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Factors Affecting Perceived Impact of Electronic Marketplaces

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Abstract

Although B2B e-commerce represents today an important business activity with stable growth, it has not grown according to initial expectations, partly due to the difficulty in measuring its performance. Recent academic literature tries to explain the motivations and behavior of companies participating in electronic markets as well as the benefits deriving from this participation. Following this stream of research, the purpose of this paper is to present the preliminary results of a field survey studying e-marketplace participation across two dimensions: The first one examines the attitude of user companies towards e-marketplace participation (motivations, goals, expectations, fears etc.). The second dimension examines the perceptions of e-marketplace participants about the impact and benefits they derive from their participation as well as the factors affecting the perceived impact. The survey was conducted using a questionnaire, among participants of five e-marketplaces (a total of 62 companies participated), allowing for comparisons both between buyers and sellers and between different types of e-marketplaces. The statistical analysis of the quantitative results renders interesting findings that come to confirm or compliment existing literature and indicate concrete directions for further research. The results indicate a generic transaction-based orientation of the e-marketplace participants towards the exchange, the negative effect of external pressure on benefits perception and the importance of participating years and company size to the impact of e-marketplaces.

Keywords: e-marketplaces, B2B e-commerce, measuring impact

1. Introduction

In the 1990s, the very promising at that time, B2B business model of “electronic marketplace” was introduced. Although, the literature on e-marketplaces begins as soon as 1991 (Bakos, 1991), in the early 1990s we find very little work referring to the specific business model. In fact, when academic researchers classified internet businesses before 1995, in certain cases they did not even taken into consideration this business model of

“markets makers” (Klein and Quelch, 1997). By doing so – evidently today – they excluded a large part of e-business and specifically of business-to-business (B2B) e-commerce.

According to Kaplan and Sawhney (2000) an e-marketplace is simply “*a meeting-point* where suppliers and buyers can interact online”. For Lipis et al. (2000), it is “*an internet-based solution* that links businesses interested in buying and selling related goods or services from one another”. For Bakos (1991), an e-marketplace is “*an interorganisational information system* that allows the participating buyers and sellers to exchange information about prices and product offerings”, which is also “*facilitating the exchange of information, goods, services, and payments*. In the process, it creates economic value for buyers, sellers, market intermediaries, and for society at large” (Bakos 1998).

In the beginning of the decade, business-to-business (B2B) e-commerce, compared to business-to-consumer (B2C) e-commerce, was considered much larger, growing faster and had less unequal geographical distribution globally (Kshetri and Dholakia, 2002). Despite not having grown according to initial expectations, B2B e-commerce represents today an important business activity with stable growth. It is believed that it has reached its peak of market interest in the mid 1999 through late 2000 (Dai and Kauffman, 2002). Since then, researchers have noted that the formation of electronic marketplaces has been declining and that failure rates are high (O’Reilly and Patrick Finnegan, 2005). This decline was partially attributed to the difficulty experienced with evaluating the performance of e-marketplaces (Klueber et al. 2001). Addressing this issue, modern “e-commerce literature has identified the *participation levels, adoption patterns, and benefits* of Web-based systems as important research areas” (Galbreth et al., 2005) and “*explicitly seeks to explain the motivations and behavior* of firms using electronic markets (Rask and Kragh, 2004). Despite these directions of research and the growing interest and attention from researchers and practitioners, “*empirical research on the adoption of e-Marketplaces has been limited*” (Joo and Kim, 2004) and when such research exists it is usually based on case studies.

Under this perspective (which was also encouraged by the prior experience of Greek e-marketplaces industry) and further literature review, the objective of this research has been to:

- (a) Examine factors, such as the attitude of buyers and sellers towards e-marketplace participation (motivations, goals, expectations, fears etc.) and identify the factors that differentiate this attitude.
- (b) Explore the perceptions of e-marketplace participants about the impact and benefits they derive from their participation and in comparison to initial expectations. Due to the exploratory nature of the research, the impact is examined on a wide spectrum rather than specific kind of impact, in order identify areas of high interest, for later in-depth focus.

The above questions have been addressed through a field survey that was conducted in fall 2005 among participants of five e-marketplaces operating in the Greek market environment. The survey was conducted through a questionnaire of 56 questions referring to the two mentioned above main objectives. The statistical analysis of the answers (which included descriptive statistics, correlations, regression analysis, independent samples t-test and ANOVA) provided several indicative findings. These findings include the generic transaction orientation of the participants towards the exchanges, as well as the recognition of an impact of their entry conditions and different company attributes to the perception of e-marketplace derived benefits. In the following section, the relevant literature is discussed. Then, section three describes the specific research design and the

context of the field survey, while section four discusses the research findings. We conclude in section five, with reference to specific directions for further research.

2. Literature Review

A significant part of the pertinent literature has dealt with identifying the impact and benefits associated with electronic marketplaces. With undoubtful contribution to the theoretical framework, much of this work has “heavily relied on case studies and anecdotes, with few empirical data to measure internet-based initiatives or gauge the scale of their impact on firm performance, partly because of the difficulty of developing measures and collecting data (Zhu et al., 2004)”.

According to Galbreth et al. (2005) e-marketplaces “have significant potential to *reduce supply chain costs and to improve organisational efficiency* in supply chain management”. Kerrigan et al. (2001) claim that e-marketplaces expand market reach, generate lower prices, cut operational costs, identify best practices, but most of all they reduce transaction costs. Similarly, Wise and Morrison (2000) refer to benefits such as the dramatically reduced costs, the greater access to buyers and sellers, the improved marketplace liquidity and the new array of efficient and flexible transaction methods.

In general, we cannot find a totally acceptable list of benefits, since different e-marketplaces offer different benefits to different actors. A complete and recent approach comes from the integrating work of Fitzgerald et al. (2005). They present the results of a literature review on benefits from electronic markets and summarize the most commonly acceptable benefits. Some of the derived e-commerce benefits proposed, among others, are the reduction of operational and personnel costs, the increase in sales and customer base, the improvement in service level, the simplification of ordering process and the facilitation of communication.

From the available literature, one may derive the conclusion that benefits of e-marketplaces are mainly on the buyer side. This may be attributed to the fact that buyer-driven e-marketplaces are many more than the supplier-driven ones. In reality, buyers and suppliers experience different benefits and “have different motives for taking up e-marketplace activities” (Rask and Kragh, 2004).

Another factor affecting the impact of e-marketplace participation is the transaction volume (or the use of the e-marketplace). According to Galbreth et al. (2005), “the benefits are dependent upon the volume of transactions an organisation can accomplish electronically”. In fact, it is claimed that the increased use of e-marketplace services lead to greater benefits. The transaction volume in turn is related to several other factors, which could include the time, the type of industry, the type of transaction and others.

Apart from identifying the benefits and impact of e-marketplaces, the pertinent literature has also dealt heavily with identifying the motives and overall attitudes of organizations towards e-marketplace participation, as well as other factors affecting their adoption. For example, the role a company has in the e-marketplace, e.g. buyer or seller, is one such factor affecting the perception of benefits and motives (Rask and Kragh, 2004). Other factors could be associated to organisation participation in general. According to the literature on the antecedents of organisational participation, the motives, processes, and structures that firms stress at the time of their inception have a “long-lasting and perpetual influence on their behaviors” (Baum and Oliver, 1992; Schulz, 1998). This theory indicates that there is rationality in examining characteristics of the e-marketplace entry phase influencing e-marketplace impact in the future. This assumption is further strengthened by a research conducted by Joo and Kim (2004) on 39 manufacturing firms about factors influencing e-marketplace adoption from an IT innovation perspective. The findings of their research indicate that external pressure and organisational size have

positive relationship with organisational adoption of e-marketplaces. But, if the external pressure and the organisational size influence the adoption of e-marketplaces, we should also examine if these factors have an impact on the participation as well. The validation of this assumption is also encouraged by the work of Rask and Kragh (2004). In their work, they categorize the motives for e-marketplace participation in four categories based on two dimensions, the drivers for e-marketplace participation (internal/external) and the nature of the decision (emerging/planned). For each of the four categories of motives they produce, they present some discrete groupings of benefits as indicators and by doing so they create a specific connection between motives and benefits. They clarify this by stating that “the motivation of suppliers as well as of buyers for e-marketplace participation is closely linked to the perceived outcome of participation” (Rask and Kragh, 2004).

Additionally, the TOE (Technological, Organisational, Environmental) framework could be considered as an integrating approach to explain the formation of motives and expectations for e-marketplace participation or adoption (Joo and Kim, 2004; Zhu et al., 2004). According to Joo and Kim (2004), there is a Technological, an Organisational and an Environmental context that leads directly to e-marketplace adoption. More specifically, external pressure and size were found to be the facilitators of e-Marketplace adoption, while relative advantage, buying power, and slack resources were found to be insignificant as factors. Zhu et al. (2004), on the other hand, present how the three contexts create e-business value, which in turn has an impact on commerce, internal efficiency and collaboration. However, the attitude towards the adoption can be explored by other wider perspectives as well. For example, Moe (2004), when discussing the adoption of public e-procurement, states that it is influenced by the goals of conformity, organisational efficiency, individual autonomy, community goals.

3. Research Design

In an attempt to bridge the two streams of research on e-marketplaces presented above, our objective has been to identify the factors affecting both the attitudes of user companies towards e-marketplace participation as well as the way these influence the perceived impact and benefits derived from this participation, validating our hypotheses through quantitative research.

More specifically, we designed and conducted a field survey among e-marketplace participants in order to get some preliminary findings as a basis for a more in-depth future research. The design of the research has two parts. The first part refers to the attitude of companies towards e-marketplace participation and examines factors such as:

- The motivation to participate
- The goals of participation
- Expected benefits
- Fears of participation
- The role in the marketplace (buyer or supplier)
- The type of e-marketplace (horizontal or vertical)
- Other company characteristics (e.g. demographical)

The second part refers to the impact and benefits (more specifically the *perceived benefits*) derived from the actual e-marketplace participation separated into:

- a. operational benefits (e.g. price changes, ordering times, order size, errors, personnel involved, number of customers/suppliers and inventory level)
- b. strategic benefits (e.g. ordering process simplicity and reliability, decision making, strategic position and negotiation power, information resources management, profitability and service level provision)
- c. satisfaction from the services, the usability of the e-marketplaces and overall perception of e-marketplace impact.

The survey was conducted in fall 2005 in the context of the Greek market. The Greek business environment was at first reluctant to adopt e-marketplaces. Nevertheless, since 2000 several ventures were initiated with different concepts, in different industries and with varying success and failure stories. The Greek electronic intermediary B2B e-commerce industry today, in 2006, consists of seven companies (five of them participated officially in the survey, but responses from the participants of one more marketplace were gathered). Two horizontal marketplaces:

- Business Exchanges
- CosmoOne

Four vertical marketplaces:

- Yassas.com (hospitality)
- Retail@link (retail)
- B2B construct (construction)
- E-logistics (logistics)

And IS-Impact which is an e-business solution provider supporting vertical services in more than one sectors (mainly retail, but also telecommunications) and can thus be considered as both a horizontal and vertical e-marketplace.

The Greek e-marketplace industry is rather small, yet characterized by considerable activity compared to the size of the total market. The Greek e-marketplaces have several characteristics that make them “appealing” for research. They represent different types of e-marketplaces found in theory (but most of them are buyer-driven markets), they have several years of experience, differentiation and innovation in services and a stable growth. For all these reasons, today, the Greek e-marketplace industry can be considered a small, but fertile area of research.

There are no validated and precise recent figures that could be used to present the complete picture of the size of the Greek B2B e-commerce market today. The data and reports that could be found are either descriptive, or relatively old. Additionally, the picture is further blurred by the fact that some Greek companies conduct e-commerce over international e-marketplaces. Nevertheless, according to the findings of our research, we can estimate that the value of transactions of Greek e-marketplaces up to the end of 2005 definitely exceeded 2 billion euros, with more than 750,000 transactions.

The field survey took place between September and December 2005 and was addressed to the participants of the five (5) out of the seven e-marketplaces, based on a unified questionnaire (two e-marketplaces could not be contacted, but few participants of one of them answered the questionnaire). The questionnaire was forwarded to the vast majority of companies via e-mail directly by the e-marketplaces. In most of the cases there was a telephone or e-mail follow-up, either by the e-marketplaces or the researcher.

The questionnaire was separated in four sections. The first section examined the motives and attitudes of a company at the beginning of joining an e-marketplace. The second section examined the impact that the participation in the e-marketplace had on the buyer or supplier organisation respectively. The third section was designed to examine the strategic impact of the e-marketplace participation as well as the general satisfaction. Finally, the fourth section requested demographical data.

Out of a total number of approximately 2,250 buyers and suppliers currently registered in the seven Greek e-marketplaces (estimated active users less than 1,500), 62 companies responded to the questionnaire, 16 buyers and 46 suppliers, representing approximately a 3.5% coverage on the buyer base and 2.5% coverage on the supplier base respectively. 27 questionnaires were from participants of the first two horizontal e-marketplaces and IS-Impact and 35 from vertical e-marketplaces.

The statistical methods that we used included descriptive statistics, correlations, regression analysis, independent samples t-test and ANOVA.

4. Survey Results

4.1 Attitude towards e-Marketplace Participation

In relation to objective (a) of the research, referring to the reasons why they entered an e-marketplace, the majority of participants state that they joined the e-marketplace due to a request of a business partner, while the second more cited reason has been internal impulse (see Figure 1). Although only five companies answered that it was a request of the “parent” company, this is quite significant if we consider that only few of the respondents are affiliated buyer companies. Evidently, external pressure has a positive effect on e-marketplace adoption. In general, the categorisation of motives given by Rask and Kragh (2004) was confirmed.

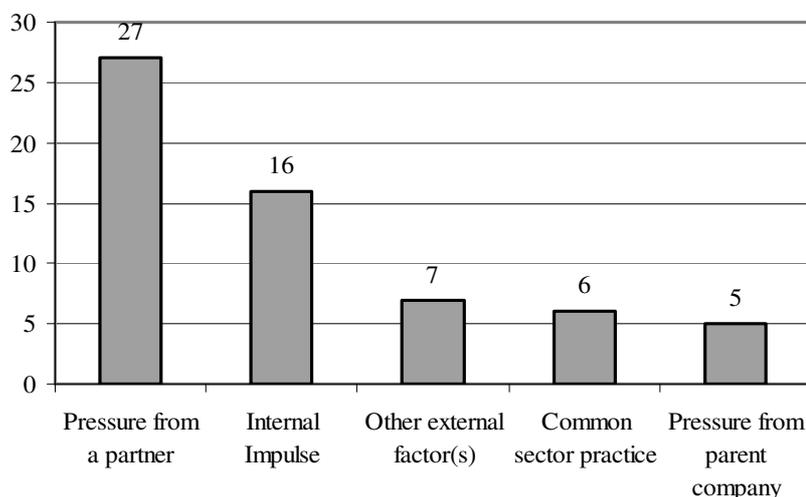


Figure 1: Reasons for e-marketplace entry

Referring to the goals the companies had when entering the e-marketplace, the responses are shown in Figure 2. The improvement of service quality has been mentioned as the most important goal, along with ordering cost reduction. More “strategic” goals, such as the improved strategic position and profitability were referred to a lesser extent. This

indicates that the goals of e-marketplace participants are rather short-term or “transaction facilitation oriented”.

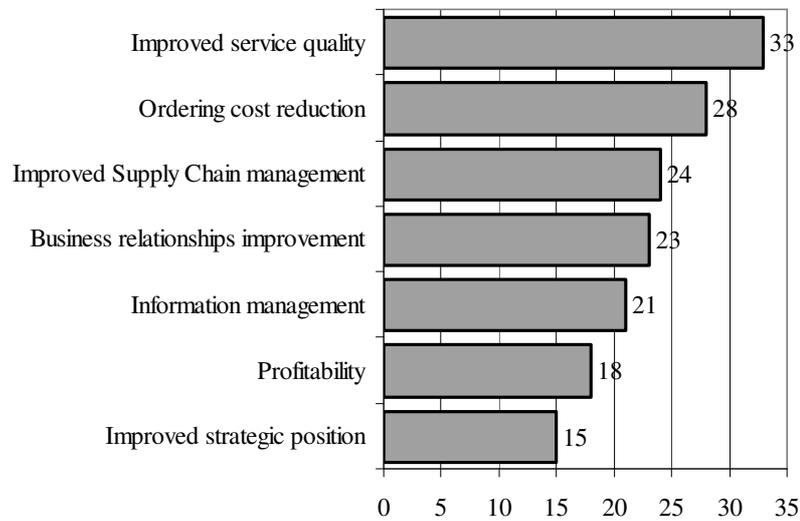


Figure 2: Goals of e-marketplace participants

Referring to the *expected benefits of e-marketplace participation*, the most “popular” expected benefit has been the reduction of ordering errors and the improvement of the ordering process (see Figure 3). On the contrary, the improvement in inventory and information management and the use of e-catalogs were considered as the least expected benefits. These results indicate a “facilitating transactions” orientation in the approach of e-marketplace participants, within the spirit of the short-term approach of the previous question.

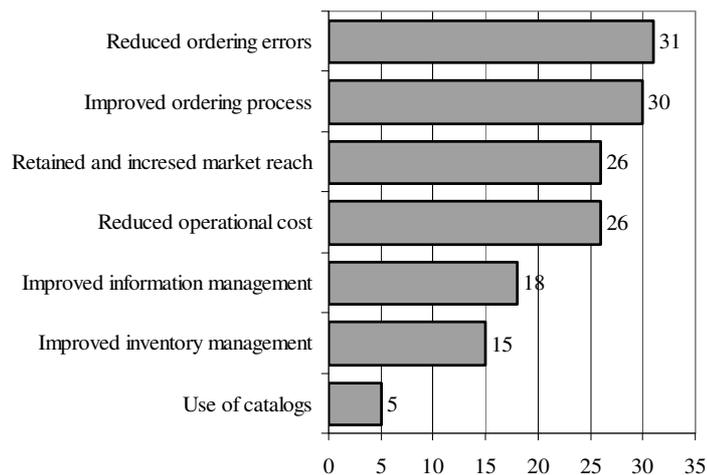


Figure 3: Expected benefits

Regarding the expected problems that the participants feared they might encounter when entering the e-marketplace, the difficulties of adjusting their organization to the new e-business process model stood-out by far, cited by more than one third of the

respondents, followed by the internal culture conflict and the lack of experience (see Figure 4). It is thus apparent that the fears are mostly associated with organizational issues and the rather limited experience of companies with Internet and e-business, which is expected to be less of an issue in the future.

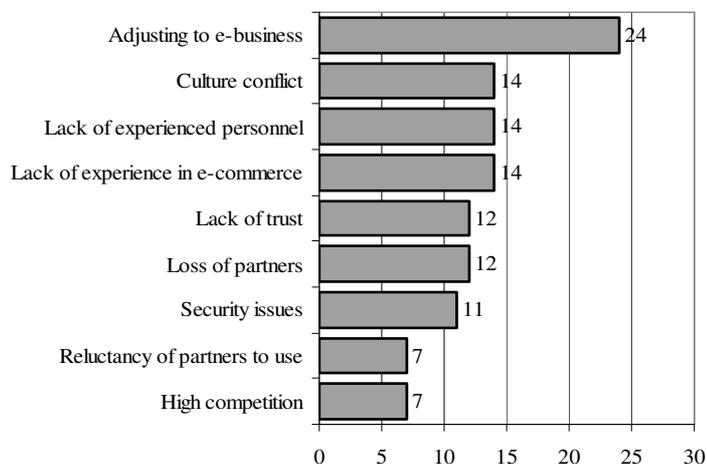


Figure 4: Expected problems

Based on the previous results, we observe, in general, a transaction-oriented approach of e-marketplace participants, who appear to have a rather narrow view of the services offered by e-marketplaces. Looking at the services they actually use (Figure 5), we see that the most popular service is the automated transaction processing with 49 answers out of 61 respondents (80%), which is significant. The rest of the services, with the mere exception of e-catalogs (used by 51% of the respondents), are used by around 20% of the companies or much less. This result indicates that the use of e-marketplaces is still rather primitive and they are used namely for facilitating transactions rather than implementing added-value services, although these services are provided.

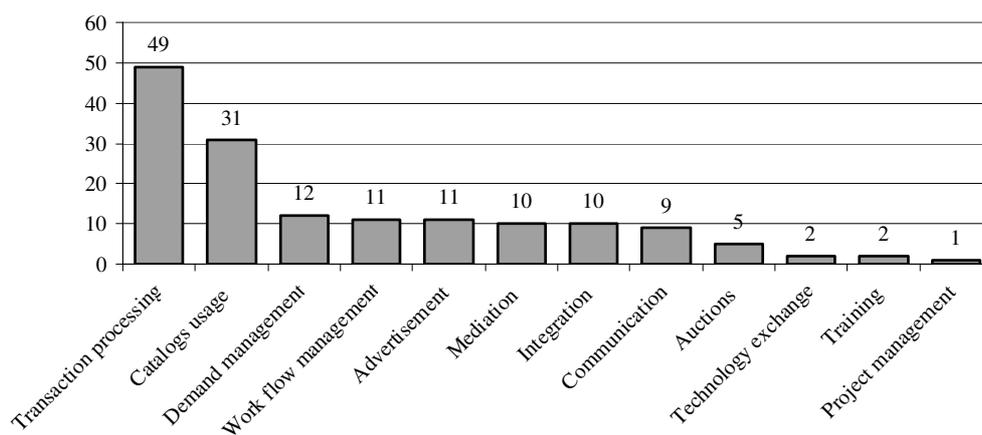


Figure 5: Services

Finally, the satisfaction of companies using these services showed average results (most answers were of average rating with normal distribution), a finding that indicates there is

still ample room for improvement and should be taken under serious consideration by the management of e-marketplaces.

4.2 Perceived Impact of E-Marketplaces

In relation to objective (b) of the research, looking at what the e-marketplace participants perceive as the impact and benefits of their participation, we see an overall positive perception. Figure 6 shows the various performance indicators used to measure this impact on a five likert scale (1=great decrease, 2=small decrease, 3=no change, 4=small increase, 5=great increase), separated into operational and strategic ones. The light colored lines represent those indicators that have increased after the e-marketplace entry and the dark colored those that have decreased. The wider the line the greater is the variance of the responses.

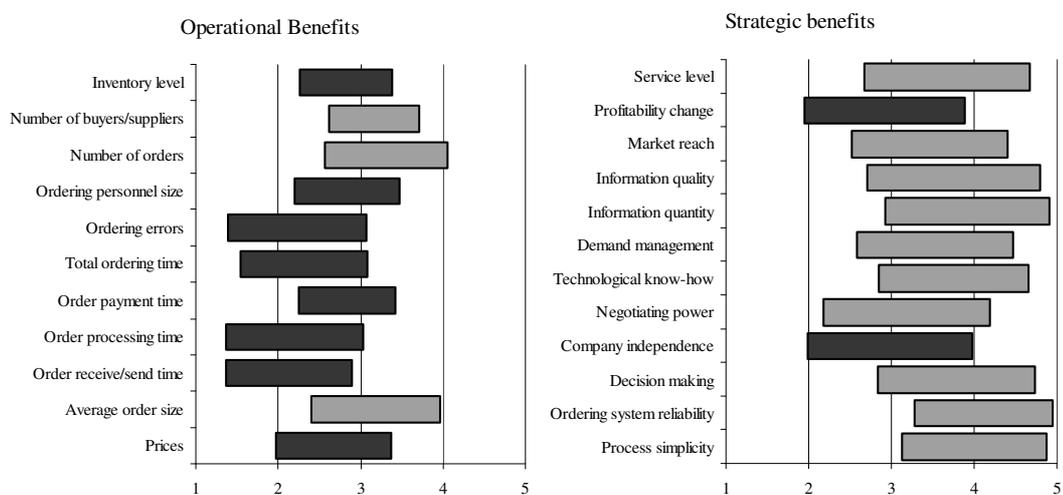


Figure 6: Perception of Benefits

What we see is that the main benefits are associated with the ordering process, as the cost, errors, and ordering times show the highest decrease of all. In addition, the respondents declare an increase in the number of orders and the order size, denoting increased transaction volumes. As far as the more strategic issues are concerned, the participating companies declare a general improvement, despite initial expectations discussed above. They only seem to disagree with the statement of increased profitability and that their company has become more independent. The latter can be explained by the fact that the pressure from a partner has been cited as the main motive behind e-marketplace participation. Perhaps the more important note is that the elements associated with the ordering (transaction) process, such as ordering system reliability and information “quality” of the order processing system, show the highest improvement of all.

4.3 Relating Attitude and Impact

Using other statistical methods (not just descriptive statistics), we explored the sample to find relations between the two dimensions of the survey, i.e. the attitude towards e-marketplaces as well as company characteristics and perceived benefits.

To begin with, we found that the reason-motivation to enter the e-marketplace (Figure 1) influences the perception of benefits of the e-marketplaces. Using ANOVA and based on

homogeneity of variance analysis with significance greater than 95%, we found indications that for most of the benefits examined there is statistically important difference between groups of companies with different reasons for e-marketplace entry. Further analysis of the data demonstrated that the perceived benefits are greater for companies entering an e-marketplace due to internal impulse compared to those entering due to pressure from a partner (Figure 7) and that in general companies entering due to pressure from the parent company experience greater benefits.

Referring to the categorization of motives described in Rask and Kragh (2004), we found, interestingly, that it is not the external or internal motives that influence the benefits, as described by Rask and Kragh, but *the negative perception of these motives*. For example, while the pressure from an external partner and the pressure from a parent company are both external motives, yet companies that have experienced the latter form of pressure (mainly buyers) have more positive perception of benefits than companies that have experienced pressure from a partner (mainly sellers). This may relate to the type of pressure or may attributed to the different perceptions between buyers and sellers.

Joo and Kim (2004) further state that the external pressure has a positive impact on adoption. While our research findings also indicate that this statement is true, we further found that the *external pressure has a negative impact on the perception of achieved benefits*. In general, the existence of a connection between motivation, goals, expectations, fears and perceived benefits is an interesting result, which is worth exploring further.

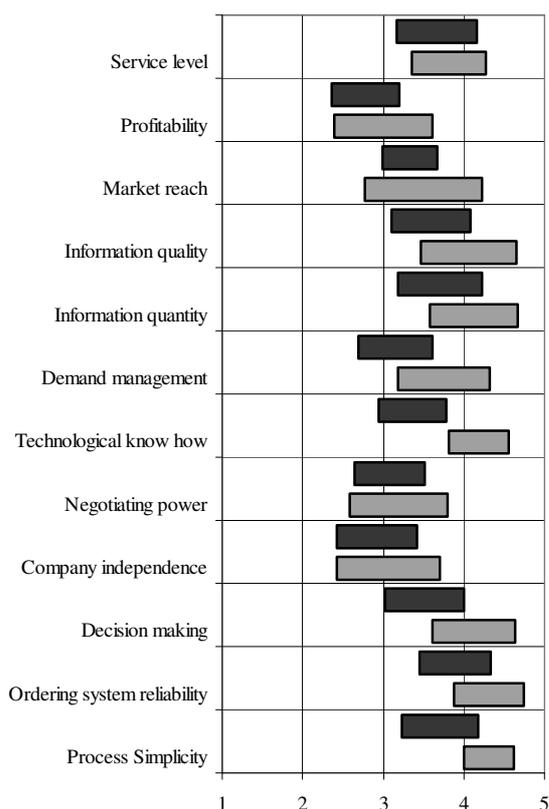


Figure 7: Comparison of benefits of internal impulse (grey) and partner pressure (black)

Furthermore, we found several connections between *goals, expectations and fears to benefits and satisfaction*, using independent samples t-Test (significance higher than 95%). Indicatively, we present some of the cases:

- Participants having as a goal the reduction of order processing cost, experienced improvement in information quantity and quality, order processing times, and ordering errors.
- Participants having as a goal the improvement in their strategic position, experienced higher independence and profitability.
- Participants expecting reduction of operational costs from their participation in electronic marketplaces, experienced improvement in ordering process simplicity, system reliability and profitability among others.
- Participants expecting improvement in information management, experienced improvement in information quality as well as satisfaction from services and usability.
- Participants having lack of trust in e-commerce, experienced higher satisfaction from the usability of the system and the services.
- Participants fearing lack of specialized personnel, experienced better processing times and improvements in the service level and information quality.
- Similarly, companies fearing the adjustment to e-commerce, experienced higher service levels and overall impact of e-marketplace participation.

These results offer indications towards two main directions. The first one is that operational (or transaction oriented) goals and expectations versus strategic goals and expectations are related to respective benefits (or in other words that the approach adopted towards the e-marketplaces – operational or strategic – led to the respective results). The second one is that companies fearing specific problems experienced related benefits that overcome these fears, indicating that lower expectations may lead to increased perception of similar benefits.

Using independent samples t-test analysis for *the type of e-marketplace*, we found non-significant results using both one-tailed and two-tailed tests. This indicated that there are very few cases that the perceived benefits differed according to the type of market, i.e. between horizontal and vertical e-marketplaces. The only cases where the benefits differed were the reduction in prices in favor of horizontal e-marketplaces (significance 94.2% and t value equals 1.962) and the improvement in service level in favor of vertical e-marketplaces (significance 99%, t value equals 3.538). These results show that the benefits are not significantly different between horizontal and vertical e-marketplaces. Moreover, it seems that this categorisation (horizontal/vertical) is not completely applicable anymore from a “benefits” perspective and we should move towards new groupings of e-marketplaces, indicating a clear direction for further research.

We also used independent samples t-test analysis for a comparison between buyers and suppliers. The significance of the samples, both one-tailed and two-tailed presented several cases where the benefits differed with significance higher than 95%. These cases were almost totally in favor of the buyers and included price reduction, order processing time, market reach, process simplification, decision making, company independence, negotiating power, demand management, information quantity, profitability, improvement in service level and the overall impact of e-marketplace participation. This is reasonable and is caused by the nature of e-marketplaces (buyer-driven markets). The overall results (disregarding significance) referring to operational benefits are depicted in Figure 8.

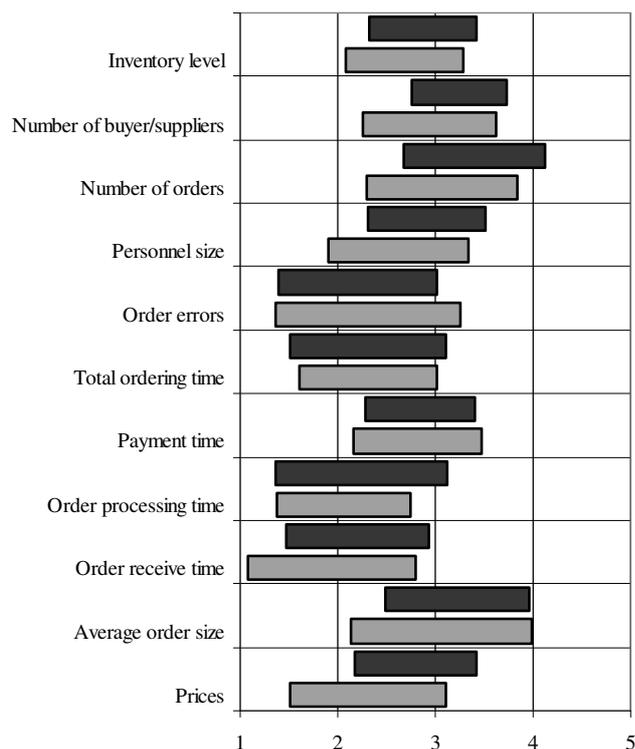


Figure 8: Comparison of perceived benefits between buyers (grey) and suppliers (black)

Finally, using correlations and taking into consideration only the cases with significance greater than 95%, we discovered that benefits are influenced to a certain extent by several demographical characteristics including:

- The *size* of the company
- The *years of participation* in the e-marketplace
- The *cost of internal changes* associated with the new processes

More specifically, the size of the company is correlated:

- negatively to the order size change and increase in number of customers/suppliers
- positively to the error reduction, to the personnel size reduction, to the inventory level reduction, to negotiation power increase, to demand management improvement, to information resources management.

The years of participation are correlated positively to price reduction, to negotiating power, to increased market reach, to increase amount of information and to technological advancement. The internal change cost was related negatively to several benefits, but interestingly is also correlated directly to the satisfaction from the usability of the system. The data for these correlations appear in table 1:

Table 1: Correlations

		Year of e-marketplace entry	Company Size	Internal change cost
Prices	Pearson Correlation	,267(*)	-0,176	-0,019
	Sig. (2-tailed)	0,039	0,175	0,883
Average order size	Pearson Correlation	-0,029	-,333(**)	-0,106
	Sig. (2-tailed)	0,828	0,009	0,416
Payment time	Pearson Correlation	0,204	0,159	0,215(***)
	Sig. (2-tailed)	0,118	0,222	0,096
Order errors	Pearson Correlation	-0,09	-0,226(***)	0,129
	Sig. (2-tailed)	0,492	0,079	0,324
Ordering personnel size	Pearson Correlation	-0,052	-,318(*)	0,067
	Sig. (2-tailed)	0,691	0,013	0,607
Number of orders	Pearson Correlation	-0,185	-0,239(***)	0,051
	Sig. (2-tailed)	0,158	0,064	0,698
Number of partners	Pearson Correlation	-0,161	-,264(*)	0,042
	Sig. (2-tailed)	0,219	0,04	0,747
Inventory level	Pearson Correlation	-0,04	-,322(*)	0,001
	Sig. (2-tailed)	0,76	0,011	0,991
Decision making	Pearson Correlation	-0,212	0,094	0,225(***)
	Sig. (2-tailed)	0,104	0,471	0,081
Company independence	Pearson Correlation	-0,053	0,251(***)	0,091
	Sig. (2-tailed)	0,689	0,051	0,486
Negotiating power	Pearson Correlation	-0,224(***)	,312(*)	-0,017
	Sig. (2-tailed)	0,085	0,014	0,895
Technological know-how	Pearson Correlation	-0,227(***)	,412(**)	0,235(***)
	Sig. (2-tailed)	0,081	0,001	0,069
demand management	Pearson Correlation	-0,185	,372(**)	0,111
	Sig. (2-tailed)	0,157	0,003	0,396
increased amount of information	Pearson Correlation	-,377(**)	,406(**)	0,072
	Sig. (2-tailed)	0,003	0,001	0,583
improved information quality	Pearson Correlation	-0,155	,358(**)	-0,065
	Sig. (2-tailed)	0,238	0,005	0,618
access to increased number of partners	Pearson Correlation	-,301(*)	-0,25(***)	-,296(*)
	Sig. (2-tailed)	0,019	0,052	0,021
satisfaction from usability	Pearson Correlation	-0,014	0,119	-,349(**)
	Sig. (2-tailed)	0,918	0,362	0,006
* Correlation is significant at the 0.05 level (2-tailed).				
** Correlation is significant at the 0.01 level (2-tailed).				
*** Correlation is significant at the 0.1 level (2-tailed).				

The above preliminary findings need further investigation and analysis in order to derive specific conclusions and explain the reasons behind them. It has been our objective here

to merely present them as initial observations in order to stimulate further research in this area and pave the way for more in-depth analysis and hypothesis testing.

5. Conclusions

Although our work in this area is still in its first steps, there are several findings that offer clear directions for further research and contribute to the existing literature through quantitative results. From the initial analysis presented in this paper it becomes apparent that there is a connection between attitudes towards e-marketplaces and perceived benefits.

Furthermore, through the descriptive statistics, we observed a generic transaction-based orientation of the participants and found that this approach also influences the perception of derived benefits. Our intension is to elaborate on this orientation in the future and explore its consequences in regard to some of the other results. We also intend to work towards defining a new categorization of e-marketplaces in respect to the differences of perception of benefits we observed by the t-Tests. Other overall observations include the negative effect that external pressure might have on perceived benefits (ANOVA analysis) despite its positive effect on adoption rates, the impact of expectations on the perception of benefits, as well as the importance of company size and years of participation to the impact of e-marketplaces.

These initial conclusions define directions for future research and may contribute to the ongoing research on motivations and behavior of companies participating in electronic markets, as well as to the research on benefits deriving from this participation. These conclusions are based on quantitative data, newly gathered, on areas of research in progress.

As a next step in our research, we intend to define a theoretical framework which will integrate the initial findings of our survey with previous literature, putting e-marketplaces in the broader context of information systems. As an example, we can refer to the DeLone & McLean e-commerce success model (DeLone and McLean, 2004), measuring information systems success in the e-business environment, which surely relates to the work presented in this paper. Moreover, it may be useful to examine existing theories in relation to performance in an IOS (Klueber et al., 2001). In addition, we intend to adopt Structural Equation Modeling and more specifically the Partial Least Squares regression analysis for the statistical analysis of our sample, in order to continue the exploratory research on a theoretical model. It is expected that even this model will be widened to include more dimensions that today may not be clear.

Finally, a last clear step of the future research in the long term includes the attempt to implement the model in business environments that are different from e-marketplaces. Business-to-business exchanges are still new and they are not the only innovative business model founded in the last few years. It is appealing to examine parameters, attitudes, motives and expectations applied for novel technologies in general; but most of all to examine them in relation to the impact that they may have on the operation and the success of the business models implementing them, using empirical data.

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References

- Bakos Y., (1991): A strategic analysis of electronic marketplaces, *MIS Quarterly*, Vol. 15, No. 3, Special Issue: Strategic Use of Information Systems, pp. 295-310.
- Chakraborty G., Lala V., Warren D., (2002): An empirical investigation of antecedents of b2b websites' effectiveness, *Journal of Interactive Marketing*, Volume 16, number 4, pp. 51-72.
- Davis D. F. (1989): Perceived Usefulness, Perceived Ease of Use, and User Acceptance of Information Technology, *MIS Quarterly*, Vol. 13 No. 3, pp. 318-340.
- DeLone H. W., McLean R. E., (2004): The DeLone and McLean model of Information Systems Success: A ten-year update, *Journal of Management of Information Systems*, Vol. 19, No. 4, pp. 9-30.
- Fitzgerald G., Papazafeiropoulou A., Piris L., Serrano A. (2005): Organisational Perceptions of e-Commerce: Re-assessing the Benefits, *Electronic Markets*, Vol. 15, No. 3, pp. 225-234.
- Galbreth M., March S, Scudder G. and Shor M., (2005): A game-theoretic model of e-marketplace participation growth, *Journal of Management Information Systems*, Vol. 22, No. 1, pp. 295-319.
- Grewal R., Comer J., Mehta R., (2001): Antecedents of Organisational Participation, *Journal of Marketing*, Vol. 65, pp. 17-33.
- Grieger M., (2003): Electronic marketplaces: A literature review and a call for supply chain management research, *European Journal of Operational Research*, Vol. 144, pp. 280-294.
- Joo Y.-B., Kim Y.-G., (2004): Determinants of corporate adoption of e-Marketplace: an innovation theory perspective, *Journal of Purchasing & Supply Management*, Vol. 10, pp. 89-101.
- Kerrigan R., Roegner V. E., Swinford D. S., Zawada C. C. (2001): "B2Basics", *McKinsey Quarterly*, Issue 1, pp. 44-54.
- Clueber, R., Leser, F., Kaltenmorgen, N. (2001): Concept and Procedure for evaluating E-Markets, in *Proceedings of the Seventh Americas Conference on Information Systems*, Boston.
- Kshetri N., Dholakia N., (2002): Determinants of the Global Diffusion of B2B E-commerce, *Electronic Markets*, Volume 12, No. 2, pp. 120-129.
- Moe C. E., (2004): Public e-procurement - determinants of attitudes towards adoption, *EGOV 2004, LNCS 3183*, pp. 278-282.
- O'Reilly P., Finnegan P., (2005): Performance in Electronic Marketplaces: Theory in Practice, *Electronic Markets*, Vol. 15, No. 1, pp. 23-37.
- Qizhi D., Kauffman, J. R., (2002): Business Models for Internet-Based B2B Electronic Markets, *International Journal of Electronic Commerce*, Vol. 6 No. 4, pp. 41-73.
- Rask M., Kragh H., (2004): Motives for e-marketplace Participation: Differences and Similarities between Buyers and Suppliers, *Electronic Markets*, Vol. 14, No. 4, pp. 270-283.
- Wise R., Morrison D., (2000): Beyond the Exchange: The future of B2B, *Harvard Business Review*, pp. 85-96.
- Zhu K., Kraemer K., Xu S., Dedrick J., (2004): Information Technology Payoff in E-Business Environments: An International Perspective on Value Creation of E-

Business in the Financial Services Industry, Journal of Management Information Systems, Vol. 21, No. 1, pp. 17-54.