

Insights from research

Evolution towards excellence: use of business excellence programs by Canadian organizations

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Summary

Purpose – *The purpose of this study is to explore the broad issues related to business excellence and the application of such programs.*

Design/methodology/approach – *In brief, this study investigated the use of business excellence programs including the use of the ISO 9000:2000 series of standards, by Canadian organizations. The results of a national survey on the use of business excellence programs are reported.*

Findings – *The use of business excellence programs by Canadian organizations appears to be related to the size and location of the organization. Organization size and location also appear to be related to the sequence in which businesses choose to implement various components of business excellence as well as the difficulty they experience with that implementation. There may be differences in the use of business excellence programs between organizations within different industry sectors, and those with different organizational structures. Finally, the use of business excellence programs was found not to affect organizations' self-reported level of excellence.*

Originality/value – *The results of this study have implications for government policy makers who seek to better support businesses, quality program administrators, and business practitioners.*

Keywords *Business excellence, Organizational performance, Quality management, Canada*

Paper type *Research paper*

Introduction

To be successful, organizations must now prove themselves indispensable to their customers, attuned to their employees' needs, willing to partner with their suppliers, and considerate of the social, environmental, and safety outcomes of their performance. These new and expanded objectives of business operations have been combined under the umbrella term, business excellence (BE).

Samson and Challis (2002) studied leading international organizations in an effort to determine why some were more successful than others in their pursuit of excellence. They identified a total of 14 principles that served as catalysts for BE. The extent to which each organization embodied these principles appeared to be directly related to the speed of its journey towards excellence. Furthermore, the EFQM Excellence Model, the model used to adjudicate the European Quality Award and the one discussed most frequently in quality literature (van der Wiele *et al.*, 1995, 2001), uses self-assessment as a tool to identify organizational strengths as well as areas in which there exists room for improvement. Its outcome is a structured plan for improvement, which is subsequently monitored for progress. In addition to this self-assessment component, the EFQM assists organizations with their continuous improvement initiatives by facilitating measurement of progress against measures of total quality management, identification of improvement opportunities, and benchmarking and organizational learning (McAdam and Kelly, 2002).

Truly effective use of the excellence models for continuous improvement requires the input of so many management and staff that, for maximum benefit, it must be effectively marketed by top management and internalized by the staff of the organization (van der Wiele *et al.*, 2000). Also, to be maximally effective, quality improvements should be prioritized and focus on the results category of a BE model such as the EFQM Excellence Model (EFQM, 1999; Seghezzi, 2001), the Malcolm Baldrige National Quality Award (MBNQA, 2002), or the Canadian Framework for Business Excellence (CFBE, 2002).

Excellence can no longer be considered simple conformance to the ISO 9000 standards. The success of a quality management program that builds upon the foundation of the ISO 9000 system has been said to relate to the original motivation for registration (van der Wiele *et al.*, 2001). The message is that the added value that an organization derives from the ISO 9000 standards should be a result of that organization's motives for, and approach to, implementation (Cobb, 2003; Gotzamani and Tsiotras, 2002; Singels *et al.*, 2001).

Quality management and beyond

The family of ISO 9000 standards can be regarded as the foundation on which organizations build their excellence programs. Issues such as internal organization, internal and external communication, employee awareness of quality, product conformance, and customer satisfaction are all addressed, simplifying management commitment to quality. This can be a driving force to go beyond and achieve BE. However, it is also possible that implementation of the standards may lead to excessive emphasis on the documented procedures and less emphasis on exceeding their requirements (Gotzamani and Tsiotras, 2002).

The importance and relevance of quality cannot be overstated. In recent decades, public, private, and third-sector organizations have been awakened to the necessity of creating and ensuring quality in every aspect of their operations. Far beyond "permitting things to run smoothly", an emphasis on quality in management systems is now considered essential to an organization's prosperity. Globalization and an enhanced concept of corporate liability are two important societal trends contributing to this emphasis on quality. There are numerous reports in the literature that describe quality management practices and the benefits that emanate from implementation of an ISO 9000 system. Many of these are case studies or reports of the benefits and drawbacks of such systems. In this paper, the emphasis is on continuous improvement beyond simple conformance to the ISO 9000 standards.

BE: a Canadian perspective

From the perspective of researchers and business practitioners the needs, experiences and successes of Canadian organizations compared to their American counterparts frequently are overlooked. Because it is commonly thought that the corporate cultures are the same in Canada and the USA, it is often implicitly assumed that research findings of US studies can be directly applied to Canadian organizations. However, for several reasons such as historic differences in political and legal systems, differing national sentiments toward the private and public sectors, and significantly different tax structures, the operating environment of Canadian organizations is different from that of Canada's counterpart south of the border. The nature of such differences may potentially lead to different business strategies; as such it is worth examining Canadian businesses as distinct from those of the USA. To date, relatively limited information is available about the use of BE programs (BEPs) in Canada.

Prior to commencing a discussion of the use of BEPs in Canada, it is useful to first present an overview of the Canadian business environment. In Canada, there exists significant geographic variation in the pattern of industry location. Since organizational size and structure are frequently related to industrial activity, and since these characteristics are potentially related to organization use of BEPs, familiarity with these industrial patterns is useful for putting into context both the respondent pool and the survey results. Table 1 presents Canadian national statistics according to these relevant measures.

ISO 9001, ISO 9004, customized programs, Canadian Awards for Excellence, the Malcolm Baldrige National Quality Award, European Quality Awards, the Deming Prize, Six Sigma, benchmarking, and balanced scorecard have been identified as quality initiatives used

within Canadian organizations (Boys *et al.*, 2004). As of December 2003, there were 12,029 Canadian organizations registered to an ISO 9000 series standard (World Preferred, 2003). On a provincial basis, registered firms are concentrated in Ontario and Quebec which, together, account for 79 percent of all Canadian registrants. While there exist data on ISO 9001 registrations as well as recipients of the Canadian Awards for Excellence, these are among the only sources available that document Canadian quality program use. Unfortunately, no data are available concerning the use of BEPs by organizations not registered to ISO 9001 or, in the case of awards, about those that use BE models (BEMs) but do not publicize their use.

Study framework

The goal of this research was to investigate the use of BEPs in Canada. Although it is generally agreed that adherence to ISO 9000 series standards does not in and of itself constitute a BEP, given the important role this program plays as a foundation for future quality initiatives it was decided to include this standard among the programs analyzed. Specifically, the researchers were interested in identifying:

- which specific business excellence initiatives were in use;
- the implementation sequence and challenges of such programs; and
- whether the use of BEPs differs as a function of organizational characteristics such as “region of location”, “size”, “industrial sector”, or “organization structure”.

A study of Canadian firms involved in international trade (Schellinck and Rosson, 2001; Standards Council of Canada, 2000) demonstrated that the majority of ISO 9001/2 registered firms held positive beliefs that the use of ISO 9000 standards leads to specific benefits. Firms indicated that they experienced the following benefits (in decreasing order): “greater quality awareness by employees”, “organization self-discipline”, “improved management practices”, “higher perceived quality by customers”, “increase in quality of products and services”, “marketing advantages” and “competitive advantages”. Since businesses involved in international trade reported that they have experienced many benefits from ISO 9000 registration, the question arises about why more firms have not registered to the standard. Perhaps an even more interesting question is whether those businesses reaping benefits from the use of standards are pursuing additional quality initiatives beyond ISO 9000. It is this latter question that led to the development of this project.

Due to several organization and location characteristics, it might be expected that the use of BEPs would vary by region, industry, organization size and organization structure. Several considerations suggest that organization location might have an effect on the use of BEPs as inter-provincial differences exist in government legislation and organization support. More specifically, differences in provincial taxation, training, business support, and grant programs may affect the external motivation of companies to adopt BEPs. Size, measured by either revenue or number of employees (Kimberly and Miles, 1980), may impact the likelihood of organizations to adopt BEPs. Some authors have found, for example, that given their greater access to resources, large organizations have been reported more likely to adopt ISO 9000 programs than small organizations (Prabhu *et al.*, 2000).

Inherent characteristics of an industry sector such as common practices, unionization, technology, and industry-level government support and protection may result in industry-specific trends in the adoption and challenges of introducing BE initiatives. It is also known that manufacturers make greater use of BEPs than service organizations (ISO, 2001). Hence, it is logical that specific types of manufacturing and service industries would differ in their use of these programs. Owing to their differing objectives, organization decisions and outcomes concerning business excellence may be different. Also the structure of an organization such as publicly-traded, privately-owned, public sector, co-operative, crown corporation, or third sector (not for profit) organization may influence the nature of decision making, the use of resources, and the impact that external considerations have on that organization. The structure may also reflect differences in mandate and/or extent of government-imposed restrictions. Such considerations may influence

organizational priorities which, in turn, may impact the decision to use BEPs, the order in which BE initiatives are undertaken, and the resources dedicated to the implementation of such programs.

Research methodology

A cross-regional, cross-sectoral survey was developed based on both an extensive review of the literature as well as the findings of an earlier qualitative study (Boys *et al.*, 2004). The surveys were addressed to the attention of the organization's "president/division manager"; surveys sent to organizations believed to operate in French, due either to location or name, were equivalently addressed to the "*président/manager de division*".

The survey instrument utilized a combination of Likert scales, short open-ended questions, multiple choice questions, and ranking questions. Likert scales were measured on a range from 1 to 7, and options were provided for replies of "Unsure" and "No opinion". To improve the response reliability, the meaning of range anchors and/or of each option were defined. Background information about the respondent organization such as size, location, industry sector, organization structure, and use of quality management programs was also collected. Importantly, respondents were asked to complete only those sections with which their organization had experience. Prior to distribution, the questionnaire was pre-tested by several individuals who were not included in the random sample. As a result of this pre-testing, several minor editorial revisions were made.

Since this was an exploratory study intended to capture broadly the perspectives and experiences of Canadian organizations, care was taken to ensure that the survey distribution would provide opportunity for feedback from a broad range of demographic groups. Thus, in addition to including organizations from various geographic regions, industrial sectors, etc., the subject pool also included representation from organizations that were committed to BE to various degrees. In order to capture as wide a range of BE levels as possible, four sample subsets were included in this survey. The pool of "excellent" companies was derived from those organizations that had received recognition through the Canadian Awards for Excellence (CAE) program between 1984 and 2001; 136 different organizations were included in this subset. The second sample subset consisted of purchasers of the ISO 9004 standard; this group was included due to the anticipated value of their input on the usefulness of the ISO 9004:2000 standard and about the conceptual change in ISO standards that was made with the introduction of this document. A database of ISO 9004 purchasers was obtained; after removal of purchases by libraries, consultants, and ISO registrars, the remaining 458 entries constituted this sample subset.

The third subset of the subject pool was drawn from organizations that were registered to ISO 9001/2 at the time of the research. While ISO registration ensures a fundamental understanding of quality concepts, it does not guarantee that organizations have achieved, or indeed, are even progressing along the path to business excellence. This subset was deemed to be of particular interest in examining the present and predicting the future of BEPs in Canada. A total of 1600 ISO 9001/2 registered companies was selected for this subset, and thus formed the bulk of the sample pool. In order to ensure adequate representation of all geographic areas, organizations were randomly selected from an online database, in numbers proportional to the number of businesses registered in each region. At the lower end of the excellence spectrum were organizations which did not demonstrate BE. The members of this sample subset were more difficult to identify – while ideally one would include in this group organizations that had been reported to consumer protection agencies, obtaining such information from these agencies was not feasible. As such, included in this subset were randomly selected organizations that did not fall into any of the previously described categories. A total of 193 randomly selected organizations were included in this group.

Simple frequencies and analysis of variance were conducted on the results.

Profile of respondents

A total of 110 questionnaires were completed and returned. Approximately one-half of the questionnaires that were returned (52.7 percent) were completed by “top management” including organization owners, presidents, vice presidents, CEOs/COOs, and executive directors. The remainder were completed by people in positions such as managers (i.e. division, quality control), controllers, and directors. The mean length of time that each respondent had held his/her current position was 9.4 years, and the range of this measure from three months to 35 years. Respondent organizations were grouped into one of three categories: “publicly-traded”, “privately-owned”, and “all other” which included public sector, co-operative, crown corporation, and third sector/not for profit organizations. “Publicly-traded” organizations accounted for 20.2 percent, “privately-owned business” for 70.6 percent, and ‘all other’ organizations for 9.2 percent of respondent organizations.

Based on the Standard Industrial Classification (SIC) Code, a brief description of the activities of the organization, the broad industry categories detailed in the North America Industry Classification System (NAICS) and the industrial classification system used by the federal government in Canada, respondent organizations were grouped into separate categories. A total of 43.8 percent of respondent organizations belonged to the “manufacturing” sector, followed by the “professional, scientific and technical services” (16.2 percent), the “wholesale trade” (8.6 percent) and the miscellaneous others (31.4 percent). In terms of location, 60 percent of completed surveys were from respondents in Ontario, and 13.6 percent from those in Alberta. The remaining surveys were received in small numbers from all other provinces except Prince Edward Island. Due to the relative population distribution and thus the relative distribution of organizations across Canada, for the purposes of this study, results from smaller provinces were grouped together: Saskatchewan and Manitoba were combined, as were Canada’s maritime provinces of New Brunswick, Nova Scotia, and Newfoundland and Labrador.

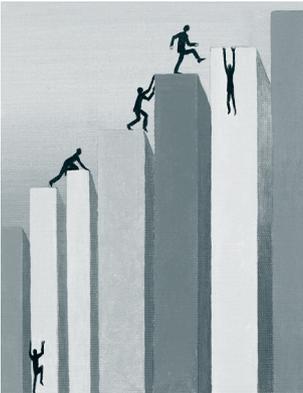
Organizations were classified as “small”, “medium” and “large” companies on the basis of the organization’s number of employees. Small companies were defined as those with one to 50 employees, medium organizations as those with 51 to 250 employees, and large companies were deemed to be those with 251 and more employees (Tjepkema and Brunet, 2000). A total of 38.0 percent of valid responses were from small organizations, 33.0 percent from medium organizations, and 29.0 percent were from large organizations. Ten respondents did not indicate the number of persons employed within their organizations.

Results and discussion

Commitment to BE awards

While 27.6 percent of respondents indicated that, at some point, they had applied for a BE award, the large majority of respondents (64.8 percent) reported that they had not submitted an application to such a program. Proponents of awards programs may be encouraged by this result as it suggests significant opportunity for future interest and growth in this area. In interpreting this result, however, one must also allow for the possibility that, due to the emphasis of this study on BE, organizations that did not consider themselves “excellent” may have decided not to participate in this study. As such, the percentage of positive responses may be an overestimation of numbers of Canadian organizations that have submitted an application for such an award.

Information was collected as to the reason underlying organization decisions not to apply for quality awards. Time, cost, and effort/resource constraints were reported to be the primary reasons for not having applied for such awards. It is not known whether these concerns are based on misconceptions or fact. Should the award process be mistakenly perceived as overly onerous, work must be done to improve public awareness and understanding of the awards process through marketing initiatives. Alternatively, if it is indeed the case that the application numbers are constrained by these feature of application process, then an opportunity exists to reduce the burden and/or provide guidance to organizations in the



application process. Since it was generally agreed that awards programs do have value, in either instance there exists further opportunity for improved marketing of these programs.

Since most Canadian companies are classified as “small businesses”, national and perhaps even provincial level awards may, at the outset, appear too intensive or too “intimidating”; many organizations that did apply for awards may have opted instead to become involved with municipally-based programs. Provincial awards were found to be the second most popular, while national level awards were pursued by the fewest companies. While, for some organizations, application to municipal or even provincial level awards may not be perceived to be worthwhile, other companies may consider these smaller competitions to be the appropriate forum in which they could effectively compete. In order to encourage the involvement of smaller organizations in larger competitions, and in response to respondent criticism that the awards application process is too onerous and that there is little value/recognition in applying for such awards, a more cohesive approach to Canadian excellence awards is recommended.

One possible strategy to address these concerns is the following. If excellence awards competitions could be linked together like stepping stones, they could be administered consistently across municipal and provincial regions. Organizations could enter the awards process at any level, but the normal course would be for an organization to submit an application at the municipal level and after succeeding at that stage to proceed to provincial and subsequently national awards competitions. While it is anticipated that additional effort and resources would be required at each level of competition, the fundamental information would not differ. Although establishing such a program would require tremendous cooperation and resources, both recognition of the importance of such an endeavor and funding to at least partially support it are potentially already available. Benefits of streamlining the process include increased awareness of awards programs/winners and greater accessibility to smaller, resource-constrained organizations. Overall, such an approach would encourage better publicity of winning organizations which may serve to also improve their “bottom line winnings” and add value to the program.

Approaches to BE

Even though the majority of organizations reported not applying for the BE awards, most respondents reported efforts toward achieving excellence within their own organizations. Of the formal approaches used by organizations pursuing BE, use of – but not necessarily registration to – the ISO 9000 series standards was reported most frequently (85.4 percent). While it can be argued that the ISO 9000 standards are not BEPs *per se*, it can also be argued that they are tools used by organizations embarking on their journey towards excellence (Karapetrovic and Macey, 2003). Other BEPs in use were benchmarking (17.3 percent), the Canadian Awards for Excellence framework (8.2 percent), the balanced scorecard (6.4 percent), and ISO 9004:2000 (3.6 percent). These programs were frequently implemented in conjunction with the ISO 9000 standards.

The use of customized programs was reported by 30.0 percent of the respondents. Little information is known about the origin, scope, or application of such programs. However, respondents indicated that their own programs permitted “flexibility to find process breakdowns through internal audits”, “measurable results which were meaningful to organization needs”, “full commitment by employees”, and a strategic plan that “align(ed) the organization through vision statement, strategic objectives and departmental measurable objectives”. Beyond those BEPs of organizations that have become publicly-used tools (i.e. General Electric’s Six Sigma, and Bell Canada’s Trillium Model), little is known or reported in the literature about company-derived models. Given their reported prevalence of use in Canada (second only to ISO 9000 programs), this topic warrants further consideration by both academics and quality practitioners.

Self-reported levels of BE and use of BEPs and ISO 9000

With reference to the use of BEPs, 4.8 percent of the responses received were from organizations that did not use BEPs, 40.4 percent from organizations which used an ISO 9000

standard only, and 9.6 percent from organizations that used BEPs but were not ISO 9000 registered. The remaining 45.2 percent originated from organizations that used an ISO 9000 standard in addition to one or more BEPs.

A total of 103 subjects provided a response to the question “At the present time, how would you rate the overall level of business excellence of your organization?”. For this question, a seven-point Likert scale was used in which 1 indicated a very elementary level and 7 indicated a world-class level. Results are presented in Table II. It is reasonable to assume that self-reported levels of BE would be related to the commitment that organizations had made to the use of excellence programs, i.e. organizations using programs with more challenging requirements would rate their level of excellence higher than organizations using either no formal programs or programs with fewer/easier requirements. However, when asked to rate their own organization’s level of BE, the results indicated that the level of excellence had no connection with the excellence programs employed in that organization. Specifically, no differences in excellence were reported among organizations that used no BEPs, were ISO 9000 registered, used BEPs other than ISO 9000, and that used both ISO 9000 standards and other BEPs.

In light of academic studies and practitioner descriptions of the impact of BEPs on organizational excellence, this outcome is somewhat surprising. It is possible that regardless of the level of BE achieved by one’s own organization, the belief exists that “there is always room for improvement”. Similarly, no matter how “troubled” an organization, there are often at least a few notable areas of performance. As such, responses from “excellent” companies may have been skewed downwards from the upper end of the Likert scale endpoint, while responses from “non-excellent” companies may have been skewed upwards from the lower end of the response range endpoint. Alternatively, it is also possible that this finding reflects the reality of organizations in Canada. If this is true, this finding may have important implications for business consultants who, as a result, may have difficulty finding conclusive evidence that their work propels organizations to higher states of organizational performance.

The impact of the use of the BEPs was assessed via an open-ended question. Respondents were asked to list improvements (if any) that were experienced as a result of having implemented a formal business excellence approach. Not surprisingly, a broad range of responses was received. Using as a guideline the results of Bhuiyan and Alam’s (2005) study of the benefits realized by Canadian organizations of ISO 9000 registration, these benefits were grouped into broad categories. In order of prevalence, the use of BEPs was shown to have had the greatest impact on improved documentation, consistency across the organization, customer satisfaction, and cost management. These findings are consistent with those reported by Bhuiyan and Alam (2005).

Implementation sequence and challenges

Respondents were asked to rank the sequence in which they addressed several major areas of BE such as leadership and innovation, data, information and knowledge, people focus, strategy and planning, customer and market focus, process management, business results, and supplier/partner focus. Respondents were asked to elaborate on all questions for which they could offer additional insight.

Table II Differences in self-reported business excellence ratings based on use of BEPs

<i>Organization’s adoption of BEPs</i>	<i>n</i>	<i>%</i>	<i>Rating^a</i>		<i>Range</i>	
			<i>Mean</i>	<i>SD</i>	<i>Minimum</i>	<i>Maximum</i>
No formal approaches used	5	4.8	4.80	1.79	2.0	7.0
Use only an ISO 9000 Standard	42	40.4	4.83	0.96	3.0	6.0
Use BEPs – not ISO-registered	10	9.6	4.55	1.67	1.0	6.0
Use BEPs – ISO-registered	47	45.2	5.14	1.09	2.0	7.0
Overall average	104		4.94	1.14	1.0	7.0

Note: ^a Range of rating: 1 = very elementary level, 7 = world-class level

Several respondents did not fully answer this question. Some surveys were also returned indicating the first few areas of BE addressed by the organization; in a few other instances, respondents ranked some options equally. All incomplete responses were excluded from the data set, leaving a total of 74 responses for analysis.

An analysis of variance, preceded by tests for the assumption of homogeneity of variance (Levene's test), was conducted to test the hypotheses related to the sequence of implementation of areas of BE with organization size and with organization structure. The results showed that small organizations (one to 50 employees) differed from both medium and large organizations in their choice of areas of BE to address first. Although the practices of small and medium organizations are commonly lumped together, in this instance medium and large organizations were more similar in their sequence of implementation of BE areas. Analysis of variance also highlighted differences in the order of implementation of BE areas based on organization structure; privately-owned businesses differed from those that fell within the "all others" category.

The respondents were asked to indicate several specific difficulties an organization might face in implementing a BEP from a given list. In terms of challenges experienced, items such as lack of management support, cost, staff resistance, and politically imposed constraints were provided, along with an open-ended "other" option.

Overall, difficulties related to "cost", "staff resistance", "politically imposed constraints" and "lack of management support", were reported. This study found that "cost" (43 percent) and "staff resistance" (42.1 percent) were the major challenges faced by the organizations in implementing BEPs. Additional challenges suggested by the respondents were as follows: 8.2 percent of respondents indicated that time was a major constraint, 2.7 percent reported human resource constraints, and 2.7 percent reported union constraints. Other difficulties mentioned were "culture", "perceptions" and "understanding the process".

Analysis of variance revealed that, on the basis of organization size, significant differences existed in the category of "people focus" ($F(2, 65) = 3.900, p < 0.025$). Specifically, it was determined that small organizations reported a lower level of difficulty with issues related to human resources than medium-sized organizations (M difference = 1.77, $p > 0.021$). There were no other differences in the reported difficulty in implementing areas of BE on the basis of organization size. Tamhane's T2 test (used because of the heterogeneity of variance) revealed that large organizations experienced more staff resistance to BE initiatives than did the smaller ones (M difference = 0.32, $p < 0.024$).

Paired *t*-tests were performed to determine if, overall, any significant relationship existed between the sequence in which organizations addressed areas of BE and the degree of challenge organizations faced in implementing programs to deal with these areas. No such relationship was shown to exist.

Differences associated with organizational factors

In terms of geographic region, the average number of BE programs used by organizations varied widely. British Columbia had the highest level of program use, with an average of 2.25 programs per organization, while the Atlantic Provinces had the lowest level with an average of 1.13 programs employed. Among the eight areas of BE examined, differences were found on the basis of geographic region for only "data, information and knowledge". The effort in this area put forth by Quebec respondents was greater than that by respondents in British Columbia, Ontario, and the Atlantic region. In addition, this study found a few differences in challenges based on geographic regions. First, cost was determined to be a significant challenge. The findings indicated that it was a more significant challenge in Saskatchewan/Manitoba than in the more populated provinces of Alberta, Ontario, and Quebec. Second, political constraints were found to be a larger challenge for organizations located in Ontario than for those in Quebec. Third, lack of management support was reported more frequently to be a difficulty in Ontario than in Saskatchewan/Manitoba or in Quebec. Such differences may be related to differences in provincial support of organizations through, for example, grant programs and tax incentives.

In terms of organization size, small organizations were found to use fewer BEPs than either medium or large organizations. This finding is generally consistent with previous findings that SMEs require additional resources and support (Boulter and Bendell, 2002). In terms of challenges faced, challenges in the area of “people focus” indicate differences between different organization sizes. Small organizations reported a lower level of difficulty with issues related to human resources than medium-sized organizations. Similarly, large companies experience more staff resistance to BE initiatives than small companies. These findings suggest that the use of BEPs in large organizations requires not only more resources, but also more understanding and support of employees compared to their use in small organizations.

In terms of organization structure, it was found that publicly-traded organizations reported the use of a greater number of BEPs than privately-owned businesses. This has several important implications. First, this result adds support to the suggestion that officers of publicly-traded organizations feel obligated to pursue BEPs to demonstrate their commitment to “cutting edge” programs. Second, this finding implies that an additional consideration should be added to the decision-making criteria of both policy makers and awards program administrators. As publicly-traded organizations used BEPs to a different extent, this category should perhaps be considered separately in award program decisions. Given these two significant findings, further investigation of the relationship between an organization’s structure and its use of BEPs is warranted.

Due to the low response rate in several industry categories, *post hoc* analysis that may have permitted identification of inter-industry differences could not be performed. These results provide strong support for the value of further research with a focus on Canadian industry and the use (or lack thereof) of BEPs in different sectors.

Conclusions and implications

The dyadic challenge of BEPs appears to be well supported through the Canadian example. While Canadian organizations seek programs that can comprehensively address the needs of individuals at all levels, they are at the same time limited by time, and both financial and human resource constraints. These results are consistent with those of Bhuiyan and Alam (2005) in their study of the challenges encountered by Canadian firms in their effort to implement ISO 9000 series standards.

The purpose of this investigation was to explore the broad issues related to BE and to identify trends and needs that result from the application of such programs by Canadian organizations. This study was beneficial in both evaluating existing patterns of program use and identifying unmet needs of these programs. The results showed that the use of BEPs by Canadian organizations appears to be a function of the size and location of the organization. This seems to influence the order in which businesses elect to implement various elements of BE, as well as the difficulty they experience with that implementation. There may be differences in the use of BEPs between organizations within different industry sectors, and those with different organizational structures. Finally, use of BEPs was found not to affect organizations’ self-reported level of excellence.

The findings of this research are of value to several communities. For government policy makers seeking to better direct support to Canadian businesses, this study offers guidance as to which types of organizations should be specifically targeted and the form(s) of assistance (i.e. support for knowledge infrastructure compared with human resources) most required. For administrators of quality programs, these findings suggest areas of focus for marketing strategies and suggest groups that should be individually targeted for recognition. Finally, for business practitioners, this investigation provides insight into the use of BEPs by organizations with which they can benchmark and, if appropriate, modify their own corporate strategies.

Recommendations for future research

As an exploratory study, this research makes an important contribution in the identification of areas on which future research effort should be focused. Several areas included in this study

deserve additional research attention. Among these is the use and application of BEPs in Quebec and by predominantly French organizations. As the results of this study suggest organizations in Quebec exhibit unique trends in their use of BEPs, effort should be made to explore the cause and implications of such differences. Similarly, the use of BEPs within the public sector and organization types such as co-operatives, crown corporations, and the third sector was also identified as a promising direction for future study. Finally, further exploration of the relative use of BEPs within different sectors of Canadian industry may yield additional information which would be of use to policy makers.

In addition to these broad regions, organization types, and industries which deserve further attention, this study also uncovered the need to focus attention on specific quality issues. The impact of unions on an organization's quality initiatives, for example, while highlighted as important by respondents, is not well understood. Also worthy of examination is the phenomenon of customized quality programs. Information about how such programs are developed, implemented and improved as well as how their results compare with those of other quality programs would be useful both for organizations interested in designing their own programs and for larger excellence models that may consider ways of more extensively incorporating such programs into their own framework.

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