

VOLUME 1
ISSUE 1
YEAR 2013

Expert Journal of Marketing

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Aims and Scope

Expert Journal of Marketing is committed to publishing a broad range of online marketing scholarly and managerially relevant articles that bridge the gap between theory and practice. This journal provides a venue for high quality articles dealing with marketing in its various forms. Authors are encouraged to submit contributions that enrich and highlight innovative thinking in marketing with applicability in terms of marketing research, theory, process, strategies, and tactics.

The online marketing journal is designed to bridge the gap between theory and application of marketing for a diverse readership that includes academics, students, researchers, marketing consultants, marketing directors, and business strategists.

Expert Journal of Marketing is a peer-reviewed, open source journal dedicated to advancing marketing practice, research, and theory, by publishing original papers, review papers, field research, technical reports, case studies and analyses, new creative concepts, industry reports and reviews, book reviews, commentaries, and challenging and innovative concepts in marketing.

Manuscripts should exhibit relevancy, value, originality, argumentation, reasoning, and analysis. Submitted articles should not have been previously published or be currently under consideration for publication elsewhere. *Expert Journal of Marketing* uses a two-stage review process and is published quarterly by Sprint Investify.

The following topic areas, although not exhaustive, are representative of the coverage in this Journal: Consumer Behavior, Marketing Research, Sales and Advertising, Marketing Management, Interactive Marketing, Customer Relationship Management, Services Marketing, Marketing Planning, Nonprofit Marketing, Public Marketing, Relationship Marketing, International Marketing, Business-to-Business Marketing, Digital and Online Marketing.

Publisher

Expert Journal of Marketing is published quarterly by Sprint Investify.

Expert Journal of Marketing is published online at <http://marketing.expertjournals.com>. Visit the journal's homepage for details of the aims and scope, instructions to authors, submission process and Editor contact details. Use the website to search online tables of contents, read articles and submit your papers.

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Editor's Introduction of a New Marketing Journal: Expert Journal of Marketing

Simona VINERAN*

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1. Introduction

As the Editor-in-Chief for *Expert Journal of Marketing*, it is a great pleasure to provide this first editorial for the first issue of this new marketing journal. We started this journal because we believe that research plays a vital role in the marketing discipline and it broadens our understanding of this field of study.

The increase of research activities is producing an ever increasing stream of marketing articles, books, reports, and working papers each year. Today, the Internet allows us to get in contact marketing articles in an international forum, to be read and expanded by colleagues and to contribute to our general knowledge of marketing. The basic purpose of *Expert Journal of Marketing* is to promote marketing articles and research in order to improve the general understanding of its underlying and related concepts.

Marketing is an ever-changing, interdisciplinary field. In order to examine phenomena, problems or solutions, marketing uses concepts and theories from different fields such as economics, psychology, statistics, management and many more. Consequently, there is a broad range of marketing subjects that can be studied, coined and expanded in many areas of marketing, such as: online marketing, profit or non-profit marketing, online or offline consumer behavior, product decisions, pricing, marketing communications, marketing channels, strategic market planning, industrial marketing, international marketing, etc.

The objective of this editorial is to outline the strategy for *Expert Journal of Marketing* and how it will be implemented.

2. Objectives

The purpose of this journal is to further establish a stream of literature that deals with the new marketing dynamics emerging in online and offline environments. Nowadays, there are many aspects that encourage the publication of insightful and valuable articles meant to push the limits of a particular field. In the case of *Expert Journal of Marketing*, these include the openness of the journal to new ideas in marketing, the broad range of article types the journal is willing to publish, the mechanics of the peer-review process, and the open-access to the journal.

The most essential factor for establishing and ensuring high quality of an academic journal is the expertise of its reviewers. Although this is the first issue of *Expert Journal of Marketing*, we managed to gather a team of expert reviews who offer guidance for our marketing articles on a voluntary and regular basis. Through their efforts, this journal aims to provide submitting authors with timely and constructive reviews of their submitted articles.

Expert Journal of Marketing's objectives involve a number of initiatives, such as:

- openness to innovative research from all over the world,

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Article History:

Available Online 17 October 2013

Cite Reference:

Vinerean, S., 2013. Editor's Introduction of a New Marketing Journal: Expert Journal of Marketing. *Expert Journal of Marketing*, 1(1), pp.1-3

- openness to different disciplinary approaches (behavioural, economic, statistical, quantitative, etc.)
- efficient online peer review process,
- fast and efficient of editorial decisions,
- development of citations and increasing the journal's impact,
- adequate revisions of the submitted articles,
- fast time to provide an answer to authors,
- quick dissemination of findings to a wide audience,
- promotion of accepted articles among various social media outlets,
- broaden the audience of authors and readership.

3. Content

The editorial policy of *Expert Journal of Marketing* is very broad, with very few constraints on the topics of articles. There are certain questions that should be reflected in accepted and published articles:

- How do consumers and customers behave in the ever-changing online and offline environments?
- How do markets evolve considering all their influencing factors?
- How can marketing contribute in increasing competition between companies in a market?
- How can marketing contribute to organizational performance?
- How can green marketing contribute to societal welfare?

I believe that these questions will continue to be relevant in the years ahead, with online and offline repercussions. Thus, *Expert Journal of Marketing* must attract and publish the valuable articles from the entire spectrum of marketing. Finally, it must value interdisciplinary work and the use of multiple research methods.

More specifically, we want to encourage submission of six new types of contributions, as follows:

- (1) Empirical papers that, with the use of quantitative methods, produce important general substantive findings (but without any specific contribution to modelling methods). The objective for these papers is to publish the empirical discoveries fast, so that other theoretical underpinnings may follow in future dissemination of authors' work;
- (2) Conceptual and theoretical papers should present the premises of different marketing concepts, by providing their definition from an academic perspective and meaning in a certain business context;
- (3) Industry reports should provide scholarly reports of events occurring in either fundamental disciplines or industry that might have important marketing implications. These reports can refer to initiatives taken by major companies or governments and are meant to offer new ideas for future relevant research;
- (4) Case studies are highly encouraged and should reflect descriptive, exploratory or explanatory analysis of a manager, company, event or industry, while emphasizing certain learning objectives;
- (5) Teaching notes will be published in relation to case studies or as theoretical developments for lectures;
- (6) Book reviews should reflect analyses based on content of marketing books, by providing subjective opinions and recommendations.

4. Emerging Topics

The marketing community is diverse in its approach to marketing questions. However, as a reader or author, academic or practitioner, all want to know more about marketing phenomena. *Expert Journal of Marketing* wishes to play an important role in identifying and promoting new topics in all marketing areas, by attracting high-quality manuscripts on important marketing topics.

What should marketers study as top concerns? Marketing Science Institute proposed seven marketing research priorities for 2012-2014 regarding: consumer insights; rethinking the journey to purchase and beyond; designing consumer experiences instead of products; mobile marketing; big data; marketing organizations and capabilities. These topics do not form an exhaustive list of articles that are appropriate for *Expert Journal of Marketing*, however they can provide a starting point of more marketing research to come.

5. Call for More Submissions

The journal welcomes contributions from around the world that adopt innovative approaches as well as those that draw on standard methodologies in marketing. Papers are invited from all research traditions that aim to enhance our conceptual understanding of the new 'territories' in marketing. Please help us locate and disseminate such contributions for future issues and volumes of our *Journal*.

6. A Final Thought

Marketing literature has had considerable influence on how companies do market research, develop new products, and interact with consumers. However, researchers, marketers, published authors, scholars, students and practitioners should constantly try to discover important marketing problems and practical solutions. The research we publish should not only be read, but also used in academic and marketing practice. *Expert Journal of Marketing* wishes to publish the best work in marketing as it is carried out in different subfields of marketing, and, in this way, to contribute to the further development of the marketing discipline. On behalf of the department editors and the submitting authors, we sincerely acknowledge our reviewers' service to the journal, and gratefully appreciate their contributions to our profession.

The Impact of Customer Perceptions and Satisfaction on E-Loyalty

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As Internet use continues to increase, companies have to emphasize the understanding of the implications of its use on long term purchase behavior, in terms of satisfaction and loyalty. Ultimately, companies should be interested in consumer perceptions and the factors that play a role in following a certain behavior over an extended period of time. Attaining a successful marketing program compels companies to fully connect with their targeted customers. Therefore, this paper aims to propose a new model that examines relationships between cognitive – affective – conative constructs in an e-shopping environment.

Keywords: *online consumer behavior, perceived usefulness, perceived ease of use, perceived value, customer satisfaction, customer loyalty, structural equation model, online shopping.*

JEL Classification: *M31*

1. Introduction

Consumer perception of the online environment is critically important in influencing the success of e-commerce, in terms of engaging in such activities, feeling satisfaction in a highly impersonal environment, and fostering loyalty for companies' e-customers. There has been an impressive growth in the number of Internet users and e-tailers.

Online marketing offers unique benefits. The internet has changed how consumers engage with brands. It is transforming the economics of marketing and making obsolete many of the traditional strategies and structures. For marketers, the old way of doing business is no longer sustainable (Edelman, 2010). By now, everyone acknowledges the fact that technology is shifting toward the digital world—the Internet, computers, cell phones, and social media—with a major impact on the behavior of producers and consumers.

A 2012 report from BCG assesses that more than a billion Internet users are already using mobile devices to purchase products and services, exhibiting a profound change in decision making process. As per-store decline, all retailers will need to reconsider the role of their brick-and-mortar assets, rethink their physical locations, and re-seize them to meet changing consumer needs. This reevaluation may transform how many companies operate and can lead to massive changes in market shares, the retailer landscape, and commercial real estate (BCG, 2012; Vinerean, 2013, p.10). Under these premises, the growth and transformational potential of online shopping services is undeniable.

In general, online services can be defined as services that are produced, supplied or consumed through the use of a network technology, such as Internet-based systems and mobile solutions (Vinerean, 2013, p.10). Further, due to technological advancement, studies have to examine consumer response on

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Article History:

Received 28 September 2013 | Accepted 20 October 2013 | Available Online 28 October 2013

Cite Reference:

Vinerean, S., 2013. The Impact of Customer Perceptions and Satisfaction on E-Loyalty. *Expert Journal of Marketing*, 1(1), pp.4-16

online services and how they have the potential to affect future online consumer behavior, in terms of searching, evaluating, purchasing, consuming, and re-buying or disposing of products and services. Thus, marketers have to revolutionize consider online consumer behavior, as new questions arise regarding the buying process. For example, how do customers perceive online shopping? How do perceive usefulness and perceived value influence online satisfaction of customers? How strong is the relationship between satisfaction and loyalty in an e-setting? This paper seeks to address these questions, by focusing on constructs of loyalty and satisfaction and considering the role of perceived usefulness, perceived ease of use, and perceived value in an online context.

With this research we provide insights to the online marketing and online consumer behavior literature, in general, and to promoting a new model on developing and enhancing e-loyalty, in particular. The present research is interesting for both academics and online marketing practitioners.

This paper provides a literature review of the five concepts that will be included in this new model, and continues with a primary research. The aim of this research is to empirically investigate how to create loyalty based on a cognitive-affective-conative framework for online shopping behavior. Finally, in the last section of the paper, we provide the contributions of the research, the managerial implications, and limitations of the research.

2. Literature Review and Conceptual Framework

2.1. Perceived Usefulness

In terms of studying consumer behavior in an online environment, the technology acceptance model (TAM) (Davis et al., 1989, pp.982--1002) is highly used. TAM is adapted from the theory of reasoned action (TRA) and its main objective is to provide a better understanding of the determinants of information technology acceptance in general; however it can be adjusted to explain e-commerce acceptance, in particular. The technology acceptance model (Davis et al., 1989, pp.982--1002) originally suggested that two beliefs- perceived usefulness and perceived ease of use - are instrumental in explaining the variance in users' intentions. Perceived usefulness is defined as "the prospective user's subjective probability that using a specific application system will increase job performance (Davis et al., 1989, p. 985)." Lin (2007) definition of perceived usefulness in virtual communities as users' belief in their ability to obtain information and services, share their experiences with others, and enhance their performance in information exchange.

2.2. Perceived Ease of Use

The other important variable of TAM with impact on understanding the acceptance of e-commerce is perceived ease of use. This variable refers to "the degree to which the prospective user expects the target system to be free of effort (Davis et al., 1989, p. 985)." In other words, perceived ease of use is dictated by what the system can do and what it allows its customers to do, i.e., the capabilities embedded in the e-service technology.

2.3. Perceived Value

Holbrook (1994, p.22) proclaimed that customer value represents 'the fundamental basis for all marketing activity'. Perceived value represents the difference between the benefits a customer receives from a company and the associated costs a customer encounters. Perceived costs can include the obvious monetary sacrifice, but also nonmonetary costs such as time, energy, stress. In the case of online shopping, a successful shopping experience can be determined by the value of overall e-store performance, the value of the time spent shopping, the value of the product price and the effort involved in shopping (Sirdeshmukh et al., 2002, pp. 15--37). Also, in terms of online perceived value, Chen (2012, pp.202--210) proposed that it refers to the overall evaluation of the extrinsic cues of the target e-retailer, based on customers' perceptions of what they received and what their input to the shopping experience was (Chen, 2012, pp.202--210).

2.4. Customer Satisfaction

Previous research have exhibited the existence of two different conceptualizations of customer satisfaction, namely transaction-specific and cumulative (Anderson, 1973, pp. 38--44; Anderson, Fornell, Lehmann, 1994, pp. 53--66; Fornell, 1992, pp. 6--21). The transaction-specific customer satisfaction reflects a post-choice evaluative judgment of a specific purchase occasion (Anderson, 1973, pp. 38--44). In turn, this type of satisfaction may serve as a better predictor of customer loyalty.

In comparison, cumulative customer satisfaction represents an overall evaluation based on the overall experience with the goods and services of a particular firm over time (Oliver, 1980). Some

researchers (Parasuraman, Zeithaml, and Berry, 1988, pp. 1--40) consider overall satisfaction to be primarily a function of perceived service quality. In an online commercial setting, customer satisfaction represents the contentment of customer regarding their prior purchasing experience with a given e-commerce firm (Anderson and Srinivasan, 2003, pp. 123--138).

In this paper, satisfaction represents a consumer's affective response to an online purchase, following the cumulative conceptualization. Thus, we consider satisfaction as an affective component in the conceptual framework.

2.5. Loyalty

Loyalty represents a crucial concept in marketing that has been the subject of discussion and research over the past 50 years. In terms of an overall accepted definition, loyalty represents a repeated purchase behavior exhibited over a sustained period and driven by a favorable attitude toward the subject (Dick and Basu, 1994, pp. 99--113; Oliver, 1999, pp.33--44), including both attitudinal and behavioral aspects (Casalo, Flavian, and Guinaliu, 2008, pp. 325--345; Jacoby and Chestnut, 1978). Oliver (1999, pp.33--44) expanded this widely accepted idea and defined loyalty as 'a deeply held commitment to re-buy or re-patronize a preferred product or service consistently in the future, despite situational influences and marketing efforts having the potential to cause switching behavior.'

Due to the proliferation of Internet and its increasing impact on marketing, a new form of loyalty started to surface, namely 'e-loyalty'. Loyal customers often will, over time, bring in substantial revenues and demand less time and attention from the firms they patronize. Anderson and Srinivasan (2003, pp. 123--138) defined e-loyalty in the context of e-commerce as a customer's favorable attitude toward the e-retailer that leads to repeat buying behavior. Thus, the conceptual framework for loyalty in an online setting is similar to the traditional understanding of this variable, although certain differences arise in terms of e-consumer behavior and online marketing. Srinivasan et al (2002, pp. 41--50) identify customization, contact interactivity, cultivation, care, community, choice and character as generating e-loyalty. Chang and Chen's (2009, pp. 2927--2944) study examined e-loyalty in terms of customization, interactivity, convenience, and character.

This paper regards e-loyalty as a favorable attitude for e-commerce that instigates e-customers to repeat their online buying behavior and further recommend certain e-tailers to their peers. Therefore, e-loyalty encompasses a conative and action component, by considering the likelihood or tendency of an individual to undertake a particular course of action or behave in a particular manner (re-buying in an online setting or recommending a e-commerce site).

3. Research Hypotheses

3.1. Relationship Between Perceived Ease Of Use and Perceived Usefulness

In this model we will introduce a well-established relationship proposed by Davis in 1986 through his technology acceptance model, set in accordance with the theoretical basis. This relationship is meant to show how perceived ease of use of e-commerce can influence the usefulness consumers may perceived regarding a switch to this new shopping channel, in the context of fostering satisfaction and loyalty in an e-setting. Hence, we hypothesize:

H1: Perceived ease of use is positively associated with customers' perceived usefulness of online shopping.

3.2. Relationship Between Perceived Usefulness and Perceived Value

In an online environment, customer perceived value can be defined as the net benefits resulting from a transaction with an online vendor. Especially online, a marketer can increase customer value by offering more benefits (economic, functional or emotional), and consequently by instigating the idea of how useful Internet retailing is for them. More specifically, as a consumer acknowledges that e-shopping has the capability to be used advantageously, he will perceive more value in that specific marketing object. Therefore, this hypothesis seeks to detect a direct relationship between the two constructs:

H2: Perceived usefulness is positively associated with perceived value.

3.3. Relationships Between Perceived Usefulness and Satisfaction

Drawing from TAM, perceived usefulness captures the instrumentality of IS use, whereas perceived ease of use taps into the self-efficacy dimension. The Internet is a relatively new form of information technology. If customer perceived ease of use and perceived usefulness of shopping using the Internet does not outweigh customer losses occasioned by factors such as impersonal experiences, technical difficulties, and learning effort, then customers may simply revert their patronage back to traditional channels (Yang and Peterson, 2004, pp. 799--822). This being the case, the perceived usefulness and ease of use of Internet transactions play a pivotal role in customer satisfaction with online services.

Bhattacharjee (2001, pp. 351--370) proposed that because perceived usefulness and ease of use are the primary motivators of IS acceptance, it is plausible that they can also influence subsequent continuance decisions. Nonetheless, several studies empirically tested the relative effects of perceived usefulness and ease of use during pre-acceptance and post-acceptance stages of IS use and found that (1) usefulness has a great impact on attitude during both stages of IS use, and (2) ease of use has an inconsistent effect on attitude in the initial stages, which seems to further subside and become non-significant in later stages (Davis et al. 1989, pp.982--1002; Karahanna et al. 1999, pp. 183--213; Bhattacharjee, 2001, pp. 351--370). Therefore, we propose the following hypothesis:

H3: Perceived usefulness is positively associated with consumer satisfaction in an online shopping setting.

3.4. Relationship Between Perceived Value and Satisfaction

Woodruff (1997, pp.139--153) argues that perceived value is customer cognition of the nature of relational exchanges with suppliers, and satisfaction reflects customers' overall feeling derived from perceived value. As mentioned earlier, we view perceived value as a cognitive component a customers in an e-setting and satisfaction as an affective construct. Therefore, based on Fishbein and Ajzen's (1975) behavioral model, cognition is significantly influenced by affect. Although there are various studies that examine and empirically test this relationship in a traditional setting (Anderson and Mittal, 2000, pp. 107--120), the online environment does not overemphasize this connection only with attitude as a mediator. Thus, it is proposed that:

H4: Perceived value will have a positive influence on online customer satisfaction.

3.5. Relationship Between Satisfaction and Loyalty

Traditionally, satisfaction has been a main determinant of loyalty (Dick and Basu, 1994, pp. 99--113), and similarly online satisfaction can influence e-loyalty. Various studies (Anderson and Srinivasan, 2003, pp. 123--138; Chang and Chen, 2009, pp. 2927--2944) investigated the impact of customer satisfaction on customer loyalty in the context of e-commerce. Loyal customers are not necessarily satisfied customers, but satisfied customers tend to be loyal customers (Fornell, 1992, pp. 6--21). Therefore, e-satisfaction needs to be an important objective of online companies in order to develop e-loyalty. Thus, we hypothesize:

H5: Customer satisfaction is positively associated with e-loyalty.

The research model in Fig. 1 shows the hypotheses proposed for this new model.

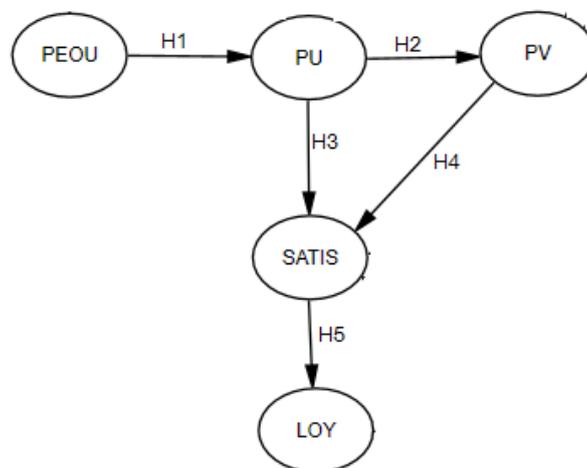


Figure 1. Research proposed model

Note: PEOU = perceived ease of use, PU = perceived usefulness, PV = perceived value, SATIS = online customer satisfaction, LOY = online customer loyalty

4. Research Methodology

4.1. Research Context

The research setting for this paper refers to e-purchasing services, due to their increasing popularity among consumers. An online shopping context was selected because shopping is an information-intensive activity that implies using e-services. Through this research we will propose a new model that will include cognitive – affective – conative constructs in an e-shopping environment.

The investigated and proposed model is based on a quantitative marketing research from primary sources. One of the most important contributions of a marketing research is to define the marketing research problem that requires the provision of marketing solutions (Malhotra and Birks, 2007, p.15). The problem definition for this conducted research is in regard to the developing and enhancing online customer loyalty in relation to online shopping services.

4.2. Measurement and Research Instrument

Five constructs were measured to form this new model. Constructs were measured using multiple-item scales, drawn from pre-validated measured in marketing research and reworded to reflect the context of online shopping. All these dimensions have been previously studied, providing a large pool of existing valid items to use. The participants indicated their agreement with a set of statements using five-point Likert scales (ranging from “strongly disagree” to “strongly agree”) drawn from previously validated instruments, as shown in Table 1.

Perceived value items were adapted from Sirdeshmukh et al. (2002) with a three-item scale. The scales for perceived usefulness and perceived ease of use were previously used in existing studies on the technology acceptance model (Venkatesh and Davis (2000, pp.186--204); Davis et al., 1989, pp.982--1002). Satisfaction was measured using scale items adapted from Bhattacharjee (2001, pp. 351--370), Zeithaml et al. (2002, pp. 362--375). This scale captured respondents’ satisfaction levels along five-point scales anchored between three semantic differential adjective pairs: dreadful / delighted, very dissatisfied / very satisfied, frustrated / contented. Loyalty was measured through five items adapted from Dick and Basu (1994, pp. 99--113), Too et al. (2001, pp. 287--319), and Shankar et al. (2002, pp. 317--330). The psychometric properties of the measures are provided in Table 1.

Table 1. Constructs used in the model

<i>Dimension</i>	<i>Dimension abbreviation</i>	<i>Measure items</i>	<i>Research</i>
Perceived value	PV	PV1: Considering the money I pay for buying products from e-stores, Internet shopping is a good deal. PV2: Considering the effort I make in shopping online, I consider buying products from e-stores to be worthwhile. PV3: For the risk involved in online shopping, I would say internet shopping is of value.	Sirdeshmukh et al. (2002)
Perceived usefulness	PU	PU1: I think that online shopping is very useful to my life in general PU2: I think that online shopping is helpful to improve my performance on the internet. PU3: I think that online shopping is helpful to enhance effectiveness of my life.	Davis et al. (1989)
Perceived ease of use	PEOU	PEOU1: I find online shopping clear and understandable PEOU2: I find that online shopping does not require a lot of mental effort PEOU3: I find online shopping easy to use	Venkatesh and Davis (2000); Davis et al. (1989);
Satisfaction	SATIS	SATIS1: My overall satisfaction (e.g. e-store environment, product, service) to online shopping is: Dreadful ----- Delighted (5points) SATIS2: When I consider my experience of online purchasing I am: Very dissatisfied -----Very satisfied (5points)	Bhattacharjee (2001); Zeithaml et al.(2002);

Loyalty	LOY	<p>LOYB1: For me, online shopping is the best alternative in my consideration.</p> <p>LOYB2: I buy online on a regular basis.</p> <p>LOYB3: The internet stimulates me to buy repeatedly.</p> <p>LOYA1: I would recommend online shopping on social media websites (blogs, Facebook, Twitter, and others)</p> <p>LOYA2: I am proud to tell my family and friends that I buy products online and from my usual e-store.</p>	Dick and Basu, (1994) ; Too et al. (2001); Shankar et al., (2002);
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4.3. Sample and Data Collection

In light of the marketing research problem, this research investigates consumers who display online satisfaction and most importantly e-loyalty in an Internet retailing setting. The primary scope of this study is to understand online shopping behavior of consumers who accept this type of e-commerce. A web-based consumer survey was used for the data collection. From January to June 2013, an online survey was posted on various forums devoted to online shopping, and members we invited to support this survey. The study used primary data, namely data originated specifically to address the research problem.

The online survey generated 107 usable questionnaires. Table 2 presents the profile of the respondents, as well as the screening questions which show high levels of experience regarding the use of internet in general, and online shopping in particular.

Table 2. Respondents' profile

		Frequency	Percentage (%)
Sex	Male	38	35.5
	Female	69	64.5
	Total	107	100.0
Country	Australia	7	6.5
	Brazil	2	1.9
	Denmark	3	2.8
	France	3	2.8
	Germany	7	6.5
	Greece	1	.9
	India	5	4.7
	Poland	1	.9
	Romania	21	19.6
	Spain	7	6.5
	UK	14	13.1
	USA	36	33.6
	Total	107	100.0
Age	18-25	74	69.2
	26-30	21	19.6
	30-40	6	5.6
	Over 40s	6	5.6
	Total	107	100.0
Experience with Internet	2 - 3 years	5	4.7
	3 - 4 years	1	.9
	4 - 5 years	4	3.7
	5 - 6 years	11	10.3
	Over 6 years	86	80.4
	Total	107	100.0
Experience with online shopping	I usually just search for information on e-commerce sites, but I never bought anything	2	1.9
	I purchased just once from an web retailer	11	10.3
	I purchased more than once from web retailers	94	87.9
	Total	107	100.0
Frequency of online	Once	16	15.0

shopping in the last year	2 or 3 times	17	15.9
	4 or 5 times	31	29.0
	6 or 7 times	16	15.0
	7 or 8 times	8	7.5
	More than 8 times	19	17.8
	Total	107	100.0

5. Empirical Analysis and Results

5.1. Exploratory Factor Analysis

The empirical analysis for this paper started with exploratory factor analysis (EFA), which was used to reduce the number of scales assigned to each elaborated online behavior dimension. EFA was conducted in SPSS, using the Principal Components method, in order to extract the factors. Varimax was used as the rotation method for the analysis; however the rotation only applies when more than one factor is extracted for each dimension and this was not the case for this paper. As a clustering criterion, the Schwartz's Bayesian Criterion (BIC) was used.

Additionally, we used the Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO) in order to examine the appropriateness of factor analysis. High values (between 0.5 and 1.0) indicate that the factor is relevant. The psychometric properties of the measures developed in the questionnaire are presented in Table 2, and the results for the exploratory factor analysis are shown in Table 3.

The scales were checked for internal consistency and reliability through Cronbach's alpha. This step validates the scales for EFA and future analysis. Reliability is identified by Cronbach's alpha with a minimum of 0.70 (Cronbach, 1970). As shown in Table 3 all values were above the recommended level of 0.7, with values that vary from 0.737 to 0.802.

Table 3. Descriptive Statistics and EFA Results

Dimension	Items	Average	Standard deviation	Factor loading	Eigenvalue	% of Variance	KMO	Cronbach's alpha
Perceived value (PV)	PV1	3.91	1.051	0.881	1.970	78.666	0.660	0.737
	PV2	3.82	1.071	0.879				
	PV3	3.34	0.879	0.749				
Perceived usefulness (PU)	PU1	3,87	0,982	0,864	2,151	71,683	0,704	0,802
	PU2	3,21	1,026	0,817				
	PU3	3,50	1,004	0,858				
Perceived ease of use (PEOU)	PEOU1	3,84	0,859	0,773	1,840	71,343	0,750	0,774
	PEOU2	3,55	1,135	0,747				
	PEOU3	4,01	0,837	0,828				
Satisfaction (SATIS)	SATIS1	3.97	0.444	0.832	2.680	89.302	0.794	0.814
	SATIS2	3.98	0.713	0.910				
	SATIS3	3.97	0.806	0.887				
Loyalty (LOY)	LOYA1	3.36	1.261	0.878	3.230	74.601	0.711	0.743
	LOY2	3.45	1.215	0.889				
	LOY3	3.71	1.037	0.763				
	LOY4	3.65	1.029	0.846				
	LOY5	3.21	1.227	0.890				

For this newly proposed model, one factor was extracted for all the dimensions studied. The criteria used to identify and interpret the factors was that each element should have a factor loading greater than 0.7 and Eigenvalues greater than 1 (Field, 2005, p.389-395). Also, the eligibility of the factors can also be observed in terms of the variance explained by each resulted factor, as the variation exceeds 70%. The validity of the factors can also be noticed in terms of the Kaiser-Meyer-Olkin test with values greater than 0.5, in a range from 0.660 to 0.794.

5.2. Confirmatory Factor Analysis

The collected data were tested for reliability and validity using confirmatory factor analysis (CFA). The model included 12 items that described five latent constructs: perceived value, customer satisfaction, perceived usefulness, perceived ease of use, and customer loyalty.

The CFA implies that all five dimensions covary with each other, as each dimension consists of its observed scale items. We used the maximum likelihood estimate and the modification indices technique in AMOS; that exhibited a small number of covariances of the residues for loyalty and perceived ease of use, which were taken into consideration in order to improve the model. The CFA model generated in order to explain loyalty, a conative construct, in terms of affective (customer satisfaction) and cognitive elements (perceived value, perceived usefulness, perceived ease of use) met Hu and Bentler’s (1999, pp.1--55) recommended values in order to demonstrate a satisfactory fit: $\chi^2 = 309.616$, $df=63$, $p=0.001$, $\chi^2 /df = 3.915$, $GFI = 0.921$, $NFI = 0.912$, $RFI = 0.909$, $CFI = 0.916$, $RMSEA = 0.081$, $AGFI = 0.843$.

In order to measure the reliability of the CFA, the constructs of the research model were evaluated in terms of convergent validity, and discriminant validity of the theoretical constructs of this research in order to rate the evaluation model (Vinerean, 2013, p.13).

Reliability was examined in terms of the composite reliability values (CR) (Vinerean, 2013, p.38). The reliability requirement is met if all values pass an acceptable level of 0.6 (Bagozzi et al., 1991, pp. 421--458) or 0.7 (Gefen et al., 2000, pp.1--77). Most of the values met both acceptable levels, however, the CR value of 0.693 for perceived ease of use met only the level proposed by Bagozzi et al. (1991, pp. 421--458), although the value was close to Gefen et al.’s level. The other values range from 0.783 to 0.865 (Table 4).

Convergent validity represents the extent to which a measure is correlated with other constructs in a single variable measurement. Convergent validity was assessed for the measuring scales by using two criteria suggested by Fornell and Larcker (1981): (1) the loading factors of the confirmatory model should be significant and greater than 0.7; (2) the average variance extracted (AVE) for each variable should exceed the variance due to the measurement error of the constructs (namely, it should surpass a minimum level of 0.5) (Vinerean, 2013, p.38). In terms of the first condition, the loadings of one component (PEOU2) did not subscribe to the 0.7 threshold and it was removed from further analysis, namely structural equation model. The second condition was achieved for all of the model’s variables observed in Table 4 with values between 0.535 and 0.694, proving the convergence validity of the CFA.

Discriminant validity assesses the extent to which a concept and its indicators differ from another concept and its related indicators (Bagozzi et al., 1991, pp. 421--458). Discriminant validity was evaluated by using the criteria recommended by Fornell and Larcker (1981, pp. 39--50), namely that the square root of the average variance extracted should exceed the correlation shared by a particular latent variable model and the other constructs of the model. In addition, in order to ensure discriminant validity, Hair et al. (1998) suggested that the correlation coefficients between the constructs should be less than 0.9 in order to display discriminant validity and be considered acceptable in a particular CFA (Vinerean, 2013, p.38). Table 4 presents the correlations between the constructs and the square root of AVE is displayed on the diagonal of the table. These research variables have discriminate validity.

Table 4. Confirmatory factor analysis results

Latent constructs	CR	AVE	Correlations between factors				
			LOY	PU	PV	SATIS	PEOU
LOY	0.865	0.562	0.750				
PU	0.783	0.564	0.610	0.751			
PV	0.819	0.694	0.132	0.512	0.833		
SATIS	0.807	0.676	0.743	0.599	0.535	0.822	
PEOU	0.693	0.535	0.505	0.729	0.629	0.718	0.731

Note: CR= Composite Reliability values, AVE = Average Variance Extracted; The diagonal values (in bold) are the square root of AVE ($AVE = \sum L_i^2 / (\sum L_i^2 + \sum Var (E_i))$)

The confirmatory factor analysis for the study of model that consists of cognitive – affective – conation constructs that explain online shopping behavior has been established as acceptable and valid; therefore, we can proceed to study and model the structural equations.

5.3. Structural Equation Model

Structural equation modeling estimates the unknown coefficients in a set of linear structural equations, as it assumes there is causal structure among a set of latent variables, and that the observed variables are indicators of the latent variables (Vinerean et al., 2013, p.84). A structural equation model represents a series of hypotheses about how variables in the analysis are generated and related (Hu and Bentler, 1999, pp.1--55).

This newly proposed model was tested for examining the hypothesized relationships regarding cognitive –affective – conative constructs in an e-shopping environment. Comparison of all fit indices, with their corresponding recommended values, indicated a good model fit as can be observed in Table 5.

Table 5. Model accuracy measurement

Measurement	Measurement model result	Recommended values
χ^2	24.954 (p=0.00, 7df)	$p \leq 0.05$
χ^2 / df	3.564	≤ 5
AGFI	0.885	≥ 0.80
GFI	0.954	≥ 0.90
NFI	0.934	≥ 0.90
RFI	0.890	≥ 0.90
CFI	0.48	≥ 0.90
RMSEA	0.096	≤ 0.10

Note: χ^2 = Chi-square, χ^2 / df = ratio of Chi-square and degrees of freedom, AGFI = Adjusted Goodness of Fit Index, GFI = Goodness of fit index, NFI = Normed fit index, RFI = Relative fit index, CFI = Comparative fit index, RMSEA = Root mean square error of approximation.

Table 6 reflects information regarding the unstandardized and standardized coefficients estimates, statistical significance, and standard error of each relationship. It also shows the paths to the proposed hypotheses. Figure 2 depicts the standardized coefficient estimates.

Table 6. Summary of the hypotheses testing

Hypotheses	Significance	Unstandardized Regression Weights	Standardized Regression Weights	Standard Error	Hypothesis Result
H1.PEOU→PU	***	0.789	0.759	0.103	Confirmed
H2.PU→PV	***	0.686	0.725	0.076	Confirmed
H3.PU→SATIS	**	0.392	0.404	0.139	Confirmed
H4.PV→SATIS	*	0.403	0.394	0.153	Confirmed
H5.SATIS→LOY	***	0.718	0.730	0.072	Confirmed

*** Significant at a 0.001 level (Two-tailed), ** Significant at a 0.005 level (Two-tailed),

* Significant at a 0.010 level (Two-tailed)

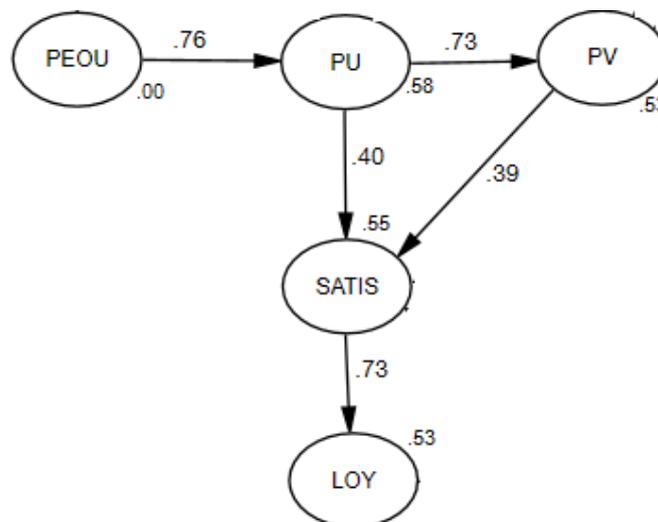


Figure 2. The standardized results of the research model

Note: PEOU = perceived ease of use, PU = perceived usefulness, PV = perceived value, SATIS = online customer satisfaction, LOY = online customer loyalty

The first relationship studied in this model refers to the well-known connection between perceived ease of use and perceived usefulness. The PU - PEOU relationship is represented by a beta coefficient with a value of 0.76, at a 0.001 significance level, denoting the importance of emphasizing in online marketing outlets the accessibility of online purchases, so that consumers can perceive these services as having a high utility for them, and then move on to the use or reuse electronic commerce and e-services constantly and long-term, with positive repercussions for web retailers (Vinerean, 2013, p.47).

Perceived usefulness is positively associated with perceived value, rendering support for H2. Therefore, this relationship has been established to be significant and with a great influence on customers' online perceived value ($\beta = 0.725$) in relation to electronic purchases. Moreover, it displays a variance of 53% in perceived value.

In this newly proposed model, online satisfaction is determined by perceived usefulness and perceived value of e-shopping. In accordance with hypothesis 3, the relationship between perceived usefulness and online satisfaction was supported and reflects a moderate score ($\beta = 0.404$). Hypothesis 4 is also significant in the model, as perceived value impacts e-satisfaction with a beta coefficient of 0.394. PU and PV jointly explain 55% of the variance in online customer satisfaction.

Lastly, in the final stages of the model, H5 examined the extent to which satisfaction represents a determinant of e-loyalty. Thus, there is a strong relationship between customer satisfaction and loyalty to buy or recommend online shopping services, and this relationship has an appointed score of 0.73 with significant statistical perspective in the proposed model, , while explaining 53% of the variance in online customer loyalty. In summary, all of the model's hypotheses are confirmed and accepted.

6. Discussion and Conclusion

6.1. Theoretical Contributions

This paper empirically tests the interrelationships among cognitive, affective and conative constructs in an Internet retailing setting. As cognitive constructs we used perceived value, perceived usefulness and perceived ease of use. We used a well-known relationship extracted from technology acceptance model in order to exhibit how consumers' perceived ease of use of Internet retailing has an impact on their perceived usefulness. More specifically, we tested how e-customers perceive that their adoption of online shopping can enhance their overall experience and activities, in relation to fostering e-satisfaction that could further lead to e-loyalty. Perceived value is another cognitive dimension that was studied in relation to its affective counterpart. In other words, in this model perceived value is customer cognition of the nature of relational exchanges with suppliers, and satisfaction reflects customers' overall feeling derived from perceived value (Woodruff, 1997, pp.139–153). Particularly online, service intangibility may take new forms and customer perception, both in terms of value, ease of use and usefulness, should be determined in an appropriate manner and with targeted online efforts as they represent direct and indirect influencers of consumer satisfaction.

The affective construct of customer satisfaction is considered an antecedent of loyalty. This relationship is supported by multiple studies, including this one, as increased satisfaction tends to lead to increased e-loyalty. Loyal customers are not necessarily satisfied customers, but satisfied customers tend to be loyal customers (Fornell, 1992, pp. 6--21). Satisfying customers should thus be of extreme importance to web retailers in their efforts to keep customers loyal. Therefore, loyalty should represent the ultimate objective of commitment to re-patronize or re-purchase a preferred product and recommend it to peers.

6.2. Managerial Implications

The research has important contributions and input for online service providers whose business models and revenue stream depend on online consumer behavior. Companies wishing to compete in an electronic marketplace need to understand what type of clients they are addressing and develop their online marketing strategy in line with their findings, to capture new electronic customers and to retain the existing ones, by emphasizing loyalty.

In an e-commerce context, building e-loyalty is a difficult challenge that may require consideration by online companies that wish to differentiate themselves from competitors. Nowadays, online companies are focusing on launching e-loyalty programs in which customers obtain substantial benefits by doing most of their online shopping through a single website. This study suggests that in order to achieve this objective of conative perspective, online companies should consider focusing on customer satisfaction first, in order to lock in the affective perspective. Cognitive constructs such as perceived value, perceived usefulness and perceived ease of use should play a major role in marketing strategies. In the beginning of the transaction

stage, customers search for information about e-service offerings, but most importantly they want to be assured about the benefits of pursuing such an e-commerce channel and how it can enhance their productivity.

These assessing activities are comparable with other online companies' websites. If a website that is logical and convenient to use facilitates fast completion of a transaction, it is likely that customers will come back, particularly for those goal-oriented shoppers who are busy and more interested in ease of access and information about products and customer service (Souitaris and Balabanis, 2007, pp. 244--261). Moreover, loyalty is extremely important because it provides information on future customer behavior, and the likelihood of future use or recommendation of the company or brand to other customers (Reichheld, 2003, pp. 46--54).

6.3. Limitations and Future Directions

The limitations of the study include the ones commonly associated with surveys. Pinsonneault and Kraemer (1993, pp.75--105) have identified several weaknesses in survey-based studies, such as: unsystematic and inadequate sampling procedures, low response rates, weak linkages between units of analysis and respondents, and over-reliance on cross-sectional surveys where longitudinal surveys are really needed. While the representativeness of the sample can always be improved, for this research special efforts were made to have high response rates and for the sample to be reflective of the target population. Further, as with other Internet-based studies, the sample was skewed toward younger, more educated demographics. Nonetheless, such consumers are the main target audience for online marketers.

Considering the fact that this analysis was conducted at an international level, the sample size was modest. Even though, the results were consistent with the proposed hypotheses, a larger sample size might have resulted in stronger results for this new model.

Another important limitation of the study was that it did not include in its analysis demographic variables, such as sex, age, social class, and ethnicity. This aspect can prove to be a further area of research by improving and extending the model and including demographic variables as mediation variables.

Moreover, in terms of limitations and future lines of research, the present study analyzes online purchasing behavior without specifying a particular type of product or service, an aspect which should be considered in new studies in order to provide a more specific framework of further validation.

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Examining Online Shopping Services in Relation to Experience and Frequency of Using Internet Retailing

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E-shopping has the potential to replace traditional in-store shopping. It is well perceived that information and communication technologies have great impacts on modern society - they are changing how and where we work, shop, and in general terms how we live our lives. In this study, we use a survey instrument to examine the association between experience level with Internet and e-shopping and consumers' frequency of online purchasing, while considering sex as a passive influencer. We study these relationships in a multinomial logistic regression model that is aimed at online retailers to help them improve their understanding of their consumers' characteristics and propensity to buy through Internet retailing. Tracking the online journey of consumers will help enhance the attractiveness of this new retailing medium to current and potential customers.

Keywords: *frequency of online shopping, Internet retailing, online services, online shopping services,*

JEL Classification: *M31*

1. Introduction

In recent years, due to technological developments so-called e-services have gained increased importance. The rise of e-services is closely connected to the development of the internet as a marketplace and the concept of e-commerce. Today, purchasing books via the internet, booking flights and online banking are far beyond being a speciality for web enthusiasts. The 'e-service' is a service which is entirely delivered by technologies (Bruhn and Georgi, 2006, p.325).

The Internet and other related technologies have helped companies to work more quickly, more accurately and on a larger stage. There are few companies today that do not have web sites established to inform potential and existing customers and promote their products and services.

A 2012 report from BCG assesses that more than a billion Internet users are already using mobile devices to purchase products and services, exhibiting a profound change in decision making process. As per-store decline, all retailers will need to reconsider the role of their brick-and-mortar assets, rethink their physical locations, and re-seize them to meet changing consumer needs. This re-evaluation may transform how many companies operate and can lead to massive changes in market shares, the retailer landscape, and commercial real estate (Vinerean, 2013, p.10). Under these premises, the growth and transformational

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Article History:

Received 02 October 2013 | Accepted 25 October 2013 | Available Online 28 October 2013

Cite Reference:

Opreana, A., 2013. Examining Online Shopping Services in Relation to Experience and Frequency of Using Internet Retailing. *Expert Journal of Marketing*, 1(1), pp.17-27

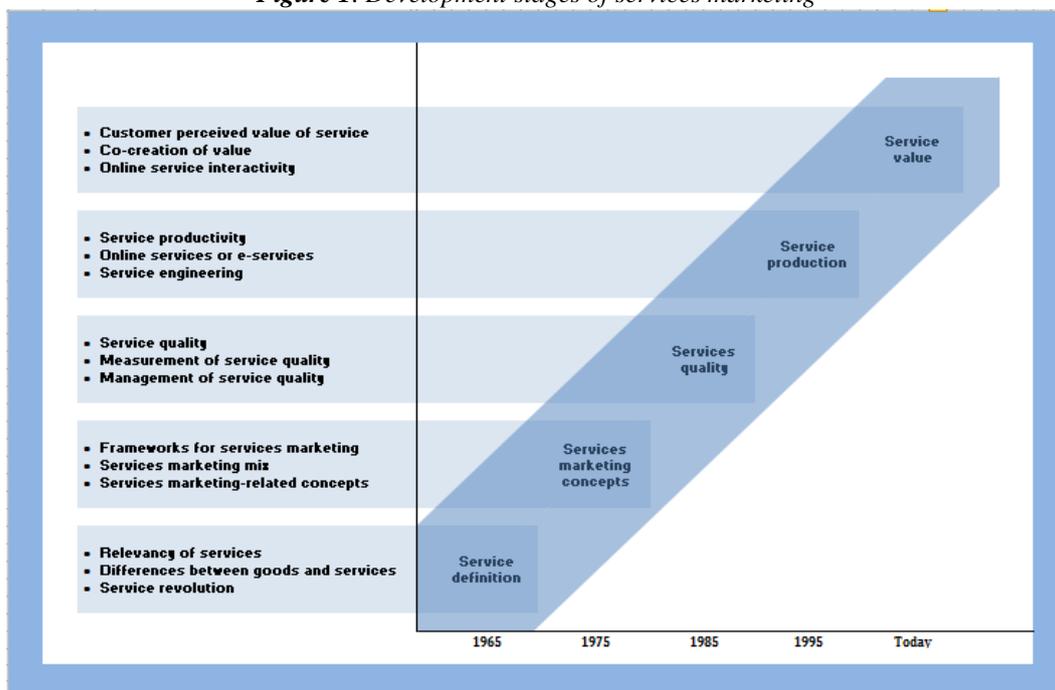
potential of online shopping services is undeniable.

This paper is organized as follows. The next section summarizes the development of online services and their importance in changing marketing. Section 3 and 4 develop the premises of the primary data marketing research, in terms of the data, variables, survey instrument. Section 5 contains the results of the empirical analysis that studies the relationships between consumer experience and frequency to buy using online shopping. The last section recapitulates the findings, provides managerial suggestions for implementation, discusses limitations of the present research and makes recommendations for future research.

2. Literature Review and Conceptual Framework

In this section, we will create an overview of the emergence and development of services marketing in academic literature, in order to highlight the main issues that led to this concept. Thus, Bruhn and Georgi (2006, p.10) differentiated five stages corresponding to the development of services in marketing, in chronological order (Figure 1).

Figure 1. Development stages of services marketing



Source: Adapted Bruhn and Georgi, p.10

2.1. 1960s: Service Definition (Definitional Focus)

At this stage of academic research, various works have treated the concept of "service" in terms of its definition, structure and differences between goods and services. Services took a growing share in the economic statistics and this development was entitled "services revolution". An important feature of the service is the process dimension of a service as the main benefit of a service is created by the service provider and the client when they meet (Regan, 1963, pp. 57--62). Thus, based on the differences between goods and services the first definitions of services were proposed. Services are activities, benefits and rewards that are offered for sale or provided in connection with the sale of goods. The term may involve consulting, support and delivery through which the vendor serves convenience and comfort to customers (Judd, 1964, pp. 58--59). Also, in the same paper from 1964, Judd classified services into three categories: rental property service (right of possession and use of a product), services related to property owned (customize, repair or improve a product) and services that not involve other assets (experiential possession, with no product).

2.2. 1970s: Services Marketing Concepts (Conceptual Focus)

In this phase, the papers exploring marketing services began to develop and define specialized concepts for this new area. It was claimed that in the service industries, the concept of marketing has not been

fully established because the field of marketing did not seize any guidance, terminology or concrete practices to pursue, that were relevant for the service context. This was the reason why Shostack (1977, pp. 73--80) proposed differences between services and products by studying the tangible and intangible dominants, mentioning that service marketers should focus on improving and differentiating the reality by manipulating tangible indices.

The conceptual focus led to the framework definition of services marketing. In this period of time, researches were developed regarding the implementation of a specific mix of marketing that was aimed towards services companies (Bateson et al., 1978).

Eventually, in this stage, several "new" concepts of marketing appeared, based on different themes of the service areas, such as relational marketing, defined through all marketing activities that attract, develop, maintain, and improve the customer relationships (Berry, 1983).

2.3. 1980s: Service Quality (Measurement Focus)

In the next stage of development services marketing, service quality concept proved to be a major challenge for service companies. Due to the characteristics of services, quality represents a more complex construct than product quality that requires new theoretical frameworks. For example, from a general perspective, service quality characteristics cannot be classified as objective, as they are subjective to each client.

The best known model that conceptualized quality is GAP model which explains the determinants of service quality in terms of the gap between service expectations and perceptions of service performance (Parasuraman et al., 1985, pp. 41--50). Based on conceptual considerations on the quality of services, the following research have focused on developing tools on how to measure service quality, and the most popular measuring instrument based on the GAP model is the SERVQUAL approach, which measures service quality using 22 elements that are associated with five dimensions of service quality: tangible elements, reliability, responsiveness, empathy, and trust (Parasuraman et al., 1988, pp.57--66).

Furthermore, from a quality control perspective in order to capture the financial implications related to quality improvement, Rust et al. (1994) determined the concept of "Return On Quality", based on four assumptions: (1) quality is an investment, (2) efforts should be measured as financial, (3) it is possible to invest too much in quality, (4) not all quality expenditures are equally valid.

Other researchers have noted the meeting between the supplier and the customer as a central dimension that leads to the quality of services, developed through new concepts such as "servuction" (developed to capture the interaction system for a service company; Langeard and Eiglier, 1987) or "service encounter" (namely, the dyadic interaction between the customer and service provider; Solomon et al., 1985, pp. 99--111.; Bitner et al., 1990, pp. 71--84). "Moments of Truth" represented a new term that became part of the marketing services jargon to emphasize that each customer contact creates a moment that affects the company's relationship with him and determines the company's ability to maintain a client (Norman, 1984). This development led to other approaches for measuring service quality, such as "service blueprinting" to capture the activity to identify all possible processes and points of failure that could have a negative domino effect on the whole process of providing quality (Shostack, 1984, pp. 133--139).

Among the many research on service quality, due to the development of the Internet concept, in this timeframe the first studies that explore the potential changes the Internet might denote on marketing. Thus, Rosenberg and Hirschman (1980, pp. 103--112) believed that consumer electronic purchases will transform conventional retailing, an idea shared by Schneiderman (1980, pp. 60-61), who considered that this form of Internet purchases will be the dominant form of shopping.

2.4. 1990s: Service Production (Operational Focus)

Increasing profitability and cost orientation in the 1990s led to a more systematic perspective of service production. To study the productivity of services, different studies started by examining the relationship between input and output from the production services' process (Gummesson, 1995, pp. 77-79). Thus, different service factors were analyzed, such as opportunities to improve productivity, efficiency and effectiveness of service production through the management of these issues.

With the creation and continuous development of the World Wide Web and Web browsers in the 1990s, the Internet had turned from a simple communication tool in a revolutionary technology that was impacting marketing. Initially, in consumer marketing, the Internet was perceived as another channel that requires a redistribution of company funds and investments to seize new potential income sources (Hagel and Eisenmann, 1994, pp. 39-55).

One major issue in this area and this timeframe was how to approach this service technology as a support and assistance feature for customers (Vinerean, 2013, p.20). In this regard, Domegan (1996, pp.52--69) determined specific advantages for why companies should start using the Internet in an effective and efficient manner: automation, operational efficiency, generating customer information, strategic effectiveness, and possibility of product differentiation. Moreover, Quelch and Klein (1996, pp. 60--75) identified the companies that had an online presence and practiced Internet marketing, by definition, as global companies that can cater to their customers anytime and anywhere in the world. Peterson et al. (1997, pp. 329--346) noted that the Internet has the potential to create new business models, change the traditional approaches of service delivery based on the collected information, target customer niches, and develop new ways of interacting with customers, especially through the expansion of existing customers and attraction of new customers (Vinerean, 2013, p.21).

In the mid-90s, Hoffman and Novak (1996, pp.50-68) developed the premises of a new model used to explain consumer behavior in an online setting, more specifically in e-commerce. The authors explain how the interactivity of this setting leads consumers to engage in an active manner in the process of navigating on different networks (in contrast to the passive experience of watching television programs, for example). Generally speaking, online consumers can demonstrate experiential active behaviors (e.g. browsing the Internet) and goal-oriented behaviors (e.g. online shopping). These two types of online consumer behaviors led to important implications for the commercial development of the Internet and different types of online interactive marketing techniques, strategies and tactics.

2.5. Today: Service Value (Process Focus)

Marketing academia in the field of services tends to focus on perceived service value, namely the analysis of the value that is created by a service company for the customer through the eyes of the customer (Bruhn and Georgi, 2010, p.12). In relation to this concept, we discuss customer value and customer equity to understand how a customer relationship (or all of them, in case of customer equity) contributes to the overall value of a company.

Presently, the main focus of marketing services is changing to a 'service logic' introduced for the first time by Vargo and Lusch, in 2004. This new logic implies that service research should focus on issues such as skills, information, knowledge, interactivity, connectivity, and continuing relationships. Thus, the orientation has shifted from the producer to the consumer, who is a now co-creator of value (Lusch and Vargo, 2006, pp.281--288). The actual service can be provided either directly by aligning the activities of a company, or indirectly through the online service platform. Nowadays, service organizations create value for clients through performance, and more and more consumers turn to the virtual environment to gain that value.

Thus, online services should provide customers with a different experience through an interactive flow of online information, compared with the traditional offline channels. Rowley (2006, pp. 339--359) extended the concept of online services to include all media and interaction types that are mediated by information technology such as the Internet, mobile devices, interactivity of electronic retailing (e-tailing Eng.), customer support and service delivery.

This paper takes this stream of literature of e-services to examine the relationship between experience with internet in general, and online shopping, in particular, and frequency of e-purchases, while considering the sex of the respondents as a passive influencer. To study these aspects, we explore the context of e-commerce, in general.

As Internet use continues to increase, it will become increasingly important to understand the implications of its use not only on search behavior, but also on purchase behavior. Ultimately, firms are interested in what consumers purchase and the factors that play a role in that purchase choice, and whether previous experience does play a role in future online buying behavior.

3. Research Hypotheses

The investigated and proposed model is based on a quantitative marketing research from primary sources. One of the most important contributions of a marketing research is to define the marketing research problem that requires the provision of marketing solutions (Malhotra and Birks, 2007, p.15). The problem definition for this conducted research is in regard to the better understanding of consumer behaviour in relation to Internet retailing, considering the experience consumers have with this technology and online shopping services.

In this research, we will explore how consumers interact with e-purchasing services in the context of

online shopping, as an information-intensive activity. Through this research we will examine the relationships between consumers' experience and their frequency to approach e-commerce. Thus we propose the following hypotheses:

H1. Consumers experience with online shopping has a notable impact on their frequency to buy in an e-tailing setting.

H2. Consumers experience with Internet, in general, does not reflect a notable impact on their frequency to buy in an e-tailing setting.

4. Research Methodology

4.1. Research Instrument and Data Collection

The primary scope of this study is to understand online shopping behavior of consumers use or intend to use e-commerce. In this paper, we measured four categorical constructs to examine the proposed relationships. Constructs were measured using multiple-choice scales. An online consumer survey was developed and used data collection, from January to June 2013. Primarily, 107 responses were gathered from different forums devoted to online shopping.

Table 1 presents the profile of the respondents, as well as the psychometric properties of the measures.

Table 1. Measurement and respondents profile

<i>Variable</i>	<i>Measurement items</i>	<i>Frequency</i>	<i>Marginal Percentage</i>
Frequency of online shopping (in the last year)	2 or 3 times	33	30.8%
	4 or 5 times	31	29.0%
	6 or 7 times	16	15.0%
	7 or 8 times	27	25.2%
Experience with online shopping	I only purchased one time from an e-store	13	12.1%
	I purchased more than once from the internet	94	87.9%
Experience with internet	Over 6 years	86	80.4%
	Less than 4 years	6	5.6%
	4-6 years	15	14.0%
Sex	Male	38	35.5%
	Female	69	64.5%
Country	Australia	7	6.5%
	Brazil	2	1.9%
	Denmark	3	2.8%
	France	3	2.8%
	Germany	7	6.5%
	Greece	1	0.9%
	India	5	4.7%
	Poland	1	.9%
	Romania	21	19.6%
	Spain	7	6.5%
	UK	14	13.1%
USA	36	33.6%	
Age group	18-25	5	4.7%
	26-30	1	0.9%
	30-40	4	3.7%
	Over 40s	11	10.3%
Valid		107	100.0%

5. Empirical Analysis and Results

5.1. Multinomial Logistic Regression

Logistic regression is multiple regression but with an outcome variable that is a categorical dichotomy and predictor variables that are continuous and categorical (Field, 2005, p.218). Logistic regression determines the impact of multiple independent variables presented simultaneously to predict membership of one or other of the two dependent variable categories.

However, in this analysis, we used multinomial logistic regression which is different than binary logistic regression because the dependent variable is not restricted and has more than two categories. More specifically, this method is used to predict respondents who are more likely to purchase only, by increasing their frequency of online purchases, based on their sex and experience with Internet usage, in general, and online shopping, in particular.

For a dependent variable with K categories, consider the existence of K unobserved continuous variables, Z_1, \dots, Z_K , each of which can be thought of as the "propensity toward" a category. In the case this paper, Z_k represents a customer's propensity toward online shopping for the k^{th} category of frequency times, with larger values of Z_k corresponding to greater probabilities of choosing e-commerce (assuming all other Z's remain the same). Mathematically, the relationship between the Z's and the probability of a particular outcome is described in this formula.

$$\pi_{ik} = \frac{e^{z_{ik}}}{e^{z_{i1}} + e^{z_{i2}} + \dots + e^{z_{iK}}}$$

where π_{ik} is the probability the i^{th} case falls in category k
 z_{ik} is the value of the k^{th} unobserved continuous variable for the i^{th} case

Z_k is also assumed to be linearly related to the predictors.

$$z_{ik} = b_{k0} + b_{k1}x_{i1} + b_{k2}x_{i2} + \dots + b_{kJ}x_{iJ}$$

where

x_{ij} is the j^{th} predictor for the i^{th} case

b_{kj} is the j^{th} coefficient for the k^{th} unobserved variable

J is the number of predictors

If Z_k were observable, you would simply fit a linear regression to each Z_k and be done. However, since Z_k is unobserved, we must relate the predictors to the probability of interest by substituting for Z_k .

$$\pi_{ik} = \frac{e^{b_{k0} + b_{k1}x_{i1} + \dots + b_{kJ}x_{iJ}}}{e^{b_{10} + b_{11}x_{i1} + \dots + b_{1J}x_{iJ}} + e^{b_{k0} + b_{k1}x_{i1} + \dots + b_{kJ}x_{iJ}}}$$

In SPSS (IBM, 2012), there is a non-identification aspect that is included in the algorithm. This means that if a constant is added to each Z, then the outcome probability is unchanged. To solve this problem, Z_K is (arbitrarily) set to 0. The K^{th} category is called the reference category and all parameters in the model are interpreted in reference to that particular category. Also, the coefficients are estimated through an iterative maximum likelihood method (IBM, 2012).

$$\pi_{ik} = \frac{e^{z_{ik} + c}}{e^{z_{i1} + c} + e^{z_{i2} + c} + \dots + e^{z_{iK} + c}} = \frac{e^{z_{ik}}}{e^{z_{i1}} + e^{z_{i2}} + \dots + e^{z_{iK}}}$$

In order to achieve the multinomial logistic regression, we used the dependent variable of 'Frequency of online shopping' and three categorical predictors: 'Experience with Internet (in general)', 'Experience with online shopping' and 'Sex'. In terms of describing the model, we computed a custom model that excluded the 'Sex' variable.

After computing the model, we determined whether it reasonably approximates the behavior of the data. Firstly, we observe the goodness-of-fit tests (Table2), in the form of Pearson and Deviance statistics to show if the model fits the data in an adequate manner. Therefore, in this model, the data is consistent with the model assumptions because it displays significance values greater than 0.10 (Table2).

Table 2. Goodness-of-Fit

	Chi-Square	df	Sig.
Pearson	14.331	12	0.280
Deviance	17.118	12	0.145

The 'Model Fitting Information' Table (Table3) presents a likelihood ratio test that shows whether the model fits the data better than a null model (in which all the parameter coefficients are 0), by comparison to the proposed (Final) model. The Chi-Square statistic (37.525) is the difference between the -2 log-likelihoods of the Null (78.233) and Final (40.708) models. Since the significance level of the test is less than 0.05, you can conclude the Final model is outperforming the Null.

Table 3. Model Fitting Information

<i>Model</i>	<i>Model Fitting Criteria</i>	<i>Likelihood Ratio Tests</i>		
	-2 Log Likelihood	Chi-Square	df	Sig.
Intercept Only	78.233			
Final	40.708	37.525	6	.000

Table 4 presents the likelihood ratio tests that check how each effect contributes to the proposed model. In general, if the significance of the test is small (less than 0.05) then the effect contributes to the model. In this particular model, Experience with Internet, in general does not add a major contribution to the model of predicting purchases through the use of online services.

Table 4. Likelihood Ratio Tests

<i>Effect</i>	<i>Model Fitting Criteria</i>	<i>Likelihood Ratio Tests</i>		
	-2 Log Likelihood of Reduced Model	Chi-Square	df	Sig.
Intercept	40.708 ^a	0.000	0	
Experience with internet	43.327	2.619	4	0.263
Experience with online shopping	75.605	34.897	2	.000

Notes: The chi-square statistic is the difference in -2 log-likelihoods between the final model and a reduced model. The reduced model is formed by omitting an effect from the final model. The null hypothesis is that all parameters of that effect are 0.

a. This reduced model is equivalent to the final model because omitting the effect does not increase the degrees of freedom.

Given the fact that the present model follows a regression with categorical dependent variable, it is not possible to compute the coefficient of determination, R^2 , in order to summarize and explain the proportion of variance in the dependent variable associated with the predictor (independent) variables. To overcome this shortcoming, indicators presented in Table 5 are used to estimate the coefficient of determination for the model. Cox and Snell's R^2 and McFadden's R^2 are based on the log likelihood for the model compared to the log likelihood for a baseline model (IBM, 2012). However, with categorical outcomes, even for a "perfect" model they display theoretical maximum values of less than 1. Nagelkerke's R^2 is an adjusted version of the Cox and Snell R-square that adjusts the scale of the statistic to cover the full range from 0 to 1 (IBM, 2012). In categorical regressions, even though each computed statistic can be suggestive on its own, it is more useful to regard the values in comparison with each other to explain the model. Therefore, the model with the largest R^2 statistic is 'best' according to this measure, and in this case, Nagelkerke's R^2 best describes the proposed regression model with a satisfactory R^2 of 46.2%.

Table 5. Pseudo R-Square

Cox and Snell	0.438
Nagelkerke	0.462
McFadden	0.252

The parameter estimates table (Table 6) summarizes the effect of each predictor. The ratio of the coefficient to its standard error, squared, equals the Wald statistic. In general interpretation terms, parameters with significant negative coefficients decrease the likelihood of that response category with respect to the reference category whereas parameters with positive coefficients have the opposite effect. SPSS considers parameters associated with the last category of each factor as redundant given the intercept term.

Table 6. Parameter Estimates

Frequency of online shopping (in the last year) ^a		B	Std. Error	Wald	Df	Sig.	Exp(B)	95% Confidence Interval for Exp(B)	
								Lower Bound	Upper Bound
More than 6 times	Intercept	-0.293	0.913	0.103	1.000	0.004			
	Experience with internet=More than 6 years	0.693	0.957	0.524	1.000	0.003	2.000	0.306	13.062
	Experience with internet=Less than 4 years	1.025	1.026	0.997	1.000	0.318	2.786	0.373	20.819
	Experience with internet=4 to 6 years	0 ^b			0				
	Experience with online shopping=I purchased more than once from the internet	-0.112	0.203	0.305	1.000		0.894	0.894	0.894
	Experience with online shopping=I only purchased one time from an e-store	0 ^b			0				
	2 or 3 times	Intercept	1.969	1.221	2.599	1.000	0.001		
Experience with internet=More than 6 years		0.827	1.201	0.473	1.000	0.003	2.286	0.217	24.082
Experience with internet=Less than 4 years		0.251	1.345	0.035	1.000	0.001	1.286	0.092	17.954
Experience with internet=4 to 6 years		0 ^b			0				
Experience with online shopping=I purchased more than once from the internet		-1.068	1.822	0.343	1.000	0.146	5.230	0.754	48.567
Experience with online shopping=I only purchased one time from an e-store		0 ^b			0				
a. The reference category is: 4 or 5 times.									
b. This parameter is set to zero because it is redundant.									

This is the multinomial logit estimate for frequency of online shopping of more than 6 times relative to

4-6 times, when the predictor variables in the model are evaluated at zero. For the respondents with an experience of more than 6 years with Internet in general, the logit for using online shopping more than 6 times per year relative to 4-6 years is 0.693.

Regarding the multinomial logit, estimate for a one unit increase in 'Experience with internet=More than 6 years' score for frequency of online shopping of more than 6 times relative to 4-6 times given the other variables in the model are held constant. If a respondent would experience an increase by one point for his increase his 'Experience with internet=More than 6 years' score, the multinomial log-odds would be expected to increase by 0.693 unit while holding all other variables in the model constant.

For frequency of online purchases of more than 6 times relative to 4 - 6 times, the Wald test statistic for predictors measuring respondents experience with Internet (of less than 4 years) and with online shopping (namely, the respondents who purchased more than once from the Internet) that display associated p-values of less than 0.05, we would reject the null hypothesis and conclude that the regression coefficients for these two predictors has been found to be statistically different from zero. In relation to the other predictor that measures the experience with Internet of more than 6 years, the null hypothesis would not be rejected and the regression coefficient for this variable is not statistically different from zero, given the proposed model. These results show that people who have been using the technological development of Internet are more eager and opened to try and use e-commerce on a substantial number of occasions.

Similar overall conclusions can be assessed in relation to the other scores that observe the predictor variables in the model while explaining the scores of respondents' frequency of online shopping of more than 6 times per year relative to 4-6 times and 2-3 online purchases relative to 4-6 times of approaching e-commerce.

Nonetheless, the relationships for frequency of online purchases of 2-3 times relative to 4-6 times, in the last year, the Wald test statistic for predictors measuring respondents experience with Internet of more than 6 years plays a major role in this model, given the value of 0.031 of the significance level, and rejection of the null hypothesis associated with it, implying that the regression coefficient is statistically different from zero.

This result is contradictory with the previous section of the model, when we examined a high frequency (more than 6 times) of online shopping relative to a medium frequency (4-6 times). Another relationship that was deemed important in the model based on the Wald statistic and its p-value (of less than 0.05) that studied the predictor of respondents' experience with online shopping of approaching e-commerce more than once, by concluding that the regression coefficient is statistically different from zero. In relation to the other predictor that measures the experience with Internet of less than 4 years, the null hypothesis would not be rejected and the regression coefficient for this variable is not statistically different from zero, given the proposed model (Wald=0.035; Sig.=0.318).

6. Conclusion

6.1. Theoretical Contributions

Evidently, the Internet has impacted retailing in several ways. Though its impact on search has been widely studied, its relationship of online shopping frequency has not been studied to a great extent in relation to consumer experience with Internet and e-commerce. Sexton, Johnson, and Hignite (2002, pp. 402--410) report that e-commerce consumers with more than three years of online experience were found to be almost twice as likely to make online purchases as those with limited Internet experience.

The future growth of electronic commerce depends largely on how potential customers view the relatively new cyber-retail medium. While web design and security issues continue to play a critical role in shaping the success of online retailing, understanding the demographic profiles of Internet users is equally important for deploying an effective online marketing strategy. This paper takes this stream of literature of e-services to examine the relationship between experience with internet in general, and online shopping, in particular, and frequency of e-purchases, while considering the sex of the respondents as a passive influencer. The relationships for frequency of online purchases of 2-3 times relative to 4-6 times, in the last year, the Wald test statistic for predictors measuring respondents experience with Internet of more than 6 years plays a major role in this model, implying that the regression coefficient is statistically different from zero. This result is contradictory with the previous section of the model, when we examined a high frequency (more than 6 times) of online shopping relative to a medium frequency (4-6 times). These results show that people who have been using the technological development of Internet are more eager and opened to try and use e-commerce on a substantial number of occasions.

6.2. Implications for Managers

As Internet use continues to increase, it will become increasingly important to understand the implications of its use not only on search behavior, but also on purchase behavior. Ultimately, firms are interested in what consumers purchase and the factors that play a role in that purchase choice. By using multinomial logistic regression, online companies can create profiles of people who are most likely to be interested in online purchases, based on their previous experience with e-commerce and should develop marketing plans accordingly.

Many online retailers routinely collect data from consumers and prospects. Our findings indicate that it is possible to use these data to assign consumers to observe consumers' experience with Internet and online shopping (especially by tracking their online journey, if they used the 'Help' section on the e-commerce website). Once companies establish the experience level of consumers, they can target specific consumer segments with marketing information about the benefits of online shopping in order to change perception and develop conative constructs (intention to buy, loyalty, and so on). It is therefore possible, for managers to generate specific strategies that would be designed specifically for the experienced or inexperienced target segments. Such differential strategies (due especially to the unique characteristics of Internet, such as interaction and customization) will help enhance the attractiveness of this new retailing medium to current and potential customers.

6.3. Limitations of the Study

This study is also limited in a few ways. First, we have categorical survey data and not observational data. This creates limits regarding the choice modeling approaches we may use. While the representativeness of the sample can always be improved, for this research special efforts were made to have high response rates and for the sample to be reflective of the target population. Lastly, we have no data on specific types of products or services that respondents purchased online or intend to buy. This information would make for a more interesting study and may provide additional insights into our results.

Despite the above limitations, there are several ways in which this area of research may be extended. It would be interesting to see if a similar pattern discovered in this research holds for the interaction with other variables, such as age and culture. Also, similar analyses could be conducted on other product categories.

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The Influence of Hedonic and Utilitarian Motivators on Likelihood to Buy a Tourism Package

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To fully understand the pattern of choice, it is important that any explanation of consumer behavior to be accompanied by a complete understanding of the interplay between a consumer's functional goals and experiential preferences within the decision context. Consumer researchers have increasingly begun to investigate consumer choice based on distinctions that involve the purchase and consumption of goods for pleasure versus for more utilitarian and instrumental purposes. Consumers are often faced with these types of choices between hedonic and utilitarian alternatives that are at least partly driven by emotional desires rather than cold cognitive deliberations. This research approaches factor analysis and multiple linear regression in the context of 150 international respondents and their perception of hedonic and utilitarian motivators on likelihood to buy a tourism package.

Keywords: *hedonic motivators, utilitarian motivators, tourism, decision making process, consumer behavior, multiple linear regression*

JEL Classification: *M31*

1. Introduction

It vital for a tourism manager to analyze and understand the way in which consumers make decisions and the factors that motivate and encourage tourists to make different purchases. Also, when analyzing a tourist's consumer behavior companies must take into consideration: the needs and habits of the consumers, consumer preferences and requirements, tourism market segmentation, and motivational factors such as cultural, personal, emotional, status, personal development, physical, etc.

The subject of consumer behavior in the tourism context is the key to the foundation of all marketing activities which are implemented in order to establish, advertise, and sell tourism products. The success of a marketing activity is primarily related to understand consumers' decision making process to buy or use tourism products. Knowing their behavior patterns and the factors that influence their purchase, tourism companies should fully comprehend when they should get involved in the process in order to obtain the results they want. Also, in this way, organizations will be aware of how to influence their customers to buy different products that fulfill their expectations and needs.

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Article History:
Received 30 September 2013 | Accepted 26 October 2013 | Available Online 28 October 2013

Cite Reference:
Vinerean, A., 2013. The Influence of Hedonic and Utilitarian Motivators on Likelihood to Buy a Tourism Package. *Expert Journal of Marketing*, 1(1), pp.28-37

2. Literature Review and Conceptual Framework

The industry of tourism is a complex field that can be divided into different types of tourism, such as: business tourism, health tourism, religious tourism, educational tourism, social tourism, cultural tourism, visiting friend and relatives, special interest tourism, and hedonistic tourism. These types are included into two main categories- domestic and international tourism, with a subdivision together with inbound and outbound tourist issue.

An interesting debate regarding tourism is related to the differences between a tourist and a traveler. A tourist (Swarbrooke and Horner, 1996) is someone who purchases a package from a tour operator, while the traveler is the person who makes his/her own independent arrangements for their personal vacation. However, Sharpley (1994) noted that the word “traveler” is usually applied to someone who is travelling for a long period of time, especially back-packing on a limited budget, and it also involves a spirit of freedom, adventure and individuality. On the contrary, the term “tourist” is usually used in a rather depreciative sense to describe those who are involved in mass produced package tourism.

In this context, it is important to discuss tourism market segmentation to fully grasp the possibilities and opportunities for implementing an effective and efficient marketing strategy. Market segmentation and diversity are complementary concepts. Without the diversity of the market consisted of different people which came from different areas, different countries, with different needs and perceptions, there would be no significance reason for market segmentation. The diversity in the global market makes the market segmentation an attractive strategy, viable with a high potential of profitability.

Market segmentation is defined as a process of dividing a large homogenous market into groups of people who have similar needs, wants, or demands. The purpose of the segmentation is to provide the basis for creating a marketing mix that will perfectly correspond to the expectations of clients in the targeted segment. This explains the fact that market segmentation is a form of consumer classification used to provide support for the marketing function in a tourism organization (Dibb, 2001).

Segmentation is aimed to serve the need of marketers, as Middleton and Clarke (2001) believe that: ‘Market segmentation and product formulation are mirror images if they are correctly matched’. Certainly, segmentation is designed to improve the work regarding all four Ps of the marketing mix (Product, Price, Promotion, and Place). However, organizations must take into consideration that successful marketing is not all about one method of segmentation alone, it is important to use and combine all five types of segmentation (or six, in tourism) in order to accomplish the profit or result that the company is expecting.

Smith (1989) distinguished seven types of tourists: *explorers* are a small group who travel as anthropologists; *elite tourists* are experienced travelers who like expensive tailor-made tours; *off-beat tourists* plan to get away from other tourists; *unusual tourists* make side trips from organized tours to experience local culture; *incipient mass tourists* travel in destinations where tourism is not yet completely dominant; *mass tourists* want the same things they are used to at home; *charter tourists* have a little or no interest in the destination itself, as long as the trip will provide them with all the accommodation that they demand.

2.1. Consumers as Decision Makers

A consumer purchase is a response to a problem, a need, a want or a demand. In order to make an acquisition, a consumer has to analysis four important steps: problem or need recognition; information research; evaluation of alternatives; product choice.

After the decision is made, the quality of that decision affects the final step in the process, in which learning happens based on how the choice worked out. This particular process influences the likelihood that the same choice will be made the next time the need or want for a similar decision occurs (Solomon, 2004).

It is important to know that the amount of effort we put into a purchase decision we take differs depending on the importance of that decision. There are many cases in which the decision-making process is almost automatic; we seem to make snap judgments based on little information. But there are also situations where the purchase decision begins to feature a full-time job. An individual may spend a long period of time thinking about an important purchase such as a new home, car or any other acquisitions that requires some financials efforts.

Traditionally, consumer researchers have approached decision makers from a rational perspective. Usually, people calmly and cautiously assimilate as much information as possible with what they already know about a product or service, vigorously weight the pluses and minuses of each alternative, and arrive at a satisfactory decision that will meet their needs and expectations.

In the recent years, this process has been studied by marketing managers to understand how information is acquired, how beliefs and patterns are formed, and on what criteria the decision making process is being made. Then, different products and services are frequently developed in order to emphasize appropriate variables, and promotional strategies can be taken in order to offer the types of information and data most likely to be wanted in the most effective formats.

It is important to know that even though consumers do follow these decision-making steps when making some acquisitions, this process is not accurate in all situations. In different circumstances, consumers do not go through this complex process in order to buy something. If they did, their entire lives would be spent on making different types of decisions, and not that much time on enjoying on the product or service that they decided to purchase. Some of our buying behaviors are not based on a logical or rational purpose; others are done with no advance planning.

However, there are some purchase momentum which occurs when these initial impulses actually increases the likelihood that we will buy even more (instead of less as our needs are satisfied), almost as if we get “revved up” and plunge into a spending area. Researchers recently discovered that decision makers actually possess some strategies. A consumer evaluates the effort required to make a particular choice, and then he chooses a strategy best tailored to the level of effort required. This sequence of events is known as constructive processing. When a well-thought-out rational approach is needed, we will invest all our efforts to do it. If not, we will certain look for shortcuts or returned to automated decisions (Solomon, 2004).

2.2. Motivators

A motive is simply a reason for carrying out a particular behavior; it is not an automatic response to a stimulus. Motives should be distinguished from instincts. Instincts are pre-programmed responses which are involuntary and inborn in the individual (Blythe, 2004).

Blythe (2004) presented a classification of motives meant to help marketers to improve their activities, and this classification can be used in tourism marketing, such as:

- primary motives: the reason that leads to the purchase of a product class;
- secondary motives: they are the reasons behind buying a particular brand;
- rational motives : based on reasoning, or logical assessment of the consumer’s situation;
- emotional motives : these motives have to do with the consumer’s feeling about the brand;
- conscious motives : motives of which the consumer is aware of;
- dormant motives: motives operating below the conscious level.

In conclusion, when talking about what motivates or persuaded a tourist it is important to know that usually this process is driven by the aim of satisfying a need or a want. Marketers define need as a perceived lack, which means that simply lacking something does not developed a need, but the individual’s realization that he or she lacks something means that the need has been established. Also, is crucial to understand that every tourist is different and so are the factors that motivates him. These variables can be classified in:

- their personality (friendly, loner, adventurous, careful, secure, shy);
- their lifestyle – depends directly to their interests and concerns;
- their likes and dislikes;
- their past experiences as tourists and particular type of holiday;
- their weaknesses or strengths - whether these factors depends to their health, wealth or the eagerness to get away from the monotony of their daily working life
- their civil status: married, single, divorced;
- income;
- adjustment of expectations or experiences as a tourist.

2.3. Drive

Drive is the force that makes a person responds to a need. It is an internal stimulus, and is caused by the drift from the desired state to the actual state. Drive is usually associated with a tension or restlessness (Blythe, 2004).

The influence of the drive will be contingent on the size of the gap between the eagerness and the actual state. For instance, a consumer longing for some time off and relaxation leads to a drive to search for a vacation; as the longing increases, the drive to go on a holiday will be higher. Once on vacation, and the longing feeling was satisfied, the tension disappears and the energy is channeled on something else, a different need or request. Some researchers have shown that the moment when a desire occurs is the point in

which a person is feeling dissatisfied with the actual state. In these circumstances, if the drive state is at high level, an individual is more eager to listen to different suggestions about how to satisfy his or hers needs and wants. In these situations, consumers are more vulnerable and are eager to try other brands if their usual brands are not available (Vinerean, 2013).

It is important to know that each individual has a level at which the state of stimulation is enjoyable and challenging, without being uncomfortable or upsetting. This is known as the optimum stimulation level or OSL. If external stimulation is situated over the optimum level, the individual will inquire to satisfy the need and decrease the drive; but if external stimulation drops below the OSL, the person will inquire to raise the stimulation in order to bring it up to the OSL (Blythe, 2004).

Thus, the OSL is a subjective factor because it varies from one person to another. Some research has revealed that individuals with high OSLs like novelty and risk taking, while those with low OSLs prefer the tried and tested, and tend to be younger people.

2.4. Hedonic and Utilitarian Value

Hedonism is the cult of pleasure. In terms of consumer behavior, it concerns those areas which attach to the fun of owning or buying something (Blythe, 2004).

Different researches examined the utilitarian and hedonic motivations; the purpose of these analyses is to understand the reason why individuals purchase different services or products. These studies have investigated motivations with respect to the design of physical and online shopping environments (Kourouthanassis et al., 2008), and users' perceptions of trust (Zhou et al., 2007), flow (Mathwick and Rigdon, 2004; Novak et al., 2000), and playfulness (Ahn et al., 2007) with respect to purchasing intention. According to Arnold and Reynolds (2003), there are six dimensions of hedonic buying:

- Adventure - shopping for stimulation, adventure, and the feeling of being in another world;
- Social - socializing with friends and family;
- Gratification - stress relief, alleviating negative mood, treating oneself;
- Idea - keeping up with trends, seeing new products and innovations;
- Role - enjoyment derived from shopping for others;
- Value - seeking sales, discounts, bargains.

On the contrary, it has been demonstrated that consumers are also motivated by utilitarian factors, including efficiency and cost, (Babin et al., 1994; Kim, 2006) but in the same time by the desire to satisfy different hedonic needs, such as affect, social interaction and/or entertainment (Arnold and Reynolds, 2003). While these motivations are well documented in marketing and others fields, the relationship between hedonic and utilitarian motivations and user experience has yet to be explored extensively in other domains (Zhou et al., 2007). However, HCI research has been investigating hedonic and utilitarian features of systems. This work has pointed out that both qualities are essential and can support each other in situations where utilitarian components are low, but hedonic qualities are high and vice versa (Hassenzahl et al., 2000).

When talking about hedonic value, it is important to be aware that this value tends to be more personal and subjective in that it is realized through the amount of fun experienced in the shopping process (Holbrook and Hirschman, 1982). Hedonic shopping value underscores the potential entertainment and emotional worth to be gained by customers in performing the shopping activity (Hirschman and Holbrook, 1982). Therefore, "the purchase of goods may be incidental to the experience of shopping. People buy so they can shop, not shop so they can buy" (Langrehr 1991, p. 428). Vicarious consumption can contribute to hedonic value by enabling customers to achieve gratification without committing to any actual purchases even though the act of purchasing goods or services can also produce hedonic value and may at times, help as the climax of the entire buying experience (Babin et al. 1994).

Another common source of hedonic value is found in agreements where the difference between the selling price of a product and the internal reference price of a customer extend beyond an additive measure of functional utility to promote feelings of anxiety and excitement (Schindler 1989). Therefore, affective emotions such as increased arousal, heightened involvement, perceived independence, fantasy fulfillment, and avoidance are frequently signs of a hedonically satisfying buying experience (Bloch and Richins, 1983; Hirschman 1984).

Some relevant aspects of hedonic attributes are intentionally added at the design stage. Also, these hedonic aspects often appear unexpected, as a by-product of the packaging design. It is essential to take into consideration these hedonic attributes because of them people are stimulated to buy different products. Hence, individuals are frequently eager to pay a small price, in order to own products that are enjoyable to

use, or which might raise the agreeable part of life (this generally happens in industrialized countries, and more among rich people) (Vinerean, 2013).

Moreover, recently these hedonic approaches are relevant in distinguishing the brand by offering the consumer a little fun and an amazing experience while using the product or service. Emphasizing an experience, that a consumer could have while owning a particular product, is pivotal in the promotional stage of a product. So, this is the moment where advertisers need to take full advantage of the hedonic aspects in order to obtain the desired results.

Contrary to these hedonic characterizes, utilitarian value has led much of the research conducted in the field of consumer behavior (Bloch and Bruce, 1984). Utilitarian consumer behavior has been characterized as task-oriented and rational (Batra and Ahtola, 1990), more precisely, regarding the functional utility, clients count on whether their consumption needs were satisfied with success (Babin et al., 1994). Usually, this translates into simple acquisitions of products or services, but occasionally, utilitarian value might also be derived from activities performed by a motivated customer out of necessity (Bloch and Richins, 1983). For instance, Wang and Benbasat (2005) noticed that the inclusion of facilities explaining the rationale behind product or services suggestions by recommendation agents empowers customers to rationalize about the suitability of a recommended product relative to their needs and demands.

In conclusion, the ideal situation is to concentrate on the capability to achieve any task- regardless of either the motivation is intrinsic or extrinsic to the person- as a utilitarian element of system use, and the value added, experiential features of aesthetics interactivity, capability to induce positive emotions. Hedonic and utilitarian motivations are well acknowledged measurement instruments, which may be used to understand engagement and the purposeful and enjoyable motivations that bring people to the interface (Vinerean, 2013).

3. Researching Hedonic and Utilitarian Motivators in Relation to Likelihood to Buy Tourism Packages

The preliminary phase of the research starts with the problem definition, and in this case, it refers to a detailed understanding of the changes occurred in the purchasing and consumption behavior of tourism products and services, in relation to hedonic and utilitarian motivators by study consumers from Europe and North America. Furthermore, also in this phase, the main purpose, the objectives and the hypotheses were established, as follows:

The main purpose: To determine the consumer behavior motivators in relation to tourism products and services, at an international level.

Objective 1: The creation of factors based on the respondents' common characteristics.

Hypothesis 1: After the analysis, there will be at least one factor for each dimension studied.

Objective 2: Determining the relationship between hedonic motivators and likelihood to buy a tourism package.

Hypothesis 2: There is a positive relationship between hedonic motivators and likelihood to buy a tourism package.

Objective 3: Determining the relationship between utilitarian motivators and likelihood to buy a tourism package.

Hypothesis 3: There is a positive relationship between utilitarian motivators and likelihood to buy a tourism package.

In the design phase of the research, the sources of information, the research unit and the survey unit were chosen (Table1), and afterwards, the variables were defined (Table2).

Table1. The typology of the information sources, used in this research

No.	Criterion	Types of sources	Explanations
1.	Original source of information in relation to the organization requesting it	External sources	In this research, we seek to understand certain distinct characteristics of the survey's respondents, regarding tourist behavior.
2.	Type of information provided by the source	Sources of primary information	This type of information relates to those specially acquired in order to achieve the main purpose of the research; and this data is obtained from individuals, via the internet. It seeks information from geographically dispersed potential tourist customers, from North America and Europe.
3.	The identity of	The individual	The individual is the basis of research in order to obtain data about

	the source		his/her purchasing and consumption behavior of tourism-related products or services, and to track consumer behavior dimensions underlying the purchase decision.
4.	The cost of the information provided	Sources that offer information, on a commercial basis	In this case, the online research was accomplished through FreeOnlineSurveys(.com), in exchange for a sum of money, and through networking sites, like Facebook and MySpace.

Table 2: The operational definition of the variables

Dimension	Operational definition
Utilitarian motivators	<input type="checkbox"/> -1 -2 -3 -4 -5 Accommodation 1 2 3 4 5 <input type="checkbox"/> 1 -2 -3 -4 -5 Availability of tourist information 1 2 3 4 5 <input type="checkbox"/> -1 -2 -3 -4 -5 Infrastructure 1 2 3 4 5 <input type="checkbox"/> -1 -2 -3 -4 -5 Price 1 2 3 4 5
Hedonic motivators	<input type="checkbox"/> -1 -2 -3 -4 -5 Things to do 1 2 3 4 5 <input type="checkbox"/> -1 -2 -3 -4 -5 Customer Care 1 2 3 4 5 <input type="checkbox"/> -1 -2 -3 -4 -5 Scenery 1 2 3 4 5 <input type="checkbox"/> -1 -2 -3 -4 -5 Places to Eat 1 2 3 4 5 <input type="checkbox"/> -1 -2 -3 -4 -5 Family friendly facilities 1 2 3 4 5
Likelihood to buy a travel package	How likely are you to buy a tourism package in the next year? 1(Not likely) 2 3 4 5 6 7 8 9(Highly likely)

The data was collected using a primary research, which involved getting original data by conducting a field research. Primary data are data introduced by a researcher for the particular reason of defining the problems that interfere in different process. They are independently tailor-made for the decision-makers of institutions that pay well-concentrated and privileged support. Correlated with easily available data from a range of sources, this exclusivity may mean higher costs and an extended framework in collecting and analyzing the data (Malhotra and Birks, 2007).

In this case, the information was collected directly from respondents via the internet, from February 22 to April 18, 2010, and the data analysis is quantitative. Also, this paper is based on an exploratory research that seeks to provide perspectives and understandings regarding the decision-making tourists when they consider buying a holiday package. The present research uses as a method the pilot survey, for which the sample is small (150 respondents), not statistically representative and not determined based on an established formula.

In this data analysis phase of the research, the data was collected via the Internet (FreeOnlineSurveys, Facebook, MySpace), and for the information's formation and processing we used the statistical analysis program SPSS, version 21.0, and especially by using the factor analysis method and multiple linear regression.

3.1. Factor Analysis

Factor analysis is a general name denoting a class of procedures primarily used for data reduction and summarisation. In marketing research, there may be a large number of variables, most of which are correlated and which must be reduced to a manageable level. In the case of this paper, I used exploratory factor analysis to reduce multiple scales of hedonic and utilitarian motivators in order to summarize the survey data and use the resulted factors in further analysis.

Factor analysis is a technique of general linear model (GLM), which means that the data used were scales and were analyzed in SPSS v.20. Factor analysis involves the extraction of a small number of factors from the data. These factors can be interpreted as the basis of attitudes reflected in the answers to those specific questions. There are several methods of extraction, but the method used in this analysis was the Principal Components. In following table the resulting factors will be presented.

Table 3. Descriptive statistics and factor analysis results

Motivators	Items	Average	Standard deviation	Factor loading	Eigenvalue	% of Variance	KMO	Cronbach's alpha
Utilitarian	Accommodation	2.36	2.620	0.746	2.891	72.27%	0.672	0.715
	Availability of tourist	-0.46	3.424	0.401				

	information							
	Infrastructure	1.13	2.950	0.698				
	Price	2.49	2.814	0.850				
Hedonic	Things to do	2.48	2.438	0.605	2.004	62.890%	0.739	0.718
	Customer care	1.37	2.844	0.722				
	Scenery	2.70	2.284	0.564				
	Places to eat	1.31	2.897	0.702				
	Family friendly facilities	-1.10	3.227	0.655				

The first step in the validation process of the exploratory factor analysis was to measure the reliability and dimensionality of the scales by using Cronbach's alpha coefficient with a minimum of 0.70 (Cronbach, 1970) to ensure the eligibility of the studied dimensions. Thus, for the scales that studied utilitarian motivators, a level of Cronbach's alpha of 0.715 was obtained, and for hedonic motivators the value was 0.718. Thus, the scales items fulfill this condition of reliability.

Table shows that one factor was extracted for all the latent variables. The criteria used to identify and interpret the factors were that each element should have a factor loading greater than 0.7 and Eigenvalues greater than 1 (Field, 2005). Also, the eligibility of the factors can also be observed in terms of the variance explained by each resulted factor, as the variation exceeds 75%. The validity of the factors was measured with a Kaiser-Meyer-Olkin test with values ranging from 0.672 to 0.739, exceeding the minimum acceptable level of 0.5.

In terms of the factor scores that determined each class of motivators, the majority of the scores are high and relevant indicators of each dimension. The smallest score was identified for 'Availability of tourist information', of 0.401, for the utilitarian motivators.

3.2. Multiple Linear Regression

Linear Regression estimates the coefficients of the linear equation, involving one or more independent variables that best predict the value of the dependent variable. In this research, I will try to predict consumers' likelihood to purchase a tourism package in relation to hedonic or utilitarian motivators.

The linear regression model assumes that there is a linear, or "straight line," relationship between the dependent variable and each predictor. This relationship is described in the following formula.

$$y_i = b_0 + b_1x_{i1} + \dots + b_px_{ip} + e_i$$

where

y_i is the value of the i th case of the dependent scale variable

p is the number of predictors

b_j is the value of the j th coefficient, $j=0, \dots, p$

x_{ij} is the value of the i th case of the j th predictor

e_i is the error in the observed value for the i th case

The hypotheses of this paper were tested using multiple regression analysis, using the utilitarian and hedonic factors previously resulted (as dependent variables) and likelihood to buy a tourism package (as the independent variable). The results are summarized in Table 4.

Table 4. Multiple regression analysis

Dependent variable	F	Sig.	R ²	Variables	Unstandardized Coefficients	Std. Error	Standardized Coefficients	t	Sig.
					β		B		
Likelihood to buy a travel package	67.36	.000	0.458	Constant	3.042	2.402		1.086	0.009
				Hedonic motivators	0.883	0.301	0.391	2.675	0.000
				Utilitarian motivators	0.356	0.109	0.242	1.867	0.008

The first part of the table reports a significant F statistic, indicating that using the model is better than guessing the mean. As a whole, the regression is relevant in explaining consumers' propensity to make a decision and buy a tourism package based on hedonic and utilitarian motivators, as nearly half the variation

($R^2 = 45.8\%$) in the dependent variable is explained by the model. Thus, in this model, hedonic motivators contribute more to the model because this independent variable has a larger absolute standardized coefficient.

Results of the regression analysis demonstrated that the two hypotheses of the model were supported. Namely, both utilitarian and hedonic factors influence consumers' propensity to purchase. Nonetheless, the variable measuring hedonic motivators offers a more prominent influencer of likelihood to buy ($\beta=0.391$, $p < 0.001$) (H2) than utilitarian factors ($\beta = 0.242$, $p < 0.001$) (H3). Especially in tourism, where purchases have an affect dimension, this research supports and extends the existing literature.

4. Conclusion and Discussion

4.1. Theoretical Implications

Previous research has shown that consumer perceptions and preferences have both hedonic and utilitarian dimensions. Generally, discussing hedonic and utilitarian factors implies discussing asymmetry. This fundamental asymmetry in how consumers trade off hedonic and utilitarian attributes of products and services in domains of losses and gains also sheds lights on the causes of loss aversion and the processes by which it operates.

This study accomplishes several theoretical objectives. First, it distinguishes between utilitarian and hedonic expectations as distinct but complementary elements driving customers' decision making process and likelihood of purchasing a tourism package.

Utilitarian value has dominated much of the research conducted in the area of consumer behavior. Utilitarian consumer behavior has been described as task-oriented and rational in that customers' functional utility is dependent on whether their consumption needs, which inspire the shopping, were met successfully.

Affect, a construct often associated with motivation, has been called "the driver" of shopping experiences and an influence on exploratory behaviour (Menon and Kahn, 2002; Monsuwé et al., 2004). Monsuwé et al. (2004) found that enjoyment, i.e., escapism, pleasure and arousal, and the functional aspects of systems (i.e., usefulness and ease of use) predicted attitudes about shopping, which in turn influenced intentions to shop. If hedonic goods are more unique and irreplaceable (e.g., a family vacation abroad), perhaps because we develop emotional attachments to them over time, consumers might be reluctant to forfeit them.

Multiple linear regression was used to test predictive relationships between specific hedonic and utilitarian motivations and aspects future buying decisions. From our data analysis, the hypothesized relationships are substantiated by the empirical evidence. Results of the regression analysis demonstrated that the two hypotheses of the model were supported.

4.2. Managerial Implications

Tourism market research allows companies to know and to differentiate consumers' purchasing and consumption habits, attitudes and perceptions regarding distinct market offers. All these dimensions of consumer behavior enable tourism companies to understand both their short-term needs, which determine the best tactics to attract consumers, and their long-term goals, which involve the stability of the tactics concerned with consumer retention and loyalty.

In this line of ideas, market segmentation can be used with success. Some tourism academics have searched for some techniques relevant only in tourism, Middleton and Clarke (2001) suggested there are six ways of segmenting markets in travel and tourism: purpose of travel; buyer needs, motivations and benefits sought; buyer and user characteristics; demographic, economic and geographic characteristics; psychographic characteristics; price. While four of these are similar to the classic methods, they are however formulated differently and purposely in tourism.

With the main objective as satisfying customer needs, customer-oriented companies pay a special attention to consumer behavior, capitalizing on the obtained information in order to attract new customers and to retain existing customers. In this line of ideas, understanding motivators and drivers of a particular behavior and decision making process is crucial in today business environments. Emphasizing an experience that a consumer could have while owning a particular product is pivotal in the promotional stage of a product. So, this is the moment where advertisers need to take full advantage of the hedonic aspects in order to obtain the desired results.

Different products can be high or low in both hedonic and utilitarian attributes at the same time. In fact, most evaluations in consumer consumption profile are based on the degree, to which various

alternatives satisfy utilitarian and hedonic goals. This is the reason why in this paper the tourism service is examined. A person evaluating a tourism package may care for both functional features (e.g., accommodation) as well as hedonic features (e.g., scenery). Usage and consumption motives are central in determining whether an item is perceived as primarily hedonic or utilitarian.

Companies that operate in the tourism industry need to pay attention to hedonic and utilitarian motivators in order to create and promote tourism packages accordingly. Due to globalization, we are discussing about a diverse marketplace composed of many different people with different backgrounds, countries the origin, needs and wants, and perceptions, and in this respect, segmentation is a necessary process for any enterprise. This statement is even more relevant in tourism, where the acquisition has an emotional significance, so marketing must have a central role in creating added value for potential customers. To achieve this, tourism enterprises need to know very well who are the consumers they are addressing to.

The results of this paper also suggest implications for pricing and promotion strategies. Marketers ought to be able to charge premiums for hedonic goods to which consumers have adapted in some manner when the consumers are faced with a decision to discontinue consumption (Dhar and Wertenbroch, 2000, p. 69).

4.3. Limitations

This research must also be interpreted in the context of its limitations. Most importantly, the data for this study was collected from a limited number of respondents. The sample for this research is small and representativeness can always be improved. Even though, the results were consistent with the proposed hypotheses, a larger sample size might have resulted in stronger results for this new model.

Additional variables could also be considered, for instance, consumers' annual incomes and the amounts they spend on travel packages, although similar data could be more difficult to obtain and subject to distortions if directly asked. Extending the research to include these aspects can prove to be a further area of research by improving the model and including demographic variables as mediation variables. However, in order to achieve this, the research needs exhibit more responses.

Also, the online survey did not include any of the scales previously used in other studies to comply a unified vision of the dimensions explored in this research, namely corporate social responsibility, employee satisfaction, and employee retention and attraction. Even though, the scales were deemed reliable (using Cronbach's alpha coefficient), they could have included a broader range of Likert statements.

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Models Used for Measuring Customer Engagement

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The purpose of the paper is to define and measure the customer engagement as a forming element of the relationship marketing theory. In the first part of the paper, the authors review the marketing literature regarding the concept of customer engagement and summarize the main models for measuring it. One probability model (Pareto/NBD model) and one parametric model (RFM model) specific for the customer acquisition phase are theoretically detailed. The second part of the paper is an application of the RFM model; the authors demonstrate that there is no statistical significant variation within the clusters formed on two different data sets (training and test set) if the cluster centroids of the training set are used as initial cluster centroids for the second test set.

Keywords: probability model, parametric model, relationship marketing, Pareto/NBD model, RFM model

JEL Classification: M31, C12, C14, C38

1. Introduction

The classic marketing perspective – as practice and science – is transaction oriented. Due to several factors, such as the globalization process and highly informed customers, a criticism to this classical view has emerged in the form of relationship marketing. In a narrow perspective, the objective of relationship marketing is closely related to customer relations (Bruhn 2009, Berry, 1983), from attracting and maintaining, to enhancing these relationships (Berry, 1983). The wider view of relationship marketing spans over the relations a company has with the entities (stakeholders) of the network in which it is active part of. All definitions of relationship marketing (Grönroos, 1990, Bruhn, 2009) have four common characteristics: orientation towards the company's stakeholders, orientation towards the management process, time and a focus on needs.

Presumably, the most important stakeholder group is represented by the company's clients. The customers' needs vary by intensity, form and time, therefore a business's relation with a particular customer or group of customers is dynamic and requires special attention. In this way, the consumer is not viewed as a passive recipient of the company's value creation efforts anymore (Bijmolt, 2010), but as an endogenous element for the company who can co-create value and collaborate to design the company's innovative process (Van Doorn et al., 2010). Thus, the customers' efforts are placed on the same business process level with the company's in the value creation.

A framework of this value co-creation is the concept of value-chain developed by Bruhn (2009) as a theoretical part of understanding relationship marketing. Basically, this framework consists of four elements:

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Article History:

Received 15 October 2013 | Accepted 05 November 2013 | Available Online 18 November 2013

Cite Reference:

Tichindelean, M., 2013. Models Used for Measuring Customer Engagement. *Expert Journal of Marketing*, 1(1), pp.38-49

- i. The company's input (the company's marketing activities)
- ii. Psychological effects specific to the customers
- iii. Behavioral effects specific to the customers
- iv. The company's output (the company's financial results)

The interaction of these elements make the value chain model similar to a black-box model, where the inputs take the form of the company's input and the outputs, namely the behavioral effects of the customers, determine the company's output. The black-box is represented by the psychological dimensions of the customer, which are not visible, and can only be deduced by the company. Many studies were undertaken with the purpose of getting insights regarding these dimensions and how they interact: quality of the company's performance (Zeithaml, Parasuraman & Berry, 1992), perceived value (Sanchez-Garcia et al., 2007), customer satisfaction (Oliver, 1996), customer trust (Morgan & Hunt, 1994), customer commitment (Lacey, 2007), and the quality of the relationship (Iacobucci, 2001).

This article focuses on the psychological dimension of *customer commitment* or *customer engagement*. It is defined as the customer's ultimate outcome with causal precedence of satisfaction and trust (Morgan/Hunt 1994). An alternative expression for customer commitment is customer engagement which is defined by Van Doorn et al. (2010) as the customer's behavioral manifestation towards a brand or a firm which goes beyond purchase behavior. This behavioral manifestation can be associated with the customers' behavioral effects within the value chain. Based on these two dissimilar points of view, a sensible difference in understanding a customer's commitment can be seized. If commitment is understood as a psychological dimension, then its intensity (formation) is directly linked with other psychological dimensions (such as satisfaction, trust, perceived value) and *customer-related exogenous factors* (company specific – brand reputation). An idea of its measurement can be based on the theory of dynamic systems, where the earlier mentioned elements can be part of such a system. The main limitations regarding these models (persistence models, Gupta 2006) can be grouped into two categories. *First*, longitudinal data is necessary in order to apply these kinds of models. Although, there are several tools (especially online tools) which measure customers' dimensions such as satisfaction, trust, etc., on the long-term, these psychological dimensions are not ranked as accurate as transactional data is. *Second*, it is quite difficult to measure and to analyze, in a correct manner, psychological dimensions within transversal marketing researches (one time); conducting longitudinal studies based on cohorts of customers make these tasks more difficult.

The other point of view understands customer commitment through its behavioral manifestations. Some of these are visible to the company (purchases), other are not (word of mouth, customer cocreation and complaining behavior). Both of them have an influence on the company's outcome or performance, which can be a direct one (purchase (visible) behavior) or indirect, such as Word-Of-Mouth, loyalty (Bruhn, 2010), participation in the company's activities, customer voice or service improvements (Bijmolt, 2010). Thus, the company's performance is linked to customer engagement; the latter one is understood and measured through a company's customer driven actions. Most of the models used to measure customer engagement are based on transactional data of the customers. Transactional data such as: purchase frequency, purchase volume, purchase value, recency of last purchase can easily be obtained and analyzed by the company. Using only such *visible* behavioral manifestation of the customers' engagement may exclude other important factors (WOM, customer cocreation, and complaining behavior – Bijmolt 2010) which can result in flawed-driven insights regarding the influence of the customers' commitment on the company's performance.

The purpose of this paper can be structured into the following two key subsequent aims:

- i. To review the current model developments used to measure the customers' commitment
- ii. To apply one model (a scoring models – RFM model) on primary data.

Models used for measuring customer engagement can be differentiated according to the stages of the customers' lifecycle: customer acquisition stage, customer retention stage and customer win-back stage (Bruhn, 2010). The paper of Bijmolt, et. all (2010), reviews these models and groups them according to the stages of the customers' lifecycle.

The first stage of the customers' lifecycle – customers' acquisition stage – is important because of the fact that a customer relationship can be initiated, or not; and in the favorable scenario it can be profitable for the company starting with that particular moment. Phases of this initial stage are divided in an initiation phase and a socialization phase (Stauss, 2008). Within the initiation phase, the customer is searching for information regarding the desired product or service. This phase ends and the second one begins after a transaction (purchase) has occurred, thus a relation between the two parts is initiated (Bruhn, 2010). Bijmolt et all divides this first stage from the company's perspective into phases specific for customer selection and customer

acquisition management (Table 1). The goal of customer selection is to identify the *right* customers for further allocation of the company's resources. This *right association* does usually comprehend criteria such as: response likelihood, purchase volumes/values, purchase probabilities, purchase frequency and other transactional data. The models used within the selection phase of customers are further discussed in this paper.

Table 1. Models for measuring customer engagement within the customer acquisition phase

Type of data	<ul style="list-style-type: none"> - RFM data - Customer characteristics (e.g. demographics) - Company-interaction variables (e.g. marketing actions) - Clickstream data 	
	Customer selection	Managing customer acquisitions
Type of methods	<i>Parametric (scoring) models</i>	<i>Parametric models</i>
	<ul style="list-style-type: none"> - RFM scoring (Gupta et.al 2006) - CHAID (David Shepard Associates, 1999) - Linear regression model (Bauer, 1988) - Sequential probit model (Sismeiro and Bucklin, 2004) - Latent class probit model (Vroomen, Donkers, Verhoef and Franses, 2005) 	<ul style="list-style-type: none"> - Logit/Probit model (Hansotia and Wang, 1997; Lewis, 2005; Reinartz, Thomas and Kumar, 2005; Verhoef and Donkers, 2005) - Tobit model (Hansotia and Wang, 1997; Lewis, 2006) - Hazard model (Thomas, Blattberg and Fox, 2004) - Generalized gamma model (Venkatesan and Kumar, 2004) - Hierarchical Bayesian model (Ansari and Mela, 2003) - Poisson count model (Andreson and Simester, 2004)
	<i>Semi-/Nonparametric (scoring) models</i>	<i>Data/web usage mining</i>
	<ul style="list-style-type: none"> - Semiparametric logit model (Bult and Wansbeek, 1995; Malthouse, 2001) - Neural networks (Baesens et al. 2002; Malthouse and Blattberg, 2005) 	<ul style="list-style-type: none"> - Transaction/usage clustering (Mobasher, Cooley and Srivastava, 2000) - Association rule discovery (Mobasher, Cooley and Srivastava, 2000; Mobasher et al. 2001) - Fuzzy inference engine (Nasraoui and Petenes, 2003) - UBB Mining (Ting, Kimble and Kudenko, 2005)
	<i>Probability models</i>	
	<ul style="list-style-type: none"> - Pareto/NBD model (Abe, 2009; Fader, Hardie and Lee, 2005; Schmittlein, Morrison and Colombo, 1987) - BG/NBD model (Fader, Hardie and Lee, 2005; Fader, Hardie and Shang, 2010) - Individual-level probability model (Moe and Fader, 2004) 	

2. Models for Customer Engagement within the Customer Selection phase

2.1. Probability models

A probability model is a representation of the studied phenomena in which observed characteristics (happened events) are the result of a stochastic process of underlying, unobserved characteristics which vary in intensity across the sample studied. A probability model is built on logical deductions regarding the interdependence of the identified characteristics of the studied phenomena. An identified characteristic is a variable which *varies* in a stochastic or random manner across the studied individuals. This random variable usually follows a known probability distribution and is defined by either its probability function (discrete random variables)/probability density function (continuous random variables) or by its cumulative distribution function (both discrete and continuous variables).

There are three main approaches which model transactional data with the purpose of customer selection:

- i. Pareto/NBD model (Abe 2009; Fader, Hardie and Lee, 2005; Schmittlein, Morrison and Colombo, 1987)
- ii. BG/NBD model (Fader, Hardie and Lee, 2005; Fader, Hardie and Shang, 2010)
- iii. Individual-level probability model (Moe and Fader, 2004)

In their initial paper (Schmittlein, Morrison and Colombo, 1987), the authors used transactional data to predict future *transactional* behavior of the studied individuals or customers. They used two sets of data – the customer’s recency (time of last purchase) and the customer’s purchase frequency (number of transactions completed in an observed time-period). Two different sets of information were attracted from each observed customer and used as input data for the Pareto/NBG model: the *number of repeated transactions* each customer has completed in an observed time period (noted as x) and the *period of his last transaction* (noted as t_x with the starting time of 0 which represents the beginning of the observed time period). A clear illustration of the meaning of the data over the observed time period is presented in the figure below:

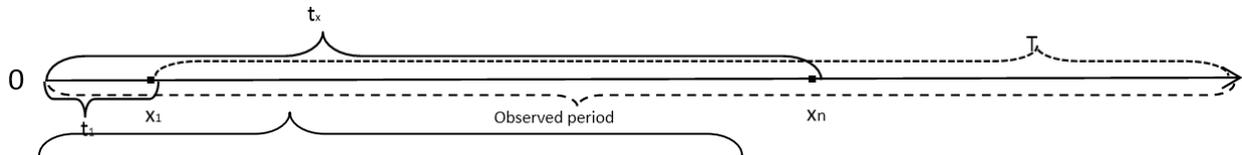


Figure 1. Graphical representation of the Pareto/NBG model variables

Every observed customer is symbolized through the notation $X = (x, t_x, T)$. Based on this data and on the timing of the events, the following assumptions were developed for the underlying model (Schmittlein, 1987):

- i. A customer’s relationship with the company has two phases: he or she is “alive” for an unobserved period of time, and then becomes permanently inactive.
- ii. While “alive”, the number of transactions made by a customer can be characterized by a Poisson process.
- iii. Heterogeneity in the transaction rate across customers follows a gamma distribution.
- iv. Each customer’s unobserved “lifetime” is distributed exponential.
- v. Heterogeneity in dropout rates across customers follows a gamma distribution.
- vi. The transaction rates and dropout rates vary independently across customers’.

The *dropout* of any observed customer can be defined as the moment or as the event by which the customer has reached his buying saturation and from which on no further transactions will be completed. The initial SMC (Schmittlein, Morrison, Colombo) Pareto/NBD model assumes the dropout of an observed customer can happen at any moment in time, independent from his actual buying behavior.

The output information provided by the model includes the following:

- i. the probability that a customer is still active at a specific moment of time – $P(\text{alive} | x, t_x, T)$
- ii. the expected number of transactions that an observed customer will complete in a future period of time ($E(Y(t) | x, t_x, T)$)

A slight variation from the Pareto/NBD model has been developed by the marketing scientists Fader, Hardie and Lee (Counting your Customers the Easy Way: An Alternative to the Pareto/NBD Model - 2005). The assumptions of their probability model are similar to those of the Pareto/NBD model with the exception of the *dropout timing*, which is dependent of the completed transactions, therefore can occur at any point in time *after* a transaction has been completed. The five assumptions can be summarized as follows (Fader, Hardie and Lee, 2005):

- i. While active, the number of completed transactions made by a customer follows a Poisson process with an average success value λ . This is equivalent to the assumption that the time between two completed transactions of one customer can be modeled by an exponential distribution with a constant transaction rate λ :

$$f(t_j | t_{j-1}; \lambda) = \lambda e^{-\lambda(t_j - t_{j-1})}, \quad t_j > t_{j-1} \geq 0.$$

- ii. λ is distributed according to a gamma distribution with parameter α and r

$$f(\lambda | r, \alpha) = \frac{\alpha^r \lambda^{r-1} e^{-\lambda \alpha}}{\Gamma(r)}, \quad \lambda > 0.$$

- iii. After each completed transaction, a customer becomes inactive with a probability of p . This point at which a customer becomes inactive is distributed across the transactions according to a (shifted) geometric distribution with a probability function:

$$P(\text{customer becomes inactive immediately after the } j\text{th transaction}) = p(1 - p)^{j-1}$$

$$j = 1, 2, 3, \dots$$

- iv. The probability (p) varies within the customer database according to a beta distribution of parameters a and b with the following probability density function:

$$f(p|a, b) = \frac{p^{a-1}(1-p)^{b-1}}{B(a, b)}, \quad 0 \leq p \leq 1, \text{ where } B(a, b) \text{ is the beta function.}$$

- v. The transaction rate λ and the dropout probability p (probability that the customer becomes inactive after a specific transaction) vary independently one from another across the customer base.

Because of the assumptions *iv.* and *v.* and the underlying distributions (geometric distribution of and beta distribution), the probability model was named BG/NBD model (beta-geometric/negative-binomial-distribution). The likelihood function for every observed customer was constructed and the parameters of the used distribution (of the model specifically) were estimated using optimization methods. As an output, this model offers relevant information regarding: the probability of observing x purchases in a period of length t ($P(X(t))$), the expected number of purchases in a time period of a t length ($E(X(t))$), and the forecast of the number of purchases an observed customer will complete in a future period of time t ($E(Y(t))$).

The two described probability models used for measuring customer engagement within the acquisition phase are solid instruments which provide relevant and easy to understand information. Another strength of these models relies in the small data set needed for application. Two behavioral characteristics of the customers, observed over a period of time, are the only necessary input. Due to longitudinal data, the model can be tested and validated, obtaining valuable forecasts.

2.2. Parametric (scoring) models

Parametric or scoring models can be defined as a set of methods used mainly to group (cluster) the customers according to some grouping variables. Traditional scoring models use behavioral characteristics as grouping variables (recency of last purchase, frequency of purchases within an observed period, monetary value of last purchase) based on the assumption that future buying behavior of the customer is similar to his past behavior. The formed groups or segments of customers prioritize the company's marketing activities according to the scores of the underlying variables. These models describe the customers' commitment through its observed behavioral characteristics (RFM variables), neglecting other possible drivers of it.

The first parametric model which uses RFM variables was proposed by Hughes (1994) with the purpose to differentiate *important* customers from a large database according to the mentioned variables. These variables were defined as: R – Recency of the last purchase (the time interval between the last transaction of the customer and the present time); F – Frequency of purchases (the number of transactions completed in a specific period of time) and M – Monetary value of the purchases (the money spent by the customer for the company's offer in a specific period of time). The importance of these variables is set up through weights. Hughes considers that the three variables are equal in importance, thus they have equal weights (1994). Other authors (Stone, 1995) consider that the weights of these variables should be established according to the researched industry.

Equal or unequal weighted variables are used as input for a clustering procedure. A clustering procedure is an iterative algorithm which groups or *clusters* the observed objects according to their similarities. Thus, the formed clusters differ one from another by the dissimilarities of the underlying objects. Choosing a clustering procedure depends on many factors, among which: the clustering objective, the size of the data and the scales used to measure the input variables are of high importance. There are three commonly used clustering procedures: hierarchical cluster analysis, k-means cluster analysis and two-step cluster.

The scoring model for measuring customer engagement uses the k-means algorithm as clustering procedure. K-means, originally known as Forgy's method (Forgy, 1965), groups the observed objects in k

clusters according to their mean value (an object can be described by one or more variables measured through interval or ratio scales). The steps of this algorithm are:

- i. k initial clusters are formed out of the first k objects (the researchers indicates the number of the desired clusters according to his research experience and research objectives). The mean of every cluster is computed (this mean is called a centroid and can be considered a point in an n-dimensional space, where n is the number of variables through which an object is characterized).
- ii. The remaining objects are assigned to each of the k clusters according to the smallest distance between the objects' mean and the k clusters' centroids. The distances are computed using Euclidean distances in an n-dimensional space. After all objects have been assigned to a cluster, the centroids of the clusters are computed again.
- iii. All objects are classified in one of the k clusters according to the smallest distance between the objects' mean and the new clusters' centroids.
- iv. Step iii. is repeated until the clusters' centroids do not exhibit a significant change.

This kind of scoring model based on RFM variables is primary used within the customer acquisition stage, when selecting the *right* customers for future marketing actions is extremely important. Although it has several advantages, the RFM scoring model is considered to have the following limitations (Fader, Hardie, and Lee, 2005; Kumar 2006a): firstly, this model predicts the customers' engagement only in the next period of time, expectations regarding future periods cannot be made; secondly, the used variables (RFM) are observed indicators (observed effects) of the customers' engagement - the formation factors or components are not taken into consideration; thirdly, the model ignores the possibility that the measured customers' engagement is the result of the company's past marketing actions.

2.3. Research methodology

This section of the paper presents a detailed scoring model based on RFM variables and its applicability in segmenting a goods and services market according to customers' engagement.

The chosen goods and services market is the fuel market of the former 2007 European Capital of Culture - Sibiu, Romania. As data source, end-customers of fuel stations were selected; they represent an external data source (customers who are part of the external environment of the fuel distributing companies), a primary data source (the obtained data is analyzed for the first time by the authors), and also they represent a free data source. A survey was used as a research method and a questionnaire as a research instrument. The sample size was represented by 111 respondents, for which the selection variables were two demographic variables (age [at least 18 years old] and possession of a car) and a behavioral variable (using the car for at least four times per week).

The data were collected in the period beginning with the 1st of March 2011 till the 15th April 2011. Three sets of variables were attracted from each customer and used as input data for RFM scoring model:

- i. *Recency of the last purchase* – time period elapsed between the last purchase and the questionnaire completion, denoted by R and measured through a nominal scale with 5 categories: less than 3 days, between 3 and 7 days, between 8 and 11 days, between 12 and 15 days and over 15 days.
- ii. *Frequency of purchases* – number of purchases completed by a customer in the last month, denoted by F and measured through a nominal scale with 5 categories: more than 4 times in a month, 4 times in a month, 3 times in a month, 2 times in a month and less than 2 times in a month.
- iii. *Monetary value of the last purchase* – the monetary value (in Lei) paid by a customer within his last purchase, denoted by M and measured through a ratio scale.

The k-means clustering procedure uses variables measured only through numeric scales (interval or ratio scales), therefore a transformation of the two nominal variables (R and F) is needed. Numbers (scores) varying from 1 to 5 can be considered alternatives to the categories of the nominal variables. Thus, the mentioned variables are transformed according to the intensity of the customer's engagement, as follows: 1 – most recent transaction (less than 3 days) and 5 – most distant transaction (over 15 days) for *R-recency*; and 1 – lowest frequency (2 times in a month) and 5 – highest frequency (more than 4 times in a month) for *F-frequency*. The M variable was ordered ascending according to its values and the 20th, 40th, 60th and 80th percentiles were computed. The initial values of the M variable were transformed in scores (varying from 1 to 5) based on the computed percentile scores (e.g. if a customer spends an amount of 400 Lei within his last

purchase and the 20th percentile is 350 Lei, while the 40th percentile is 430 Lei, then the initial values will be transformed in a score of 2).

After all variables were transformed in scores, the data set was divided in two parts: a training set and a test set. The training set is used to construct the initial clusters based on the RFM variables which are validated or not through the remaining data of the test set. The statistical software tool IBM SPSS V.19 was used to compute three clusters based on the variable scores of the training set.

Table 2. Cluster centers (and clusters) computed on training set basis

Initial Cluster Centers	Cluster		
	1	2	3
Frequency of purchases	2,00	3,23	2,93
Monetary value of the last purchase	2,75	1,86	4,29
Recency of the last purchase	4,38	1,45	1,93

Table 2 contains the initial cluster centers (centroids) computed from the observations of the training set. Three clusters were set as default by the researchers. Based on the values of the centroids, the elements (observations) of the formed clusters can be described as follows:

- i. The observations of Cluster 1 are customers which have a low monthly purchase frequency (the value of 2.00 is under the mean value of 2.5). They are middle buyers (the monetary value of their last purchase of 2.75 is near the mean value of 2.5) and their last purchase was far more distant from the time of completing the survey (thus, there is a high probability of purchase in the immediate period).
- ii. The observations of Cluster 2 are customers which buy more frequently than the customers of Cluster 1 do, but in a lower value ($3.23 > 2.5 > 2.00$ and $1.86 < 2.5 < 2.75$). These customers are low buyers which have completed their last transaction at a time near the survey period ($1.45 < 2.5$), thus there is a low probability that a purchase will occur in the immediate timeframe.
- iii. The observations of Cluster 3 are customers which have a high buying frequency ($2.93 > 2.5$) and the highest spent monetary value for the last purchase (4.29). They are heavy buyers and are the most profitable customers for the company. The company's marketing actions should be oriented towards retaining these heavy buyers.

The distribution of the training set observations, according to their cluster membership, is presented in the table below:

Table 3. Distribution of the training set observations, according to their cluster membership

Cluster number	% of observations
1	18.75
2	56.25
3	25.00
Total	100.00

The computed centroids were saved and used as starting points in clustering the remaining observations of the test set. A cluster number was attached for all the observations of the initial training set and the test set.

Table 4. Final clusters centers of the test set observations

Clustering variables	Cluster		
	1	2	3
Frequency of purchase	2.00	3.26	2.67
Monetary values of the last purchase	2.44	1.89	4.20
Recency of the last purchase	4.67	1.48	2.20

The final centroids of the three clusters of the test set do not differ so much from the used initial centroids of the formed training set clusters (table 2 and table 4). The clusters of the test set maintain the patterns of the training set clusters, thus each observation (independent of the underlying set – training or test set) is part of one cluster which is consistent through the entire data set. This consistency is understood as non-degeneration (persistency) of the cluster patterns (constant cluster centers) throughout the entire database. The t-Student test

was used to prove that this non-degeneration of the cluster patterns is valid throughout the entire data set. The following steps were used:

- i. A cluster membership number (1, 2 or 3) was attached to every observation of the entire data set (training set and test set).
- ii. The distance from the cluster center was computed for every observation of the entire data set (Euclidean distances were used within a three-dimensional space in which each dimension is represented by one clustering variable – R, F or M).
- iii. The data set was split according to the cluster membership and the t-test was applied for the test variable – distance from cluster centers – and a filter (training set/test set) was used as a grouping variable.

The purpose of using this statistical test is to identify if there is any statistical difference between the means of the test variable computed for both the training and the test set. This can be represented by the following symbolic notations:

$$H_0: \mu_1 - \mu_2 = 0$$

$$H_1: \mu_1 - \mu_2 \neq 0,$$

where H_0 is the null hypothesis which states that there is no statistical significant difference between μ_1 (the mean of the variable *distances from cluster centers* of the training set observations) and μ_2 (the mean of the variable *distances from cluster centers* of the test set observations) and H_1 the alternative hypothesis which states the opposite.

A validation of H_0 is interpreted as a consistence of the initial formed clusters (based on the training set) throughout the test set. Thus, an observation is a member of one and only one cluster independent of the data that served as a clustering base. In opposition with this aspect, the alternative hypothesis (H_1) presumes that there is insufficient data to confirm the null hypothesis; therefore the initial formed clusters are not consistent throughout the data set.

Table 5. T-test for the test variable – distances from cluster center – by using the filter - test set/training set - as grouping variable (Cluster 1)

Levene's Test for Equality of Variances		t-test for Equality of Means							
F	Sig.	T	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence interval of the difference		
							Lower	Upper	
Equal variances assumed	0.348	0.563	0.526	16	0.606	0.1446396	0.2751497	-0.43	0.72793
Equal variances not assumed			0.526	16	0.606	0.1446396	0.2751497	-0.43	0.72811

The table above contains the results of applying the t-test on the test variable *distances from cluster centers* by using the *membership of the observations* (in the initial training set or test set) as the grouping variable. The Levene's Test for Equality of Variances tests if the variances of the test variable (*distances from cluster centers*) are equal between the two sets of data (training and test set). This is the null hypothesis, which is rejected if the desired significance level is lower than the computed one (Sig. = 0.563). A significance level of Sig. = 0.563 is interpreted as the probability of error if we would reject the null hypothesis; thus the null hypothesis is validated (it can be asserted that there is no statistical difference between the variances of the variable - *distances from cluster centers* computed for the two data sets).

The statistical significant difference between the means of the testing variable (*distances from cluster centers*) considered for the two data sets is tested using the t-Student test. This test denotes a computed t-value of 0.526 and a statistical significance of 0.606. Thus, there is a high probability of error if we reject the null hypotheses (0.606). Therefore we accept it and conclude that there is no statistical significant difference between the means of the testing variables (*distances from cluster centers*) considered for the two data sets (training and test set). Consistency of the initial formed clusters (based on the initial cluster centers of the

training set observations) is proven throughout the test set, thus the elements of Cluster 1 of the training set denote similar patterns as the elements of Cluster 1 of the test set do.

Table 6. *T-test for the test variable – distances from cluster center – by using the filter - training set/ test set - as grouping variable (Cluster 2)*

Levene's Test for Equality of Variances			t-test for Equality of Means						
F		Sig.	t	df	Sig. (2-tail.)	Mean Diff.	Std. Error Diff.	95% Confidence interval of the difference	
								Lower	Upper
Equal variances assumed	0,046	0,831	0,057	54	0,954	0,006	0,113	-0,22	0,233
Equal variances not assumed			0,057	54	0,954	0,006	0,113	-0,22	0,233

The elements of Cluster 2 are more homogenous between the two data sets according to the testing variable: distances from cluster centers. The low value of the t-test (0,057) and the high probability of error if the null hypothesis is rejected (0,954) indicate that there is no statistical significant difference between the mean values (μ_1 and μ_2) of the testing variable considered for the two data sets. A high consistency of the initial formed clusters is proven; the cluster centers computed for the training set observations attract observations of the test set which have strong similar patterns as the first one do. By comparing the results of the t-Student test for Cluster 1 and Cluster 2, a more consistent Cluster 2 is found ($0,954 > 0,606$) - the elements of Cluster 2 are more homogenous throughout the database than the elements of Cluster 1.

Table 7. *t-test for the test variable – distances from cluster center – by using the filter - training set/ test set - as grouping variable (Cluster 3)*

Levene's Test for Equality of Variances			t-test for Equality of Means						
F		Sig.	T	df	Sig. (2-tail.)	Mean Diff.	Std. Error Diff.	95% Confidence interval of the difference	
								Lower	Upper
Equal variances assumed	2,543	0,121	0,647	31	0,522	0,121	0,187	-0,26	0,503
Equal variances not assumed			0,63	25	0,534	0,121	0,192	-0,27	0,517

Unequal variance of the testing variable throughout the two data sets is denoted by a low Sig. of 0.121 for the Levene's Test. The t-Student test is performed for both equal and unequal variance of the test variable. The results are similar (computed t-values of 0.647 and 0.63 and Sig. of 0.522 and 0.534) and conclude that there is no statistical significant difference between the means of the testing variables considered for the two data sets.

Consistency of the formed clusters was tested throughout the data set by using the cluster centers of the training set as starting centers for the test set. For all the three clusters, consistency was found throughout the data set. Consistency of a cluster can be interpreted as a similarity of patterns or homogeneity of the underlying observations throughout the data set. Based on this idea, the observations of Cluster 1 can be characterized as customers with a low monthly buying frequency (mean frequency of 2.00), with an average monetary value spent within their last purchase (mean monetary values of the last purchase of 2.44), and a high probability of future purchases (their last purchase was far more distant in time - mean recency of last purchase of 4.67).

The Cluster 2 customers are frequent buyers (mean F of 3.26), but light spenders (mean M of 1.89). They have a low probability of completing a transaction in the future (1.48). The third customer group (Cluster 3) consists of high and frequent spenders (mean M of 4.20 and a mean of F of 2.67) which have a medium

probability of completing a transaction in the future (mean R of 2.20). These are considered to be the most valuable customers out of the customer database because of their strong engagement with the company's offerings.

3. Conclusion

The purpose of this paper is to define and measure customer engagement. A logical structure was used to define and understand the concept of customer engagement as a part of a broader concept - the value chain (Bruhn, 2010). In this context, customer engagement is defined as the customer's ultimate outcome with causal precedence of satisfaction and trust (Morgan/Hunt 1994 B). An alternative expression for customer commitment is customer engagement which is defined by Van Doorn et al. (2010) as the customer's behavioral manifestation towards a brand or a firm which goes beyond purchase behavior. This behavioral manifestation can be associated with the customers' behavioral effects within the value chain. Based on these two dissimilar points of view, a sensible difference in understanding a customer's commitment can be seized. If commitment is understood as a psychological dimension, then its intensity (formation) is directly linked to other psychological dimensions (such as satisfaction, trust, perceived value) and *customer-related exogenous factors* (company specific – brand reputation). One point of view understands customer commitment through its behavioral manifestations; the other understands customer commitment through its behavioral manifestations. Some of these are visible to the company (purchases), other are not (word of mouth, customer cocreation and complaining behavior). Both of them have an influence over the company's outcome or performance, which can be a direct one (purchase (visible) behavior) or indirect, such as Word-Of-Mouth, loyalty (Bruhn, 2010), participation in the company's activities, customer voice or service improvements (Bijmolt, 2010).

Customer engagement develops and has effects within each stage of the customer lifecycle (customer acquisition stage, customer retention stage, and customer win-back stage (Bruhn, 2010)). For each stage, several models were developed for measuring customer engagement. The authors review two such models specific for the customer selection stage (probability model - Pareto/NBD model and a parametric scoring model - RFM model) and apply one of them (RFM model) on primary data. The purpose of applying the RFM model is to demonstrate that there is no statistical significant variation within the clusters formed on two different data sets (training and test set) if the cluster centroids of the training set are used as initial cluster centroids for the second test set.

Authors' future research will be oriented towards developing and applying persistence models for the measurement of customer engagement. The authors consider such models to be a suitable research instrument for the theoretical framework of the value chain, in general and customer engagement, in particular. The main limitations regarding these models (persistence models, Gupta 2006) can be grouped into two categories. *First*, longitudinal data is necessary in order to apply these kinds of models. Although, there are several tools (especially online tools) which measure customers' dimensions such as satisfaction, trust, etc., on the long-term, these psychological dimensions are not ranked as accurate as transactional data is. *Second*, it is quite difficult to measure and to analyze, in a correct manner, psychological dimensions within transversal marketing researches (one time); conducting longitudinal studies based on cohorts of customers make these tasks more difficult.

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Using the Electronics Development Advantage in Creating a Buzz for the Airline Passengers

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More and more airlines are trying to show their customers their ability to understand their needs, the market trends and the importance of technology in their lives. In response to the rapid development of the consumer electronics, the airline companies focus their attention on offering their customers the possibility to book a flight or check-in using a smartphone, spend time watching movies or be connected to the internet during the flight. Customers search for airlines who are more "tech-geek" and opened to new technologies, which allows them to rate the airline companies through apps or connect more often with the airline through social-media. Technology has become an important part in developing and marketing the airline services for a better quality, more customer-focused and for better flight experience which ultimately makes the difference when choosing to fly an airline company.

Keywords: airlines, aviation, passengers, inflight-entertainment, customer loyalty, customer personalization.

1. Introduction

In the aviation market, where competition is putting airlines under pressure to become more customer-oriented, the development of technology is a key part for a successful strategy. In these days, it is not all about the food served inside the aircraft, the luggage allowed on-board, but also on how airlines can cope with what is essential for the customer, in fact technology being on top of the list. In the last years, with the internet growth, we have seen a large development of the social-media networks and apps which are essential tools for companies who broaden their view and want to offer a special feeling to their customers, making them a part of the company growth by providing essential feedback. This would not have been possible without the growth of technology, which enabled airlines to be more creative starting from the point when the customers search for fares and until de-boarding the airplane.

Airline companies have always been keen on offering a better experience for the customer in every step of interaction with the services of the company. Starting from the option to book a flight via a smartphone, interact with the company via social media to obtain information regarding schedule or other options available, rate the company services with the help of certain free apps, check-in on the smartphone or check-in machines at the airport, effectively use the inflight-entertainment system during the flight to watch a movie, documentary or connect to the internet to keep up with to the latest news, each step of the flying

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Article History:

Received 15 October 2013 | Accepted 15 November 2013 | Available Online 18 November 2013

Cite Reference:

Avram, B., 2013. Using the Electronics Development Advantage in Creating a Buzz for the Airline Passengers. *Expert Journal of Marketing*, 1(1), pp.50-54

experience has to be somehow related to technology in order to achieve a high customer satisfaction and retention. Technology development is also beneficial for the companies, who are willing to use technology to personalize the service even in economy class, to receive fast feedback, better connect with passengers via social media, increase customer ancillary revenue by using special apps on tablets or give tablets to cabin crew in order to find quick information about each passenger or to facilitate the buy-on-board process.

2. Literature Review

Passenger satisfaction in the airline industry has become an important issue for every company who wants to have loyal customers. Dennet, Ineson and Colgate (2000) suggest that as competition has become more and more intense, with the growth of the LCC and Gulf carriers, service quality in the airline industry has also received more attention. In the transportation and logistics field, Dresner and Xu (1995) examined the link between customer service and customer satisfaction using data from the airline industry. They found that three measures of customer service, mainly mishandled luggage, ticket over-sales and on-time performance, were all positively related to customer complaints, their measure for customer satisfaction. Reducing the problems facing luggage and on-time aircraft performance contributes to fewer customer complaints.

Saha and Theingi (2009) pointed out that the growth of low-cost carriers has raised concerns on how satisfied the customers are with the services provided. Keeping quality and developing strong points are huge concerns of the airline companies, due to the fierce competition, especially the low-cost carrier model which has seen many changes with the arrival of new technology aircraft which allows low-cost carriers like Norwegian Air Shuttle to develop long-haul routes with the help of their Boeing 787's. The delivery of high-quality service ultimately becomes a marketing requirement among air carriers as a result of competitive pressure (Ostrowski et al., 1993). Chang and Keller (2002) argue that quality in the airline service is difficult to describe and measure due to its heterogeneity, intangibility, inseparability, and only the customer can truly define service quality in the airline industry (Butler and Keller, 1992). Other researchers have identified corporate image as an important factor in the overall evaluation of the service and the company. The relationship between corporate image, service quality and loyalty has been investigated in other studies. Andreassen and Lindestad (1998) noted that corporate image has an impact on customer's choice of company when service attributes are difficult to evaluate. Zeithaml and Bitner (1996) also demonstrated that image can influence customers' perception of the good and services offered.

Service quality, a consumer's judgment about the overall superiority of a product or service (Zeithaml, Bitner, Gremler, 2009) is widely acknowledged as one the important determinants of brand loyalty. Service quality is essential strategy for every airline success and mainly concerning the survival of any business organisation, as it can influence customer purchase behavior and organization performance (Zeithaml, Berry, Parasuraman, 1996).

3. Technology Development on Customer Satisfaction in Airline Industry

As global economies begin to show signs of recovery and people start to travel more often, the airline companies start to understand what the changing customer needs. As technology grows and people become more and more addicted to technology (tablets, smartphones, internet), the airlines search for more ways to increase customer satisfaction. Among all the industries benefiting from the advancement in computer technology, the airlines are taking the maximum benefits; because the revolutionary development has completely changed the structure, form and especially the future of the industry. The technology has had a great impact on the way customers can book their tickets via a website or can compare fares on different booking websites. This promising start was just the beginning of the development and a positive example of how technology can change the way airlines treats their customers.

The new trends in the airline industry are to take advantage of the mobile technology and use it effectively to meet customers' needs. In a survey issued in 2013 by SITA (*Société Internationale de Télécommunications Aéronautiques*) to IT executives in each of the top 200 passenger carriers, including low-cost operators and regional and leisure operators, found out that a predicted 62% increase in the use of applications provided by Apple or Samsung for check-in or boarding passes via mobile technology. Currently, only 21 percent of all airlines use technology, contrasting with 61 per cent of all airlines using their own check-in apps. In the current market, 50 per cent of all airlines offer flight search, ticketing, check-in and boarding passes via mobile technology. In the next three years, it is expected that more than 60 per

cent of airlines will extend the mobile technology and its functionality to include flight re-booking, lost bag reporting and bag status updates in case of a lost luggage. More than 75 per cent of airlines are planning to move to electronic flight bags and automated cabin crew services by 2016. In addition, airlines are expected to generate 14 per cent of total revenue from ancillary sales just from mobile technology and social media by 2016. Nine out of 10 airlines by 2016 are expected to use mobile apps for ticket sales, estimated to be worth more than 70 billion US dollars within three years. By 2016, 71 per cent of the airlines plan to use tablet-based mobile solutions in engineering and maintenance. The final results show a hastening trend towards the use of mobile technology both for operational use and by customers.

The new game between the airlines is to be seen on how the new technology promises to change the way passengers search, buy and most of all experience the comfort of flying and the way airlines create and market their products and services. Customer satisfaction is on the top of the list and airlines are adding more and more Wi-Fi options on their aircraft to attract more business customers or economy class passengers who want to enjoy working while flying. Ancillary revenue from Wi-Fi payments is to increase in the next years, taking into consideration the fact that customers are now allowed to use their mobile phone during take-off and landing procedures. For example, Spanish budget airline Vueling is planning to add more Wi-Fi systems on their aircraft in bid to lure more business passengers and set itself apart from other low-cost carriers like rivals Ryanair or EasyJet. The airline is seeking to target business clients who account for almost 40 per cent of ticket sales, securing the Wi-Fi plan through a deal, coming at no cost to Vueling. Another prosperous example is Turkish Airlines, which has added high-speed Wi-Fi broadband internet and inflight television on its trans-Atlantic flights using the existing platform. Turkish Airlines aimed to offer customers more options where they search for value, passengers being able to access high-speed, unlimited internet with laptops, tablets, smartphones or other devices. As Lufthansa did, the internet will initially be provided free of charge as an introductory offer. After a period, passengers will be able to access internet via an access code, being available for a credit card purchase. Not all airlines succeeded to stir the customers' interest in using the internet on-board. For example, Qantas has scrapped the plans to provide wireless internet access on its flights, citing a lack of interest from customers during a trial who ran for nine months in 2012/2013, allowing passengers to access the internet on six of the airline's A380 on some long-haul routes like Sydney-London or across the Pacific to Los Angeles. The customers were not interested in using the Wi-Fi system, evoking the fact that the service was extremely expensive, the airline charging between 13 and 40 dollars for its data packages on board. The unsuccessful attempt of providing Wi-Fi was due to the costs associated with offering a reliable connection which are significantly higher than on the ground, especially when flying long-haul routes that can't connect to ground towers and require special system installed on the aircrafts. Other airlines like Emirates has introduced the same technology on its A380 aircraft, currently providing wireless internet on-board, charging 15 dollars for each 25 used MB or 25 dollars for each 100 MB using a laptop, or 8 dollars for each 5 MB for mobile phones in all classes. Singapore Airlines also offers wireless internet on-board on some flights, with price ranging from 10 dollars for 10 MB or 25 dollars for 30 MB.

With some airlines being successful and other airlines accelerate the Wi-Fi installations on-board aircraft, combined with the large number of passengers carrying their personal gadgets or digital devices, the aviation industry has seen changes in what the configuration of the aircraft is concerned. Airlines around the world are fast responding to the large number of passengers carrying smartphones, mobile phones, tablets, notebooks or e-readers, equipping seats with power and USB ports. Other airlines are searching to install seats, creating storage space for personal electronic devices in Business Class, or designed seats in Economy Class, where passengers can store their mobile devices. On the same track, iPads for example are changing the way plane tray tables are designed. Airlines that want their customers to have a pleasant flight experience have adopted new economy class tray tables for storing personal electronic devices. This means that while enjoying the dinner served by the airline, the passengers will be able to watch content on their iPad or iPhones screens hands free with the tray table up, charging their devices at the same time.

Electronic devices, being important items when travelling, have attracted airlines attention and in an effort to offer passengers a much wider variety of news, instead of the limited printed newspapers or magazines, and to save distribution costs, airlines such Air France or Airberlin have started to provide passengers with access to digital newspapers and magazines before and even during the flights. For example, Air France has been offering a digital press service on iPads available for passengers who use the lounges at Charles de Gaulle airport. Air France has expanded the service and launched a new "AF Press App" that allows passengers to download publications up to 24 hours before their flight until the time of departure to read them before, during or after the trip. The same goes for Airberlin, offering Silver and Gold members a

free option to download newspapers or magazines to their own devices while waiting at Berlin or Dusseldorf Airport, the service being free of charge and includes publications in both German or English.

4. Towards a More Personalized Service

Wanting to be closer to every passenger, airlines such as Emirates, British Airways, Iberia or KLM, have equipped their cabin crew with tablets. Airlines allowed the cabin crew to see which previous trips a passenger has taken with the carrier before, knowing their food, drinks and seating preferences, other issues a customer had on other flights, their special needs, as well to see who is enrolled in their frequent flyer program to provide a more personalized service even in economy class. Emirates, for example created in 2004 the so called “Knowledge-driven Inflight Service” which allowed them to know their passengers better, using the system to perform inflight upgrades to Business or First Class, as well as get quick feedback.

British Airways, being a “tech-geek” has had a lot of initiatives concerning their marketing campaigns or customer service improvement. To provide a more personalized service, almost 2,000 senior cabin crew were given an iPad, featuring its “Enhanced Services Platform” consisting of several apps that allowed flight attendants to store and receive relevant passenger details in real time, such as the number of flights taken with BA, the meal preferences, birthday, aiming to offer its passengers a more tailored inflight service. In 2012, BA developed a customer recognition program, entitled “Know Me”, the program being able to send messages with information about specific customers to the iPads of customer service agents and senior cabin crew via the airline’s computer system. This was possible after BA spent almost a decade to gather all of its passenger data from more than 200 sources into one database, generating a single customer view.

5. Conclusions

A very dynamic industry as it is, the airline industry has known many changes and the airline companies are trying to show the customers their value when they fly with them. In order to cut costs and provide a better service at each step of their experience with the airline, technology has become an extremely important factor and airlines are trying to cope with the latest changes in the technology industry and implement different concepts that customers would value. The fierce competition is bringing the creativity of the management staff to another level and customers are the only ones to are set to win. Each airline tries to come up with new ideas that would be suitable to their customers and make their flying experience more enjoyable. And nowadays, technology makes all the difference.

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ISSN-L 2344-6773
Online ISSN 2344-6773

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