Consumption in virtual worlds: Extending identity into digital markets

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Abstract

The purpose of the current paper is to explore the influence of identity on self-extension tendency and virtual consumption in online communities. The importance of material possessions for individual identity has been explored extensively in offline yet only sporadically in online conditions. Data were collected from a group of Second Life residents. Participants rated their virtual identities more favourably than their offline ones across most dimensions. Users characterised with specific identity orientations – such as being more emotional, more anxious and less powerful – were more likely to incorporate digital objects into their self. Additional variation was established by age and gender, yielding results that extend or at times even contradict our understanding derived from offline contexts. Emotion and stability influenced virtual consumption patterns, as manifested in more frequent store visits and greater product variety. Implications and future directions are discussed.

Keywords: *virtual consumption, virtual identity, virtual worlds*
Track: Consumer Behavior

1. Introduction

Beyond their functional benefits, products and brands carry symbolic meaning that allows consumers to construct, express, shape and strengthen their identities (Ahuvia, 2005). Material goods have been shown to mediate product and brand relations (Chernev, Hamilton, and Gal, 2011), reveal identity motivations (Oyserman, 2009), solidify desired identity states (Woodruffe, 1997), and facilitate self-expression via product attachment (Sivadas & Venkatesh, 1995). With the emergence of virtual worlds, consumers gained ample opportunities to experiment with different identities above and beyond those feasible in offline settings (Koles & Nagy, 2012; Stone, 2001). Defined as "synchronous, persistent network of people, represented as avatars, facilitated by networked computers" (Bell, 2008, p. 2), virtual worlds such as Second Life and World of Warcraft quickly became popular applications attracting hundreds of thousands of monthly users. Virtual worlds are vibrant and dynamic applications that allow their users to engage in virtual consumption practices., That is, individuals are able to extend their digital identities with the assistance of their purchase and subsequent use of virtual goods acquired from within the local marketplace (Mantymaki & Salo, 2015). For instance, in case of Second Life, the marketplace is a sophisticated one that resembles real life characteristics and uses the local currency of Linden dollars that trades offline at a variable rate (Wagner, 2008).

The current study aims to address two general questions. First, we explore the impact of offline identity on the self-extension tendency of consumers within the context of Second Life. Under offline conditions, self-extension tendency has been shown to moderate the extent to which consumers value their possessions and view them as a form of self-extension (Ferraro, Escalas, and Bettman 2011). While studies suggest that virtual possessions help users establish their online identities (Belk, 2014), the perceived value assigned to virtual items and their contribution to identities remain unclear (Lehdonvirta, 2009). Second, the present research investigates the link between individuals' offline identity orientations and virtual consumption patterns. Despite the dynamically growing body of scholarly work that explores the motivational aspects behind virtual consumption (Jung & Pawlowski, 2014; Denegri-Knott & Molesworth, 2013), ways in which different offline identity attributes may shape such practices only received sporadic attention (Whang & Chang, 2004; Shelton, 2010).

2. Methodology

2.1 Participants and Procedures

Data for the current study was obtained within the virtual world of Second Life. Residents were invited to participate via a blog forum (New World Notes). Users were asked to complete an online survey, and in exchange for their participation received 1,000 Linden dollars (approximately 4 US Dollars). Only complete surveys were retained in subsequent analyses, and all data were handled with complete confidentiality. The total sample consisted of 427 Second Life residents. Given our interest in understanding the links between identity and virtual consumption practices, it was important to assess only active Second Life users whose identity formation process was sophisticated and relatively stable over time. In order to achieve this, we employed the Identity-stage scale (Kleine, Kleine, & Laverie, 2006 for more information), including the three stages of identity discovery, identity maintenance and identity disposition. This scale is constructed based on the premise that individuals progress through stages in their identity development, and as they incorporate external stimuli – such as products and material possessions – into their self-concept they are able to accomplish a new stage (Cherrier & Murray, 2007; Kleine, Kleine & Laverie, 2006). Responses were retained only from residents in the second stage of their identity development, corresponding to identity maintenance. The resulting sample consisted of 323 individuals between 18 and 69 years of age (average age: 38.21). Participants were predominantly from North America (57%) and Europe (31%). 58% of the participants were female, and 55% were university graduates. The majority of respondents (87%) have been active on the Second Life platform for at least two years, with two-thirds spending over 10 hours per week within this virtual community.

2.2 Measures

2.2.1 Offline and virtual identity orientation. A semantic differential scale established by Hoelter (1985) – on the basis of the pioneering work of Osgood, Tannenbaum and Suci (1957) – was employed to assess the meaning associated with offline and virtual identities. Identity is conceptualised and measured along seven dimensions: evaluation (good-bad), power (strong-weak), activity (active-inactive), stability (stable-changing), affect-general (emotional-logical), affect-depression (glad-sad), anxiety (relaxed-tense), and identity salience (important-unimportant). The last item was removed given its lack of transferability to virtual settings. Each dimension is made up of 3 pairs of adjectives that are rated on a 7-point Likert scale, yielding to a total of 21 pairs. Cronbach alphas were above the minimum requirement of .60.

2.2.2 Virtual self-extension tendency. Individuals' tendency to extend their sense of self via virtual products under online conditions was assessed using an eight-item scale (e. g. *'I have a special bond with my possessions in Second Life';* $\alpha = .95$) adapted from a measure developed by Ferraro et al. (2011) to reflect the Second Life environment.

2.2.3 Virtual consumption. Three proxies were used to measure virtual consumption. First, we examined the variety of virtual products purchased by participants, with the categories related to virtual selves (i.e. body, hair and skin); virtual living (house and land ownership); and other accessories (including virtual pets). Second, participants were asked to report on the frequency of their weekly store visits. Finally, individuals were prompted to reveal the total amount money – in Linden Dollars – they spent in Second Life per month.

3. Results

3.1 General overview and descriptive analyses

In order to understand individuals' identity formation, we compared the different dimensions of offline and online identities. The seven dimensions associated with offline and online identity orientations were compared using a series of dependent samples t-tests, with the results presented in Table 1. Significant differences between offline and online identities were established in all but one dimension. Users rated their virtual selves as better, more powerful, more active, more content, more relaxed, and also more dynamic when compared with their offline selves. Stability was the only exception in that it was more pronounced in offline rather than virtual settings. The Cohen's d values indicated small to moderate effect sizes in most cases, with affect depression and anxiety showing more substantial ones.

TABLE 1. Paired samples t-tests comparing offline and online identity orientations along the seven respective dimensions.

	Offline Identity		**Virtual Identity**		**t-test**	
	Mean	S.D.	Mean	S.D.	t-value (df=322)	Cohen's d
Evaluation	3.23	1.01	2.92	1.07	4.93**	.30
Power	3.41	1.03	2.89	1.06	8.96**	.50
Activity	3.75	1.13	3.24	1.15	6.70**	.45
Stability	3.69	0.98	3.84	1.19	-2.18*	.14
Affect General	3.90	1.17	3.84	1.21	0.97	.05
Affect Depression	3.54	1.33	2.55	1.11	14.11**	.81
Anxiety	3.78	1.29	2.73	1.16	14.14**	.86

~ p ≤ .1 ** p ≤ .05* *** ≤ .01*

3.2 The impact of offline identity on virtual self-extension tendency

In order to explore the impact of offline identity orientations on individuals' tendency to use virtual possessions in Second Life as a means to extend their sense of self, each identity dimension was regressed separately on the self-extension tendency measure, yielding a total of seven models. The results revealed a significant negative effect of Affect general ($F(1, 318) = 8.77$, $p<.01$, $B = -.16$), such that users characterized as more sentimental and emotional offline were more likely to extend their selves through objects in Second Life, as opposed to those characterized as more rational and logical. Anxiety had a significant positive effect on self-extension-tendency ($F(1, 318) = 5.54$, $p<.05$, $B = .13$), such that more nervous and tensed individuals appeared to score higher on self-extension tendency when compared to their more relaxed and less anxious counterparts. Finally, a marginally significant positive effect of power was found ($F(1, 318) = 3.68$, $p<.10$, $B = .11$), revealing a trend to link lower levels of power with higher levels of self-extension tendency.

3.3 Offline identity and virtual consumption

The seven identity dimensions were regressed separately on each of the virtual consumption measures including purchase categories, store visits, and monthly spending. The corresponding results are presented in Table 2.

TABLE 2. Bivariate correlations between offline identity orientation and virtual consumption.

	Purchase Categories	**Store Visits**	**Monthly Spending (Linden $)**
Evaluation	-.07	-.11	.02
Power	-.02	-.09	-.04
Activity	-.07	-.03	-.03
Stability	.12*	.02	-.04
Affect General	-.13*	-.10~	-.02
Affect Depression	-.04	-.06	.06
Anxiety	.08	.01	.02

*~ p ≤ .1 * p ≤ .05 ** ≤ .01*

Different offline identity orientations were found to have a variable impact on virtual consumption behaviours exhibited in Second Life. More specifically, consumers exhibiting more stable and more sentimental offline orientations were more likely to purchase products in a wider range of categories. More emotional consumers also visited more stores in the Second Life marketplace. Interestingly, the different identity orientations did not seem to be associated

with monthly spending habits. Subsequent regression analyses were performed to explore potential differences in consumption behaviours as a function of gender and age. In terms of gender, males with more positive self-evaluations ($F(1, 133) = 6.80$, $p<.05$, $B = -.22$) and with a greater sense of power ($F(1, 133) = 2.80$, $p<.10$, $B = -.14$) tended to purchase a wider range of virtual goods. Females who rated themselves as more emotional and sentimental also purchased products in more categories ($F(1, 186) = 5.28$, $p<.05$, $B = -.17$). In terms of age, older individuals (i.e. 35+) who viewed themselves as less stable ($F(1, 165) = 5.19$, $p<.05$, $B = .18$) and more emotional ($F(1, 165) = 4.79$, $p<.05$, $B = -0.17$) appeared to purchase a wider range of products in Second Life. Furthermore, older individuals with more negative self-evaluations ($F(1, 165) = 5.52$, $p<.05$, $B = .18$) and higher levels of depression ($F(1, 165) = 8.27$, $p<.01$, $B = .22$) spent more money on the Second Life Marketplace.

4. Discussion

Our results indicated that different identity orientations – such as being more sentimental, more anxious, or having less perceived power – influenced individuals' connections to their virtual possessions, as well as their tendency to use virtual goods for purposes of self-extension. Furthermore, males who evaluated themselves more positively and with a greater sense of power and potency were found to purchase a wider range of virtual goods. This finding is in contrast with prior work that suggests that male virtual world residents prefer more masculine activities and consequently engage more in digital object creation or socialisation with female residents rather than engaging in mere consumption (e.g. Guadagno, Muscanell, Okdie, Burk and Ward, 2011). Based on the current study, it appears that virtual consumption practices can in fact be relevant for male users in that they may help them craft a more masculine and empowered self-image. The current results concerning the age differential are also interesting, showing that older residents with more negative self-evaluations and more depressive tendencies spend higher amounts on the Second Life platform. These findings are consistent with the offline literature that documents higher occurrences of compensatory consumption during periods of sub-optimal emotional states (Woodruffe, 1997), lower sense of power (Mandel, Rucker, Levav and Galinsky, 2017) and more negative self-evaluations (Sivanathan & Pettit, 2010). In this sense, Second Life – just like the offline world – can help residents cope with their negative emotions through their engagements in virtual consumption activities, particularly in the case of older users.

In summary, virtual worlds hold a wide range of potential benefits for their users that in turn have relevant implications for marketing scholarship and practice. First, the established

influence of different identity orientations on virtual consumption patterns highlights the importance of careful segmentation and targeting that reach beyond the consideration of basic demographics. Second, the positive sentiments expressed towards virtual selves can be advantageous for companies setting up online stores. In particular, the favorable ratings of virtual identities above and beyond offline selves suggest that users are more likely to espouse their avatars with elements of their ideal identities (Nagy & Koles, 2014); a notion that has previously been linked with consumption (Belk, 1988).

Consequently, setting up an online space that fosters experimentation and avatar creation may help users relate to virtual products at greater depth, which in turn may boost their overall experience and purchase intentions. Third, our results emphasise the consumer benefits of virtual settings where users can address identity related discrepancies and cope with negative or sub-optimal emotional states. Given the malleability of virtual identities and the importance of virtual possessions, a desirable identity – one that is characterised by a reduced actual – ideal self-discrepancy – may be more easily attainable in virtual environments than in offline settings. The present study provides evidence to support the link between identity and virtual goods, and the ability of virtual world users to resolve states of discrepancy that originate from their offline existence in a more comprehensive and constructive fashion.

5. Conclusions and future directions

The current study contributed to the overall scholarship on virtual identity, virtual consumption, and general user experience in immersive online space. Although the present work did not focus explicitly on social considerations, given the importance of various social aspects on virtual consumption (Lehdonvirta, 2010), future research should explore the ways in which virtual possessions may enhance the relationship forming and identity building tendencies in augmented reality try-on solutions and other innovative techniques. Studies can explore identity transference and the role of virtual goods in even more immersive settings enhanced by Virtual Reality. This potential research direction is especially timely given the vast resources companies invent in developing immersive technologies to attract and engage with customers in novel ways. For instance, both Meta (formerly known as Facebook) and Microsoft are currently working on environments where users can interact with a simulated reality through their avatars (Clark, 2021; Warren, 2021). For companies wishing to run virtual worlds successfully, our study shows the crucial role virtual possessions play in users' offline and digital identities. Future research could look into how individuals use their digital possessions to develop and maintain their identities when they socialize, work and explore virtual worlds.

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