlated. In the model, intimate knowing of the target significantly predicts psychological ownership, b = .277, t(95) = 2.749, p < .01. The direction of the relationship is positive, b < 0, which is also as hypothesized.

Thus, hypothesis 3, intimate knowing of the target has a significant positive impact on psychological ownership, is confirmed.

H4: Efficacy and effectance has a significant positive impact on psychological ownership.

Looking at the relationship between efficacy and effectance and psychological ownership, the correlation is found to be insignificant. Although the correlation has the hypothesized positive direction (b > 0), in the model efficacy and effectance does not significantly predict psychological ownership, b = .078, t(95) = .734, p > .1. Thus, hypothesis 4, there is a significant positive impact from efficacy and effectance (control) on psychological ownership, is unsupported and rejected.

The particular reason for this insignificance could correspond to a lack of affectability of the Netflix platform; causing effectance to be a less significant or insignificant avenue for developing psychological ownership in this consumption context.

H5: Efficacy and effectance will display less of an impact on psychological ownership compared to intimate knowing.

H6: Efficacy and effectance will display less of an impact on psychological ownership compared to investment of the self.

By consulting the regression analysis, intimate knowing of the target is shown to have a significant, positive effect on psychological ownership (b=.277, p<.01). In the model, a 1-point increase in Likert scale score for intimate knowing of the target results in a .277 point increase in Likert scale score for psychological ownership. Similarly, investment of the self shows a significant and greater magnitude positive effect on psychological ownership (B=.393, p<.001). Thus, in this case the regression analysis states that a 1-point increase in Likert scale score for investment of the self in the target results in a .379 point increase in Likert scale score for psychological ownership of a participant. However, efficacy and effectance is displayed as statistically insignificant in the model (p=.465>.05). It does, however, result in the hypothesized direction and effect; thus, a positive relationship with a lesser magnitude than that of both intimate knowing and investment of the self (b=.078). Nevertheless, the hypotheses 5 and 6 are rejected both on the assumption that the Beta for efficacy and effectance has a statistically insignificant level in the model, and thus these hypotheses cannot be confirmed.

H7: Duration of use has a significant positive impact on psychological ownership.

Consulting table 2, the relationship between duration and psychological ownership, indicates both a negative direction and is found to be statistically insignificant. In the model, duration of use does not significantly predict psychological ownership, b = -.002, t(95) = -.465, p > .1. Accordingly, both conditions of hypothesis 7, positive direction and significant correlation, are not met.

Thus, hypothesis 7; duration of use has a significant positive impact on psychological ownership, is unsupported and rejected.

H8: Investment of the self mediates the duration of use's effect on psychological ownership.

H9: Intimate knowing of the target mediates the duration of use's effect on psychological ownership.

H10: Efficacy and Effectance mediates the duration of use's effect on psychological ownership.

In order to test for the mediation relationship, a few steps must be followed. According to Baron and Kenny (1986) propose that three conditions that must hold in order to establish a mediation relationship. The conditions are as follows:

When regressing the independent variable against the mediator, independent variable must affect the mediator in a simple regression. When regressing the independent variable against the dependent variable, the independent variable must affect the dependent variable in a simple regression equation. Finally, in a regression equation of the mediator and the independent variable against the dependent variable, the mediator must affect the dependent variable (Baron & Kelly, 1986, p. 1177).

Furthermore, should these conditions hold true, in order for mediation to occur the effect of the independent variable on the dependent variable should be less in the regression containing both the independent and moderator than it is in the regression only utilizing the independent variable (Baron & Kelly, 1986, p. 1177).

As previously discussed, in the full regression model containing all of the variables, intimate knowing of the target and investment of the self in the target are measured to be statistically significant. In referencing individual, simple regressions with each of the variables and psychological ownership, the results find both intimate knowing and investment of the self to be significant (p < .05), and efficacy and effectance to be slightly outside the marginally statistically significant range (p = .112 > .1). From this, efficacy and effectance is not supported to hold a mediation relationship with duration, and thus hypothesis 10 is rejected.

Next, regressions were run regarding the relationship between duration of use and its effect on the hypothesized mediation variables, intimate knowing, investment of the self, and efficacy and effectance. The results of these regressions display a statistically insignificant effect of duration on intimate knowing (p > .05), a statistically insignificant effect of duration on

efficacy and effectance (p > .05)), and a marginally statistically significant effect of duration on investment of the self (p < .1). The model of questioning for investment of the self could cause this relationship to be stronger, as one of the questions utilized was explicitly temporal. The regression model regarding investment of the self has an R-squared of .036, indicating 3.6% of the variation in investment of the self can be explained by duration. Duration is shown to have a small, positive effect on investment of the self, with every 1 month increase in use resulting in a .191-point increase on the Likert scale measure of investment of the self. Thus, according to these regressions, investment of the self holds as a potential mediation relationship. However, intimate knowing of the target and efficacy and effectance are unsupported as mediators; not passing the conditions of mediation. Due to this, hypothesis 9, intimate knowing of the target mediates the duration of use's effect on psychological ownership, is rejected.

The final condition utilizes a simple regression between duration of use and psychological ownership. The simple regression model describing the relationship between duration and psychological ownership features an R-squared of .001, thus only .1% of the variation in psychological ownership can be explained by the duration of use. Furthermore, the significance value of the regression model is .722, thus the model is statistically insignificant, (p = .722 > .05).

Because the linear regression model of the relationship between duration of use and psychological ownership is statistically insignificant, a mediational model cannot be proved. Accordingly, although investment of the self passes the other conditions of mediation, hypothesis 8, investment of the self mediates the duration of use's effect on psychological ownership, is rejected for not passing all conditions of the mediational model. Because duration does not show a significant relationship with psychological ownership, it is impossible for any of the variables; investment of the self, intimate knowing, or effectance and efficacy, to mediate the relationship.

5. Conclusions

5.1. Main Findings

The overarching research question regarded: what the effect of consumption experiences on psychological ownership in an access-based, streaming environment is, and the main focus of the study was to elucidate the relationships between consumers and a product, in an access-based, digital consumption context. In doing so, it would be possible to compare to and extend the research that is the foundation of this study; psychological ownership theory in general, and namely most closely Sinclair and Tinson's (2017) research and model regarding music streaming (which features a comparable context of consumption).

In consulting the results, the following conclusions can be drawn. Regarding the first hypothesis and adding to the explicitness lacking in Sinclair and Tinson's and other psychological ownership literature, the conclusion that psychological ownership exists in this context is quantitatively proved. While, some participants tend to show low or non-existent levels of psychological ownership; as is possible with any object or target of ownership being studied, the results indicate the possibility and conception of such feelings of ownership towards Netflix. Thus, this extends Sinclair and Tinson's suggestion that, based on their qualitative approach, respondents were experiencing psychological ownership for music streaming services such as Spotify, and quantitatively proves the existence of psychological ownership in the access-based, digital context utilizing quantitative constructs from other studies in psychological ownership literature. Overall, this strengthens and broadens the applicability of psychological ownership to different areas of products and consumption contexts.

Coinciding with the theoretical background of and literature regarding psychological ownership, hypotheses 2 and 3 follow suit in confirming that investment of the self and intimate knowing of the target impact psychological ownership in a positive manner. This fits into Pierce's (2003) widely used model identifying investment of the self, intimate knowing of the target, and efficacy and effectance as the antecedents of psychological ownership and thus it's predictors. Thus, with the variables of investment of the self and intimate knowing of the

target, theory and literature is further founded in their usability in this context and thus the fit of this model to the newer context. However, the third variable, efficacy and effectance, shows a different result than that of previous literature.

Efficacy and effectance featured a statistically insignificant relationship with psychological ownership. Contrarily, efficacy and effectance did show the hypothesized positive direction; as supported in the theoretical and literature background. This could suggest the necessity for an altered model in such a consumption context as access-based, digital consumption. In access-based, digital consumption, it is possible that there is less of a possibility for a feeling of control to come about or to lead to psychological ownership. This could be due to the makeup of the target being first and foremost unable to physically manipulate. Also, considering the access-based nature of the target, feelings of control may be less associated with psychological ownership for several other reasons; including, the circumstantiality of the consumption. For example, there is a potential for denial of access whether due to lack of paying the subscription or other factors, which does not exist in an ownership context. Otherwise, the lack of significance of efficacy may also stem from the characteristics of the individual target or platform studied. For example, Netflix, which lacks almost any tools to change or control the platform beyond navigational tools, may show less significant relationship between control and psychological ownership than Spotify per se, which allows navigational tools alongside tools for curation and creation of playlists within the platform.

Duration of use, similarly to efficacy, shows a statistically insignificant relationship with psychological ownership that is unsupported by the literature and explicitly by Shu and Peck's (2011) study. This could occur for several reasons; namely the difference in the consumption context and target characteristics between this study and Shu and Peck's. The access-based model of ownership in this study, and thus its associated subscription-based payment structure, may impact how a consumer may experience the target over time. For example, subscription-based monthly payments may serve as a reminder of lack of ownership. In which case, different items associated with duration of use may positively, for example duration's relationship with investment of the self, or negatively interact with psychological ownership respectively.

However, further research should be made into this area and the possible reasons behind duration's insignificance in this context.

Also important regarding duration of use, is the apparent lack of a mediation effect by the psychological antecedents upon duration's relationship with psychological ownership in this context. By finding the relationships required for mediation to occur as insignificant, and thus mediation to not exist in the model, several things are indicated. First, an increased duration of use does not necessarily indicate an increased level of psychological ownership. Furthermore, and more profoundly, the lack of mediation suggests that the antecedents to psychological ownership; efficacy and effectance, investment of the self, and intimate knowing of the target, are not driven significantly by an increased duration of use. Thus, in a more applied sense, the fact that an individual continues using Netflix for an increased duration of time, does not mean that they will be building up greater feelings of efficacy or control, intimate knowledge of Netflix, or investment of the self in the platform. While it would seem logical and is theoretically backed that the longer an individual interacts with a target of ownership, the more control they feel over it, the better understanding of the object they have, and the more they have incorporated the target into their self or self-understanding, this appears to be not the case in the context of access-based, digital context.

The findings of this research can help inform marketers or product designers about which aspects are the most important to focus on when attempting to build psychological ownership with an access-based, digital product. For example, it may not be enough to assume that all users with a long duration of use have an equally high level of psychological ownership or willingness to pay. Furthermore, focusing on building investment of the self and intimate knowing of the target is suggested to be more beneficial as these aspects have a much more substantial effect on psychological ownership in this context. Thus, it may not necessarily be crucial to provide high levels or feelings of control in order to foster psychological ownership. While these findings can be taken into practice, future research in the area of access-based, digital consumption and particularly regarding how target characteristics affect the antecedents of psychological ownership in this context are needed to make the applications more effective and wide ranging.

5.2. Research Limitations

There are several limitations that must be accounted for, regarding the research method and theory. First of all, the sample utilized in the research contained 100 respondents. While this is an adequate number, an increased sample size would decrease levels of error and possibly lead to slightly different or more accurate or telling results.

A further limitation is the focus on one platform, as inter-platform differences in characteristics make it more difficult to draw as wide conclusions regarding the results. This can be achieved in future research and create a broader picture of how psychological ownership comes about in all access-based, digital contexts; and how this compares and contrasts to classic studies of psychological ownership regarding physical products.

The quantitative focus of the methodology also allowed for less room in understanding the ways in which the antecedents led to psychological ownership and what specific effects or experiences cause certain antecedent scores to be higher or lower. Thus, a tradeoff was made opting for a more quantitatively measureable output and conclusion rather than a qualitative study using focus groups or more open-ended responses, for example.

Furthermore, the research is limited by the limited number of previous studies regarding psychological ownership in this context. Therefore, the model was formulated and based upon the main body of psychological ownership research, which primarily studies the area of more traditional products, or is otherwise used in the context of organizational management. While this is valid, further research in the area of access-based, digital consumption with regards to psychological ownership may allow for a better understanding and basis for future studies in this area and the model may differ slightly from that traditionally used.

5.3. Suggestions for Future Research

As mentioned, future research could benefit the field by replicating this study with a larger sample size. Additionally, a wider range of targets of ownership within the access-based, digital context should be studied. In this way, cross comparison will create a clearer

representation of how psychological ownership is experienced in this area as well as what target characteristics may affect certain aspects of or leading psychological ownership. This can be further extended to different types of media being presented via access-based, digital consumption contexts; for example, comparative study could be done between film or music streaming and access-based digital consumption of a design or word processing product. This could help identify different psychological ownership relationships due to holistically different types of products rather than just because of the nature of differences in the access-based, digital platform itself.

Furthermore, the role of duration of use should be researched, in order to more directly break down how it differs in this context and what factors may make duration insignificant in this context while it is significant in the classical context of psychological ownership. Additionally, the reasoning behind the lack of mediation in this context should be studied in greater depth. Markedly, whether and which certain factors or consumption experiences associated with an increased length of use can have an opposing impact upon the antecedents of psychological ownership and psychological ownership itself.

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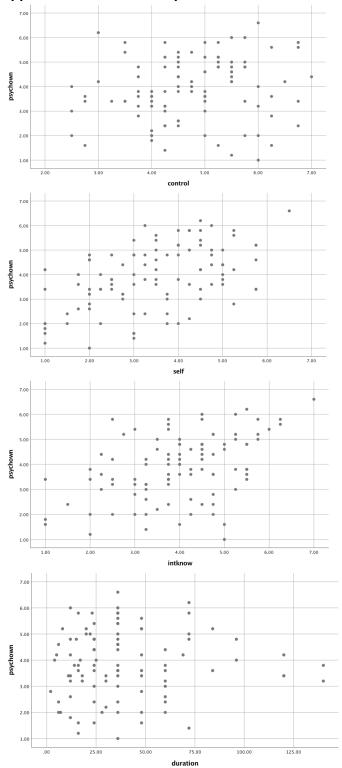
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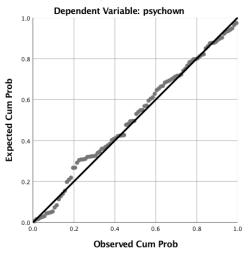
Appendix

Appendix Tables 1, 2, 3 – Regression assumptions Appendix Table 1 - scatterplots



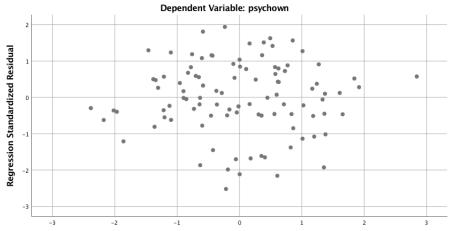
Appendix Table 2

Normal P-P Plot of Regression Standardized Residual



Appendix Table 3





Regression Standardized Predicted Value

Appendix Table 4, 5, 7, & 8 Mediation models

Table 4 mediation model – regression of IntKnow on Duration

Model Summary^b

			Adjusted R	Std. Error of the
Model	R	R Square	Square	Estimate
1	.017a	.000	010	1.23462

a. Predictors: (Constant), durationb. Dependent Variable: intknow

ANOVA^a

		Sum of				
Model		Squares	df	Mean Square	F	Sig.
1	Regression	.043	1	.043	.028	.868b
	Residual	149.379	98	1.524		
	Total	149.422	99			

a. Dependent Variable: intknowb. Predictors: (Constant), duration

Coefficients^a

	Unstandardized			Standardized							
			Coefficients		Coefficients			Collinearity	Statistics		
	Model		В	Std. Error	Beta	t	Sig.	Tolerance	VIF		
	1	(Constant)	4.015	.206		19.504	.000				
		duration	001	.004	017	167	.868	1.000	1.000		

a. Dependent Variable: intknow

Table 5 mediation model – regression of Control on Duration

Model Summary^b

			Adjusted R	Std. Error of the
Model	R	R Square	Square	Estimate
1	.092ª	.009	002	1.05703

a. Predictors: (Constant), durationb. Dependent Variable: control

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.941	1	.941	.842	.361 ^b
	Residual	109.496	98	1.117		
	Total	110.437	99			

a. Dependent Variable: controlb. Predictors: (Constant), duration

Coefficients^a

	Unstandardized			Standardized							
			Coefficients		Coefficients			Collinearity	Statistics		
	Model		В	Std. Error	Beta	t	Sig.	Tolerance	VIF		
	1	(Constant)	4.618	.176		26.202	.000				
		duration	.003	.004	.092	.918	.361	1.000	1.000		

a. Dependent Variable: control

Table 6 mediation model – regression of Self on Duration

Model Summary^b

			Adjusted R	Std. Error of the
Model	R	R Square	Square	Estimate
1	.191ª	.036	.026	1.32051

a. Predictors: (Constant), duration

b. Dependent Variable: self

ANOVA^a

		Sum of				
Model		Squares	df	Mean Square	F	Sig.
1	Regression	6.440	1	6.440	3.693	.058 ^b
	Residual	170.888	98	1.744		
	Total	177.327	99			

a. Dependent Variable: self

b. Predictors: (Constant), duration

Coefficients^a

	Unstandardized		Standardized								
			Coeffi	cients	Coefficients			Collinearity	Statistics		
	Model		В	Std. Error	Beta	t	Sig.	Tolerance	VIF		
	1	(Constant)	3.096	.220		14.063	.000				
		duration	.009	.005	.191	1.922	.058	1.000	1.000		

a. Dependent Variable: self

Table 8 mediation model – regression of Duration on PsychOwn

Model Summary

			Adjusted D	Std. Error of the
			Adjusted R	Std. Effor of the
Model	R	R Square	Square	Estimate
1	.036a	.001	009	1.29499

a. Predictors: (Constant), duration

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.214	1	.214	.128	
	Residual	164.346	98	1.677		
	Total	164.560	99			

a. Dependent Variable: psychownb. Predictors: (Constant), duration

Coefficients^a

				Standardized		
		Unstandardize	ed Coefficients	Coefficients		
Model		В	Std. Error	Beta	t	Sig.
1	(Constant)	3.818	.216		17.683	.000
	duration	.002	.004	.036	.357	.722

a. Dependent Variable: psychown

Table 9

Regression results of Duration, Intimate Knowing, Investment of Self, and Efficacy and Effectance against Psychological Ownership

Model Summary

Model	R	R Square	Adjusted R	Std. Error of the
			Square	Estimate
1	.573	.328	.300	1.07869

a. Predictors: (Constant), duration, intknow, control, self

b. Dependent Variable: psychown

Anova

Model	Sum of	df	Mean	F	Sig.
	Squares		Square		
Regression	54.020	4	13.505	11.606	.000
Residual	110.540	95	1.164		
Total	164.560	99			

Coefficients

	Unstandardized	Coefficients	Standardized			collinearity	stats
Model	В	Standard	Beta	t	Sig.	tolerance	VIF
		Error					
Constant	1.173	.580		2.022	.046		
Control	.078	.106	.063	.734	.465	.944	1.059
IntKnow	.277	.101	.264	2.749	.007	.764	1.308
Self	.379	.092	.393	4.096	.000	.767	1.303
Duration	002	.004	040	465	.643	.942	1.061

Table 10 T-test of mean of Psychological Ownership One-Sample Statistics

	Ν	Mean	Std. Deviation	Std. Error Mean
psychown	100	3.8800	1.28927	.12893

One-Sample Test

Test Value = 4

				ot value i		
					95% Confidence Interval of the	
				Mean	Difference	
	t	df	Sig. (2-tailed)	Difference	Lower	Upper
psychown	931	99	.354	12000	3758	.1358

Questionnaire

Start of Block: Block 1

intro Dear participant,

Thank you for taking the time to fill in this questionnaire, it is very appreciated! The data from this questionnaire will be used for academic research. It will take around 3 minutes to complete. Specifically, it is directed towards Netflix users. Thus, please only respond if you use Netflix. The answers will remain anonymous and confidential and will be used only for this specific research thesis. Thank you again for participating!

Q19 Are you a Netflix user?
O Yes (1)
O No (2)
End of Block: Block 1
Start of Block: Block 2
Q1 What is your age?
▼ 1 (1) 100 (100)
Q2 What is your gender?
O female (1)
O male (2)
Oother (4)
Q3 What is your nationality?
▼Afghanistan (1) Zimbabwe (976)
End of Block: Block 2
Start of Block: Block 4
intro 2 For the following sections, think about and consider your experiences while using Netflix. Complete the following questions, ranking each statement from strongly disagree to strongly agree, based on your feelings towards your Netflix usage.



Q4 Please respond with the degree to which you personally agree with the following statements.

	Strongly disagree (1)	Disagree (2)	Somewhat disagree (3)	Neither agree nor disagree (4)	Somewhat agree (5)	Agree (6)	Strongly agree (7)
I sense that this is MY Netflix. (1)	0	0	0	0	0	0	0
I feel a sense of ownership over my Netflix. (2)	0	0	0	0	0	0	0
I feel that this Netflix belongs to me. (3)	0	0	0	0	0	0	0
I feel attached to my Netflix. (4)	0	0	0	0	0	0	0
I sense that this Netflix is MINE. (5)	0	0	0	0	0	0	0

χ→

Q5 Please respond with the degree to which you personally agree with the following statements.

	Strongly disagree (1)	Disagree (2)	Somewhat disagree (3)	Neither agree nor disagree (4)	Somewhat agree (5)	Agree (6)	Strongly agree (7)
I have influence over the things that affect me on Netflix. (1)	0	0	0	0	0	0	0
I have influence over my Netflix usage, the films and shows I watch. (2)	0	0	0	0	0	0	0
I have influence over Netflix related decisions that will affect me.	0	0	0	0	0	0	0
In general, I have control over Netflix and its interface. (4)		0	0	0			0

 $\chi \rightarrow$

Q6 Please respond with the degree to which you personally agree with the following statements.

	Strongly disagree (1)	Disagree (2)	Somewhat disagree (3)	Neither agree nor disagree (4)	Somewhat agree (5)	Agree (6)	Strongly agree (7)
I am intimately familiar with what is going on with regards to Netflix. (1)	0	0	0	0	0	0	0
I have a depth of knowledge as it relates to Netflix. (2)	0	0	\circ	0	0	0	0
I have comprehensive understanding of Netflix, its user interface, and site navigation. (3)	0	0	0	0	0	0	0
I have a broad understanding of Netflix. (4)	0	0	0	0	0	0	0

v.

	Strongly disagree (1)	Disagree (2)	Somewhat disagree (3)	Neither agree nor disagree (4)	Somewhat agree (5)	Agree (6)	Strongly agree (7)
I have invested a major part of myself into Netflix. (1)	0	0	0	0	0	0	0
I have invested a significant amount of my life (time) into Netflix. (2)	0	0	0	0	0	0	0
I have invested a significant amount of mental energy into Netflix. (3)	0	0	0	0	0	0	0
In general, I have invested a lot into Netflix. (4)	0	0	0	0	0	0	\circ
End of Block:	Block 4						

Start of Block: Default Question Block

Q8 Are you the main administrator of or did you set up the Netflix account?
○ Yes (1)
O No (2)
Q21 Do you share the Netflix account with anyone?
○ Yes (1)
O No (2)
Q9 Do you pay for all or a portion of the Netflix account?
○ Yes (1)
O No (2)
*
Q10 Approximately how long have you been a Netflix member or user? (in months)

Q11 On average, how many hours per week do you use Netflix?
O < 1h (1)
O 1 - 5h (2)
O 5 - 10h (3)
O 10-15h (4)
O 15-20h (5)
O 20-25h (6)
○ >25h (7)
Q14 How would you describe your viewing behavior?
O Extremely Infrequent (1)
O Quite Infrequent (2)
O Slightly Infrequent (3)
O Neither Frequent nor Infrequent (4)
O Slightly Frequent (5)
O Quite Frequent (6)
O Extremely Frequent (7)

Q13 What type of device do you usually watch Netflix on?
O TV (1)
O Laptop (2)
○ Tablet (3)
O Phone (4)
Other (5)
End of Block: Default Question Block