Exploring the Impacts of Social Networking on Brand Image and Purchase Intention in Cyberspace

Hsing-Wen Wang
(Changhua University of Education, Changhua, Taiwan
shinwen@cc.ncue.edu.tw)

Yen-Chun Jim Wu
(National Taiwan Normal University, Taipei, Taiwan
wuyenchun@gmail.com)

Tse-Ping Dong
(National Taiwan Normal University, Taipei, Taiwan
tpdong@ntnu.edu.tw)

Abstract: Social networking websites have become increasingly popular, and have also become the main media not only to connect lives socially, but also to affect brand image and consumers' purchase intention. The purpose of this paper is to incorporate the Facebook fan page and e-journal provide over the Internet (cloud e-journal) with the uses and gratification theory to test the impact on brand image and purchase intention through the use of cloud learning. We used cloud learning material from the Ivy League in Taiwan in our case study. This paper also applied structural equation modeling to analyze the data collected from members of the Ivy League Facebook fan page and the Cloud users' e-journal. The results of this study demonstrated that for the members of the Ivy League Facebook fan page, purchase intention was positively and significantly influenced, regardless of any use intention factors, based on the uses and gratification theory. In addition, using the Facebook fan page and Cloud e-journal would also positively and significantly affect the brand image for Internet users. Moreover, with the Ivy League fan page and the Cloud e-journal's improved brand image, there is an increase in intention to buy the journals and relevant services. This paper also demonstrated that six features of the Cloud e-journal did have a moderating effect on the purchase intention. Our results provide suggestions to those who attempt to build cloud learning solutions for customers, and are also helpful to those who wish to apply the Facebook fan page to customer relationship marketing platforms.

Keywords: Facebook, cloud learning, uses and gratification theory, brand image, cloud e-journal
Categories: J.1, F.1.2, K.3.2, J.5, H.4.2

1 Introduction

Facebook has now become the second major website in Taiwan after Yahoo! Taiwan, according to Alexa.com and Comscore.com [Business Next, 15]. With the rapid growth of intelligent vehicle technology, social network application will become more ubiquitous, immediate, and rapid, but will also accelerate how Internet technology penetrates people's lives. Consumers are heard not only through the gathering of the community and joint enterprises, but can also share information with each other, and

provide business commodity opinions and improvement. Business organizations' marketing techniques evolved with the development of the Internet, starting with mass marketing, which gradually transformed into a small minority. Further development led to the present varied congregation of highly customized marketing communities.

For these years, high investments in information and communication technologies (ICTs) were considered to guarantee increased the ubiquitous learning in order to employ the learning services in an efficient and convenient way. It is at least as critical medium to prepare the peer-to-peer learning and collaborative learning environment adequately as it is to choose the appropriate social media mix, such as Facebook, and the instruction methods [Joachim, 15]. Simultaneously, cloud learning has evolved from isolated classroom learning toward a community model. In the cloud computing environment, cloud learning becomes a universal learning system to meet the educational needs of learners, and provides more interaction, assistance, and knowledge-sharing mechanisms. Therefore, more scholars can be a part of the concept of universal learning [Paul, 10]. In general, many researches confirm that learning is more effective and attractive when the students obtain instant feedback regarding their learning progress [Maria, 15]. That also encourages the developments of on-line learning system and service. The scope of the study focuses on foreign language cloud learning enterprises.

According to the number of fan members and their official website conditions, the Ivy League (ivy.com.tw) related fan pages are one of the most popular fan pages in groups, with more than 300 Franchisees, 480,000 copies of the magazine circulation and 100,000 members. The Ivy League is an localize brand and issues from 1988 till now in Taiwan, which provides various online to offline (O2O) service solutions, including radio and on-line broadcasting, solid classroom, blended e-learning with Application Programming Interface (API) and cloud-learning with application (APP), etc. Especially toward the social network point of view, that is a brand new blend way to build its brand and enhance the purchase intention for products and services. This strategy made great different from the Studio Classroom (studioclassroom.com) that focus on online customer service and brand management. Our discussion is divided into two stages; the first explores the factors that impact Facebook members' intention to use the fan pages, and the next phase investigates whether the fan pages' level of intent has a measurable effect on business organizations. We hope to make recommendations and suggestions for the company fan pages' future operations.

This study, in addition to applying the uses and gratification theory to explore users' intention to participate in Facebook fan pages, will also analyze its impact on brand image and purchase intention. Meanwhile, the cloud e-journal, cloud Journals is initiated by cloud publications which is the online publisher publishes open access e-Journals in the different areas, information environment trend is maturing, and its popularity is perpetually increasing in Taiwan. Cloud e-journals are investigated to determine whether they will affect purchase intention, as the role of the moderator is to explore the impact of purchase intention on Facebook fan pages in our research framework. Our goal is to trace the differences before and after joining the Facebook community website, to determine members' impact on the brand image, and the purchase intention of cloud learning.

2   Literatures Reviews

Social network sites, or community websites, currently play a popular role as well-known user media. They operate not only as the users' personal information exchange and as knowledge-sharing distribution channels, but also as the users' social interaction and collaborative learning, or cooperative learning, platforms [Nauman, 09]. The community website has user-driven, rather than technology-driven, application tools and operations. From the user's point of view, the focus is on behavior brought about by the interests of users in the networks. The user can take the initiative to publicly use the site's services [Dholakia 10].

Many studies conducted by the Institute for Prospective Technological Studies (IPTS), which strongly suggest that the high occupy social network (or media) applications outside of the on-line educational settings. It provides new chances for creating and innovating in modernizing education, such as the e-learning and cloud learning [Christine, 10]. From the point of view of the literature review by European Commission, it also agree the importance of mobile learning and social media in adult learning since motivated learners are more engaged, more enhance learning, and are likely to spend more time on their learning [Jan, 15].

2.1   The Popularity of Facebook

The most popular community website is Facebook in this generation, and the fan page is one of the most popular options provided by Facebook for enterprising public figures. Dholakia researched Facebook fan pages and found that communicating and interacting with the fans, or promotional sales, had an extensive impact [Dholakia, 10]. Rosetta, the interactive marketing agency, noted in its 2012 statistics data that 63% of the world's top 100 retailers owned official fan pages. Facebook's official statistics note that out of a total of its 1.94 million fan pages, more than 73 million individuals' open operating has attracted 560 million additional people as fans. They tested the Facebook fan page of a well-known chain of coffee shop bakeries, and observed the impact on consumer behavior. In the three-month study period, the researchers updated the fan page content several times a week, which included uploading photos, publishing promotions or contest messages, linking to comments, and introducing in-store employees.

Three months later, researchers surveyed the fan page's newly joined customers, and those who chose not to join; the researchers processed the survey and performed a cross-comparison. The results indicated that for users who joined the fan group: (1) monthly expenditure at the store was more than 42%. (2) Food consumption accounts for more than 51% of the typical customer's total expenditure. (3) The total amount of excess consumption by general customers was 39%. (4) More than 21% were affected by a degree of brand effect recognition and (5) 47% were psychologically loyal to the brand. Further, in 2015 statistics data of the Facebook IQ, the amount of video from people and brands in Facebook's News feed increased around 3.6 times year-over-year and video posts per person on Facebook have grown around 75% year-over-year. The research results from Socialbakers.com find the top 10% of posts made by more than 30,000 Facebook brand pages, and found that posts with photos saw the most engagement with accounting for a whopping 87% of total interactions [Jesse, 15].

2.2   The Brand Image in Cyberspace

The brand represents the contractual relationship between the supplier and the customer; the brand's owner has a commitment to provide a special experience, and guarantee the buyers' future commitment through consumer feedback [Smith, 02]. [Keller, 93] defines the brand as the minds of consumers the value of the product. According to the historical literature, the concept of brand image, and products such as Lenovo, which are classified as physical and non-physical brands, this study will be similarly classified as "hard" and "soft" [Biel, 92]. The brand link is based on the concepts referenced by Park and Perry [Park, 86] [Perry, 08], regarding the brand's point of view; the concept of brand image composition is divided into multi-oriented "functional" and "non-functional" image discussions.

For example, many consumers think that the Taiwanese Ivy League's safety, or the usefulness of such an impression, is a functional brand image. These consumers believe that the Ivy League is a fun, diverse, and innovative brand, which are non-functional brand images. [Perry, 08] mentioned that cloud service equipment has four key factors that pertain to the cloud e-journal's issues: necessity, reliability, usability, and scalability.

2.3   Purchase Intention for Cloud E-Journals

Consumers will have different preferences for their information sources, thereby affecting their purchase intention [Liebermann, 96]. The majority of consumer information, collected from consumers' behavior, discovers related product information sources and then assists the consumer in quality buying behavior. [Heskett, 94] noted that to measure customer retention, the purchase rate must be repeated including the recommended rate for the purchase intention. [Sirohie, 98] observed that to measure purchase intention, loyalty must be measured, including repurchase intentions, willingness to recommend a brand to others, and consumers' future intention to buy more products.

Therefore, this study is divided into the following categories: the user may consider buying, the user is willing to buy, and the user would consider buying the products or services of the Ivy League and the Cloud e-journal.

2.4   The Uses and Gratifications in Social Media

The related research regarding "uses and gratifications" was an orientation first used by Katz, Blumler and Gurevitch in 1974 [Katz, 74] in the book, *Uses of Mass Communication* [Katz, 74]. [Palmgreen, 85] revised their five basic assumptions in an omnibus of amendments, and eight basic assumptions [Palmgreen, 85]. [Dixon, 96] asserted that the uses and gratification theory is most able to predict behaviors for the computer-mediated communication (CMC) theoretical model. [Yoo, 96] combined mass communication media and interpersonal media are meet-oriented, but also for Internet users to meet the four categories of views: entertainment, social, message, and transaction. His research found that the "entertainment" view is the most significant.

[Ducoffe, 95] proposes the value of advertising value of the view that the value of advertising by consumers' subjective judgments from the uses and gratification theory. His findings show that consumers, by advertising content, presented

informativeness, entertainment, and interference irritation as three factors to assess the value of advertising, and are the antecedent factors of advertising value perception. This study integrated the above scholars with the uses and gratification theory, and the most widely used factors: information, entertainment, emotional, practical, epidemic, and social interaction to explore the user's motivation while using Facebook fan pages.

3 Impacts Hypothesis for Social Networking

3.1 The Motivations Behind Exploration

According to the survey, in December 2012 more than 70% of Taiwan's Facebook members were not a member of any fan group or society; in early 2010, more than 70% of the members had joined at least one association [Blogger Ads, 11] on behalf of a fan page. The enthusiasm for fan pages has gradually increased, but most are in early stages; considering the point of view asserted by the uses and gratification theory, we ask the following questions: What kind of motivation exists to add a user to the Ivy League and Cloud e-journal Facebook fan groups? What is the fan page's impact on brand image? How do the Ivy League and Cloud e-journal Facebook fan pages impact the members' purchase intentions? In addition, when the Facebook fan page zone is simultaneously combined with "cloud services," does the interference affect the purchase intention?

Communication media theory, and specifically the uses and gratification theory, is used as the basic framework of this study. We can then further the understanding of the theory of information, entertainment, emotional, practical, epidemic, and social interaction to explore the intended use of the Facebook fan page area, the brand image user, and purchase intention. Recent prevalent technology trends "cloud services" for confounding factors, a fan page member to explore the brand's brand image, and purchase intention. Facebook is a network tool; therefore, the study used the Internet to perform the self-administered questionnaire survey, and a measurement object was added to the English Facebook fan page member.

3.2 Purchase Intention with Gratification

By involving the Ivy League and Cloud e-journal fan pages, and considering the six dimensions that affect positive purchase intention, we propose the following hypotheses:

> H1: Regarding the personal Ivy League and Cloud e-journal Facebook fan pages and satisfaction, for the Ivy League and Cloud e-journal, purchases will have a significant positive impact.

>> H1-1: Regarding personal information and the Ivy League and Cloud e-journal Facebook fan pages, for the Ivy League and Cloud e-journal purchases will have a significant positive impact.

H1-2: Regarding personal factors, and the Ivy League and Cloud e-journal Facebook fan pages perceived as entertaining, for the Ivy League and Cloud e-journal, purchases will have a significant positive impact.

H1-3: Regarding personal and emotional factors, and the Ivy League and Cloud e-journal Facebook fan page, for the Ivy League and Cloud e-journal, purchases will have a significant positive impact.

H1-4: Regarding personal use and the Ivy League and Cloud e-journal Facebook fan page practicality, for the Ivy League and Cloud e-journal, purchase will have a significant positive impact.

H1-5: Regarding personal use of the Ivy League and cloud E-Journal Facebook fan page for the epidemic factor, for the Ivy League and Cloud e-journal, purchases will have a significant positive impact.

H1-6: Regarding personal use of the Ivy League and Cloud e-journal Facebook fan page for the social interaction factor, for the Ivy League and Cloud e-journal, purchases will have a significant positive impact.

3.3   Purchase Intention with Gratification

Considering e-learning content, the intended use of the Ivy League and Cloud e-journal fan pages, and their brand image, we assert the following assumptions:

H2: The Ivy League and Cloud e-journal Facebook fan page area members intention to use the brand image of the Ivy League and Cloud e-journal are significantly and positively affected.

H2-1: The intended use of the Ivy League Area Member and Cloud e-journal Facebook fan pages for the Ivy League and Cloud e-journal has a significant positive impact on functional brand image.

H2-2: Regarding the Ivy League Area Member and Cloud e-journal Facebook fan page and the intention to use, for the Ivy League and Cloud e-journal, non-functional brand image has a significant positive impact.

3.4   The Relationship between Brand Image and Purchase Intention

We consider the Ivy League and Cloud e-journal brands and purchase intention to make the following assumptions:

H3: Regarding the Ivy League, Cloud e-journal, and Facebook fan pages, and the Area Member's brand image for the Ivy League and Cloud e-journal, purchases will have a significant positive impact.

H3-1: Regarding the Ivy League and Cloud e-journal Facebook fan pages, and the Area Member's functional brand image, for the Ivy League and Cloud e-journal, purchases will have a significant positive impact.

H3-2: Regarding the Ivy League and Cloud e-journal Facebook fan pages, and the Area Member's non-functional brand image, for the Ivy League and Cloud e-journal, purchases will have a significant positive impact.

3.5   The Impacts of Cloud Services on Purchase Intention

Cloud computing is a technological innovation that more consumers are adopting because of its mobility and accessibility in storing data. While there has been an increased awareness of cloud computing by consumers, there is limited research about the factors influencing consumers to purchase cloud services. A cloud service is any kind of resource that is provided over the ICTs. The most well-known cloud service resources are Software as a Service (SaaS), Platform as a Service (PaaS) and Infrastructure as a Service (IaaS). In this paper, we propose the following hypotheses:

H4: Regarding cloud service features, the Ivy League and Cloud e-journal Facebook fan pages, and the Ivy League Area Member and Cloud e-journal, purchase intention has a relationship with the interference effect.

H4-1: Regarding a high degree of elasticity, the Facebook fan page area of the Ivy League and Cloud e-journal, and the Area Member of the Ivy League and Cloud e-journal, purchase intention has a relationship with the interference effect.

H4-2: Regarding computational service, the Ivy League and Cloud e-journal Facebook fan page, and the Area Member of the Ivy League and Cloud e-journal, purchase intention has a relationship with the interference effect.

H4-3: Regarding a demand for a self-service area on the Ivy League and Cloud e-journal Facebook fan page, the Ivy League member, and Cloud e-journal, purchase intention has a relationship with the interference effect.

H4-4: Regarding Internet use ubiquitous to the Ivy League and Cloud e-journal Facebook fan page, and the Area Member of the Ivy League and Cloud e-journal, purchase intention has a relationship with the interference effect.

H4-5: Regarding data aggregation on the Ivy League and Cloud e-journal Facebook fan page, and the area member of the Ivy League and Cloud e-journal, purchase intention has a relationship with the interference effect.

4   The Research Methodologies

Many scholars recognize that the text characteristics of multimedia include rich information and interactive communication network characteristics [December, 96] [Newhagen, 94]. The convenience features of a network are the key reasons for Internet use. This study aims to develop a scale via the uses and gratification theory for network usages, consisting of fifteen questions, and scoring established by a 5-point Likert scale divided into five categories: strongly disagree, disagree, no opinion, agree, and strongly agree. To understand the fan pages' member behavior, six dimensions of the uses and gratification theory are applied to analyzing the use intention. On the other side, the dependent variables are the brand image and the purchase intention for any types of products sold by the Ivy League. The questionnaires were sent separately, according to Facebook internal emails and in accordance with the list of members.

The investigation period is from February 15, 2012, to August 15, 2012. A total of 526 respondents completed the questionnaire in two weeks. After the data screening process, the non-Facebook fan page members and the samples following the univariate and multivariate deviating from the normal distribution were cancelled. The collected valid questionnaires included 434 participants, obtaining an 82.51% return rate. SPSS software was used to solve the basic encoding process and descriptive statistics analysis, and then administered the fit test for LISREL structural equation tools.

5   The Results and Discussions

The results show a member-descriptive statistical analysis of the Ivy League and Cloud e-journal fan pages:

(1) Intent: The Ivy League and Cloud e-journal fan pages' members were surveyed regarding their intended use of the fan pages, and based on use and satisfaction, scored reasonably in the six dimensions. The subjects' tests scored under 3.33, with a standard deviation of 0.67. On average, the subjects' six characteristics of intended use ranged from "no comment" to "agree."

(2) Brand: The Ivy League and Cloud e-journal fan pages' members were surveyed regarding their use of the fan pages and the brand. Subjects' tests scored under 3.86, with a standard deviation of 0.72. Subjects on air The English classroom Brand has a more positive perception.

(3) Purchase Intention: Members of the Ivy League and Cloud e-journal fan pages were surveyed regarding purchase intention, and the subjects scored an average measured fraction of 3.57, with a standard deviation of 0.81. The results of the data reveal that for English-speaking subjects, the Ivy League and Cloud e-journal influence a more positive attitude toward purchase intention.

(4) Cloud Services: Members of the Ivy League and Cloud e-journal fan pages were surveyed regarding cloud services, and scored an average measured fraction of 3.99, with a standard deviation of 0.67. This is interpreted as subjects for the Ivy League and Cloud e-journal add to cloud services, and hold a more positive attitude with knowledge.

The results of model fitness are as follows, as shown in Table 1: the chi-square value of the degrees of freedom (X^2/df) was 2.57, ranging between 1.0 and 3.0; the comparative fit index (CFI) was 0.93, the standardized fit index (NFI) was 0.87, and the goodness of fit index (GFI) was 0.71. These values are in compliance with the standards proposed explicitly for this study; therefore, the proposed model is a good fit. Standardized residuals in the causal model and the square root of (RMSEA) was 0.08, and the average residual square root (SRMR) of 0.08 is less than 1, displaying an acceptable range of error. It can be concluded that the construction of the causal model and the overall fit are satisfactory.

X ^{2}/df	GFI	AGFI	CFI	NFI	SRMR	RMSEA
2.57	.71	.70	.93	.87	.08	.08

Table 1: Model fitness indicators

The data shown in Table 1 further illustrates the path relationship between the variables. The results demonstrates the Ivy League and Cloud e-journal fan page users' purchase intention is not significantly impacted, and as the standardized regression coefficient is 0.11, the following can be concluded:

H1: The personal use and satisfaction of the Ivy League and Cloud e-journal Facebook fan page does not support a positive effect on the Ivy League and Cloud e-journal fan page users' purchase intention.

H1-1: The Ivy League and Cloud e-journal Facebook fan page's personal information does not support a positive effect on the Ivy League and Cloud e-journal fan page users' purchase intention.

H1-2: Personal entertainment use of the Ivy League and Cloud e-journal Facebook fan page does not support a positive effect on the Ivy League and Cloud e-journal users' purchase intention.

H1-3: Personal affective use of the Ivy League and Cloud e-journal Facebook fan page does not support a positive effect on the Ivy League and Cloud e-journal users' purchase intention.

H1-4: The personal practical use of the Ivy League and Cloud e-journal Facebook fan page does not support a positive effect on the Ivy League and Cloud e-journal users' purchase intention.

H1-5: The personal epidemic use of the Ivy League and Cloud e-journal Facebook fan page does not support a positive effect on the Ivy League and Cloud e-journal users' purchase intention.

H1-6: The personal social interaction use of the Ivy League and Cloud e-journal Facebook fan page does not support a positive effect on the Ivy League and Cloud e-journal users' purchase intention.

Intended use significantly, positively impacts the brand image, as demonstrated by the standardized regression coefficient of 0.41. As this demonstrated a significant positive influence, two conclusions can be deduced, as follows:

H2: It has been established that the Area Member's intended use of the Ivy League and Cloud e-journal Facebook fan pages will positively affect the Ivy League and Cloud e-journal brands.

H2-1: The Area Member's intended use of the Ivy League and Cloud e-journal Facebook fan pages will positively affect the Ivy League and Cloud e-journal's brand image functionality.

H2-2: It has been established that the Area Member's intended use of the Ivy League and Cloud e-journal Facebook fan pages positively influences the Ivy League and Cloud e-journal's brand image.

Brand image can also positively influence the Ivy League and Cloud e-journal fan page users' purchase intention. As the standardized regression coefficient of 0.57 also denotes a significant positive relationship, three conclusions can be deduced, as follows:

H3: The virtual classroom Facebook fan page used by Area Members has a positive influence on purchase intention and the brand established by the Ivy League and Cloud e-journal.

H3-1: It has been established that for members of the Ivy League and Cloud e-journal Facebook fan pages, the brand image of the Ivy League and Cloud e-journal's functionality has a positive influence on purchase intention.

H3-2: It has been established that for Area Members of the Ivy League and Cloud e-journal Facebook fan pages, brand non-functionality has a positive influence on purchase intention. The relationships between the variables are noted in Table 2:

	Standardized regression coefficient	Significant
Intention to use ---->Brand	.41	***
Brand ----> purchase intention	.57	***
To use intent ----> purchase intention	.11	Not significant

Table 2: The relationships between the research variables

6 Conclusions and Suggestions

6.1 Gratification and Purchase Intention

The results demonstrated that the Ivy League and Cloud e-journal Facebook fan page users, regardless of motive, directly and positively impact purchase intention. However, although on the surface the uses and gratification theory's six actuators have no direct impact on purchase intention, by improving the brand image the intent to purchase becomes significant. With more intense motivation, there is an increased probability to enhance the brand image; thus, there is an increased impact on purchase intention. Due to this increased impact, the six dimensions of the uses and gratification theory represent the fan page operation in the present study. Based on the six dimensions, this development allows the user to implement features and functions to meet users' needs and expectations, in order to improve users' intention to purchase the product.

6.2 Intention to Use and Brand Image

This also demonstrates that consumers will come through community activities. As the brand image area is divided into "functional" and "non-functional," the results show that fan page members are forward and do interact, and through this interaction can allow consumers to produce or strengthen the brand community identity, which results in a unique brand meaning and image in the minds of consumers. [Richardson, 94] pointed out that the brand image is the quality of goods; consumers have commented externally that one of the main clues is that the better the product's brand image, the more easily consumers can infer its quality. If the results match, the higher the users' intention to use the fan page, and the more positive brand image for the Ivy League and Cloud e-journal. In other words, although the entertainment commodity involves product categories and consumer products, the benefits of a business' Facebook fan page are similar; through the use of fan pages, a more positive image of companies and their products can be displayed. If the enterprise wishes to mention the high number of fan page members, this is motivation to use the product's brand image to have a positive influence.

6.3 Brand Image and Purchase Intention

In this study, the Ivy League and Cloud e-journal fan page, brand image, and the user's purchase intention survey shows that all of these entities have a positive impact; when members improve the virtual English classroom brand, the more it can influence members to purchase or order the Ivy League and Cloud e-journal goods. Many scholars have also noted that customer behavior, for example network teaching quality and customer behavioral intentions, does positively affect, and, therefore, is committed to the enhancement of the brand image. Business organizations planning marketing strategies cannot ignore whether the general trade of consumer goods, industrial technology goods, and the development of rapid and diverse digital network learning products are even slightly key to projects' development.

6.4   The Impact of Cloud Services on Purchase Intention

The hypothesis H4 focus on H4: Regarding cloud services' characteristics of the interference effect on the Ivy League and Cloud e-journal Facebook fan page area members' purchase intention.

> H4-1: Regarding the high elasticity of the Ivy League and Cloud e-journal Facebook fan page Member Area, the Ivy League and Cloud e-journal does not support the relationship between purchase intention and the interference effect.

> H4-2: Regarding computational service, the Ivy League and Cloud e-journal Facebook fan page member area did not establish a relationship between purchase intention and the interference effect.

> H4-3: Regarding on-demand self-service, the Ivy League and Cloud e-journal Facebook fan page member area does not support a relationship between purchase intention and the interference effect.

> H4-4: Regarding Internet ubiquity, the Ivy League and Cloud e-journal Facebook fan page member area did not establish a relationship between purchase intention and the interference effect.

> H4-5: Regarding data exchange integrity, the Ivy League and Cloud e-journal Facebook fan page member area did not establish a relationship between purchase intention and the interference effect.

In this study, cloud-based services demonstrated a non-interference effect on the Ivy League and Cloud e-journal Facebook fan page users. This is primarily attributed to the majority of people for which the term "cloud services" is still not popular or familiar. Students very unfamiliar with cloud services therefore accept cloud services, as this questionnaire surveys, compared with those who expressed non-specific feelings on the subject. A virtual English classroom, with a unit of learning products such as magazines with audiobooks, is provided monthly, and unit prices are not typically more than NT$200. Compared to the general market of individual English education materials, these learning products are relatively, inexpensively priced; therefore, there will be a lessened consumer price sensitivity toward commodities. The scholar's price is not a high commodity, minus the requirements for the demands of sub-denominated. Users surveyed also contributed that they were not concerned with the learning content's degree of customization.

References

[Biel, 92] Biel, A.: How brand image drives brand equity, Journal of advertising research, 1992, 32(11), 6-12.

[Blogger Ads, 11] Blogger Ads: 2, May 2011, http://bloggerAds.net/AdsPortal/BlogTell/32

[Business Next, 15] Business Next: 13, November, 2015, http://www.bnext.com.tw/article/view/id/31260

[Christine, 10] Christine R., Kirsti A. M. and Y. P.: Learning 2.0 - The Impact of Social Media on Learning in Europe, JRC Technical Notes, 2010, 1-13.

[December, 96] December John: Units of Analysis for Internet Communication. Communication, 1996, 46(1), 14-37.

[Dholakia, 10] Dholakia, U. M., and Emily D.: How effective is Facebook marketing? Harvard business review, 2010, 88(3), 26.

[Ducoffe, 95] Ducoffe, H.: How consumers assess the value of advertising, Journal of current issues and research in advertising, 1995, 17(1), 1-18.

[Heskett, 94] Heskett, J. L., Jones, T. O., Loveman, G.W., Sasser Jr. W.E. and Schlesinger, L.A.: Putting the Service-Profit Chain to Work. Harvard Business Review, 1994, March-April, 164-74.

[Jan, 15] Jan H.: Mobile Learning and Social Media in Adult Learning- Literature review prepared for the ET Working Group on Adult Learning. European Commission, 2015, 1-13.

[Jesse, 15] Jesse M.: 17 Stats You Should Know About Visual Content Marketing in 2015. HubSpot Blogs: 22, Jan 2015, http://blog.hubspot.com/marketing/visual-content-marketing-strategy

[Joachim, 15] Joachim H.: Learning in the Learning Organization. Journal of Universal Computer Science, 2015, 7(6), 472-487.

[Katz, 74] Katz, E., Blumler, J. and Gurevitch, M.: Utilization of mass communication by the individual: An overview, In J. G. Blumler & E. Katz (eds.), The uses of mass communication: current perspective on gratification research. Beverly Hills, CA: Sage, 1774.

[Keller, 93] Keller, L. and David, A.: The effect of sequential introduction of brand extension, Journal of marketing research,1993, 29(2), 35-50.

[Kuehn, 94] Kuehn, Scott A.: Computer-Mediated Communication in Instructional Settings: A Research Agenda. Communication Education, 1994, 43, April, 171-183.

[Liebermann, 96] Liebermann, Y. and Flint-Goor, A.: Message Strategy by Product-Class Type: A Matching Model. International Journal of Research in Marketing, 1996, 13(2), 237-249.

[Maria, 15] Maria del P. P.P., Moises R. G., Miguel S. S., Juan R. P. P.: The Procrastination Related Indicators in e-Learning Platforms. Journal of Universal Computer Science, 2015, 21(1), 7-22.

[Nauman, 09] Nauman, Saeed, Yun, Yang and Suku, Sinnappan, Educational Technology and Society, 2009, 12(4), 98-109.

[Newhagen, 96] Newhagen, J. E. and Rafaeli, H.: Why Communication Researchers Should Study the Internet: A Dialogue. Communication, 1996, 46(1), 4-13.

[Palmgreen, 85] Palmgreen, P., Wenner, L., and Rosengren, K.: Uses and gratifications research: The past ten years. In K. E. Rosengren, L. A. Wenner, & P. Palmgreen (Eds), Media gratifications research: Current perspectives. Beverly Hills, CA: Sage, 1985.

[Park, 86] Park, C. W., Jaworski, B. J., and Maclnnis, D. J.: Strategic brand concept-image management. Journal of Marketing, 1986, 50, 135-145.

[Paul, 10] Paul Pocatilu, Felician Alecu and Marius Vetrict: Measuring the Efficiency of Cloud Computing for E-learning Systems. WSEAS Transaction on Computer, 2010, 9 (1), 42-51.

[Perry, 08] Perry, G.: How cloud & utility computing are different. GigaSpace Technologies, 28, Feb. 2008, https://gigaom.com/2008/02/28/how-cloud-utility-computing-are-different/

[Rau, 08] Rau, P. P. L., Gao, Q. and Ding, Y.: Relationship between the level of intimacy and lurking in online social network services. Computers in human behavior, 2008, 24(6), 2757–2770.

[Richardson, 96a] Richardson, P., Jain, A.K. and Dick, A.: The influence of store aesthetics on evaluation of private label brands. Journal of Product and Brand Management, 1996a, 5 (1), 19-28.

[Richardson, 96] Richardson, P., Jain, A.K. and Dick, A.: Household store brand proneness: A framework. Journal of Retailing, 1996b, 72 (2), 159-185.

[Riley, 00] Riley, F. and Chernatony, L.: The Service Brand as Relationships Builder. British Journal of Management, 2000, 11(2), 137-150.

[Sirohi, 98] Sirohi, N., Mc Laughlin, E. W. and Wittink, D. R.: A Model of Consumer Perceptions and Store Loyalty Intentions for a Supermarket Retailer. Journal of Retailing, 1998, 74(2), 223-245.

[Smith, 02] Smith, S. and Wheeler, J.: Managing the customer experience: Turning customers into advocates. Prentice Hall: London, 2002.

[Yoo, 96] Yoo H.: The Gratifications of the Internet: A pilot Study, 1996, http://www.tc.msy.edu/tc960/yoofinal.html