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Internet/E-Business Technologies Acceptance in Canada's SMEs: Focus on Organizational and Environmental Factors

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1. Introduction

Large and small business organizations around the world, including Canadian enterprises, utilize internet and e-business technologies (IEBT) to support online or electronic commerce (e-commerce) and electronic business (e-business) activities. Grandon and Pearson (2004) and Turban et al. (2010) note that IEBT enhances productivity for the adopting organization in the following ways: a) it improves efficiencies through automation of transactions, b) it reduces intermediaries in the value chain to foster greater economic advantages, c) it consolidates demand and supply through organized exchanges, d) it facilitates product improvement as well as engenders innovative ways of selling existing products and services. Against the backdrop of the popularity of IEBT, it is not surprising that several researchers have investigated and continue to study the adoption or acceptance of such technologies in differing contexts and locations (Farhoomand et al., 2000; Wymer & Regan, 2005). Studies that have focused on Canadian businesses are beginning to emerge (Raymond, 2001; Ifinedo, 2011).

This particular study is motivated by three concerns: a) it seeks to add to prior research focusing on the acceptance of IEBT and similar technologies in Canada; b) it is pays attention to small and medium-sized enterprise (SME) because of their crucial importance to economic development of countries around the world, including Canada. According to the Net Impact Study Canada (2002), Canadian SMEs deliver 60% of Canada's economic output, c) this study intends to shed light on the impact of organizational and environmental factors affecting the acceptance of IEBT in Canadian SMEs.

A research model based on the Technology–Organization–Environment (TOE) framework (Tornatzky & Fleischer, 1990), which other information systems (IS) researchers (e.g. Raymond, 2001; Scupola, 2003; Gibbs & Kraemer, 2004; Al-Qirim, 2007; Chong et al., 2009) have used in comparable studies will be used to guide the research. Such environment factors as information systems (IS) vendor support/pressure, management commitment/support, external pressure, organizational information technology (IT) competence, and the availability of financial support will be used to develop relevant hypotheses. The technological components of the framework will not be considered as

several studies in the extant literature have underscored their critical relevance (Gibbs & Kraemer, 2004; Al-Qirim, 2007; Ifinedo, 2011). This research argued that our knowledge of the importance of factors related to the organization and environment when studied exclusively could enhance insight in this area of study. Moreover, the focus on the subject from the perspectives of Canadian SMEs will benefit the relevant literature.

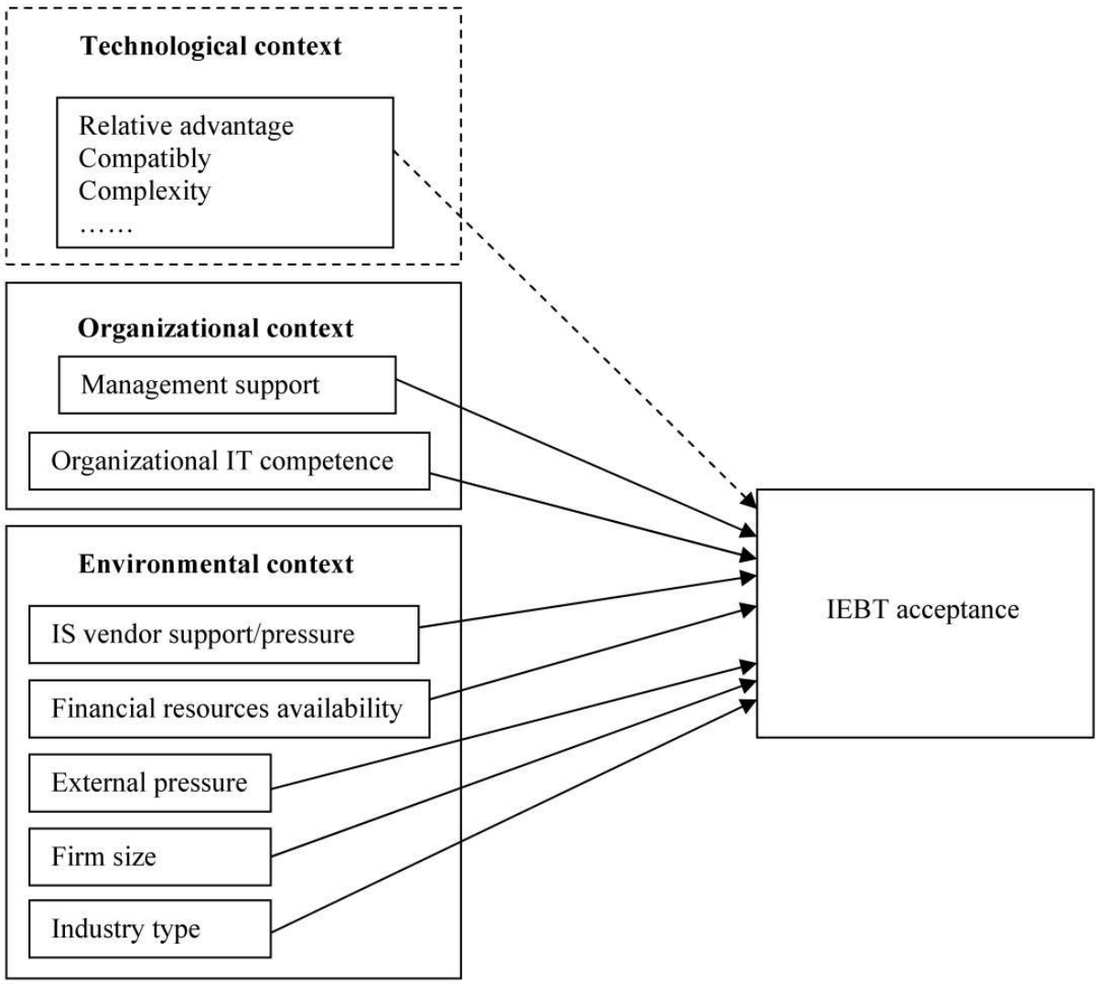
Findings from this study showed that management commitment/support and external pressure are significant predictors of IEBT acceptance in the sampled SMEs. The results did not show that organizational IT competence, IS vendor support, availability of financial support, industry type, and firm size positively influence IEBT acceptance. Policy makers, industry leaders, and small business operators wishing to understand some of the reasons why certain SMEs in Canada lag in the adoption of IEBT and related technologies can benefit from the information provided in this study. The research also alerted the attention of local IS vendors and financial institutions to what can be done to strengthen IEBT adoption in Canadian small businesses. Global IT management as it relates to IEBT acceptance benefits from this endeavor as well.

2. Background theory and hypotheses formulation

The background theoretical framework used for this research is the Technology-Organization-Environment (TOE) model (Tornatzky & Fleischer, 1990). The TOE posits that the adoption or acceptance of innovations depends on organizational, environmental, and technological factors. Fundamentally, the TOE model is an integrative schema incorporating characteristics of the technology, contingent organizational factors, and elements from the macro-environment (Tornatzky & Fleischer, 1990; Li et al., 2010). Several studies that used the TOE framework for examining the impact of relevant organizational and environmental factors included such variables as management support, organizational IT readiness, pressures from partners, customers and competition, and so forth (Iacovou et al., 1995; Thong et al., 1996; Chwelos et al., 2001; Scupola, 2003; Gibbs & Kraemer, 2004; Hadaya, 2006; Al-Qirim, 2007; Ifinedo, 2011). As indicated above, the focus of this study will be on organizational and environmental factors.

The selected items among the organizational and environmental factors include IS vendor support and pressure, management commitment/support, external pressure, organizational IT competence, availability of financial support, firm size, and industry type. Others IS researchers have signified the pertinence of the foregoing factors in prior research (e.g. Iacovou et al., 1995; Thong et al., 1996; Chwelos et al., 2001; Scupola, 2003; Gibbs & Kraemer, 2004; Hadaya, 2006; Al-Qirim, 2007; Thong et al. 1996; Chapman et al. 2000; Jeyaraj et al., 2006; Huang et al., 2008; Li et at al. 2010; Levenburg et al., 2006; Teo, 2007). The research framework and the formulated hypothesized paths for each of the selected variables or items in the study are highlighted in Figure 1.

Past studies have shown that management commitment and support tend to favor the acceptance of technological innovations in adopting organizations, including SMEs (e.g., Iacovou et al., 1995; Premkumar & Roberts, 1999; Beatty et al., 2001; Chwelos et al., 2001; Grandon & Pearson, 2004; Al-Qirim, 2007). Jeyaraj et al. (2006) found top management support to be one of the best predictors of organizational adoption of IS innovations. This is



(The items in the technological contexts are not considered)

Fig. 1. The research framework.

because top managers act as change agents in the adoption process of technological innovations (Thong et al., 1996). Where such support is lacking, the acceptance of technologies such as IEBT tend to suffer (Igbaria et al., 1997; Ifinedo, 2011). Thus, it is predicted that:

H1: The greater the management commitment/support for IEBT acceptance, the greater the acceptance of such technologies.

Organizational IT competence refers to the level of technical expertise available to the organization. The more knowledge an organization has about technological innovations, the more likely it will be to adopt technological innovations (Thong & Yap, 1995; Raymond,

2001; Zhu et al., 2006). Thong and Yap (1995) found a lack of computer literacy among SME owners and a lack of knowledge regarding the benefits of IS use is an inhibitor to IS adoption in small businesses. Chircu and Kauffman (2000) found that inability to acquire skill and expertise in new technologies, and a lack of training and education form significant barriers to the adoption of IEBT. Caldeira and Ward (2002) concluded that for SMEs to successfully accept technological innovations including IEBT, their executives and employees must have a reasonable knowledge of the relevance of IS in business operations. Thus, it is predicted that:

H2: The greater the organizational IT competence available to SMEs, the greater their acceptance of such technologies.

IS vendor support refers to the support for implementing and using IT applications that a business obtains from external sources of technical expertise (Premkumar & Roberts, 1999; Rogers, 2003). IS vendors can act as change agents during the adoption of IS innovations especially for organizations lacking in such knowledge (Attewell, 1992; Rogers, 2003). In fact, it has been noted that SMEs rely on such external sources of expertise during IEBT implementations (Poon & Swatman, 1999; Al-Qirim, 2007). Additionally, IS vendors have been known to add value to the business planning of SMEs (Mcdonagh & Prothero, 2000). To that end, a lack of external technical support does inhibit the adoption of IEBT and similar technologies in small-sized businesses (Scupola, 2003; Simpson & Doherty, 2004). Thus, it is predicted that:

H3: Greater IS vendor support/pressure will lead to greater acceptance of such technologies by SMEs.

Prior studies have shown that a lack of financial resources is one of the distinguishing characteristics setting smaller businesses apart from larger enterprises (Thong et al., 1996; Chapman et al. 2000). Walczuch et al. (2000), Tan and Wu (2003), Lawson et al. (2003), and Pearson and Grandon (2004) showed that financial matters are vitally important to owners and managers and such issues often drive adoption of IS in small businesses. However, Reynolds et al. (1994) and Poon et al. (1996) implied that small-sized businesses do encounter difficulties with obtaining finance, and this unfavorable situation may set back their efforts to adopt needed IS innovations. The foregoing discussion permits the prediction that:

H4: Greater financial resource availability will lead to greater acceptance of such technologies by SMEs.

External pressure refers to the influences that an SME receives from sources external to it. The literature identifies three main sources of external pressure as follows: competitive pressure, supplier's pressure and customer's pressure (Hart & Saunders, 1998; Chau & Jim, 2002; Kula, 2003; Chong et al., 2009). It has been shown that competitive pressure impacts the adoption of IS innovations in large businesses and SMEs (Hart & Saunders, 1998; Raymond, 2001; Gatignon & Robertson, 1989; Jeyaraj et al., 2006). According to Raymond (2001), and Hadaya (2006), business partners' pressure affect the acceptance of technological innovations such as IEBT. These researchers showed that the deployment of IEBT and related technologies improves commercial transactions and relationships between businesses and their partners. With respect to customer's pressure, Hart and Saunders

(1998), Carmichael et al. (2000), Mehrtens et al. (2001), and Kula (2003) the key driver for SMEs to accept IEBT and other innovations is customer feedback, demand, and pressure. Thus, it is predicted that:

H5: Greater external pressure to adopt IEBT will lead to greater acceptance of such technologies by SMEs.

Firm size has been found to positively predict the adoption of IS (Jeyaraj et al., 2006; Al-Qirim, 2007; Teo, 2007; Huang et al., 2008; Li et at al. 2010); at the same time, others did not confirm this relationship for IS adoption (e.g., Goode & Stevens, 2000; Gibbs & Kraemer, 2004) and IEBT (Ifinedo, 2011). Similarly, the industry type or sector in which a business operates may influence its ability to adopt IS innovations (Drew, 2003; Levenburg et al., 2006; Jeyaraj et al., 2006; Li et at al. 2010); however, the study by Chatterjee et al. (2002) and Teo (2007) did not affirm this viewpoint. Evidence suggests that service businesses are more predisposed towards using the internet for business activities than manufacturing enterprises (Drew, 2003; Goode and Stevens, 2000).

H6: Firm size will be positively related to the acceptance of such technologies by SMEs.

H7: Industry type will be positively related to the acceptance of such technologies by SMEs.

3. Research methodology

Data collection

The survey method was used for data collection. The sampled firms came from four Atlantic Provinces: Nova Scotia, Newfoundland and Labrador, Prince Edward Island, and New Brunswick. The study considered a wide range of industries for inclusion. Data collection took place between November 2007 and March 2008. 2200 questionnaires were mailed out. Key informants including senior organizational managers and owners of SMEs were contacted. Each received a packet containing a cover letter, a questionnaire, and a self-addressed, stamped envelope. Respondents were assured that their individual responses would be treated with anonymity and confidentiality. Above all, participation in the study was voluntary.

The majority of the measures used in the study were taken from previously validated sources (e.g. Iacovou et al., 1995; Igbaria et al., 1997; Premkumar & Roberts, 1999; Grandon & Pearson, 2004; Chong & Pervan, 2007) and a few adapted from the literature. The measurement items were anchored on a 7-point Likert scale ranging from "strongly disagree" (1) to "strongly agree" (7) in which participants were asked to indicate an appropriate response. Table 1 highlights the constructs' descriptive statistics. A full list of the measures used is provided in the Appendix. Firm size was measured by annual sales revenue and industry sector was delineated as manufacturing, services, and others (e.g. not-for-profit).

The Cronbach alpha and composite reliability for each dimension exceeds the 0.7 limit, recommended by Nunnally (1978) to indicate a reasonably high reliability of the research measures and constructs. As well, the factor loading of each measurement item is adequate in line with recommended threshold values (Nunnally, 1978; Hair et al., 1998).

Construct	Items	Mean	SD	Factor loading	Composite reliability	AVE
Management commitment/support	MT1	4.46	1.61	0.859	0.90	0.69
	MT2	4.49	1.68	0.841		
	MT3	4.06	1.63	0.795		
	MT4	4.02	1.69	0.829		
Organizational IT competence	OR1	4.37	1.50	0.907	0.94	0.74
	OR2	4.39	1.44	0.949		
	OR3	4.08	1.52	0.876		
	OR4	4.32	1.61	0.804		
External pressure	EX1	4.03	1.47	0.825	0.92	0.66
	EX2	3.72	1.36	0.839		
	EX3	3.00	1.57	0.725		
	EX4	3.56	1.47	0.739		
	EX5	3.92	1.53	0.853		
	EX6	3.11	1.55	0.889		
IS vendor support/pressure	IV1	2.62	1.51	0.973	0.97	0.96
	IV2	2.63	1.55	0.969		
	IV3	2.71	1.52	0.997		
Financial support availability	FN1	2.26	1.58	0.654	0.87	0.69
	FN2	3.31	1.53	0.817		
	FN3	3.04	1.14	0.992		
Firm size	SIZ	NA	NA	1.00	1.00	1.00
Industry type	TYP	NA	NA	1.00	1.00	1.00
IEBT acceptance	IA1	5.36	1.34	0.774	0.86	0.61
	IA2	5.37	1.28	0.803		
	IA3	3.92	1.47	0.732		
	IA4	4.00	1.41	0.819		

NA = Not applicable

Table 1. The constructs with their descriptive statistics and reliability values.

Survey results

Of the 2200 questionnaires mailed out, 192 questionnaires were undelivered. 237 responses were received, of which, 214 were considered valid; this represents an effective response rate of 11.8%. Table 2 shows the participants' demographics. The participants' average work experience was 13.4 years (s.d. = 11.01). The other profiles of the responding SMEs are highlighted in Table 3.

Profile	Frequency	Percentage (%)
Gender		
Male	125	58.4
Female	85	39.7
Missing	4	1.9
Age		
Less than 20 years	4	1.9
21-30	26	12.1
31-40	30	14.0
41-50	78	36.4
51-60	57	26.6
60 years and above	19	8.9
Education		
Primary education	7	3.3
Secondary education	40	18.7
College/Bachelor's education	115	53.7
Post-graduate degree	44	20.6
Other	8	3.7
Job title		
Owner/Proprietor	84	39.3
VP, Director	41	19.2
Business Manager, Accountant	67	31.3
Other	22	10.2

Table 2. Demographics of the respondents.

Profile	Frequency	Percentage (%)
Business type		
Adverting, Marketing	19	8.9
Manufacturing	41	19.2
Retail, Wholesale	35	16.4
Auto Dealership, Auto repairs	14	6.5
Construction	6	2.8
Design outfit, Decorator	8	3.7
Education, Driving School	5	2.3
Hotel, Hospitality	10	4.7
Insurance, Accounting firms	21	9.8
Real estate, Legal firm	12	5.6
Other (e.g. not-for-profit)	43	20.1

Profile	Frequency	Percentage (%)
Annual sales revenues Canadian (C$)		
Less C$500,000	102	47.7
C$500,000 - C$ 1.0 million	48	22.4
C$ 1.1 - C$5.0 million	38	17.8
C$ 5.1 - C$ 10.0 million	9	4.2
C$ 10.1 - C$ 20.0 million	11	5.1
C$ 20.1 - C$50.0 million	6	2.8
Workforce		
Less 50 employees	175	81.8
51 - 99 employees	23	10.7
100 - 500 employees	11	5.1
Missing data	5	2.3

C$ = Canadian dollar

Table 3. Profile of the participating SMEs

4. Data analysis

The Partial Least Squares (PLS) technique of structural equation modeling was used for analysis. The specific tool used was SmartPLS 2.0, which was created by Ringle et al. (2005). The PLS supports two measurement models: (a) the assessment of the measurement model and (b) the assessment of the structural model.

Assessment of the measurement model

The psychometric properties of the research model were examined by the following indicators: internal consistency, convergent, and discriminant validities. Hair et al. (1998) suggest that item loadings of 0.5 are adequate; those with values lower than 0.5 were deleted from the scales accordingly. The composite reliabilities for each of the study's constructs were all above the recommended 0.7 level to indicate internal consistency of the data (Hair et al., 1998; Chin, 1998). Fornell and Larcker (1981) recommend that the average variance extracted (AVE) criterion be followed in assessing the convergent validity. These researchers suggested that an AVE value of 0.50 is ideally acceptable as it indicates that a latent variable is able to explain more than half of the variance of its indicators on average. The discriminant validity is assured when the following two conditions are met: (a) the value of the AVE is above the threshold value of 0.50; (b) the square root of the AVEs is larger than all other cross-correlations. Table 4 shows that the AVE ranged from 0.61 to 0.96 (excluding the single-item variables). In no case was any correlation between the constructs greater than the squared root of AVE (the principal diagonal element). Overall, the results showed the study's measures were psychometrically adequate for this study.

Assessment of the structural model

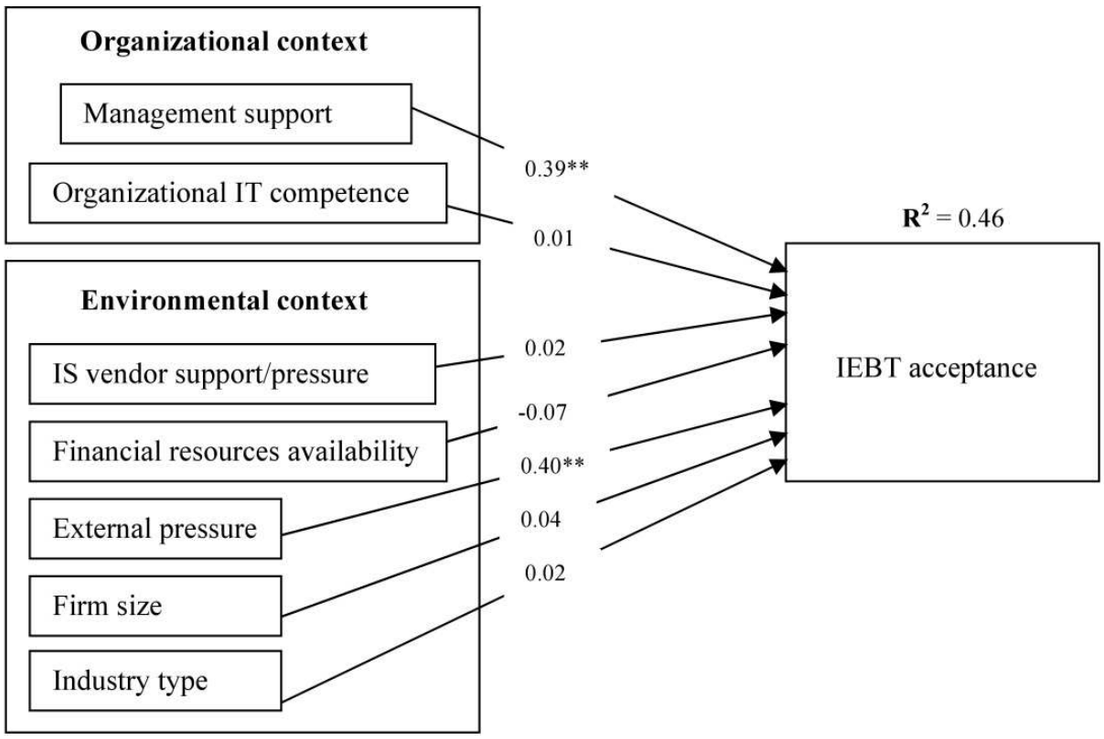
The structural model provides information related to the path significance of hypothesized relationships using the path coefficients (β) and the squared R (R^2). The strength of the

Construct	1	2	3	4	5	6	7.	8
1: Managsupp	**0.831**							
2: OrgITcomp	0.687	**0.860**						
3: ISVSP	0.259	0.206	**0.980**					
4: FinAva	0.330	0.294	0.472	**0.831**				
5: Exttpr	0.476	0.495	0.575	0.357	**0.812**			
6: FrmSZ	0.282	0.335	0.130	0.132	0.288	**1.00**		
7: Indstyp	0.102	0.130	0.069	0.161	0.089	0.129	**1.00**	
8: IEBT	0.476	0.495	0.575	0.357	0.582	0.288	0.093	**0.781**

Note: a) The bold fonts in the leading diagonals are the square root of AVEs.
b) Off-diagonal elements are correlations among constructs.
c) Exttpr = External pressure, FinAva = Financial support availability, Managsupp = Management commitment and support, OrgITcomp = Organizational IT competence, PercdBen = Perceived benefits, ISVSP = IS vendor support, FrmSZ = Firm size, Indstyp =Industry type, IEBT= IEBT acceptance

Table 4. Inter-construct correlations and the square root of AVE.

relationship is indicated by the β (Chin, 1998). The SmartPLS 2.0 results for the βs and the R^2 are shown in Figure 2. The path significance levels (t-values) are estimated by the bootstrapping method.



** = significant at $p < 0.001$

Fig. 2. The SmartPLS 2.0 results of the structural model.

Surprisingly, only two out of the seven hypotheses were supported. Hypothesis (H1) was confirmed to show that that management support/commitment is crucial in encouraging IEBT acceptance in Canadian SMEs. Also, the data analysis supported hypothesis (H5), which predicted that external pressure enhances IEBT acceptance. The data did not provide support for the rest of the hypotheses. All the variables together explain 46% of the variance in the dependent construct. This indicates that the proposed research conceptualization possess adequate predictive power and is useful in explaining the acceptance of IEBT for the sampled SMEs. Further discussion on the results is presented in the next section.

5. Discussions

This research project used a modified version of the TOE framework to investigate factors influencing the acceptance of IEBT in SMEs based in Atlantic Canada. The data analysis confirmed the significance of management support/commitment and external market pressure in the adoption process. To the extent that management support/commitment is considered crucial for the successful acceptance of IEBT by Canadian SMEs, this study's finding provides empirical support for such a claim. SMEs in Atlantic Canada indicated that the levels of IEBT acceptance were higher where management support/commitment was relatively high. This finding lends credence to the body of work indicating that management support/commitment is positively associated with the successful acceptance of technological innovations such as IEBT in small businesses (Thong et al., 1996; Igbaria et al., 1997; Teo et al., 1997; Premkumar & Roberts, 1999).

External pressure was also found to be an important factor positively influencing the acceptance of IEBT in the sampled SMEs. The data is indicating that as the use of IEBT gain in popularity, it is to be expected that SMEs will succumb to the pressure from their customers, partners, and competitors to adopt such innovations. Other previous studies have highlighted the pertinence of such influences in the adoption of technological innovations, inclusion IEBT in SMEs (Hart & Saunders, 1998; Raymond, 2001; Hadaya, 2006; Carmichael et al., 2000; Kula et al., 2003; Cragg & King, 1993; Premkumar & Roberts, 1999; Mehrtens et al., 2001; Grandon & Pearson, 2004). Thus, the finding consolidates the body of knowledge in the area.

The other variables or items used in this research produced results inconsistent with the stated predictions. The organizational IT competence of the sampled SMEs was not adequate enough to influence their acceptance of IEBT. To some degree, this result corroborates the viewpoint suggesting that the levels of technical expertise available to Canadian small businesses are not adequate (Annis et al. 2005; Noce & Peters, 2006; Martin & Milway, 2007). As well, the environmental factors of firm size and industry type did not appear to have any meaningful relationships with IEBT acceptance to support the views espoused by other IS researchers (Goode & Stevens, 2000; Gibbs & Kraemer, 2004; Chatterjee et al., 2002; Teo, 2007).

Although prior studies have shown that external support from IS vendors boded well for the adoption of technological innovations, including IEBT in small organizations (Gatignon & Robertson, 1989; Doolin et al., 2003; Thong et al., 1996; Poon & Swatman, 1999; Al-Qirim, 2007), the study's finding did not provide support for the claim. It is possible that the measurement items used in this study did go as far as capturing the depth of services

provided by IS vendors. Further to this, contextual factors could also account for the result obtained herein. It is also possible that the sampled SMEs may not have a favorable view of IS vendors in their contexts. It is also plausible that local IS vendors may be having difficulties in meeting the specific needs of SMEs in their contexts.

This research did not confirm the availability of financial resources as an important factor needed to enhance IEBT acceptance among the sampled SMEs in Canada. This finding may have extraneous underpinnings. For example, the head of Canadian Bankers Association disproved the notion suggesting that banks in the country "don't serve the small business market in Canada" well enough. On other hand, a report from the Canadian Federation of Independent Business raises "questions as to whether [some major financial institutions in the country] have intentionally adopted a domestic strategy that focuses less importance on the SME market" (Lam, 2010). The discordance between the two parties, to some degree, lends support to the viewpoint among some practitioners in Canada who are of the opinion that SMEs may not be receiving adequate financial support from banks to accept IEBT. The finding in this study may be highlighting the state of affairs in the country on this matter.

Overall, the foregoing results (affirmed and rejected) support the viewpoint suggesting that factors related to management support/commitment and external pressure may be possible *enablers* of IEBT acceptance for SMEs based in Canada. On the other hand, the variables related to organizational IT competence, IS vendor support/pressure, and financial resource availability could be classified as possible *inhibitors* to the process (Gibbs & Kraemer, 2004). Firm size and industry type are wider environmental factors deserving of further examination. The diagrammatic illustration provided in Figure 4 indicates that more efforts may be required to push the items or variables identified as *inhibitors* to improve the accentuate of IEBT in the sampled SMEs in Canada while the *enablers* may require little or no attention.

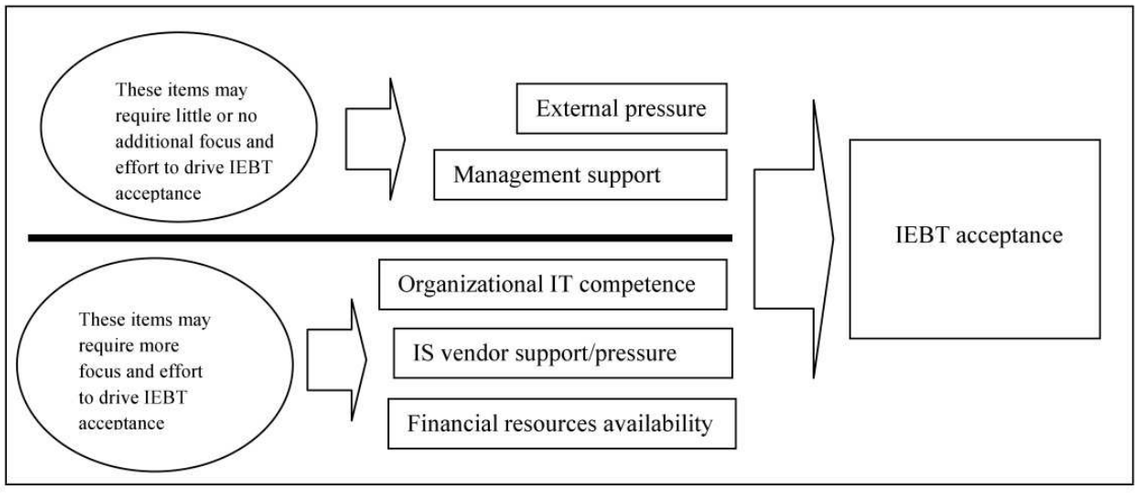


Fig. 3. Inhibitors and enablers of IEBT acceptance by SMEs.

Implications for research and practice

To facilitate greater acceptance of IEBT and related technologies in the Atlantic region of Canada, the government could consider committing resources towards sensitizing SMEs'

owners and their employees about the pertinence of such innovations in enhancing business operations. For the same reasoning, the need for e-business mentoring, coaching, and training (Simpson & Doherty, 2004) becomes more cogent. Awareness campaigns tailored for SMEs' owners would be useful in increasing their knowledge of how an IS can be used in business operations. The information provided in this study may benefit IS local vendors and financial institutions regarding areas where efforts could be expended as concerted attempts are made to strengthen Canada's e-economy aspirations.

With respect to research, this research broadly lends credence to findings and observations regarding the salient factors i.e. management support/commitment and external pressure that influence the adoption and acceptance of IEBT in SMEs. To that end, this research effort provides support to prior studies that had highlighted significant of such factors in comparable research (Gatignon & Robertson, 1989; Jeyaraj et al., 2006; Chong & Pervan, 2007; Huang et al., 2008). Specifically, this current study affirms the views indicating that external pressure and management support are important predictors of innovations adoption in Canada's small businesses. This study's finding related to the pertinence of management support concurs with results in Raymond and Bergeron (1996) and de Guinea et al. (2005) that signifies their importance for achieving IS success in Canadian's SMEs. The inadequate levels of IT expertise, and overall lack of awareness of IS products/issues in Canada (Warda, 2005; Noce & Peters, 2006) is supported by this study's findings.

This current work complements the emerging desire among some researchers to specifically focus on and bring into the limelight issues related to the adoption of IEBT and similar technologies in less endowed regions of advanced countries. For example, the studies by Premkumar and Roberts (1999), Scupola (2003), Grandon and Pearson (2004), and Simpson and Doherty (2004) focused on rural USA, Southern Italy, the Yorkshire region of the UK, and Mid West region of the US, respectively. Additionally, the dependent variable, i.e. acceptance as used in this research departs from prior research efforts that tend to operationalize such constructs with a single item of Use (Usage) or Intention to use. The utilization of such singular items may obfuscate reality and has, in fact, been criticized for limiting insight (Legris et al., 2003). In that respect, the measures used to operationalize acceptance in this study may be beneficial to others wishing to investigate comparable issues.

Limitations and future research

Asking only one respondent to present a view on behalf of their organization may be problematic. The foregoing fact might have negatively impacted the results obtained and discussed in this research. The research project included a variety of IEBT, the possible levels of complexity in the use of such technologies were not controlled in this study; this may be limiting. For example, perceptions of email use and e-ERP use in the sampled SMEs may not be similar. Thus, the inclusion of both types of technologies might negative influence the result. What was discussed here applies to sampled SMEs in a region of Canada; it is not advised that the study's findings be generalized to the whole country's small businesses. Caution should be taken in interpreting the results presented herein.

This study has opened opportunity for future research. Some of the aforementioned limitations could be addressed in subsequent studies. This research can be replicated in other regions of Canada to reify or debunk claims presented in this study. The data used in

this study is cross-sectional in nature; future efforts could consider using longitudinal data to facilitate more insight. It is possible that other factors not included in this study could be identified to enhance insight. The research framework could be further reinforced with the identification of other relevant organizational and environmental factors such as government support not considered in this study. Future research using meta-analytic approaches could examine the enablers and inhibitors of IEBT adoption in SMEs in comparable parts of the developed world. Knowledge from such efforts stands to consolidate theories related to the acceptance of IEBT and related technologies in SMEs.

6. Conclusion

This research, to some extent, drew from the TOE framework in investigating the acceptance of IEBT in SMEs based in Atlantic region of Canada. The study's findings indicated that management support/commitment and external pressure are significant predictors of the acceptance of IEBT in the study's setting. The factors of organizational IT competence, financial resource availability, IS vendor support/pressure, firm size, and industry type were found to be insignificant in the acceptance process of IEBT by the sampled SMEs. The foregoing results permitted the identification of possible *enablers* and *inhibitors* of IEBT acceptance in the sampled Canadian SMEs. It is hoped that the discussions and conclusion provided in this study would benefit practitioners and policy makers in the country and elsewhere. The study has offered some useful contributions to the growing body of works researching the factors influencing IEBT acceptance in SMEs across regional contexts, and it seeks to complement past research efforts in Canada.

7. Appendix

The constructs and items used in the questionnaires.

Management commitment & support
Management is interested in the use of internet/e-business technologies in our operations.
Management is supportive of the use of internet/e-business technologies in our operations.
Our business has a clear vision regarding the use of internet/e-business technologies.
Management communicates the need for internet/e-business technologies usage in the firm.
Organizational IT competence
Our firm knows how information technology (IT) can be used to support our operations.
Our firm has a good understanding of how internet/e-business technologies can be used in our business.
We have the necessary technical, managerial and other skills to implement IEBT.
Our business values and norms would not prevent us from adopting IEBT in our operations.
External pressure
Some of our competitors have already started using internet/e-business technologies.

Our competitors know the importance of IEBT and are using them for operations.
We know our customers are ready to do business over the Internet.
Our customers are demanding the use of IEBT in doing business with them.
Our partners are demanding the use of IEBT in doing business with them.
We know our suppliers and partners are ready to do business over the Internet.
IS vendor support/pressure
IS vendors in the region are actively promoting IEBT and other technologies by providing incentives for adoption.
IS vendors are encouraging our business to adopt IEBT by providing us with free training sessions.
We can obtain support easily from local IS vendors as we implement IEBT.
Financial resource availability
Supporting institutions e.g. banks provide financial assistance for SMEs wishing to adopt e-business technologies.
Our own business will take e-business more seriously if we receive adequate financial support from local banks.
We believe that financial support for e-business engagements can be obtained easily from banks and other financial institutions.
Acceptance of IEBT
Our company makes use of IEBT, very often.
Our company uses IEB e-commerce/e-payment, at all times, for its transactions.
Our company uses IEB its critical operations.
The number of business operations and activities in my company that requires IEBT is high.

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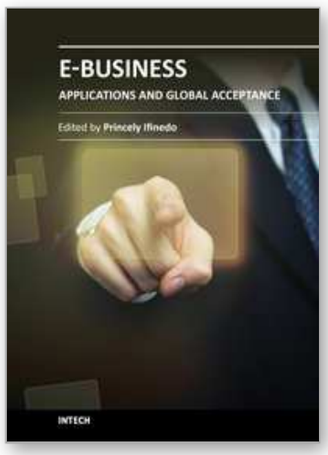
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E-Business - Applications and Global Acceptance is a collection of well-written papers that employ empirical and theoretical/conceptual approaches to highlight insights on the global acceptance of electronic business (e-business) and other useful applications and conceptualizations in the area. As our knowledge of the e-business phenomenon continues to mature and evolve, it is pertinent that new insights and information be made available. This edited book is published against such a backdrop. In essence, this book seeks to provide value to both e-business researchers and practitioners, with information sourced from differing regions of the world. The diversity in the sources of insights is welcome and this edited book covers a wide range of interesting, topical, and timely issues dealing with the acceptance of e-business applications or systems, business processes integration and management, the extension of e-business concepts to not-for-profit (nonprofit) organizations, and the construction of a service innovation model. Without a doubt, this book will be a comprehensive reference point for knowledge seekers who want to understand emerging conceptualizations, processes, and behaviors in the e-business domain.

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