Corvinus University of Budapest

Doctoral School of
Business Administration

DOCTORAL THESIS

by

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CONSUMERS IN THE DIGITAL AGE
Identity and Consumption in Second Life

Supervisor:

Dr. Ágnes Hofmeister-Tóth

Professor

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Department of Marketing Research and Consumer Behavior

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CONTENTS

I. THEORETICAL BACKGROUND

The purpose of my doctoral dissertation is to explore the characteristics of individuals' consumer identities in virtual worlds, and examine the way in which users' consumer behavior is influenced by these online platforms. I start by reviewing the literature on the marketing aspects of human identity focusing on the most important psychological, anthropological, and sociological theories of the field and highlighting the similarities and differences between consumer identities constructed in virtual worlds and in their offline counterparts. Next, I introduce my research objectives and research methodology, which utilized a set of validated surveys to reveal potential trends and tendencies referring to the virtual aspects of consumer identity. Finally, I present my findings associated with the links between virtual identity construction, consumption and motivations.

I. 1. Introduction

As members of the current postmodern society, individuals tend to express aspects of their identity, values, attitudes and social status through consumption (Bourdieu, 1984; Douglas & Isherwood, 1996). For instance, symbolic consumption theory holds that consumers do not only purchase goods to gratify their needs, but also to nourish and extend their identities (Ahuvia, 2005; Wattanasuvan, 2005). From the perspective of human identity, material objects carry different meanings in different social contexts (Cote & Levine, 2002; Woodward, 2007), with certain material possessions considered to foster self enhancement, via assuming a complex system of meaning that is continually shaped by social feedback (Belk, 1988; Harré, 2002).

More importantly, material products may provide a physical base of *facilitating artifacts* that are used initially to establish the personal front, then to evoke the anticipated impression from others, and ultimately to claim certain desirable *role identities* (Goffman, 1959; Kleine, Kleine, & Kernan, 1993). Given the cyclical nature of the system of symbolic consumption, individuals are inherently encouraged to consume those products and services that hold particular meaning for them (Dittmar, 1994). In turn, consumption can serve as a means through which desired social connections can be obtained and maintained (Solomon, 1983; Arnould & Thompson, 2005), with possessions representing symbolic meanings that enable individuals to bridge themselves with others in society (Shankar et al., 2009; Dittmar, 2008).

However, the emergence of the World Wide Web and its related applications have had a significant impact on consumption practices (Green, 2001). With the early appearance of various Multiple User Domains (MUD), and the later emergence of chat programs, social networking sites, and virtual worlds, individuals gained ample opportunities to establish their online selves and corresponding identities in unique and compelling ways (Parmentier & Rolland, 2009). Additionally, the rapid diffusion of Massively-Multiplayer Online Role-Playing Games (MMORPG), such as World of Warcraft, and virtual worlds, like Second Life, in the 2000's expanded the notion of consumption beyond more traditional and offline products and services, enabling individuals to purchase virtual items that have no physical reflection or manifestation. Instead, these products are made entirely of digital codes, and rely fully on consumers' fantasies and preferences (Zwick & Dholakia, 2006; Lehdonvirta, 2009). By entering virtual worlds, users gained ample opportunities to own virtual items that they might not otherwise possess in a tangible, material way (Molesworth & Denegri-Knott, 2007). Referring to the unique economic aspects of online spaces, *virtual consumption* enables users to engage in various activities intended to satisfy their needs in the particular virtual environment (Lehdonvirta, 2010; Drennan & Keeffe, 2007).

Postmodern writers such as Stone (2001), Turkle (1995), and others infatuated by the nuances of cyberspace, all stressed the importance and unique characteristics of virtual spaces, with particular attention to enabling their users to experience new self images and in turn discover new aspects of their identities. In these three dimensional environments, similarly to the real physical world, certain constructs have been demonstrated to become particularly important; primarily those associated with the acts of social engagements and consumption (Verhagen et al., 2011). In this regard, objects and material possessions are of particular importance for virtual existence, in that these items can serve as mediating agents for users to achieve more refined forms of expression, and to accentuate the most relevant aspects of their virtual selves (Vicdan & Ulusoy, 2008). For instance, in many video games, individuals can build homes (e.g. Sims), can drive 'real' cars of their choice (e.g. Need for Speed), and collect a variety of unique artefacts (e.g. Skyrim or World of Warcraft). Furthermore, through the manipulation and customization of virtual objects, individuals become able to enhance their online existence in ways that often reach beyond their real life potential (Molesworth & Denegri-Knott, 2007). Given the consistently upward trends in web-based business activities, understanding the role of virtual products underlying the process of avatar construction hold beneficial implications for both academia and industry.

In recent years, an increasing number of scholarly work focused on avatars and online trade activities (e.g. Kafai et al., 2010; Jin, 2012), and on the associations between avatar characteristics and virtual consumption (Jin & Bolebruch, 2009; Messinger et al., 2009; Molesworth & Denegri-Knott, 2007). However, very little research has been conducted to date concerning the way virtual identity construction affects consumption practices and online behaviors.

Given the fact that real money can often be converted to virtual money, like Linden Dollar in case of Second Life, understanding the impacts of virtual worlds on *consumption and human identity* can be beneficial for marketing as well as for other social sciences (Belisle & Bodur, 2010). In line with the work of postmodern scholars (Turkle, 1995; Stone, 2001), Zizek (2004) highlights the importance of multiplicity, the concept that the identity can be fragmented and deconstructed, and thus enabling users to experiment with different self-aspects. Therefore, exploring the way consumer identities are projected into virtual worlds and affect one's consumption practices can help professionals and practitioners to understand more fully the meaning of '*postmodern consumption*' in today's global networked society.

I. 2. Research Objectives

Given the pervasive nature of virtual worlds in consumers' daily lives, it may be useful to approach the meanings and affordances of virtual consumption from a marketing perspective, in order to extend our knowledge regarding this massive user pool. My doctoral dissertation focuses on Second Life residents (users) and builds on the following five research questions:

1.) *What is the extent of congruence between one's virtual and offline identity?*

2.) *In what way does virtual identity affect one's virtual consumption practices in Second Life?*

3.) *What is the motivational basis of Second Life usage?*

4.) *To what extent do users consider their virtual property as integral part of their virtual identities?*

5.) *What is the extent of congruence between one's virtual and offline consumer identity?*

II. METHODOLOGY

II. 1. Data collection and analysis

Data for the doctoral dissertation was obtained within the virtual world of Second Life, during January and February, 2013. Residents were invited to take part in the research using a specific Second Life related blog called *New World Notes*, and were asked to complete an online survey measuring a variety of variables, like offline and virtual identity, offline and virtual materialism, offline and virtual self-extension tendency, motivations associated with Second Life usage, virtual consumption practices as well as general demographics (*see also Figure 1*).

By using these surveys targeting certain consumption related concepts, I intended to capture the multifaceted impacts of virtual worlds on individual users, their values and attitudes, their consumption practices as well as motivational bases. In accordance with previous findings showing that offline personality traits, the so-called '*Big Five*', have significant impacts on one's virtual behavior (e. g. Yee et al., 2011), including consumption practices (Gilbert et al., 2011), I focused on the individual as well as the social aspects of one's virtual identities and the way one's virtual self definition affects his or her virtual consumer behavior.

The surveys were all validated by previous research, and respondents were asked to fill in certain parts of the questionnaire on two occasions: first, in reference to their offline existence, and, second, in reference to their virtual existence. By measuring the virtual as well as the offline aspects of certain psychological and marketing concepts, I was able to compare their values with each other and identify certain similarities and differences between these attributes.

The total sample consisted of 424 residents, with an average age of 37.5 years. Participants were predominantly from North America (67%) and Western Europe (31%), and a few representatives from Asia as well as Australia. Males and females were not represented equally as there were more female respondents (59.4%) than male (40.6%). In terms of educational composition, 5% had Ph.D degree, 48% had a BA or MA diploma, 28% had High School Diploma, and 19% had other certifications. 84% of the respondents have been using Second Life more than 2 years, and nearly 55% of the participants spend more than 2 hours on a daily basis in Second Life.

SURVEY	DESCRIPTION	AUTHORS
Offline and Virtual Identity	Semantic Differential Scale; 7 dimensions and 21 pairs of adjectives	Hoelter, 1985; Malhotra, 1981
The position of virtual identity	The positions of one's virtual identity in her general self-concept; 5 items	Kleine et al, 1993; Callero, 1985
Identification with Avatars	The extent to one feels connected to her avatar; 3 items	Kim et al., 2012; Blinka, 2008
Offline and Virtual Materialism	3 factors (success, centrality, happiness); 15 items	Richins, 2004
Offline and Virtual self-extension tendency	The extent to one feels that her material possession is integral part of her identity; 8 items	Ferraro et al., 2011
Virtual motivations and attitudes	Needs: Belonging, Self-esteem, Self-actualization; Attitudes on economic value and ease of usage	Maslow, 1970; Barnes & Pressey, 2011; Verhagen et al., 2012
General demographics	Product types purchased in Second Life, total of Linden Dollars spent in Second Life, age, gender, number of alternative avatars, etc.	Gilbert et al., 2011; Messinger et al., 2009; Barnes & Pressey, 2011

Figure 1. Surveys used in the research and their short description.

II. 2. Hypotheses

By building on an extensive literature review and the 5 research questions presented earlier in my thesis, I formulated 21 hypotheses to guide my research and help me develop a comprehensive model on virtual consumer identity (*see Figure 2 below*).

RESEARCH QUESTION 1: WHAT IS THE EXTENT OF CONGRUENCE BETWEEN ONE'S VIRTUAL AND OFFLINE IDENTITY?
H1: Users evaluate their virtual identities more positively than their offline identities.
H1a: There is a positive association between the evaluation of one's virtual identity and the number of alternative characters (alts) the given user has in Second Life.
H1b: There is a positive association between the evaluation of one's virtual identity and the extent to which the given users identify themselves with their avatars.
H1c: There is a positive association between the way one evaluates his/her virtual identity and the position of his/her virtual identity in his/her global self-concept.
RESEARCH QUESTION 2: IN WHAT WAY DOES VIRTUAL IDENTITY AFFECT ONE'S VIRTUAL CONSUMPTION PRACTICES IN SECOND LIFE?
H2: There is a positive association between the evaluation of one's virtual identity and the

total amount of virtual money (Linden Dollars) he/she spends in Second Life.
H2a: There is a positive association between the evaluation of one's virtual identity and the total amount of virtual product categories one purchases in Second Life.
H2b: There is a positive association between the number of alternative characters (alts) and the total amount of virtual money (Linden Dollars) one spends in Second Life.
H2c: There is a positive association between the number of alternative characters (alts) and the total number of virtual product categories one purchases in Second Life.
RESEARCH QUESTION 3: WHAT IS THE MOTIVATIONAL BASIS OF SECOND LIFE USAGE?
H3: The more one finds Second Life easy to use, the higher economic value he/she thinks Second Life has.
H3a: The more needs one can gratify in Second Life, the more positively he/she evaluates his/her virtual identity.
H3b: The more needs one can gratify in Second Life, the more virtual money (Linden Dollars) he/she spends in Second Life.
H3c: The more needs one can gratify in Second Life, the more virtual product categories he/she purchases in Second Life.
RESEARCH QUESTION 4: TO WHAT EXTENT DO USERS CONSIDER THEIR VIRTUAL PROPERTY AS INTEGRAL PART OF THEIR VIRTUAL IDENTITIES?
H4: There is a positive association between the way one evaluates his/her virtual identity and his/her tendency to extend his/her self.
H4a: There is a positive association between one's virtual materialistic orientation and his/her tendency to extend his/her self.
H4b: There is a positive association between one's tendency to extend his/her self and the total amount of virtual money (Linden Dollars) he/she spends in Second Life.
H4c: There is a positive association between one's tendency to extend his/her self and the total number of virtual product categories he/she purchases in Second Life.
RESEARCH QUESTION 5: WHAT IS THE EXTENT OF CONGRUENCE BETWEEN ONE'S VIRTUAL AND OFFLINE CONSUMER IDENTITY?
H5: Whereas there is a positive association between one's virtual materialistic orientation and his/her evaluation of his/her virtual identity, the association between one's offline materialistic orientation and offline identity evaluation considers being negative.
H5a: There is a positive association between one's offline materialistic orientation and the total amount of virtual money (Linden Dollars) he/she spends in Second Life.
H5b: There is a positive association between one's offline materialistic orientation and the total number of virtual product categories he/she purchases in Second Life.

H5c: One's offline tendency to extend his/her self positively relates to his/her tendency to extend his/her virtual self in Second Life.
H5d: Female residents spend more virtual money (Linden Dollars) in Second Life than male users.
H5e: Female residents purchase more virtual product categories in Second Life than male users.

Figure 2. Hyptheses.

In order to test these hypotheses several statistical analyses were used, such as Pearson correlation, linear and multilinear regression as well as independent T-tests.

III. RESULTS

III. 1. Hypothesis Testing

By running a series of statistical tests in SPSS 20.00, I have tested my hypotheses with the following results (*see Figure 3*).

WHAT IS THE EXTENT OF CONGRUENCE BETWEEN ONE'S VIRTUAL AND OFFLINE IDENTITY?	RESULTS
H1: Users evaluate their virtual identities more positively than their offline identities.	*Accepted*
H1a: There is a positive association between the evaluation of one's virtual identity and the number of alternative characters (alts) the given user has in Second Life.	*Rejected*
H1b: There is a positive association between the evaluation of one's virtual identity and the extent to which the given users identify themselves with their avatars.	*Partially accepted*
H1c: There is a positive association between the way one evaluates his/her virtual identity and the position of his/her virtual identity in his/her global self-concept.	*Partially accepted*
IN WHAT WAY DOES VIRTUAL IDENTITY AFFECT ONE'S VIRTUAL CONSUMPTION PRACTICES IN SECOND LIFE?	RESULTS
H2: There is a positive association between the evaluation of one's virtual identity and the total amount of virtual money (Linden Dollars) he/she spends in Second Life.	*Rejected*
H2a: There is a positive association between the evaluation of one's virtual identity and the total amount of virtual product categories one purchases in Second Life.	*Partially accepted*
H2b: There is a positive association between the number of alternative characters (alts) and the total amount of virtual money (Linden Dollars) one spends in Second Life.	*Accepted*
H2c: There is a positive association between the number of alternative characters (alts) and the total number of virtual product categories one purchases in Second Life.	*Rejected*
WHAT IS THE MOTIVATIONAL BASIS OF SECOND LIFE USAGE?	RESULTS
H3: The more one finds Second Life easy to use, the higher economic value he/she thinks Second Life has.	*Partially accepted*
H3a: The more needs one can gratify in Second Life, the more positively he/she evaluates his/her virtual identity.	*Partially accepted*
H3b: The more needs one can gratify in Second Life, the more virtual money (Linden Dollars) he/she spends in Second Life.	*Partially accepted*
H3c: The more needs one can gratify in Second Life, the	*Partially accepted*

more virtual product categories he/she purchases in Second Life.	
TO WHAT EXTENT DO USERS CONSIDER THEIR VIRTUAL PROPERTY AS INTEGRAL PART OF THEIR VIRTUAL IDENTITIES?	**RESULTS**
H4: There is a positive association between the way one evaluates his/her virtual identity and his/her tendency to extend his/her self.	*Rejected*
H4a: There is a positive association between one's virtual materialistic orientation and his/her tendency to extend his/her self.	*Partially accepted*
H4b: There is a positive association between one's tendency to extend his/her self and the total amount of virtual money (Linden Dollars) he/she spends in Second Life.	*Rejected*
H4c: There is a positive association between one's tendency to extend his/her self and the total number of virtual product categories he/she purchases in Second Life.	*Rejected*
WHAT IS THE EXTENT OF CONGRUENCE BETWEEN ONE'S VIRTUAL AND OFFLINE CONSUMER IDENTITY?	**RESULTS**
H5: Whereas there is a positive association between one's virtual materialistic orientation and his/her evaluation of his/her virtual identity, the association between one's offline materialistic orientation and offline identity evaluation considers being negative.	*Partially accepted*
H5a: There is a positive association between one's offline materialistic orientation and the total amount of virtual money (Linden Dollars) he/she spends in Second Life.	*Rejected*
H5b: There is a positive association between one's offline materialistic orientation and the total number of virtual product categories he/she purchases in Second Life.	*Rejected*
H5c: One's offline tendency to extend his/her self positively relates to his/her tendency to extend his/her virtual self in Second Life.	*Accepted*
H5d: Female residents spend more virtual money (Linden Dollars) in Second Life than male users.	*Rejected*
H5e: Female residents purchase more virtual product categories in Second Life than male users.	*Rejected*

Figure 3. Results of the hypotheses testing.

III. 2. Towards a Conceptual Model of Virtual Consumer Identity

By building on the above mentioned results, I created a model of virtual consumer identity that is centered on 3 '*pillars*' such as virtual self-extension tendency (*see Figure 4*), the total amount of virtual product categories purchased in Second Life (*see Figure 5*), and the total

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amount of virtual money (Linden Dollars) spent in Second Life (*see Figure 6*). The main contribution of my doctoral thesis is that I managed to identify some underlying factors of virtual consumer identity, namely the attributes of virtual identity, virtual materialistic orientation and motivations associated with Second Life usage.
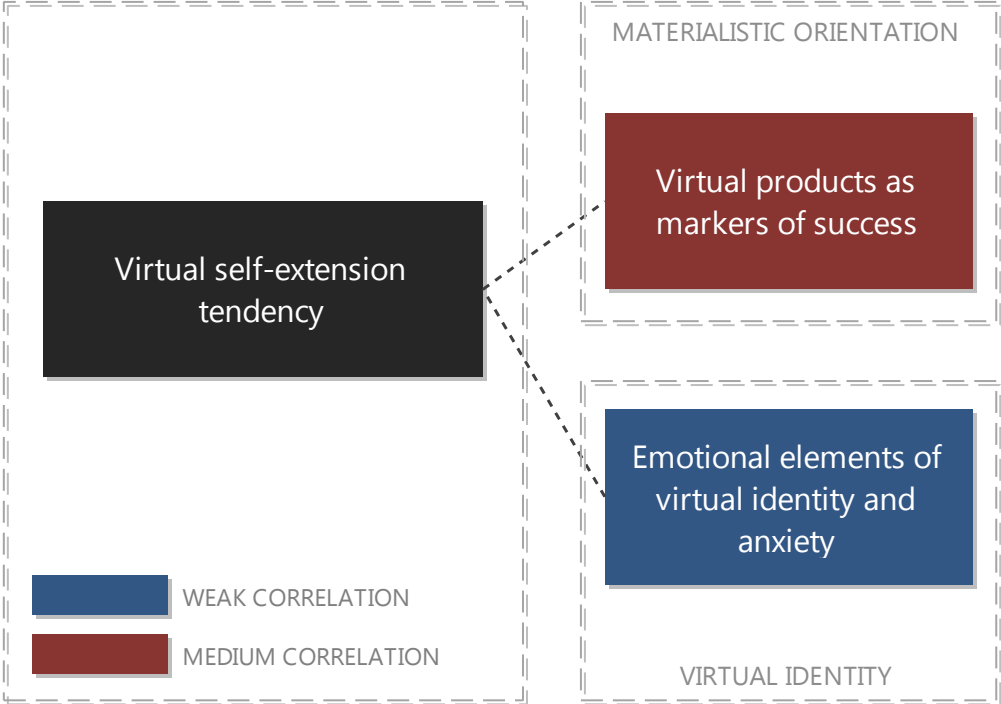

Figure 4. The implications of virtual self-extension tendency for virtual consumer identity

Figure 4 as the first part of the conceptual model demonstrates that one's virtual self-extension tendency shows positive significant, although weak association with the general emotional elements of one's virtual identity as well as a higher level of anxiety. On the other hand, virtual self-extension also shows a significant relationship with the success factor of virtual materialism.
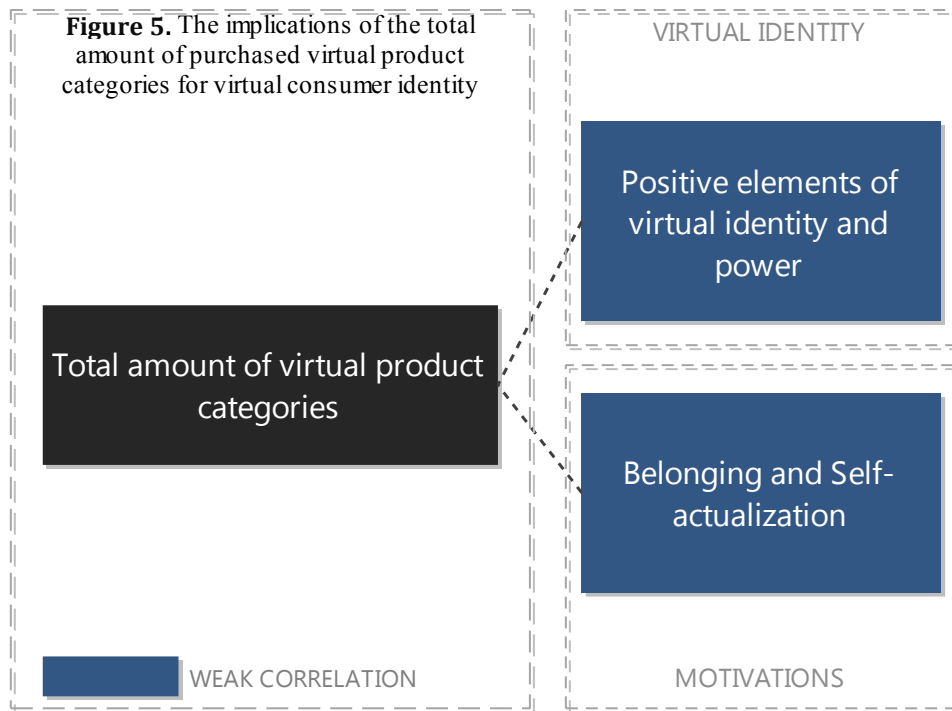
Figure 5. The implications of the total amount of purchased virtual product categories for virtual consumer identity

Total amount of virtual product categories

Positive elements of virtual identity and power

Belonging and Self-actualization

VIRTUAL IDENTITY

MOTIVATIONS

WEAK CORRELATION

Figure 5 as the second part of the model shows that the total amount of virtual product categories that one purchases in Second Life is positively related to the users' virtual identities and motivational basis. On the one hand, the positive evaluation as well as the perceived power of one's virtual identity is positively associated with a higher amount of virtual product categories purchased. On the other hand, sense of belonging and self-actualization as two important motivational categories are also related to a higher amount of purchased virtual product categories in Second Life. These results highlight the fact that both the way one evaluates his/her virtual identity and the motivational elements of one's virtual existence play important roles in virtual consumer behavior. Although in both cases the correlation coefficients are considered weak, their significance levels are good.
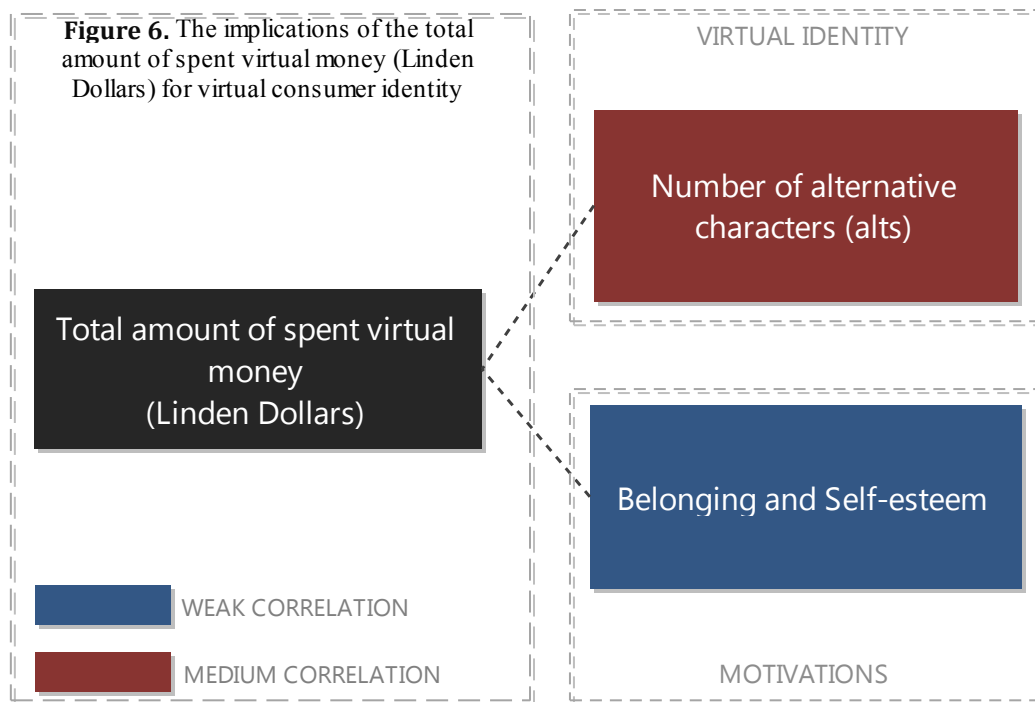
Figure 6. The implications of the total amount of spent virtual money (Linden Dollars) for virtual consumer identity

Figure 6 as the final component of the model demonstrates that the total amount of virtual money one spends in Second Life is positively related to the number of users' alternative characters (alts) and motivational basis. In this caseSecond Life residents who spend more virtual money (Linden Dollars) than the average tend to have more alternative avatars besides their main ones than others. Additionally, sense of belonging and self-esteem as motivational elements also show significant correlation with the total amount of spent virtual money (Linden Dollars) in Second Life.

III. 3. Limitations and Future Research Opportunities

A general limitation of the thesis is that since it concerns the abstract conceptual relationship between virtual identity formation and consumption practices, it is unable to deliver high correlation coefficients or causal explanations. In this regard, my doctoral dissertation presents a general model of virtual consumer identity by integrating several concepts and theories, and thus it lacks a complex statistical analysis. Future research should focus on a more elaborated and concrete explanation of the three dimensions of my current virtual consumer identity model. By using additional scales or qualitative methodology, future research can explore other implications of the current model as well as extend its limited scope. Finally, virtual simulations or experiments can also help professionals and practitioners to develop a comprehensive understanding on the causal relationships between the components of the presented model.

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