Performances of B2B e-Marketplace for SMEs: The Research Methods and Survey Results

Woon Kian Chong, The University of Bolton, Manchester, UK, WC1LIS@bolton.ac.uk
Dr. Mathew Shafaghi, The University of Bolton, Manchester, UK, M.Shafaghi@bolton.ac.uk

Abstract
The concept of B2B (Business-To-Business) e-Marketplace provides a new dimension in facilitating the marketers to work more effectively in particular when making critical marketing decision. Benefiting from the Internet technologies, the range of advantages that can be gained from the B2B e-Marketplace is extensive. This paper is intended to provide a clear understanding of the wide range of research approaches, strategies and methods that will contribute to the study of B2B e-Marketplace’s performances for Small and Medium Sized Enterprises (SMEs). A two stage research design combining qualitative and quantitative research methodologies are used to generate relevant data for this study. Focusing on SMEs the paper will also explore the ability of the SMEs to capitalise from the opportunities provided by B2B e-marketplace. Based on the research results, B2B e-Marketplace is reported to reshape the business processes and enhance the business exposure in the market.

Keywords: B2B e-Marketplaces, SMEs, Research Methods, Survey Results

1. Introduction
The rapid growth of the B2B e-Marketplace and the development of Internet-related technologies have led to the emergence of new business models [10]. The main advantages for buyers are reported to be: the lower selection costs [17, 4]; reduce time by instant access to sellers [13] and the ability to ensure the best buying price by comparing to multiple sellers in the e-Marketplace [7]. The major benefits associated with sellers are increased exposure to the global markets [17], enhanced communication [7], and reduced transaction costs [25] due to the aggregation of needy buyers generated by the e-Marketplace. As B2B e-Marketplace provides value for both sellers and buyers, the expected transactions are highly promising and are indicative of significant growth.

The literature provides the current level of Internet-enabler marketing technologies from B2B e-Marketplace to the marketers. The online and offline publications from both academics and practitioners make a significant contribution to knowledge in the areas of B2B e-Marketplace that has the potential to create competitive advantage and enhance customer value. However, it appears that there is limited exploitation of such knowledge by industry professional. In order to develop a better understanding of the topic under study, this paper will provide a clear understanding of the wide range of research approaches, strategies, methods and survey results that will contribute to the study of B2B e-Marketplace’s performances for SMEs.

[18] refers to B2B e-Marketplace as a virtual, dynamic and real time platform enabling both buyers and sellers to communicate with raw material suppliers, manufacturers and distributors by adopting the Internet technologies. Hence, the B2B e-Marketplace is regarded as one important part of e-business solutions in the process of enabling supply chain integration to maintain the business value and growing competitive necessity. [18] highlighted several aspects of the impact and importance of the B2B e-Marketplace including:

- Share the experiences with their companies powerfully shaped by the speed and flexibility of the Internet.
- New concepts of customers and markets relatively unhindered by time or distance.
- A global shift of speed and responsiveness.
- A trend toward global process visibility and virtualisation.
- The benefits of global knowledge integration.
- Changing power and responsibility of the individual.

With wide spread use of the Internet by companies as a part of the media mix in their marketing activities, marketers realise that the web has become a new marketing channel for them. In order to communicate with customers, the B2B e-Marketplace is one of the effective tools to convey messages and reduce marketing costs compare to traditional marketing media [22]. From the marketing point of view, B2B e-Marketplace is a place to retrieve products, information, customer relationships and even distribution channels to the marketers.

The concept of B2B e-Marketplace provides a new dimension in facilitating the marketers to work more effectively in particular when making critical marketing decision. Benefiting from the Internet technologies, B2B e-Marketplace can serve both seller and buyer as a new marketing channel to conduct or execute marketing functions such as sales and distribution.

The Internet has impacted all businesses and marketing functions and it’s now a significant part of global corporation’s marketing arsenal [16]. As international acceptance of this new tools increase, the Internet marketing turns from possibility to reality.
While marketer’s offline cannot guarantee that they are reaching people who want to buy. When they advertise on the Internet, this clearly is not a problem. There are many types of online marketing tools in the B2B e-Marketplace:

**Banner Advertisements:**

Any portal or other popular site such as Yahoo, Amazon etc. do have banner advertisements. [12] describes that, banner advertisement is the billboards of the information superhighway but actually they are more like road signs, directing people to online locations they may never have heard before. He also reveals that, banner advertisement is static and interactive and can incorporate both text and images. Typically, banner advertisement provides a hyperlink to the advertiser’s home page, enabling users to click through the banner. [5] identify the following objectives in banner advertisement:

- Delivering content- click through on banner advertising leads through to a corporate site giving more detailed information.
- Enabling transaction- click through leads to a merchant such as a travel site or an online bookstore. The advertisement is placed to lead directly to a site.
- Shopping attitudes- advertisement consistent within company brand.
- Encouraging retention- advertisement may be placed as a reminder about the company and its service.

**Search Engines:**

The other method for marketing on the B2B e-Marketplace involves entering the terms into WWW sites that have been set up to functions as search engines. The majority of the B2B e-Marketplace provides the functionality of submission key words to the major search engines such as yahoo.com, google.com etc. It is important to appear the company information within the first ten results to expose their business’s products via the Internet.

**Sponsorships:**

Online sponsorships generally refer to partnerships between a commercial web site and an information-based web resource. Companies can more closely associated with a site, however the costs involved tend to be a lot higher than others method.

**E-mail Advertising:**

E-mail advertising is the most cost-effective medium to get your message in the hands of the people who are most likely to respond to the offer. E-mail advertising is literally a fraction of the cost of any traditional marketing vehicle. According to [12], e-mail marketing can be in two forms; newsletters and subscriber lists.

A major challenge for B2B e-Marketplace is security. [20] stated that hackers can cause havoc across the global computer network. B2B e-Marketplace is totally exposed to the Internet, and therefore the information assets need to be protected via the security technology. Thus, marketers need to be aware of all stages of security development especially in payment transaction. In addition, marketers should also consider improving security by implementing every aspect of the applications including system software and networks. [2] also emphasized that, the content of the website is critical to be appropriate and relevant to the company business processes and the languages must be consistent with the local markets. Furthermore, the marketers also need to be aware of the local culture and business natures in order to make their marketing strategy effectively. In short, the ideal B2B e-Marketplace must provide a high level of personalisation, high technical contents, straightforward navigation tools, and interactive between the company and the customers [17, 10].

3. Research Methodology

A two-stage research design, combining qualitative and quantitative phases was considered as a triangulation application that appropriately employed for this study. The research objectives were achieved by using the designed research instrument (online questionnaire and interviews) that captures the opinions from the participators.

**Research Philosophy**

Positivism and interpretivism research philosophies are widely used by social researchers with different perspectives on the research process. The distinctive between positivist and interpretivist is highlighted in table 1. According to [3], positivist approach is based on realism and attempting to find out about the real world. It also refers to a rational edifice built by scientists to explain human behaviour [8]. Interpretivist refers to real direct behaviour that happen daily and can interpret the experience of participants in order to understand the essence of the experience as perceived by the participants [8].
There are two general processes which may result in the acquisition of new knowledge namely inductive (often associated with quantitative data) and deductive (often related with qualitative data). It is common to relate these processes to the research philosophies, where deductive owes more to positivism and inductive relate more to interpretivism [9]. Inductive involves making observations, usually to develop a new hypothesis or contribute to a new theory, where deductive research begins with known theory and usually develop by attempting to provide evidence for or against a pre-specified hypothesis [21]. Inductive analysis often involves in discovering patterns, themes, and categories, whereby deductive are analyzed according to an existing frameworks [21]. [24] identified the major differences between deductive and inductive research approaches as shown in table 2.

### Table 1: Comparison between positivist and interpretivist

<table>
<thead>
<tr>
<th>Dimensions of comparisons</th>
<th>Positivist</th>
<th>Interpretivist</th>
</tr>
</thead>
<tbody>
<tr>
<td>Philosophical basis</td>
<td>Realism: the world exists and is knowable as it really is.</td>
<td>Idealism: the world exists but different people construe in it different ways.</td>
</tr>
<tr>
<td>Methods of understanding</td>
<td>Identifying conditions or relationships which permit the collectivity to exist.</td>
<td>Interpretation of the subjective meanings which individual place upon their action.</td>
</tr>
<tr>
<td>Theory</td>
<td>A rational edifice built by scientists to explain human behavior.</td>
<td>Sets of meanings which people use to make sense of their world and human behavior within it.</td>
</tr>
<tr>
<td>Research</td>
<td>Experimental or quasi-experimental validation of theory.</td>
<td>The search for meaningful relationships and the discovery of their consequences for action.</td>
</tr>
<tr>
<td>Methodology</td>
<td>Abstraction of reality, especially though mathematical models and quantitative analysis.</td>
<td>The representation of reality for purposes of comparison.</td>
</tr>
<tr>
<td>Organisation</td>
<td>Goal-oriented. Independent of people. Instruments of order in society serving both the society and the individual.</td>
<td>Dependent upon people and their goals. Instruments of power which some people control and can use to attain ends which seem good to them.</td>
</tr>
</tbody>
</table>

There are two general processes which may result in the acquisition of new knowledge namely inductive (often associated with quantitative data) and deductive (often related with qualitative data). It is common to relate these processes to the research philosophies, where deductive owes more to positivism and inductive relate more to interpretivism [9]. Inductive involves making observations, usually to develop a new hypothesis or contribute to a new theory, where deductive research begins with known theory and usually develop by attempting to provide evidence for or against a pre-specified hypothesis [21]. Inductive analysis often involves in discovering patterns, themes, and categories, whereby deductive are analyzed according to an existing frameworks [21]. [24] identified the major differences between deductive and inductive research approaches as shown in table 2.

### Table 2: Differences between deductive and inductive research approaches

<table>
<thead>
<tr>
<th>Deduction emphasizes</th>
<th>Induction emphasizes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scientific principles</td>
<td>Gaining understanding of the meanings of human</td>
</tr>
<tr>
<td>Moving from theory to data</td>
<td>A close understanding of the research context</td>
</tr>
<tr>
<td>The collection of quantitative data</td>
<td>The collection of qualitative data</td>
</tr>
<tr>
<td>The application of controls to ensure validity of data</td>
<td>A more flexible structure to permit changes of research</td>
</tr>
<tr>
<td>Researcher independence of what is being researched</td>
<td>A realization that the researcher is part of the research process</td>
</tr>
<tr>
<td>The necessity to select samples of sufficient size in order to generalize conclusions</td>
<td>Less concern with the need to generalize</td>
</tr>
</tbody>
</table>

Based on the general principle of the research philosophy above, mixed methodologies (triangulation) are proposed to be employed for this study. There is a strong suggestion within the research community that, both qualitative and quantitative are best thought to be mixed in majority of the research field. [23] suggest that the advantages of combining qualitative and quantitative data as followed:

- enable confirmation or corroboration of each other via triangulation;
- elaborate or develop analysis, providing richer details; and
- initiate new lines of thinking through attention to surprises or paradoxes, “turning ideas around”, provide fresh insights.

In addition, [1] recognised that, quantitative data can help with the qualitative side of a study by finding a representative sample and locating deviant samples, while qualitative data can help the quantitative side of the study during design by aiding with conceptual development and instrumentation. Both results focus on different aspects of an issue but they are complementary to each other and lead to a fuller picture. They also suggested that, qualitative and quantitative results are divergent or contradictions.
Qualitative and quantitative methodologies are reported to be the most widely used research methods, and these methods are complementary and their combination often leads to a deeper understanding of the research problem. The combination of the above (triangulation) is intended to generate a mixed blend of data relevant to the study with a wide range of strategies for data collection including: Survey, Statistical/data analysis, Semi-structured interview, Observation, Case study, Ethnographic study, In-depth interview, Focus group, Content analysis, Action research, Personal reflection, Participant observation, Telephone survey, Online focus groups, E-phone survey, Internet survey and Mystery shopper.

The choice of methods for this study is motivated by the desire to combine literature review (secondary data), survey (online questionnaire), and interview.

Literature Review
A literature review of published articles, books and exploitation of relevant theories and past empirical studies is almost universal in academic research projects. The preliminary search can help to generate and refine the research ideas and develop awareness of the current state of knowledge in the chosen subject [24]. Hence, it is important to review the literature from the early stage of the research process. Based on the dedicated database designed for this study, it is intended to provide an evolutionary picture of a clear understanding of the performance of e-Marketplace in conducting B2B marketing and the global business environment.

Qualitative Research (Survey)
Surveys are considered the most appropriate tool for making interference about a large group of people to compare, explain knowledge, attitudes and behavior [19, 26, 14]. The fundamental idea of survey is to descript and explain statistically and variability of certain features in a particular population. The advantages of survey research suggested by [15] include:

- Accuracy - measurement in quantification and reliability of particular population;
- Generalisability - generalised to a larger population with minimise of error; and
- Convenience - easy to administer and amenable to rapid statistical analysis.

Online survey considered one of the most popular data gathering techniques. The greatest strengths of online survey are the potential to collect a large amount of data in a relatively short amount of time. Furthermore, [6] emphasized that an online survey is easy to design for the data collection and analysis process in quantitative research approach. In short, online survey provides quick, efficient, and accurate means of assessing information from the population.

Qualitative Research (Interview)
Interview is one of the main data collection tools in qualitative research. Interviews are particularly useful for getting the story behind a participant’s experiences. Two types of interviews will be adopted to collect data for this study: semi-structured and unstructured interviews. Semi-structure interview is non-standardised, allowing a degree of freedom and adaptability in getting the information from respondents. In addition, respondents may expand their answers where it is desirable. Unstructured interview is not generally-planned, in order to remain as open and adaptable as possible to the respondent’s nature and priorities; during the interview, the respondents are allowed to talk freely around the subject.

There are three types of interview approaches proposed to be employed for this study: face-to-face interview, telephone interview and interview via Webcam. Through face to face interview, it is easy for an investigator to obtain in-depth information by probing and controlling the situation. It also allows information exchange to remain transparent between the interviewer and the respondent. Thus, the research can gain a quality response rate by establishing rapport and motivate the respondent to answer fully and accurately [14]. Telephone interview is another strategy adopted for this study. “Telephone interviewing is an increasingly popular means of conducting survey research because not only does almost everyone have a telephone and it is easier to access to the particular research population.” [11, p.4], moreover, the interviewer also has the opportunity to probe answers by asking the respondent to clarify or expand on a specific response. The above strategies are supported by Webcam interview approach. The advancement of the Webcam is making this study possible to reach large and diverse sample populations at relatively low cost compared with face-to-face and telephone interview.

Sample
The online questionnaire aimed at managing director, general manager, IT manager, marketing manager
Performances of B2B e-Marketplace for SMEs: The Research Methods and Survey Results

Communications of the IBIMA
Volume 9, 2009 ISSN: 1943-7765

The targeted populations for this survey are three selected B2B Marketplaces based on their suitability: Asiaep.com (Malaysia), Alibaba.com (China), and Tradeindia.com (India).

The full details including: name, designation, full address, email address, contact number, and number of employees of the recipients were obtained from B2B e-Marketplaces above. Two hundred and fifty email addresses were sent together with the cover letters. This is followed by the ‘follow-up’ emails (thank early respondents and remind non-respondents) were sent two week after emailing the questionnaire to the recipients. The ‘second follow-up’ emails were sent to the recipients who have not responded after three weeks. The online survey was supported by interviews with selected respondents to the online questionnaire who expressed their interest in taking part in an interview, and those respondents who were considered suitable after analyzing their response to the questionnaire.

4. Results

Out of two hundred and fifty email addresses sent, seventy nine valid questionnaires were received, yielding a response rate of thirty one percent. The response rate was considered high because of the efficiency and flexibility of the web-based data collection and administration.

Characteristics of Sample

As shown in figure 1, 25.8 percent of the companies who participated in this survey are in information technology (IT) sector, 9.7 percent from finance/banking sector, 6.5 percent from the construction, communication and dot.com companies respectively, 22.6 percent from the manufacturer, 3.2 percent from travel-based sector and 19.4 percent from other sectors.

The main purpose of this section is to identify the ICT investment for the sample companies. Many businesses are automating their processes and ICT is considered essential to their operations in the global market. The sample companies widely invested in the basic ICT infrastructures such as desktop, laptop, printer, corporate email services and Microsoft office software packages as indicated in table 3. In addition, over 77 percent of the sample companies have dedicated IT department, 74 percent of the respondents have IT manager and majority of the IT department employ between five to ten personnel (63 percent).

From this observation, although SMEs have limited resources, they still widely invest in IT infrastructures for competitive advantages. The increased investment in ICT infrastructure has enabled the responding companies to manage and control their operations more efficiently and effectively with improved relationship with stakeholders in particular the customers. From the Customer Relationship Management (CRM) perspective, ICT can track the customer preferences from the Internet; and the ability to track and collate detailed data on individual users is considered an important aspect of successful marketing.

Table 3: ICT Investment

<table>
<thead>
<tr>
<th>Software</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>E-mail</td>
<td>100%</td>
</tr>
<tr>
<td>Microsoft Office</td>
<td>100%</td>
</tr>
<tr>
<td>Desktop/Laptop</td>
<td>100%</td>
</tr>
<tr>
<td>Accounting/finance systems</td>
<td>90%</td>
</tr>
<tr>
<td>Customer Relationship Management (CRM) Systems</td>
<td>7%</td>
</tr>
<tr>
<td>Decision Support Systems (DSS)</td>
<td>4.5%</td>
</tr>
<tr>
<td>Enterprise Resources Planning(ERP) Systems</td>
<td>8.9%</td>
</tr>
<tr>
<td>Human Resources Management (HRM) Systems</td>
<td>5.1%</td>
</tr>
<tr>
<td>Management Information Systems (MIS)</td>
<td>8.9%</td>
</tr>
<tr>
<td>Operational Systems</td>
<td>8.3%</td>
</tr>
<tr>
<td>Others</td>
<td>0.6%</td>
</tr>
</tbody>
</table>

Main Reasons to participate in B2B e-Marketplace

Referring to table 4, over 21 percent believed B2B e-Marketplace is an important element of their marketing strategies. The respondents indicated that, competitive pressures from the global market (26.3 percent) are their top priority to participate in B2B e-Marketplace. When asked about how the performance of B2B e-Marketplace, 61.3 percent said it was good, 19.4 percent have no idea about it, 12.9 percent said it was not efficient at all and only 6.5
percent stated that B2B e-Marketplace was excellent for their businesses.

Based on the survey results, B2B e-Marketplace has been considered an important asset for competing in the global marketplace. The results also indicated that, majority of the respondents believed B2B e-Marketplace performed well in their businesses. In summary, the need for marketing for gaining a competitive edge in global markets is the main reasons for marketers to participate in B2B e-Marketplace.

Table 4: Reasons for B2B e-Marketplace Adoption

<table>
<thead>
<tr>
<th>Reasons</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>It is part of my marketing strategies</td>
<td>21.1%</td>
</tr>
<tr>
<td>Demanded/instructed/advised by senior management</td>
<td>11.6%</td>
</tr>
<tr>
<td>Competition</td>
<td>26.3%</td>
</tr>
<tr>
<td>Follow the industry sector</td>
<td>12.6%</td>
</tr>
<tr>
<td>Customer feedback</td>
<td>10.5%</td>
</tr>
<tr>
<td>Make a global presence</td>
<td>15.8%</td>
</tr>
<tr>
<td>Others</td>
<td>2.1%</td>
</tr>
</tbody>
</table>

Benefits and Problems of B2B e-Marketplace Adoption

These results have been evaluated in order to identify trends that could lead to a greater understanding of the B2B e-Marketplaces’ benefits and problems. As indicated in figure 2, over 24 percent respondents which is the highest rate stated that, the implementation is the main problem. It is followed by technology (23.5 percent), expertise (21 percent), resources (13.6 percent), lack of senior management support (9.9 percent) and lack of time (3.7 percent). In terms of the benefits, over 24 percent which is the majority indicated that, B2B e-Marketplace can make better relationships with customers. Moreover, over 19 percent of respondents believed B2B e-Marketplace improving their sales, it is followed by efficiency gain (21 percent), improve product quality (7 percent), increase web traffic (15.8 percent), gain competitive advantage (15 percent) and others benefits just accounted for 1 percent (figure 3).

5.0 Discussions

The research results shown in section 5 may seem surprising that SMEs are planning to use B2B e-Marketplace to a larger extent. According to the respondents, the main reason to participate in B2B e-Marketplace is gaining competitive advantages in the global marketplace. SMEs also realised B2B e-Marketplace can ‘make better relationships with customers’, and CRM become an important element in B2B e-Marketplace. In the literature, a series of benefits of B2B e-Marketplace have been suggested and these benefits are the motivations for the respondents to transfer into online trading. These firms identified a need to participate in B2B e-Marketplace because it facilitates access to global markets, improved sales, increased web traffic, efficiency gain and improved products/services quality. However, the respondents also pointed out some of the problems of B2B e-Marketplace. This was dominated by the lack of understanding of available technologies, expertise, and lack of alignment in relation to business strategy.

Many marketers believed that this technique will change their approach to market, and the result proved that, is more complement to traditional marketing practices. Moreover, the technology...
improves from the Internet will interact marketing capacity to building a total customer relationships. The results of this study suggest that B2B e-Marketplace are growing rapidly and should be integrated into the overall marketing mix. Respondents also believed that B2B e-Marketplace would be more effective as a retention rather than as an acquisition tool, because its interactivity facilitates two-way communication. The senior management members interviewed also stressed the importance of targeting and the use of B2B e-Marketplace as a marketing tool for their businesses.

Overall, the range of advantages that can be gained from the B2B e-Marketplaces is extensive, although not all will apply to every SMEs. Furthermore, recognition of the advantages to be gained from B2B e-Marketplaces is crucial from the initial stage of developing e-business for SMEs to familiarise the operation of B2B e-Marketplace.

6. Conclusion and Future Research
The concept of B2B e-Marketplace provides new era to facilitate the marketers work more intelligently in order to make the right marketing decisions. This new marketing paradigm is reported to reshape the business processes and enhances the business exposure in the market. Similarly there is a great emphasis on the maintenance of the conventional model supported by up-to-date-electronic technology, and appropriate to innovative business models.

Based on the need from the literature, this study is intended to make a contribution to: SMEs, marketers, IT practitioners and other stakeholders that use the Internet and other electronic means for B2B marketing purposes. However, the evidence is indicative of the need for further research. Possible areas include;

- To produce an original contribution to knowledge in the area of the performance of e-Marketplace in conducting B2B marketing in the global business environment;
- To provide further knowledge in the areas of e-Marketing by proposing a new model of B2B interaction;
- Review and recommend a classification of all available B2B e-Marketplaces, their characteristics and the technology used by them.
- To promote e-Marketing techniques and all the relevant components and;
- To create awareness for SMEs to the effectiveness of e-Marketing in B2B e-Marketplace.

7. References
[14] Hoyle, R.H., Harris, M.J., and Judd, C.M. (2002), Research methods in social relations, Wadsworth Thomson Learning, USA.


Copyright © 2009 by the International Business Information Management Association (IBIMA). All rights reserved. Authors retain copyright for their manuscripts and provide this journal with a publication permission agreement as a part of IBIMA copyright agreement. IBIMA may not necessarily agree with the content of the manuscript. The content and proofreading of this manuscript as well as any errors are the sole responsibility of its author(s). No part or all of this work should be copied or reproduced in digital, hard, or any other format for commercial use without written permission. To purchase reprints of this article please e-mail: admin@ibima.org.