

Impact of the financial crisis on Internet usage and users' attitudes

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Abstract:

Greece (as well as most of the Southern European countries) faces one of the worst financial crises of its recent history since (2009). However, recent studies from various sources (including Greek and European institutions) show an increase in online spending, in spite of a general decline in retail sales. The aim of the present study is to identify the current Internet usage and views among Greek users, regarding brick and mortar and online shops, and examine the impact of the crisis on their online spending. Results show that online stores still lack, in terms of service attributes, but are considered as offering significant larger range, better prices and convenience. The present study identifies a relationship between users who have felt the impact of their financial crisis and the disposable income for online purchases, but no significant relationship to the intentions to buy online.

Keywords: internet usage, internet shopping, financial crisis, Greece

1. INTRODUCTION

(Despite being in a period) of a significant financial crisis, online commerce in Greece is on the rise. ELTRUN's recent study (2014) showed an increase in online spending in all sectors, with a particular emphasis on hotel reservations, ticket purchases (for music shows etc.), telecommunication services and insurance. This comes in direct contrast with the overall decreasing spending levels, which poses an interesting question – is online behavior impacted by the present financial crisis?

The present study attempts to examine the impact of the financial crisis on Internet overall usage. Moreover, it attempts to outline the difference in users' perceptions regarding various attributes of online and offline environments, as well as any impact from the existing financial crisis.

2. THE IMPACT OF FINANCIAL CRISIS (ON) ONLINE RETAIL – LITERATURE REVIEW

With Greece experiencing one of the strongest financial crises of its modern history, research on the impact of the financial turmoil on online shopping behavior is essential for managers in most sectors. Despite several financial crises during the last 10 years (such as the 2007 subprime mortgage crisis in the US, or the existing crises in the EU), existing academic research is limited. Ghadami, Aghaie & Mohammadkhan (2010) attempted to investigate the impact of a crisis on B2C e-commerce and found that the majority of online users in 2008 (the year following the break out of the subprime mortgage crises) planned to reduce their online spending, during holiday shopping. The researchers also found that online consumers represented in their survey had a higher average household income, and those with an income of \$100,000 and above showed less impact than those who had smaller household incomes.

Available data from various providers reveal a continuous growth of e-commerce sales. In a worldwide level, e-commerce sales first topped 1 trillion dollars in 2012, and were expected to grow to at least 1.12 trillion by the end of 2013 (eMarketer, 2013). However, the rapid increase comes mainly from the Asia-Pacific market and especially China, with traditional markets, such as North America and Western Europe witnessing growth rates of less than 10%.

Regarding Greece, European Commission statistics (2013) show that the percentage of people having purchased goods or services online during the last 3 months within 2013 is 17%. Although the increase from 2012 is marginal (16%), the increase since 2010 (the year Greece started adopting austerity measures) has been phenomenal (89%). The increase in online purchases is also supported by Consumer Barometer (2013) – 24% of the Greek online population has purchased a product or service online, during 2013. According to the same data, internet is also a major source of information prior to a purchase, being part of 74% of all research paths.

RQ1: What is the relationship between users' perceptions of the financial crisis and their expected online spending?

3. ATTITUDES TOWARDS ONLINE AND OFFLINE STORES REGARDING TRANSACTIONS – LITERATURE REVIEW

Online and offline shopping settings present differences across several important attributes. There is a large body of literature detailing these differences but this research presents one more chance to study them, under the prism of the ongoing financial crisis.

Kacen et al. (2013) have outlined product quality as one of the factors where online stores score quite high. Park and Kim (2002) also identify high scores, regarding product information quality. Moving on to services related to shopping, product trials fall into the experiential aspect of a shopping encounter. As Rohm and Swaminathan (2004) mention, online retailers are expected to have difficulties offering the same kind of experience as a brick and mortar shop does, therefore we expect this attribute to score significantly higher in the offline world.

Waiting time is a factor with a negative influence on attitudes and purchase intentions for users. Since 1999, Dellaert & Kahn have investigated the impact of delays in website evaluation – although websites at that time were ranking low, they pointed out that several activities can reduce the negative impact of waiting time (Nah, 2004). Price comparison is one of the main positive attributes of online shopping, especially through online intermediaries (Chung, 2013) which allow consumers to have a clear picture of the price dispersion. This is in accordance with research by Teo (2002), who found users to be positive about using online shops for price comparisons. It is therefore expected that online shops will score significantly higher in terms of price comparison, than their offline counterparts.

Regarding convenience, Kacen et al. identify high levels related to online shopping, as consumers usually identify it as an easier way to shop. The same applies to Park and Kim (2002) research, where convenience ranks high for online settings. Another important factor, both in online and offline shopping, involves returns and refunds. Kacen et al. (2013) in their study about user perceptions of online and offline stores identify return and refund policies as one of the most serious pain points of online shopping. Of course, as part of the shopping – related service, trial is also an attribute expected to score low in online environments, as mentioned by Cheema and Papatla (2010).

Security in online environments has been widely researched by earlier studies. Meskaran et al. (2013) researched trust in online environments, and outlined its importance, as well as the factors affecting it, such as the brand’s reputation and the payment options. Security perceptions are based on uncertainty, towards either the seller or the product. With regards to seller uncertainty (which is of question in this research), various researchers have pointed the flows of online environments, with Milne et al. (2009) and Miyazaki (2008) pointing at the direction of passwords and cookies and Reppel and Szmigin (2010) towards profiling systems. However, online stores have ways to increase users’ tolerance towards online insecurity, such as policy statements (Furnell, 2004) and 3rd party seals (Sharma and Yurcik, 2004). In general, security perceptions are expected to rank significantly lower in online stores.

Of course, due to the limited body of research towards the impact of the financial crises on online shopping, there is no evidence of the impact on the aforementioned attributes.

Table 1 – Attributes expected to rank better in online/offline environments

Ranking better in online environments	Ranking better in offline environments
Quality	Product Trials
Prices	Perceived Risk – Security
Price Comparison	Returns/Refunds
Convenience	Waiting Time
Product Range	After Sales Support
Payment Methods	
Credit Facilities	

RQ2: Are there significant differences between attributes in online/offline environments and do these support the existing literature?

RQ3: Are there differences in users’ perceptions of attributes in online/offline environments, as a result of the impact of the financial crisis on the online disposable income?

4. METHOD

4.1 Survey design, sampling and participants

The current study utilized a structured questionnaire in order to measure: a) demographics of the sample, b) the impact of the financial crisis on users’ perceptions and usage of the internet and c) the views of consumers on several attributes of online and physical stores. The survey was designed in Greek and 200 respondents participated in the study.

4.2 Questionnaire structure

The structured questionnaire used for the purposes of the current study included 20 questions in total and it was divided in two sections. The first section was designed to obtain demographic sample data, as well as internet usage data and it was composed of 8 questions (gender, age, level of studies, profession, salary level, frequency of internet usage, main online activities), with the last question being the main screening question, identifying users as having purchased a product/service online or not. The second section was split in two parts, and depended on users answer in question 8: on a positive answer, respondents were directed to a set of 8 questions covering the attitudes towards specific online attributes, attitudes towards online purchases in general, the impact of the financial crisis on online spending in the last three years, the disposable income for online purchases, the products/services obtained online, the preference on Greek or foreign online shops and users' perceptions on several attributes, regarding offline and online shops. On a negative answer, respondents were directed to a set of 3 questions, outlining the main reason for not purchasing online, views on the cases where e-commerce is essential and probability of making an online purchase within the following 6 months.

5. RESULTS

5.1 Sample profile

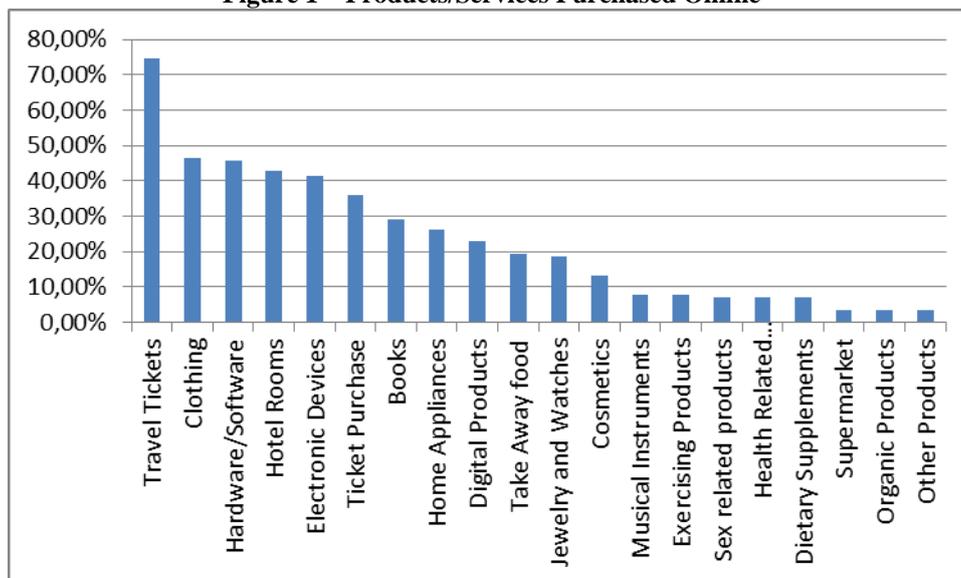
Participants (N=200) were all Greek nationals with a range of age from 15 to 40+ years. 89.5% of the respondents were in the age group from 15 to 29 (15-19, 22.5% / 20-24, 54% / 25-29, 13%), with 47% of them having a university degree (bachelor, master, PhD, post PhD). Regarding profession of the participants, the vast majority were students (67.5%), with a further 21.5% being unemployed and only 11% being employed. Regarding salary levels, 78% reported a salary of less than 500 euros, 16% a salary ranging between 501 – 1000 euros, and only 6% of the respondents have a salary higher than 1000 euros.

Internet usage distribution was also extremely skewed, with 86% of the sample going online on a daily basis. Only 1.5% of the sample mentioned being online less than once every week. Finally, contrary to the low salary levels reported in the sample, 57% of all respondents have purchased a product or service online.

5.2 Descriptives on online behavior

Analyzing data coming from the 114 respondents who have purchased a product online, we can easily identify tourism as one of the main online markets. More than 70% of the respondents have purchased travel tickets online, with a further 43% having booked a room online. Outside tourism, several retail sectors, such as clothing (46.5%), hardware/software (45.6%), and other electronic devices (41.23%) witness high percentages. On the contrary, very few people prefer online websites for food related purchases (with the exception of take away food), and wellness products.

Figure 1 – Products/Services Purchased Online



Regarding payment method, most users prefer a prepaid card (36.8%), probably due to the perceived risk mentioned in the literature review, whereas 27.2% prefer paying on delivery. A further 20.2% prefers credit cards, compared to 12.3% who prefer Paypal.

The results from those respondents who have not purchased products or services online are also interesting. Most of the respondents mentioned the fact that they don't use a credit card as a main reason for not conducting an online purchase

(40.7%), with a further 22.1% feeling afraid they may fall victims of fraud. The absence of return/refund options, as well as the additional cost of delivery accounted for only 7%.

Regarding reasons for shopping online, most of the respondents mentioned the distance between the product/service supplier and their homes (23.3%), whereas many people think e-commerce is essential in any given choice. Therefore, it comes as no surprise that 89.5% of the people who have not purchased online think it is possible to do so within the next 6 months.

5.3 The impact of the financial crisis

In order to answer RQ1, a series of chi-square tests were conducted, in an attempt to reveal any significant relationships between the financial crisis' impact and internet – related activities.

Starting from the amount of disposable income towards internet shopping, Chi – Square analysis revealed a strong relationship to the impact of the financial crisis factor. In particular, most of the respondents who felt the impact of the financial crisis on their online disposable income (51.3%), have decreased their online consumption through the last three years. In contrast, only 17.1% of those impacted by the financial crisis have increased online spending in the last three years.

**Table 2 - Chi-Square Tests for Amount for Online Purchase/
Financial Crisis Impact**

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	18.681 ^a	2	.000
Likelihood Ratio	19.455	2	.000
Linear-by-Linear Association	11.647	1	.001
N of Valid Cases	114		

Table 3 – Crosstabs Amount for Online Purchase/Financial Crisis Impact

			Amount for Online Purchases		
			Yes, Increased	Yes, Decreased	No
Financial Crisis Impact	Yes	Count	13	39	24
		% of Total	11.4%	34.2%	21.1%
	No	Count	4	6	28
		% of Total	3.5%	5.3%	24.6%

At the same time, one-way ANOVA tests revealed no specific relationship between the increase or decrease of budget spent and the attitude towards internet purchase.

5.4 Differences between consumers' perceptions regarding offline and online attributes

Using the 113 participants that gave a positive answer, regarding online purchases, we analyzed their ratings of online and offline environments, with regards to the attributes mentioned in the literature.

In general, the results obtained are aligned with the literature. Out of 12 attributes, only 2 show insignificant differences in their mean scores. Offline shopping achieves higher scores in 6 attributes, whereas online shopping outperforms offline in 4 attributes.

In particular, offline sales-related services prove to score much higher than their online equivalents. Huge differences are observed in trial, as well as in support and return policies (Table 4).

On the contrary, online scores much higher in attributes related to prices, comparison, convenience and variety. This points out to the literature notion about the lack of a "human side" to e-commerce. When tested against the impact of the financial crisis, no factor presents significant changes. The same applies to attitudes towards online shopping – therefore it can be proposed that, regarding RQ1 and RQ3, the only impact of the reduction in online disposable income is on the expected spending levels online.

Table 4 - Paired Samples Test

		Paired Differences					T	Df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	Trial Online - Trial Offline	-1.614	1.930	.181	-1.972	-1.256	-8.928	113	.000
Pair 2	Return Online - Return Offline	-.737	1.370	.128	-.991	-.483	-5.742	113	.000
Pair 3	Price Online - Price Offline	.991	1.117	.105	.784	1.198	9.475	113	.000
Pair 4	Time Online - Time Offline	-.886	1.510	.141	-1.166	-.606	-6.266	113	.000
Pair 5	Variety Online - Variety Offline	.737	1.241	.116	.507	.967	6.338	113	.000
Pair 6	Safety Online - Safety Offline	-.623	1.346	.126	-.873	-.373	-4.940	113	.000
Pair 7	Support Online - Support Offline	-.5088	1.4095	.1320	-.7703	-.2472	-3.854	113	.000
Pair 8	Payment Online - Payment Offline	-.149	1.403	.131	-.409	.111	-1.135	113	.259
Pair 9	Facilitation Online - Facilitation Offline	-.416	1.431	.135	-.683	-.149	-3.089	112	.003
Pair 10	Comparison Online - Comparison Offline	1.219	1.431	.134	.954	1.485	9.095	113	.000
Pair 11	Convenience Online - Convenience Offline	.345	1.456	.137	.074	.617	2.519	112	.013
Pair 12	Quality Online - Quality Offline	-.061	1.007	.094	-.248	.125	-.651	113	.516

6. DISCUSSION, IMPLICATIONS FOR MARKETING AND LIMITATIONS OF THE STUDY

The findings of this research have significant implications, both for researchers and for practitioners. First of all, the present research showed that the reduction of online disposable income will have an effect on online spending. This comes in direct contrast to existing research, which shows rising numbers for the Greek online market. It has to be noted though that the study's limitations, in terms of salary levels' representation lead to a different conclusion: in accordance to Ghadami, Aghaie & Mohammadkhan (2010), financial crises impact online consumption in lower salary levels (as the ones characterizing the present study) instead of higher salary levels.

Furthermore, no significant relationship is identified between users' perceptions of several attributes in online and offline environments and attitudes towards internet shopping, with regards to the impact of the crisis on users'

disposable income. This is an interesting outcome, especially in the case of users' attitudes towards online shopping, as it shows that the reduction of online disposable income plays no role in what users think of online shopping.

Research on attributes confirms the literature in most cases. Online stores still lack heavily in attributes related to after sales support and risk/uncertainty, but rank better when it comes to prices, comparison, convenience and variety. Data coming from users who have purchased online (payment options) as well as users who have not purchased online (reasons for not doing so) suggest that paying by credit card is still a pain point for online shopping. Therefore, online shop owners should always include options such as debit cards and paying on delivery, in a way to also deal with perceived risk and uncertainty. Marketers have to also address the low scores of after sales services by having clear refunds/returns' policies and by offering product trials.

The current study faces limitations coming mainly from its sample, as its range of demographics is narrow, especially with regards to employment status and income levels. Moreover, there seems to be an under-representation of users older than 25 years old, which may negate any attempt to create generalizations from the results. Finally, online/offline attributes are only tested on users who have completed an online purchase – although this is essential for certain attributes (i.e. after sales support), other attributes can be still tested on users that have not completed an online purchase, thus creating a clearer picture about the differences between the two environments. Future research could focus on this, as well as on a deeper examination of the impact of the financial crisis on online spending, with age as a mediating factor.

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