MANAGERS’ PERCEPTIONS OF USING OF E-MARKETING IN B2B RELATIONSHIPS

By

Irene Samanta, P. Kyriazopoulos
Marketing Laboratory
Graduate Technological Education Institute of Piraeus

Abstract

Researchers agree that the use of the Internet is increasingly expanding in business-to-business (B2B) relationships in order to improve effective communication, distribution, and streamline processes with customers and stakeholders.

This study examines a sample of 30 firms operating in Greece and discusses the benefits from B2B collaboration by using e-marketing. The method used for the quantitative analysis is the factor analysis and ordinal symmetric measures; Kendall’s tau-b was used. The findings show that six factors emerged from the fieldwork showing the positive managers’ perceptions for the usefulness of this tool. Finally, a model can be developed in order to improve B2B relationships via e-marketing.

Keywords: B2B Relationships, Internet, e-marketing.

1. Introduction

The Internet is more than just another sales channel or marketing medium, it is also an entirely new business model. In order for B2B firms to be successful it is therefore essential for them appreciate the sea-change the Internet is bringing about in marketing strategy. It soon becomes apparent that B2B e-commerce itself represents an entirely new game-plan for the e-marketer to consider (Ratnasingam & Pavlou, 2003). The adoption of an Internet marketing strategy by Business-to-Business firms have received widespread attention as it consists of one of the key drivers to face the changes of the business environment and in building and sustaining their competitive advantage (Wright, 2004). This has allowed B2B firms to extend and develop their relationships with customers, suppliers, retailers, brokers, co-producers, employees and shareholders, and to achieve more personalised relationships with them. Furthermore, technology provides the ability to carry out transactions around the clock, and also increase confidence of business partners due to their online transaction ability, and enhance relationships (Ratnasingam and Pavlou, 2003). The development
of such personalized relationships is a key goal of marketing, because they tend to be more sustainable (Kalacota and Robinson 1999).

Recently it has been estimated that the value of B2B e-commerce activities for the year 2005 will reach approximately $5.4 trillion US dollars, indicating that a third of all B2B purchases will have been carried out online (Wright, 2004) and B2B markets are expected to dominate the world of online trading. As a result, the European Information Technology Observatory (EITO) estimated in 2004 that transactions would reach $2.9 trillion US dollars by the end of 2007. There is a growing trend for some companies to refuse to transact with companies that do not use web facilities in their operations, which shows the importance of using Internet facilities in a Business-to-Business relationship (Subramaniam and Shaw, 2000).

There are key e-marketing strategies (Jones, 1996) that can lead to a sustainable competitive advantage in relation to e-commerce. Most of these elements involve benefits filtrating through to the supply chain and are therefore relevant when assessing B2B relationships such as

- Actively collaborating with supply chain partners
- Extending the company’s reach up and down the supply chain
- Changing the supply chain flow path
- Increasing revenue
- Transforming capabilities into new business

The way in which a business addresses each of these e-marketing strategies has an impact on B2B relationships and, therefore, it is important that this is sufficiently assessed by the organisation. This study analyses how Greek B2B firms have adopted an e-marketing strategy especially in the area of B2B relationships.

1.1 The Greek Reality

In this contemporary business environment, therefore, the question is whether Greece is ready to seize the opportunities and reinforce its competitiveness and productivity. Greece is still far from the northern countries that monopolize the research and technology industry, spending large sums of money in this area. More specifically, according to recent Eurostat data, Greece has the lowest access to the new economy and the information society of all the
countries in the European Union, given that it has the lowest expenditure on research and technology.

Furthermore, the lack of specialized executives in positions concerning new technologies and electronic business constitutes a very important issue for all countries and especially for countries with a high development rate, such as Greece. Last but not least, incorporating new technologies in the activities of the Greek companies is viewed, at least at present, as unsatisfactory. According to the annual Report of Competitiveness from the International Institute for Management Development (IMD), the application of electronic commerce is not adequately developed in creating business opportunities (Greece is rated 44th out of 49 countries). The incorporation of new technologies in informatics is not part of companies’ demands (Greece is rated 41st out of 49 countries). The lack of cooperation in technologies between companies is also noted (Greece is rated 39th out of 49).

To settle these problems, more extended cooperation between the state and the business world is required. The Greek companies must keep up with the new business requirements in what concerns new technologies, towards reinforcing their technological infrastructure and offering wider training of their executives. In order to meet the expectations and changes of the business environment, contemporary companies have to react positively to competition by accepting and undertaking the risks of entrepreneurship, which means continuously undertaking new initiatives and adopting innovations, organizing access in business or departmental networks and adjusting production to the international models, by putting into action the techniques of benchmarking. Also, by changing their structure, the companies will succeed in becoming cross-national while also addressing the continuous improvement of the cost by taking measures for increasing productivity and full visibility of the supply chain while orientating on the world market. When the companies focus on the above efforts, they should take into account the constant widening of the knowledge of their personnel and investing in it, by understanding that knowledge constitutes today the strongest advantage for competitiveness, in order to move to broad applications of informatics and new technologies.

On the other hand, the state has to reinforce constantly the companies’ efforts in establishing adequate corporate and extra-corporate infrastructures, in order to accomplish the much desired progress and international awards. Actions and measures that will have to do with the reassessment of the framework that today still creates boundaries (deregulation of the markets, cutback of the civil services, motivation for mergers, creation of venture capital etc.) are
required, with the development of the capital markets for making the financing of these adjustments easier. The improvement of the information networks for on-time information concerning the international changes and the importance of adjustments as well as radical restructures in education and training, stressing new systems of informatics and the positive connection of education and production, are also two additional actions that are required.

As a conclusion, the new economy seems to be changing the world dramatically. It creates new possibilities for development in countries such as Greece. It creates a global economy obliging everyone to be properly prepared to confront the pressures of international competition (Krishnamurthy, 2005). The responsibilities of both the state and the business world are immense and any delays will have a negative affect on both industry and government. In this significant part of the ‘brave new world’, businesses in Greece are asked to answer the call for further development and modernization of their practices. From this standpoint, specific information on B2B Internet marketing, and B2B relationships and processes will be gathered to provide a better understanding of the issues at stake (Haig, 2001).

2. Literature Review

2.1 Business-to-Business Relationships

Business-to-business relationships are defined as markets where a firm sells goods and services to another business firm for internal use, or for resale to other customers (Wright, 2004). According to Wilkinson and Young (2002), there are five groups of factors that require consideration in relation to business networks. These characteristics refer to the relationships and interactions in which a firm is involved, the characteristics of a firm’s relationship partners, the characteristics of connected relations and their interactions, the characteristics of a firm’s network positions and the characteristics of the network as a whole (Herbig, and Hale, 1997).

2.2 Factors for the development of a Marketing strategy

Damanpour (2001), Duggan and Devenery (2000), Naude and Holland (1996) and Porter (2001) agreed that factors related to marketing strategy such as collaboration, top management commitment are vital to the success of B2B e-marketing implementation. Chaffy et al., (2000) identified the well-designed corporate website as a company’s marketing showpiece and the crucial component that contributes to the success of any of the B2B e-marketing efforts.
Kotab and Helsen (2000) and Samiee (1998) described the Internet’s ability as a tool that allows sales to overseas markets depending on a number of globally related factors (Hofacker 2001; Cronin 1996).

Researchers such as Duggan and Devenery (2000), and Quelch and Klein (1996) have considered factors that relate to the internal environment as a critical component of successful B2B e-marketing efforts. Internal-related factors include technological infrastructure, internal culture, the sales force role and the importance of training programmes. Samiee (1998) has considered factors that relate to external partners as key components to successful Internet marketing implementation. These include trust, security, successful relationship between customers and providers, easy and affordable access and customer acceptance of B2B strategies (Sparkes and Thomas 2001; Chanston and Mangles T., 2003).

2.3 E-Marketing and Business-to-Business Relationships

B2B Internet marketing includes the use of all three forms of e-commerce (Internet, Intranet and Extranet) for purchasing goods and services, buying information and consulting services. B2B Internet-based technologies provide effective and efficient ways, through which corporate buyers can gather information rapidly about available products and services, evaluate and negotiate with suppliers, implement order fulfilment over communication links and access post-sales services (Zinchan, 2002, Jones, 1996).

2.4 Benefits and opportunities of B2B e-marketing

As summarized in the following (Figure 1) by Duggan and Devenery (2000), and Quelch and Klein (1996), B2B e-marketing can offer significant opportunities to suppliers and significant benefits to buyers. These include

2.4.1 Global presence - global choice: Generally in electronic commerce, as White et al., (2004), state the boundaries are not defined by geography or national borders, but mostly by computer networks. Since the most important networks are global in scope, B2B electronic marketing enables even the smallest suppliers to achieve a global presence and to conduct business worldwide. The corresponding customer benefit is global choice - a customer can select from all potential suppliers of a required product or service, regardless of their geographical location.

2.4.2 Improved competitiveness - quality of service: Business-to-Business e-marketing enables suppliers to improve competitiveness by becom-
ing “closer to the customer”. As a simple example, many companies are employing new technologies (ad-hoc) to offer improved levels of pre-and post-sales support, with increased levels of product information, guidance on product use, and rapid response to customer enquiries (Anandarajan et al., 1998).

2.4.3 **Mass customisation - personalised products and services**: With electronic interaction, suppliers are able to gather detailed information on the needs of each individual customer and automatically tailor products and services to those individual needs. This fact results in customised products comparable to those offered by specialised suppliers but at mass market prices (Bennet, 1997).

2.4.4 **Shorten or eradicate supply chains - rapid response to needs**: B2B e-marketing often allows traditional supply chains to be shortened dramatically. There are many established examples where goods are shipped directly from the manufacturer to the end consumer, by-passing the traditional staging posts of wholesaler’s warehouse, retailer’s warehouse and retail outlet. The corresponding customer benefit is the ability to rapidly obtain the precise product that is required, without being limited to those currently in stock at local suppliers (Bondra and Davis, 1996).

2.4.5 **Substantial cost savings - substantial price reductions**: One of the major contributions of B2B e-marketing is a reduction in costs. These cost savings can materialize though reduction on internal and external transactions’ cost, the effective use of staff and the improvement of the selling terms. Hence, any business process involving “routine” interactions between people offers the potential for substantial cost savings, which can in turn be translated into substantial price reductions for customers (Saieed, 1998).

2.4.6 **Novel business opportunities - new products and services**: In addition to re-defining the markets for existing products and services, Business-to-Business e-marketing can also provide the opportunity for entirely new products and services. Examples include network supply and support services, directory services, contact services and many kinds of on-line information services (Bennet, 1997).
<table>
<thead>
<tr>
<th>Opportunities</th>
<th>Benefits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Global presence</td>
<td>Global choice</td>
</tr>
<tr>
<td>Improved competitiveness</td>
<td>Improved quality of service</td>
</tr>
<tr>
<td>Mass customization</td>
<td>Personalized products and services</td>
</tr>
<tr>
<td>Shorten supply chain</td>
<td>Rapid response to needs</td>
</tr>
<tr>
<td>Substantial cost savings</td>
<td>Substantial price reductions</td>
</tr>
<tr>
<td>Novel business opportunities</td>
<td>New products and services</td>
</tr>
</tbody>
</table>

**Figure 1:** Opportunities and benefits of B2B e-marketing

3. Research Methodology

3.1 Construct measurement

A questionnaire of 38 questions of ordinal type developed by Cox et al., (2002), was used to achieve the research objectives. Modifications made to the instrument included semantic changes to suit the needs of this study. The questionnaire items were in the form of statements on the five-point Likert-type scale.

For the purpose of the research, taking into account the economic environment of Greece, questions were including regarding the globalization and the free market economy, the pressure from the competitors, the reduction of physical distance between the business workers and the use of modern technology.

The applied questionnaire referred to issues, which are essential for the recording of the opinions of respondents. The topics were included on

- Strategic factors of a B2B e-marketing strategy
- External factors for development of an e-marketing strategy
- The impact of strategic e-marketing on cost
- The impact of strategic e-marketing on the supply chain
- The impact of strategic e-marketing on the quality of provided products or services
- The impact of strategic e-marketing on revenue generation
3.2 Sample frame

The sample selected in this research comprised of firms in the area of Attica. The criteria used for the selection of firms that took part in the research study were their size, where according to ICAP (2003), 1525 medium-sized firms operated in this area of these, 920 firms operate in e-commerce activities. We approached 46 firms (5%) of the total population and 30 firms responded. Figure 2, shows the composure of the sample of firms that participated in the research.

<table>
<thead>
<tr>
<th></th>
<th>Commercial</th>
<th>Industrial</th>
<th>Services</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participant Firms</td>
<td>36%</td>
<td>30%</td>
<td>34%</td>
</tr>
</tbody>
</table>

Figure 2: The sample of B2B medium firms

The research took place from November 2007 to January 2008. The usable questionnaires returned constitute 63% of the total sample operating in e-commerce.

Factor analysis was used in order to uncover the correlation patterns between variables. The orthogonal factor model, with the principal component method was used. Furthermore, the ordinal symmetric measures, Kendall’s tau-b were used to indicate the significance, strength and direction of the relationship between the row and column variables of a cross tabulation. Finally, the whole procedure was analyzed with the statistical program SPSS v.13. The questionnaires were sent either to General Managers, Marketing Managers, Logistics Managers or IT Managers responsible for the marketing strategies of the firms, since it seems clear that people in these positions are the decision makers and have the necessary experience to participate in this research study.

3.3 Results and discussions

3.3.1 Descriptive statistics analysis

First we examined the factors that motivate firms to develop an e-marketing strategy. It was found that a very significant motive of those questioned consisted of the globalization and the free market economy as the global economy requires an understanding of the foreign marketing environment as to how it varies from one country to another. As well as the international delivery availability which has been reduced by physical distance, it is important for firms
to design a logistical system that allows them to deliver their products/services across nations efficiently.

Thus, external related factors also include a very significant motive of the B2B collaboration, that of successful relationships. The enlargement of business relations reinforces the development of an interactive website involving real customer relationships, as it contributes in forming the exchange of required information between B2B firms. Customer acceptance is another significant motive that is of interest in external related factors including all the special efforts to motivate customers to make the move to an online environment.

An adequate information technology infrastructure is considered to be a vital factor in successful B2B e-marketing implementation, thus the availability of equipment for access and services is required.

The results of the research show that the firms are supported by Information Support Systems (69%), which are provided by Information Technology departments within the company. Intranet technologies support 72.4% of the firms (see Figure 3).

![Figure 3: Use of specialized (ad-hoc) technologies](image-url)
B2B internet usage provides obvious benefits for firms from cost savings to benefits in the value chain. It provides the ability to carry out transactions around the clock, in addition to increase confidence of business partners due to their online transaction ability (Table 1).

Firms’ expectations with regard to the benefits that are achievable by using e-marketing applications appear to be high. The organizations surveyed agreed that e-business will provide opportunities to reduce the cost base. The respondents believe that e-business will enable the enlargement of business relations and clientele.

**TABLE 1**

Benefits of a B2B collaboration

<table>
<thead>
<tr>
<th>Variables</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time saving</td>
<td>4,24</td>
</tr>
<tr>
<td>Money saving</td>
<td>4,14</td>
</tr>
<tr>
<td>Enlargement of clientele</td>
<td>3,93</td>
</tr>
<tr>
<td>Enlargement of business relations</td>
<td>3,57</td>
</tr>
<tr>
<td>Upgrade of product or services of the firm</td>
<td>3,97</td>
</tr>
</tbody>
</table>

3.3.2 The impact of B2B e-marketing strategy on cost

E-marketing strategy does not appear to have a major impact in reducing the external or internal costs of transactions. The major benefit in this area, according to Figure 4, is the ability of 67% of the participant business firms to organize their existing staff more effectively, while the 60% reports that an e-marketing strategy manages to improve the selling terms of products or services. Interestingly, such a strategy seems to cause great impact into the cost of internal and external transactions, by which firms gain direct benefits. The 50% of the respondent firms claims that it noted decrease in internal transaction cost, while the 37% reports stability. Referring to external transactions, an e-marketing strategy bears cost decrease in 53% of the participant firms, while at 33% of them the external transactions’ cost remains stable.
3.3.3 The impact of e-marketing strategy on supply chain

The expected gains from increased supply chain seem to become fully materializing and as Figure 5 shows in almost every field. Indeed, the major benefits for more efficient management of marketing and sales appear to arise mostly from the improved information flows (83% of the business firms that took part in the research study). The secondary important factor is the improved logistics practices along with the expansion of time for other activities (both appearing with 67%). Furthermore, the automation of invoices with mass market prices (63%), the reduced manual activities (60%), the reduced speed of products’ delivery (57%), the decreased inventory levels (50%) are factors that play great role in the supply chain management. The improved cash flow does not seem to offer significant benefits, yet we cannot ignore the 40% of firms. What is worth to mention here is the fact that e-marketing strategy releases all its benefits on supply chain and therefore supply chain becomes the most important sector for an organization to apply a Business-to-Business e-marketing strategy.
3.3.4 The impact of e-marketing strategy on quality

In terms of achieving significant quality improvements, surprisingly the 90% of the participant firms reported an increase in up-to-date market information, 73% reported improvement in customization, 70% reported improvement in the access to innovative products, 63% reported improvement in personalization and 60% reported improvement in quality of product’s or services. Taking in account these findings that are graphically presented in Figure 6, we can assume that regarding quality what plays the most crucial role is the continuum information about market that provides a business firm with indispensable knowledge. This can lead to the creating of an important competitive advantage and therefore boost the company's positioning within the market.

Figure 5: The impact of e-marketing on the supply chain

Figure 6: The impact strategy on quality
3.3.5 The impact of e-marketing strategy on revenue generation

The figures for revenue and sales benefits are not that optimistic with 17% of the respondent firms reported an increase in sales (while the 70% reported stability) and 63% seeing an increase in access to new services (while the 23% reported stability). Close to half, the respondents have experienced stability in customer retention with 47% (while the 30% has experienced increase in customer retention). In the sector of advertising requirement, the 53% of the firms reported stability and the 23% reported reduction. Overall on revenues, the findings indicate that there is no significant impact, taking mostly in consideration that in sales’ sector the stability reaches a rather large percentage. The benefits (access to new markets and customer loyalty) here seem to be less dependent on direct revenues’ generation, and more long-term. (Figure 7)

![The impact of B2B e-marketing strategy on revenue generation](image)

**Figure 7:** The impact of B2B e-marketing strategy on revenue generation
3.4. Factor Analysis

There are crucial internal motives reinforcing the adoption of a B2B e-marketing strategy by the executives. Some of them seem to play significant roles, such as cost, supply-chain, quality of products, revenue generation. We ran a factor analysis in order to uncover the correlation patterns between variables and reveal the firm’s internal factors. In this factor analysis we used the Orthogonal Factor Model with the Principal Component Method. The analysis was based on a correlation matrix, while the Varimax Method of Factor Rotation was applied for better interpretation of the factors (Table 2).

Model Adequacy

1. The Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy. Here we have KMO = .598.
2. Bartlett’s test of sphericity. Significance = .000, which means that variables are correlated.
3. Anti-image matrices. Each value on the diagonal of the anti-image correlation matrix shows the Measure of Sampling Adequacy (MSA) for the respective item. Most of the MSAs are above .5 and most of the off-diagonal elements are close to zero, indicating that our model is quite satisfactory.
4. Reproduced Correlations Table. Residuals, which show the difference between the predicted and observed correlation values, are small, as there are 74 (43.0%) residuals with absolute values greater than 0.05.
5. Communalities. Only the variance of variables Q6.04 and Q6.06 seem not to be well accounted for by the factors. The factor model accounts for 58% of Q6.04’s variance and for 57.1% of Q6.06’s variance. Only the variance of two variables seems not to be well accounted for by the factors. The factor model accounts for 58% and 57.1% of their variance, respectively.

One way to specify the number of factors retained in the model is by examining the Scree Plot given below. The point from which the depicted line tends to parallel with the horizontal axis corresponds to a X-axis coordinate that indicates the number of factors that we should keep in our factor solution. See that this point could be point 5. Hence five factors will constitute our model (Figure 8).
Figure 8: Scree plot
The first factor was called the effect of e-marketing on the supply-chain and included items referring to the effect of e-marketing on logistics, cost and the coordination of the supply-chain. This means that the development of e-marketing in B2B internet usage by the managers has wrought transformations, particularly in the area of organizational expectations of creating value within a supply-chain.

<table>
<thead>
<tr>
<th>Factors</th>
<th>Variables</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Effect of e-marketing on the supply-chain.</td>
<td>Q8.02: E-marketing effect on Logistics (Logistics practices’ improvement) (0.852).&lt;br&gt;Q7.03: E-marketing effect on cost (Deterioration of improvement of products’ or services’ sales conditions) (0.793).&lt;br&gt;Q5.02: E-marketing strategy adoption (achieve the coordination of the supply-chain) (0.769).&lt;br&gt;Q8.03: E-marketing effect on Logistics (Reduction of time in stock-taking) (0.709).&lt;br&gt;Q8.04: E-marketing effect on Logistics (Reduction of time for goods delivery) (0.597).</td>
</tr>
<tr>
<td>2. Effect of e-marketing on firm’s internal culture.</td>
<td>Q5.03: E-marketing strategy adoption (influence the speed of activities and the internal coordination of the firm) (0.786).&lt;br&gt;Q5.01: E-marketing strategy adoption (Contributes to the configuration to the cost of processes) (0.692).</td>
</tr>
<tr>
<td>3. E-marketing effect on the enterprise’s relationship with customers and personnel.</td>
<td>Q5.04: E-marketing strategy adoption (Better management of relationships with the customers) (0.834).&lt;br&gt;Q7.04: E-marketing effect on cost (effective use of Personnel) (0.786).</td>
</tr>
<tr>
<td>4. Collaboration. Deciding the potential audience.</td>
<td>Q6.03: Benefits of B2B collaboration (Enlargement of clientele) (0.806).&lt;br&gt;Q6.04: Benefits of B2B collaboration (Business relationships broadening) (0.709).&lt;br&gt;Q6.05: Benefits of B2B collaboration (Creation of competitive advantage) (0.644).&lt;br&gt;Q5.06: E-marketing strategy adoption (Create interdependence between the collaborating)</td>
</tr>
</tbody>
</table>
Factor 2 was called the *effect of e-marketing in internal culture* and included items such as the influence on the speed of activities and internal coordination by e-marketing adoption, and its contributions to the configuration of the cost of processes. This means that the internal culture of the firm is based on old beliefs and corporate values that often are no longer appropriate or useful in the new business environment. An organisation must therefore conform to the new values, management processes and communication styles that are being created by new methods of e-marketing. Worldwide companies are finding e-marketing success by investing in a combination of innovative implementations of technology business process enhancements and organisational changes that are part of an overall e-marketing strategy.

Factor 3 was called a “*marketing effect on the relationships of the enterprise with customers and personnel*” and included items referring to better management of relationships with customers and personnel by the adoption of an e-marketing strategy. This implies that inter-organisational relationships are critical in B2B e-marketing as executives esteem that delivers customer satisfaction and quickly responds to customers’ requests, questions and comments.

Factor 4 was called *collaboration, deciding the potential audience* and included items such as the benefits of B2B collaboration (broadening of business relationships, enlargement of clientele, and creation of competitive advantage). This statement explains how top management failed to develop dynamic, timely collaborative attitudes and responsiveness. Defining the external and internal audience to be targeted is one of the primary tasks of the firm.

Factor 5 was called *benefits of B2B collaboration* and included the fundamental items of money- and time-saving. This means that the opportunities offered by the Internet have concluded that in Business to Business, the technology offers customers the benefit of a convenient, very rapid mechanism through which to obtain goods at the lowest available price.

These 5 key factors that emerged from the fieldwork define the impact of effectively implemented e-marketing strategies inside the firm. In particular the use of an effective e-marketing strategy leads to positive outcomes, for example, reduction in the cost of transactions through the time reduction in the accomplishment of the orders. Additionally, there is a reduction in the sales force and logistics as well as stock reduction, and the improvement of trade efficiencies through the elimination of distance, the accessibility of alternative low-cost suppliers and instant targeting of firms/suppliers. The development of e-marketing in B2B internet usage has also particularly transformed organizational expec-
tations of creating value within a supply-chain with tailor-made sales and the capability to build successful relationships and the possibility of the exchange of best practices among the collaborative firms.

Total Variance Explained gives eigenvalues, variance explained, and cumulative variance explained for the factor solution. With five factors we can explain 72.650% of total variance (Table 3).

<table>
<thead>
<tr>
<th>Component</th>
<th>Rotation Sums of Squared Loadings</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total</td>
<td>% of Variance</td>
</tr>
<tr>
<td>1</td>
<td>3.756</td>
<td>19.769</td>
</tr>
<tr>
<td>2</td>
<td>2.708</td>
<td>14.253</td>
</tr>
<tr>
<td>3</td>
<td>2.701</td>
<td>14.215</td>
</tr>
<tr>
<td>4</td>
<td>2.657</td>
<td>13.985</td>
</tr>
<tr>
<td>5</td>
<td>1.981</td>
<td>10.427</td>
</tr>
</tbody>
</table>

Extraction Method: Principal Component Analysis.

3.5 Testing the independence between variables

The chi-square measures test the hypothesis that the row and column variables in a cross tabulation are independent. A low significance value (typically below 0.05) indicates that there may be some relationship between the two variables. While the chi-square measures may indicate that there is a relationship between two variables, they do not indicate the strength or direction of the relationship. The ordinal symmetric measures, Kendall’s tau-b και Kendall’s tau-c, indicate the significance, strength and direction of the relationship between the row and column variables of a cross tabulation. A low significance value (typically less than 0.05) indicates that there is a relationship between the two variables. The values of the test statistics can range from -1 to 1. Negative values indicate a negative relationship, and positive values indicate a positive relationship. The chi-square measure indicates a positive relationship in cross tabulation variables (Table 4). This matter substantiates the factor analysis results.
4. Conclusion

Internet has eliminated the barriers and many firms can work globally. The research has shown that the use of the Internet in B2B firms is still at a developing stage in Greece. Managers are expected to play a crucial role for the transition of Greek B2B firms to the era of the so called “Third Industrial Revolution” assist and facilitate the use of e-marketing. Their ability to promote innovative products and services will greatly contribute to the efforts made from countries to reach a united community of information.

However, there were 6 keys findings that emerged from the fieldwork showing the positive managers’ perceptions for the usefulness of this tool. First the impact of effectively implemented e-marketing strategies leads to positive outcomes as for example the reduction of the cost of the transactions the improvement of trade efficiencies. Second a very significant key finding consist that the relationship between partners can create a better understanding of each other through better communication and information exchange. Third as a result of the successful relationships consists the efficient response to customer needs. Forth the customers seize the opportunity to help themselves through a company that makes use of the e-marketing concept. Therefore, they consider the fifth factor highly advisable for companies to make e-marketing preparations

### TABLE 4
Cross tabulation output

<table>
<thead>
<tr>
<th>Variables</th>
<th>Kendall (value)</th>
<th>Approx. sig</th>
</tr>
</thead>
</table>
| • Reduction of manual work
  • Non-effective use of personnel | .537 | .000 |
| • Improved information flows
  • Increased access to up-to-date market information | .532 | .000 |
| • Creation of competitive advantage
  • Contribute to the creation of competitive advantage and added value | .417 | .003 |
| • Better coverage of personal consumer demands (personalisation)
  • Improvement of product or services sales conditions | .468 | .000 |
| • Increased access to up-to-date marketing information
  • Time saving | .443 | .000 |
| • Improvement in the quality of provided products or services
  • Upgrade of product or services of the enterprise | .608 | .000 |
and redefine their organisation in that level, since the Internet environment has changed the rules of traditional business. Finally the impact of adopting an e-marketing strategy in relation to cost, facilitates comparisons of price, products and services for the buyer, reduces lead times, improves production and supply capability, manages demand, and can also improve personalisation and customization product offerings.

5. Managerial Implications

Nowadays, the collaboration of B2B partners’ is of crucial important because of the global economic crisis. This collaboration in order to be productive should serve of both B2B firms. Thus, the successful relationships between partners facilitate the problem solving and decisions making as well as creates the conditions for a long-term cooperation.

The present research examined how Greek managers are perceived the impact of e-marketing into B2B relationships and their aspects are summarized in the following model (see Figure 9).

**Figure 9:** The improvement of B2B relationships through e-marketing

The developed model shows that B2B firms can be moved to e-business direction in order to seize the benefits improving their relationships via e-marketing. High management should take into consideration the managers’ perceptions for the utility of the use of e-marketing as a necessity so as B2B e-relationships
to be established in a digital environment. Therefore firms can reorganise and reengineer their operation strategies and succeed in reducing lead times so that more productive strategies will minimise the transaction as well as the logistic cost. As a result the improvement of trade efficiencies will create the necessary conditions for the development of better relationships.

5.1 Limitations

In order to confirm the above emerged model it is necessary to redefine the sample of the firms, because although the sample of responsive firms is representative it is small. More research is also needed in order to examine how the perceived importance of these factors may differ across different industries.

References


