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15. THE DETERMINANTS OF EXTENT OF INTERNET/E-BUSINESS TECHNOLOGIES USE BY SMES IN MARITIME CANADA: AN ANALYSIS

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Abstract

This study examines the determinants of extent of internet/e-business technologies (IEBT) use by small- and medium-sized enterprises (SMEs) in Maritime Canada. A research model based on the Technology–Organization–Environment (TOE) framework, proposed by Tornatzky and Fleischer (1990) was used to guide this research. Such factors as relative advantage, compatibility, complexity, management support, organizational readiness, and external pressures taken from the TOE framework were used to develop relevant hypotheses. Questionnaires were mailed to key informants in SMEs in the region. Data analysis was performed using the PLS approach. The perceptions of relative advantage, compatibility, organizational readiness, and external pressures moderately impacted the main construct: extent of IEBT use in the adopting SME. The result showed that the management support factor yielded the best result with regard to the dependant variable. The implications of the result findings for research and practice are discussed.

Keywords

Internet and E-business Technologies (IEBT), SMEs, Technology–Organization–Environment (TOE) Framework, Internet Business Solutions, and Canada

1. Introduction

Over the last decade, information systems (IS) researchers have continued to examine the factors affecting the adoption and use of internet and e-business technologies (IEBT) by small- and medium-sized enterprises (SMEs) (Fillis et al., 2004; Wymer, 2005; Davis and Vladica, 2006; Chong and Pervan, 2007; Ifinedo, 2008). Such technologies are relevant to business organizations with a desire to reduce operational costs, improve management capabilities and gain access to the global market, among others objectives (Sadowski et al., 2002; Caldeira and Ward, 2002). The phrase "Internet and e-business technologies" has been borrowed from a study conducted by Davis and Vladica (2006) in the same region as this study's, wherein technologies such as email, the Internet, and websites were used as examples. These are related, useful technologies for e-commerce and e-business engagements, and in fact Sadowski et al. (2002, p.76) note that "in establishing a new connection to the Internet, new users are required to adopt a series of related new technologies." Emphasis in the extant IS literature tends to be focused on the adoption patterns and barriers to adoption of IEBT by SMEs (e.g. Levy and Powell, 2003; Fillis et al., 2004; Wymer, 2005). Very little has been written about how such technologies have helped to improve small business operations. The paucity of research in this area is the

motivation for this study. This study's focus will be on the determinants of extent of IEBT use in Canadian SMEs. For the purposes of this research, *extent of use* refers to the degree to which such technologies have enabled business transactions as well as their frequency of use in adopting organizations.

Gibbs and Kraemer (2004) suggest that the diffusion of internet and e-business technologies among business organizations is an uneven process. Studies and reports show that factors influencing the use of internet and e-business technologies vary by enterprise size and location (Net Impact Study Canada, 2002; 2004). That is, businesses in some countries tend to do better than others with regard to their use and adoption of IEBT. Also, larger businesses appear to have more favorable indicators in this arena (Gibbs and Kraemer, 2004; Daniel and Grimshaw, 2002). The focus of this study will not be on cross-country and cross-enterprise analyses, as others have already published such themes (e.g. Gibbs and Kraemer, 2004; Daniel and Grimshaw, 2002; Net Impact Study Canada, 2002; Wymer, 2005). Rather, the focus of this research will be on factors influencing the extent of IEBT use in SMEs based in one country, Canada. This approach is important for two reasons. First, it is appropriate to pay attention to SMEs, given the universal knowledge that they serve as engines for employment generation and national economic growth (Net Impact Study Canada, 2002; Davis and Vladica, 2006; Ifinedo, 2008). Statistics Canada (2006), generally defines SMEs as firms with fewer than 500 employees. According to the Net Impact Study Canada (2002, p.2), "Canadian SMEs deliver 60% of Canada's economic output, generate 80% of national employment and 85% of new jobs." To ensure constituency, larger firms are excluded from this study. Indeed, the literature suggests that SMEs differ from larger enterprises in their IEBT adoption patterns (Daniel and Grimshaw, 2002). Second, the Net Impact Study Canada (2004, p.1.) sounded a note of caution to policy makers and industry leaders in Canada by stating that: "a lukewarm SME response to IBS [Internet business solutions] adoption may weaken any national strategy to bolster Canada's international competitiveness."

To date, only a few studies have surveyed the use and adoption of IEBT in Canadian enterprises. For example, Lefebvrea et al. (2005) examined the dynamics of e-commerce adoption in manufacturing SMEs in Canada. They found the pattern of adoption was evolutionary in nature. Chwelos et al. (2001) investigated the intent to adopt such technologies by Canadian firms; however, their efforts may be dated. Noce and Peters (2006) examined barriers to e-commerce adoption in SMEs based in Canada. Wade et al. (2004) studied the net impact of e-commerce on firms' performances. Others have investigated the business value of ICT products in SMEs (Martin and Milway, 2007). Davis and Vladica (2006) reported findings on the distribution and use of internet technologies and e-business solutions in Maritime Canada. Suffice it to say that an understanding of the determinants of IEBT use in Canadian SMEs will benefit policy makers, practitioners, and researchers. Practitioners may benefit from knowing which factors to pay more attention to (at least, those considered in this research) as they use their IEBT. Useful insights related to IEBT use in SMEs are also offered to the research community. In fact, other researchers have started to investigate areas similar to this study's topic. For example, Chong and Pervan (2007) examined factors influencing the extent of deployment of electronic commerce among Australian's SMEs. Studies of this nature add diversity to the body of knowledge in this area.

Data for this study was collected from Maritime Canada for practical reasons. Due to the limited resources available for this study, it would be impossible to sample views on the research's topic across the country. Rather, a region of the country, the Maritimes, which apparently lags behind the rest of the country on a variety of issues including the use of the Internet for business and commerce (Industry Canada, 2001), was chosen for illustrative purposes. More importantly, this study draws on the technology–organization–environment (TOE) framework, developed by Tornatzky and Fleischer (1990), which others (e.g. Gibbs and Kraemer, 2004) have used in studying a comparable subject. The remainder of this paper is structured as follows: Section Two provides a review of the relevant literature. The hypotheses are formulated in Section Three. In Section Four we describe the research methodology. Section Five presents the data analysis, and the discussions and conclusion of the research are presented in Section Six.

2. Literature Review

According to Houghton and Winklhofer (2002), influencing determinants of IEBT adoption and use among SMEs are likely to be present both within an SME and external to it. This research draws upon the Technology–Organization–Environment (TOE) framework, proposed by Tornatzky and Fleischer (1990). The TOE framework recognizes that the adoption of a technological innovation is mainly influenced by three factors: technological, organizational and external contexts. According to Gibbs and Kraemer (2004), the diffusion of innovations theory (Rogers 1995) permits the technological context to be explained by the characteristics of the technology or users' perceptions of the technology. Several factors can be used to delineate technological context; however, this study will only operationalize three factors i.e. *Relative Advantage*, *Compatibility*, and *Complexity*, which Chong and Pervan (2007) found to be critical in enhancing the extent of deployment of e-commerce for SMEs.

The organizational context refers to the capability of an organization to absorb and use technologies, the quality of its managerial support and commitment to technological innovations. The factors used to represent this context include management support and organizational readiness, which other studies (e.g. Mehrtens et al., 2001; Grandon and Pearson, 2004; Yu, 2006) have noted as being pertinent for the adoption, use, and success of e-commerce in SMEs. The environmental context relates to the influences and pressures from sources external to the enterprise. Pressures from suppliers, customers, and competitors, influence the decisions of enterprise to adopt and use IT systems (McIvor et al., 2003; Chong and Pervan, 2007). In brief, researchers such as Gibbs and Kraemer (2004) have employed the TOE to study factors affecting the scope of e-commerce use in SMEs. The influence of the three contexts (and operationalized factors) on the extent of IEBT use is illustrated in Figure 1.

3. Hypotheses Formulation

Relative advantage refers to the perceived benefits of IEBT relative to existing practices and systems. It is reasonable to suggest that the extent of IEBT use in SMEs will be higher where the impacts of such technologies are seen to have some advantages and benefits over existing systems. Chong and Pervan (2007) found that *Relative Advantage* is significantly related to the extent of deployment of e-commerce in SMEs (see also Tornatzky and Fleischer 1990). *Compatibility* refers to how well IEBT fits the processes and operations of the adopting SME. In

fact, the study by Tan and Teo (1998) showed that internet (and related technologies) diffuses more freely where such applications appear to match the adopter's processes. Users' perceptions of the characteristics of the technology are considered crucial to the diffusion process of technologies, including IEBT (Tornatzky and Fleischer 1990; Raymond, 2001; Gibbs and Kraemer, 2004). *Complexity* refers to how difficult or complex the new technology is to the adopting SME. With respect to e-business and internet technologies, researchers (Mirchandani and Motwani, 2001; Daniel and Grimshaw, 2002; Grandon and Pearson, 2004) have suggested that easy to use business applications are often more successful than complex ones. It is hypothesized that:

H1a: The greater the perceived relative advantage of using IEBT, the more likely the extent of use of such technologies will be.

H1b: The greater the compatibility of IEBT with the adopting SME's operations, the more likely the extent of use of such technologies will be.

H1c: The lower the perceived complexity of using IEBT, the more likely the extent of use of such technologies will be.
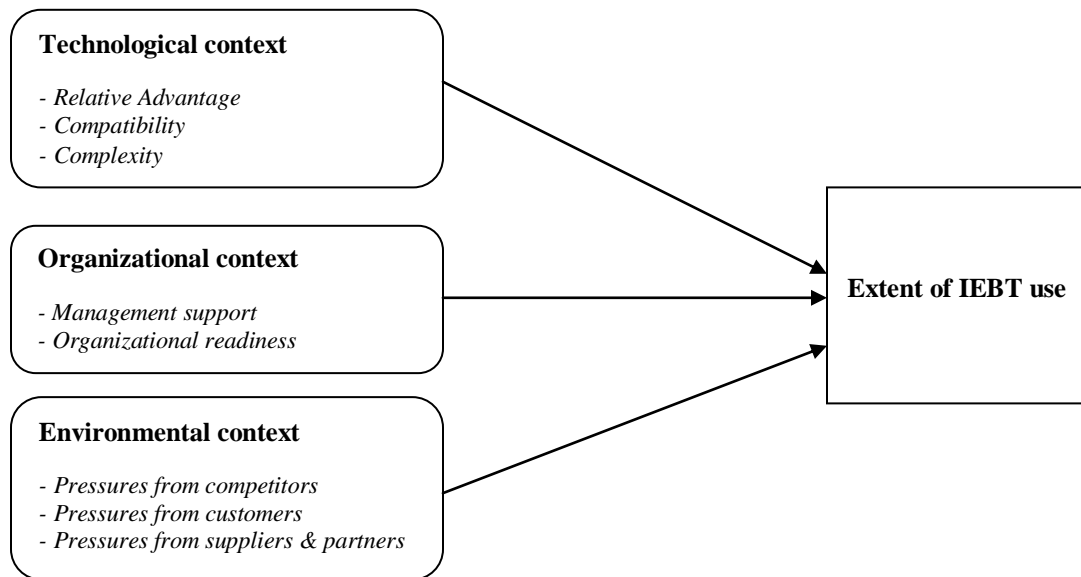
Figure 1: The Research Framework

Boynton et al. (1994) assert that the organizational environment in which a business operates is linked to its ability to absorb and use technologies. That is, the firm's cultures, practices, values, and so on, impact its ability to use new innovations (Grandon and Pearson, 2004). Mirchandani and Motwani (2001), Mehrtens et al. (2001), and Grandon and Pearson (2004), when discussing the adoption of the internet and e-commerce, referred to this competence as organizational readiness, which they strongly noted influenced the use of such technologies by SMEs. Furthermore, top managers act as change agents in the adoption process of technological innovations (Igbaria et al., 1997; Caldeira and Ward, 2002). When top managers in SMEs

understand the importance of computer technology, they tend to play a crucial role in influencing other organizational members and committing resources to the adoption of such technologies (Yu, 2006). Conversely, where management support is low or unavailable, it is logical to expect that the extent of use will be low. Thus, it is predicted that:

H2a: The greater the management support for IEBT adoption, the more likely the extent of use of such technologies will be for adopting SMEs.

H2b: The greater the organizational readiness for IEBT adoption, the more likely the extent of use of such technologies will be for adopting SMEs.

Modern businesses are pursuing more and more intensive and interactive relationships with their customers, partners, and suppliers (Raymond, 2001; McIvor et al., 2003; Simmons et al., 2007). Raymond (2001) comments that the use of IEBT has enabled businesses and their partners to enhance commercial transactions and relationships. Grover and Malhotra (1997) assert that internet technologies have become pervasive in the co-ordination and integration of business partners. Similarly, businesses including SMEs respond to competitive pressures by adopting IEBT and related technologies (e.g., Poon and Swatman, 1997; Grover and Malhotra, 1997; Raymond, 2001). More importantly, Chong and Pervan (2007) found competitive pressure significantly influenced the extent of e-commerce deployment by SMEs in Australia. The foregoing discussion permits the development of the next hypothesis.

H3: The greater the pressure to adopt and use IEBT from external sources, the more likely the extent of such technologies' use will be for adopting SMEs.

4. Research Methodology

4.1 Data collection

This study sampled SMEs generated from telephone directories in the four provinces comprising Maritime Canada: Nova Scotia, Newfoundland and Labrador, Prince Edward Island, and New Brunswick. Two research assistants used the stratified sampling method to select participating SMEs from across such industries as auto dealerships, insurance, manufacturing, retail, and so forth. Organizational informants including owners and presidents were contacted. Each received a packet consisting of a cover letter, a questionnaire, and a self-addressed, stamped envelope. In all, one thousand and eight hundred (1800) questionnaires were mailed in November, 2007 and responses were collected until February, 2008.

Participation in the study was voluntary. Respondents were assured that their individual responses would be treated as confidential. A part of the questionnaire is provided (see Appendix). To ensure data validity and reliability, sixteen knowledgeable individuals (four faculty members, two top managers from local SMEs, and ten university students) completed the initial draft of the questionnaire. Comments received from this group improved the quality of the questionnaire mailed to participants. The majority of the measures used were taken from previously validated sources (e.g. Tan and Teo, 1998; Grandon and Pearson, 2004; Yu, 2006; Chong and Pervan, 2007) and were anchored on a six-point Likert scale, ranging from Strongly

Disagree (1) to Strongly Agree (6). An extra column was also provided, which was labeled "Not Applicable" (NA). Participants were asked to indicate an appropriate choice. This study did not employ *Use (Usage)* as its main construct as the utilization of this measure has come under criticism (see Legris et al., 2003). The Appendix shows items included in the questionnaire, and their reliability scores. The Cronbach alpha for each dimension is above the 0.7 limit recommended by Nunnally (1978), indicating reasonably high reliability of the research measures and constructs.

A total of 174 responses were received, of which, 162 were considered valid. The excluded twelve (12) responses were either not filled out properly or had a high number of missing entries. From the number sent out, 121 questionnaires were returned as undeliverable due to changed or incomplete addresses. Thus, the effective response rate for the survey is 10.4%., which is good for a study of this nature. Table 1 shows the participants' demographics and the characteristics of the responding firms. The participants' average work experience was 13.4 years. The workforce ranged from 1 to 500 employees, with a median of 5 employees.

	Freq.	(%)		Freq.	(%)
Gender			**Education**		
Male	94	58	Primary school	6	3.7
Female	66	40.7	High school	36	22.2
Missing	2	1.2	College/university	79	48.8
			Post-graduate	31	19.1
			Others	10	6.2
Age			**Annual sales revenues ($)**	75	46.3
Less 20 year	2	1.2	Less $500, 000	32	19.8
21 - 30	23	14.2	$500,000 - $ 1 million	35	21.6
31 - 40	27	16.7	$ 1.1 - $5 million	7	4.3
41 - 50	55	34	$ 5.1 - $ 10 million	9	5.6
51- 60	47	29	$ 10.1 - $ 20 million	4	2.5
Above 60 year	8	4.9	$ 20.1 - $50 million		
			"$" = Canadian dollar		
Job Titles			**Workforce**		
Manager, Accountant	43	26.6	Less 50 employees	146	90.1
Owner, Proprietor	64	39.5	51 – 99 employees	10	6.2
Vice President, Director	29	17.9	100 – 500 employees	5	3.1
Others	26	16	Missing	1	0.6
Type of business					
Adverting,, Marketing	12	7.4			
Auto Dealership, Repairs	12	7.4			
Construction	6	3.7			
Design outfits, Decorator	8	4.9			
Education, Driving School	4	2.5			
Hotel, Hospitality	6	3.7			
Insurance, Accounting firms	17	10.5			

Manufacturing	17	10.5	
Retailer, Wholesaler	33	20.4	
Real estate, Legal firms	9	5.6	
Others	38	23.4	

Table 1: Demographic Information of the Sample (n = 162)

5. Data Analysis

A structural equation modeling (SEM) technique i.e., PLS (Partial Least Squares) was used for data analysis. SEM has two main approaches: PLS and covariance-based SEM. The PLS approach was chosen for its capability to deal with small-sized samples and its suitability for theory testing (Chin, 1998). Furthermore, PLS recognizes two components of a model: the measurement model and the structural model. The measurement model consists of relationships among the factors of interest (the observed variables) and the measures underlying each construct. PLS demonstrates the construct validity of the research instrument (i.e. how well the instrument measures what it purports to measure). The two main dimensions are the convergent validity and the discriminant validity. The convergent validity (also known as the composite reliability) assesses the extent to which items on a scale are theoretically related. On the other hand, the structural model provides information on how well the hypothesized relationships predict the theoretical model. The R^2 indicates the percentage of a construct's variance in the model, while the path coefficients (β) indicate the strength of relationships among constructs (Chin, 1998).

5.1 Assessing the measurement model

PLS Graph 3.0 computed the composite reliability (convergent validity) of each construct and also showed the item loadings (see the Appendix). Chin (1998) notes that item loadings and composite reliabilities greater than 0.7 are considered adequate. In assessing the discriminant validity, the square root of the average variance extracted (AVE) for each construct, which provides a measure of the variance shared between a construct and its indicators, is checked. Chin (1998) recommends that AVE values should be at least 0.50 and that the square root of AVE should be larger than off-diagonal elements. Table 2 presents the inter-correlations among the constructs, AVE, and the square root of AVE. The study's measures indicate that the constructs are distinct and unidimensional.

	AVE	1	2	3	4	5	6	7
1: Relative advantage	0.501	**0.708**						
2: Compatibility	0.522	0.669	**0.722**					
3: Complexity	0.577	0.643	0.642	**0.760**				
4: Management support	0.532	0.560	0.580	0.550	**0.729**			
5: Org. readiness	0.553	0.624	0.628	0.596	0.560	**0.745**		
6: External pressure	0.516	0.665	0.696	0.655	0.661	0.628	**0.718**	
7: Extent of IEBT use	0.502	0.637	0.654	0.618	0.624	0.678	0.649	**0.709**

Table 2: The correlations among the Constructs and the AVEs

5.2 Assessing the structural model

Chin (1998) notes that both the β and the R^2 are sufficient for analysis, and β values between 0.20 and 0.30 are adequate for meaningful interpretations. The paths' coefficients (β) and the R^2 were generated by PLS Graph 3.0 and are shown in Figure 3. The R^2 is 0.10, which suggests that the contingency factors explained 10% of the variance in the extent of IEBT use construct. The R^2 of 0.10 is adequate for an exploratory study of this nature.
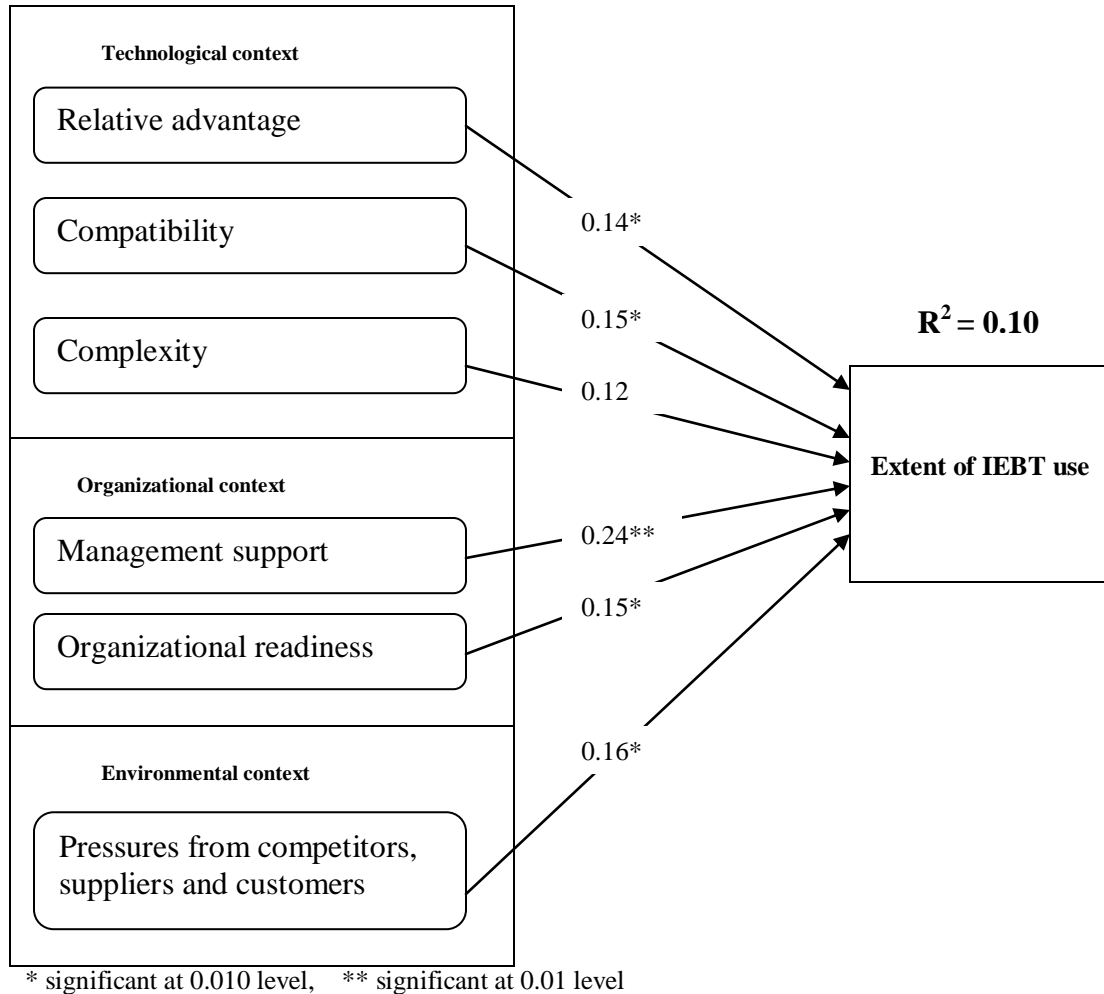
```
┌──────────────────────────────────────────────┐
│        Technological context                   │
│  ┌──────────────────────────┐                  │
│  │  Relative advantage      │                  │
│  └──────────────────────────┘     0.14*        │
│  ┌──────────────────────────┐                  │
│  │  Compatibility           │                  │
│  └──────────────────────────┘     0.15*        │
│  ┌──────────────────────────┐                  │
│  │  Complexity              │     0.12          │
│  └──────────────────────────┘                  │
│                                                 │
│        Organizational context                   │
│  ┌──────────────────────────┐                  │
│  │  Management support      │     0.24**        │
│  └──────────────────────────┘                  │
│  ┌──────────────────────────┐                  │
│  │  Organizational readiness│     0.15*         │
│  └──────────────────────────┘                  │
│                                                 │
│        Environmental context            0.16*   │
│  ┌──────────────────────────┐                  │
│  │  Pressures from competitors,│                │
│  │  suppliers and customers  │                 │
│  └──────────────────────────┘                  │
└──────────────────────────────────────────────┘

                           R² = 0.10
                     ┌──────────────────┐
                     │  Extent of IEBT use │
                     └──────────────────┘
```

* significant at 0.010 level,   ** significant at 0.01 level

Figure 2: The PLS Graph 3.0 Results for the Research Framework

6. Discussions and Conclusion

The objective of this study was to examine the nature of the determinants of internet and e-business technologies (IEBT) use among SMEs based in the Maritime region of Canada. To that end, the TOE framework was used to guide the research effort. The data analysis confirmed the prediction that the greater the perceived relative advantage of using IEBT, the more likely the extent of use of such technologies will be (H1a). The results also supported hypothesis H1b, indicating that the greater the compatibility of IEBT with the adopting SME's operations and processes, the more likely the extent of use of such technologies will be. No support was found

for hypothesis H1c (The lower the perceived complexity of using IEBT, the more likely the extent of use of such technologies will be). A plausible reason for the lack of support for this particular hypothesis might be related to the diversity and heterogeneity of the types of IEBT sampled for this study. Suffice it to say that the level of complexity associated with using differing IEBT is not uniform. For example, it is easier to use email than an e-CRM system.

The results showed that when management provide necessary support, commitment, and have a clear vision as to the relevance of IEBT, the extent of use of such technologies tends to be high. Importantly, the management support construct yielded the highest significance in the research conceptualization; thus, underscoring its pertinence for the dependant construct. Indeed, the critical importance of management support for the success of technological innovations, including e-commerce in enterprises has been noted in the literature (see Igbaria et al., 1997; Yu, 2006; Wymer and Regan, 2005). This study provides further support for such viewpoints. Hypothesis H2b, which was formulated to examine the impact of organizational readiness on the extent of IEBT use, was moderately supported. This result findings are consistent with views espoused by local researchers, including Martin and Milway (2007), suggesting that SMEs in Canada may not be ready for using ICT in their operations. The data provides support for the prediction that the greater the pressure to adopt and use IEBT from external sources, the more likely the extent of such technologies' use will be for adopting SMEs (H3).

The findings of this study have implications for both research and practice. First, the results support the usefulness of the TOE framework for examining the extent of use of IEBT. Second, the study brings to the forefront the assessment of extent of use of technological innovations instead of the putative *Use* (*Usage*), which has been criticized. Third, the findings confirm the relevance of such factors as relative advantage, compatibility, management support, organizational readiness, and pressures from external sources on extent of use of internet and e-business technologies. Fourth, the analyses and results lend credence to findings on the determinants of e-commerce and IEBT success in SMEs (Poon and Swatman, 1997; Raymond, 2001; Daniel and Grimshaw, 2002; Gibbs and Kraemer, 2004; Wymer and Regan, 2005; Mirchandani and Motwani, 2001; Mehrtens et al., 2003; Yu, 2006; Chong and Pervan, 2007). Fifth, managers and owners of SMEs in the Maritime region are provided with information as to the pertinence of technological and environmental contexts in influencing the extent of IEBT use in their particular context. Sixth, it was shown that management support, interest, and commitment bode well for the use of such technologies. Seventh, policy makers in Canada may benefit from this study's findings as efforts are geared towards increasing the adoption and use of IEBT in Canada. The data suggests that increasing the knowledge base of owner's and managers' of SMEs will augur well for how such technologies are accepted and used.

In addition to the study's positive outcomes, there are also inherent limitations. Personal bias may have been an issue, as only the views of a single respondent were used per firm. The measures for some of the constructs could be improved. This study presents the viewpoint of SMEs in Atlantic Canada; it is difficult to say whether the findings can be replicated in other regions of the country. The research did not control for the types of internet/e-business technologies in use by the SMEs. The study lumped together the various internet/e-business technologies such as email, website ownership, the Internet, and so forth. It is possible that by not distinguishing between technologies in the study, findings may have been amplified or

downplayed. The low R^2 obtained in this study suggests that other factors could be added to our conceptual model. There are also concerns about common method variance in this study. Managerial support scores highly in the empirical test, perhaps due to the fact that most respondents were senior organization members or players. Future studies could investigate the views of lower level workers. Future studies examining a similar theme could incorporate the impact of relevant inter- and intra-organizational factors such as government support. Lastly, this present study could be replicated in other Canadian regions. When results from such endeavors begin to emerge, will we be able understand why Canadian businesses, especially smaller ones, appear to lag behind in accepting IEBT. Additionally, studies are needed to affirm or reject the findings of this study. The acceptance of e-business technologies in both large and SMEs could be compared. Cross-national comparative studies in this area are expected.

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Appendix: The measures in the questionnaires and their reliability scores

	Item loading	Cronbach alpha	Composite reliability
TECHONOLOGICAL CONTEXT			
Relative Advantage			
Internet/e-business technologies allow our firm to manage its operations efficiently.	0.7968		
Internet/e-business technologies improve the quality of our operations.	0.6728		
Internet/e-business technologies enhance the effectiveness of our firm's operations.		0.934	0.788
Internet/e-business technologies enable us to perform our operations more quickly.	0.7215		
Internet/e-business technologies give us a greater control over our operations.	0.7013		
Compatibility			
Use of internet/e-business technologies is compatible with all aspects of our business operations.	0.7043		
Use of internet/e-business technologies fit well with the way we operate.	0.7400		
Use internet/e-business technologies fit into our working style.	0.7390	0.901	0.813
Use of internet/e-business technologies is completely compatible with our current business operations.	0.7352		
Complexity			
Using internet/e-business technologies require a lot of mental effort	0.7484	0.886	0.803
Using internet/e-business technologies is frustrating	0.8086		
Using internet/e-business technologies is too complex for our business operations	0.7265		
ORGANIZATIONAL CONTEXT			
Management Support			
Management is interested in the use of internet/e-business technologies in our operations.	0.7210		
Management is supportive of the use of internet/e-business technologies in our operations.	0.7783	0.943	0.819
Our business has a clear vision regarding the use of internet/e-business technologies.	0.7249		
Management communicates the need for internet/e-business technologies usage in the firm.	0.6998		
Organizational Readiness and Competence			
Our firm knows how information technology (IT) can be used to support our operations.	0.6814		
Our firm has a good understanding of how internet/e-business technologies can be used in our business.	0.7425		0.766
We have the necessary technical, managerial and other skills to implement IEBT.	0.7903	0.911	
Our business values and norms would not prevent us from adopting IEBT in our operations.	0.7582		
ENVIRONMENTAL CONTEXT			
Our firm is under pressure from competitors to adopt internet/e-business technologies.	0.6516		
Some of our competitors have already started using internet/e-business technologies.	0.7261		
We know our customers are ready to do business over the Internet.	0.7140	0.879	0.827
Our firm is under pressure from customers to adopt internet/e-business technologies.	0.7477		
We know our suppliers and partners are ready to do business over the Internet.	0.7576		
Our firm is under pressure from suppliers and partners to adopt IEBT.	0.6483		
Extent of IEBT (internet and e-business technologies) use			
Our company makes use of IEBT, very often	0.7669		
Our company uses IEB e-commerce/e-payment, at all times, for its transactions	0.7073	0.823	0.778
Our company uses IEB its critical operations	0.6859		
The number of business operations and activities in my company that requires IEBT is high	0.7736		