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# ONLINE ACQUISITIONS IN B2B MODEL

Literature review

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## Keywords

*E-commerce,  
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## JEL Classification

L81, L89

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## Abstract

*Within the present paper, we propose to review some of the main aspects documented by the academic research so far with regard to the online purchasing behaviour in the B2B online environment (more specifically, in the case of the small and medium-sized companies). Preliminary conclusions reveal that, at least in the case studies, the dominant feature is that the geographic delimitation creates a potential obstacle when it comes to applying a general principle governing the small and medium-sized enterprises. Despite this, we consider that some theoretical elements can be acknowledged, elements from which future research can start to develop theories and hypothesis aimed at better explaining the phenomenon. Furthermore, the fact that the studies are rarely involving the same sector, makes it impossible to generalise the process.*

## INTRODUCTION

Nowadays, the globalisation phenomenon placed its mark on the way developing companies operate, thus, it can no longer be denied or delayed the necessity of a comprehensive analysis on this topic. Within the present paper, we propose to review some of the main aspects documented by the academic research so far with regard to the online purchasing behaviour in the B2B online environment (more specifically, in the case of the small and medium-sized companies).

This subject deserves a special attention since the majority of the economies (currently developing and even already fully-fledged economies) are based on such entities, OECD having estimated a percentage between 90% and 95% of such companies (with non-agricultural activity) as being those which ensure the largest part of revenues and employment opportunities in the OECD states.

Furthermore, the same organisation has issued another report in which it was upheld the idea that such entities deserve all the support from the local (and national) authorities since another major role played by them was that of sustaining a high degree of competition and financial (as well as economic and social) support, ultimately leading to the reduction of the degree of poverty in a given geographical area, no matter of the activity field (services or merchandise production).

## BARRIERS TO E-COMMERCE ADOPTION

Among the barriers mentioned and classified as traditional issues we mention: the lack of financing, issues of technical nature, management's limited knowledge, reduced productivity, limited or non-existing regulation in terms of online purchasing (for small and medium enterprises).

The public opinion continues to believe that the entities who make the subject of the present debate are being submitted to a metamorphosis process since globalisation implies at the same time the possibility to expand and to increase the competition, that is why the conclusions of the studies undertaken in this sector seem to remain predominantly ambiguous and fragmented, based on the applied theoretical principles.

Thus, usually, it is taken into consideration the restriction of the small and medium enterprises with regard to the market expansion since their size represents, from the beginning, a clear disadvantage (unless we are referring to a much specialised niche). On the other hand, the access to the online environment appears to bring a benefit since the time and space barriers can be overcome, but this aspect depends mainly on the organisational and technological factors even in the

case in which the public support is lacking or is insufficient.

In order to better understand these issues, we begin by revising the main aspects present in the literature dedicated to this subject. If we consider the geographical division of the article, it can be observed that the vast majority of the case studies are present on the Asian continent, in countries such as Malaysia, New Zealand, Nepal, China – including Hong Kong -, Taiwan, Indonesia, Thailand, Singapore), followed by other areas such as Australia, North America (United States of America, Canada), Africa (Egypt, South Africa) and Latin America (Chile) being very limited. In the case of the European continent, only two cases have been encountered so far (a comparison for Finland against China, and an individual case-study in Spain – Catalan area). We assume (and hope) that future research will be able to reveal more case studies, leading to a better synthesis and even an adequate comparison between the systems.

The elements taken into consideration in the literature reviewed refer to various aspects. Probably the most important aspect is the fact that the small and medium companies are difficult to define given the ambiguity of the definition itself.

According to the reviewed articles, the authors consider the small and average enterprise as having up to 100 employees, and a turnover of up to 5 million (amount expressed in American dollars).

With regard to the regulation framework implemented within the European Union, we observe that the upper limit is, most of the times, revolving around 250 employees, although some countries reach only as far as 200. The turnover taken into account is limited to 40 million euros and the assets are evaluated at maximum 27 million euros.

What is worth mentioning is also the fact that there is a high degree of fragmentation among the sectors represented (starting from manufacturing, to tourism, services – financial, educational, medical etc. – constructions, utilities, transportation, agriculture, equipment, electronics, hobbies etc..

## E-PROCUREMENT AND B2B COMMERCE PARADIGM

Another paradigm which cannot be fully explained involves the impossibility to differentiate between the notions of *e-procurement*, *B2B commerce* (often without any specific separation between it and the *e-commerce* term) and *e-business*. The first notion is (predominantly) applied in the case of acquisitions made by the government (thus, a public and not the type of private entity taken into account in the present discussion), while the second notion presents traditional elements with regard to the acquisition of products and services; the third

notion takes into account the specific application of technology (i.e. internet) within the company.

Although from the linguistic point of view, a more adequate notion would be offered by the British term *acquisition*, this is nowhere to be found within the context which implicates a small and medium-sized company, thus, a first step in the analysis might be represented also by establishing the clear-cut notion aimed at characterising the online acquisition process.

The notion of *e-procurement* has been defined in several ways: as being the process through which the internet is used to purchase goods and/or services (van Weele, 1994), as being a simple usage of the internet as instrument in the acquisition process (Boer, Harink & Heijboer, 2002) or as a solution (the internet) which answers the need to purchase (Presutti, 2003). It is to be understood that the numerous benefits which the internet brings about in the acquisition phenomenon it should be included (but not limited to): reduced (financial and time-related) costs, easement of the management improvement process within all the aspects which relate to the company's procedures.

#### **FACTORS WHICH AFFECT THE ONLINE ACQUISITION PROCESS**

As mentioned earlier, within the case studies analysed, the attention of the academic forum has been drawn mostly towards the currently-developing economies. Since, at this stage, it is highly unlikely to be able to establish a purely-theoretical model in order to explain such a complex phenomenon, we propose to review the main contextual and organisational factors which affect the decision-making process with regard to the adoption of the online acquisition method.

With regard to the general view on the European Union area, it can be observed that the market is highly diversified and not at all uniform, especially if we consider the last two accession episodes (2004 and 2007), dedicated to Central and Eastern Europe (former communist) countries.

Given the constant necessity to lobby and negotiate each aspect, as well as the impossibility to create a common applied standard with regard to technology, it is to be expected that the European market should be dominated by major drawbacks when it comes to adapting to the new technology.

Among the main issues missing and mentioned by the literature we mention: the lack of free local phone services, limited e-commerce offers, a low level in terms of computer usage, substantial regional differences (better emphasized than in America), linguistic barriers, the low percentage of persons and institutions using the online-payment method (especially the basic form of the credit

card), fast delivery and postal delivery at very low standards etc..

As it happens, it should not come as a surprise when, towards the beginning of the current century, the sector implying the B2B e-commerce concept in Western Europe was estimated at less than 32 billion dollars, meaning that, in the eyes of the specialists, Europe was lagging more than two years behind compared to the United States of America.

#### **METHODOLOGICAL APPROACHES OF B2B COMMERCE IN THE LITERATURE**

The area of interest present in the literature review involving the online acquisition in the B2B model takes into consideration only a series of elements, namely the behaviour of the company doing the acquisition (thus, the perspective is a client-based one), the role played by reputation within the network, the barriers encountered (mostly of technical nature) and the opportunities the internet might be able to provide for the small and medium enterprises, together with the security and privacy policy.

In terms of methodology, most of the works make reference to the questionnaire technique which varies in terms of the numbers of subjects being applied to. Most of the times, the average questionnaire involves 100-150 entities, and only rarely, the initial sample surpassed 1000 subjects.

The way the questionnaire was applied again greatly differs, the authors preferring the classic version of the questionnaire (usually sent by post and/or fax), the direct method of questioning being sometimes applied in an over-the-phone interview or questionnaire applied online. The rate of response rarely goes beyond 40 % and the additional statistical tests are done in order to reveal that the answers received late (after a week or even two) do not negatively influence the general results.

Furthermore, it can also be observed that the researches often make use of reminding techniques (via the email or phone call) to ensure that the subjects questioned complete the questionnaire sent by email or post. The elements present in the questionnaire make direct reference to the applicability of the technology, and the predominant element is the question relating to the technology skills, but again, the definition of this aspect varies across research.

When it comes to technology, the elements considered include the degree the internet is used (website, access to email services, difficulty in terms of the latest technology used, especially the online payment methods), the degree to which the society is open to the idea of online acquisition (within this category the owner's and/or main

manager(s)' view is taken into account), external pressure (the degree to which the main competitor(s) use technology), implementation costs (and/or the costs involved by changing the technology) – as well as the effective costs, in terms of money, time and effort dedicated to researching, analysing, implementing and understanding the new technology.

Adapting to the latest generation technology appears to be the main result of the latest competition, therefore, we need to take into account also an environment factor, and not limit the analysis to the organisational surroundings. This manifests itself especially in the case of the active companies on the international scale, who are dependent to a large degree on the daily online transactions in order to ensure survival in a fierce competitive environment.

The literature in general and even the general public remain of the opinion that technology represents a positive aspect within any given organisation since it is expected a higher degree of efficiency, and in the long-run, it can even be reached some degree of advantage compared to the competition.

Therefore, the technological factors to which the present analysed literature limits (in terms of case studies) make reference only to the implementation and initiation cost of using technology, as well as the general technical features of the methods and/or programs involved in this process.

However, it is difficult (at this stage) to summarize and characterise all the factors which determine the owner and/or main manager of a small or medium enterprise to adapt to the ever-changing technology, since the main decision can be hard to explain in the first set, due to the unwillingness to communicate the process through which such a decision was taken. (as shown in Table 1)

Rationally speaking, it is to be expected that the owner or the general manager play a main role in this equation, thus, we should also focus on the organisational factors. Within the organisational context, we took into consideration the organisational behaviour in terms of policies applied, technology implementation protocol, hierarchy adopted in a formal style (i.e. the way the main decisions are being implemented). The main hypothesis remains that the more a company is informal in its style, the faster the exchange of ideas and adoption of the new technology can be recorded. This is due to the fact that the organisations' members can openly express their opinion.

With regard to the technology adoption, the underlying idea is the fact that this process presents a decisive role especially in terms of business expansion, thus, in the long-run, the change of „survival” (compared to the direct competition) needs to be taken into consideration. The small and

medium enterprises need to adapt to the requests of the environment in which they are active, therefore, it cannot be stated that the technology directly affects the main area of interest.

With regard to the organisational factors, most of the times, within the study cases taken into consideration, the size of the enterprise was taken into account. The number of employees, the period in which the company fulfilled its main activity, the level of technological knowledge among the employees, the degree of openness (in terms of culture, as well as the proprietor's or main manager's perspective) are all factors of considerable weight in the ultimate decision.

The conclusion reached after studying part of the literature available at this stage reveals that, usually, the size of the company negatively affects the implementation of the new technologies since the employees and/or the owner does not possess the (minimum) level of required knowledge and neither the financial resources aimed at supporting such a radical attitude.

On the other hand, the public opinion (reflecting, partially, also the competitors' view) can positively/negatively affect the attitude of the small and medium enterprises, since the culture within a society is often reflected in such ways, creating either potential barriers or opportunities. (as shown in Table 2)

## CONCLUSIONS

Preliminary conclusions within the analysed literature reveal that, at least in the case studies, the dominant feature is that the geographic delimitation creates a potential obstacle when it comes to applying a general principle governing the small and medium-sized enterprises. Despite this, we consider that some theoretical elements can be acknowledged, elements from which future research can start to develop theories and hypothesis aimed at better explaining the phenomenon. Furthermore, the fact that the studies are rarely involving the same sector, makes it impossible to generalise the process.

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## ANNEXES

### Tables

Table 1  
*Studies on B2B & e-Commerce in the literature*

Study	Influencing factors	Technological feature studied	Sample obtained (including the number of employees defining a small and medium enterprise)
Iacovou et. al. (1995)	External pressure, perceived benefits, organisational disposition	Ways of adopting the electronic data exchange	7 (n < 200 )
Chwelos et. al. (2001)	Availability, pressure from the competition, perceived benefits	Ways of adopting the electronic data exchange	268 (unknown)
Kuan and Chau (2001)	Degree of technology in the sector and the business environment	Ways of adopting the electronic data exchange	575 (n < 100)
Igbaria et. al. (1997)	Perceived benefits, ease of using, features of the environment	Personal computer	203 (n < 100)
Thong (1999)	Features of the top management and of the business environment	Using the internet	166 (n < 100)
Premkumar and Roberts (1999)	Benefits, support from the management, size of the company, pressures from the external environment	Access to data, email and internet	78 (n < 90)
Mehrtens et al. (2001)	Benefits, availability, external pressure	Internet usage	7 (n < 200)
Mirchandani and Motwani (2001)	Support from the management, compatibility technological knowledge of the employees	E-commerce adoption	62 (n < 200)
Riemenschneider and McKinney (2001-2002)	Behaviour analysis	Adoption of the e-commerce process	184 (n < 500)
Riemenschneider et. al. (2003)	Behaviour analysis	Website usage	156 (n < 500)

*Source: author's processing*

Table 2  
*Factors which affect the e-commerce adoption within companies*

Technological factors	<p><b>Implementation costs</b>  <b>Degree of difficulty of the new technology</b>  <b>Necessity to ensure the main aspects involved in the online acquisition process (illegal access of the computerised networks, security, fraud etc.)</b></p>
Business environment factors	<p>Competition in the given sector  Degree of openness towards the technology present in the sector  Leader's knowledge in terms of innovation and technological capacities</p>
Political factors	<p>Degree of support sustained from the public authorities (i.e. government)</p>
Judicial factors	<p>The regulation currently in force at the national and supranational level (as it is the case in the European Union) on issues regarding the data transfer, online payment, passing the goods across the border, financial transactions etc. are still being shaped due to the ever-change in circumstances and scenarios unknown in the traditional court cases.</p>
<b>Economic factors</b>	<p>The degree of taxation of the online transactions (the European Union, as opposed to the United States of America, appears to be a high supporter of taxes applied on such types of transactions). Inflation, exchange rate, infrastructure ensuring the logistics and distribution process for the goods purchased represent additional key-elements worth analysing in-depth at a future point.</p>
Organisational factors	<p>The size of the company (in terms of number of employees), IT knowledge, the way in which the decisions are implemented</p>
Cultural factors	<p>It is widely acknowledged that English has become the <i>lingua franca</i>, but efforts are being made to adjust the website to the local requirements in order to access a large pool of customers. At the same time, the degree of traditionalism present in certain societies reveal the preference of the actors to interact face-to-face.</p>

[26] Source: author's processing based on Van den Peol Dirk, Buckinx Wouter, 2005, *Predicting online-purchasing behaviour*, European Journal of Operational Research 166, 557-575.