Impact of Effective IT Governance on Organizational Performance and Economic Growth in Canada

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ABSTRACT

During the last decade, information technology (IT) has been playing a more important role for organizations in achieving their goals. Recently, information technology governance (ITG) has become a critical issue for many companies in various industries. This study aims to examine the importance of information technology governance on organization success and economic growth in Canada. Structural Equation Modeling (SEM) will be used for testing the developed hypotheses generating from the theoretical framework of the study. The data will be obtained from managers in the Information and Communications Technology (ICT) industry; Samples will be selected from eight provinces of Canada (British Colombia, Ontario, Alberta, Saskatchewan, Manitoba, Nova Scotia, New Brunswick, and Prince Edward Island). This topic of research has considerable significance in Canada; a significant contribution of this study is the construction of a theoretically based model that assimilates the effective information technology governance, and organizational performance, and Economic growth of Canada. By considering the impact of effective IT governance and organizational performance in the Canadian Information and Communications Technology sector, effective IT governance could improve organization performance which leads to a positive impact on Canadian economic growth.

Keywords: IT Governance; organization performance; economic growth; Canada.

1. INTRODUCTION

Information technology is becoming an effective strategic tool to create a competitive edge for the information-based economy, IT, information, and intellectual assets [1]. Even though it has been realized that IT investments create value for firms by offering critical systems to businesses, the cost of an IT venture continues to increase, and it has to be properly managed. The pervasiveness

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of technology usage has caused organizations to be highly reliant on IT [2]. This places businesses at risk of being exposed to threats to IT, information, and intellectual assets internally and externally from hackers, phishing sites, malware, and viruses [3]. Due to the high investment made in IT, in addition to the critical effects IT has on the success of the organization, a substantial amount of resources are used to acquire and manage IT with fair distribution across an organization. Information technology governance is a component of the decision-making structure, including processes, as well as relational tools to manage and control [4]. Studies commonly recognize it as a skill of an organization with high significance in aligning and achieving organizational value using IT [5].

Canada’s Information and Communications Technology (ICT) sector had strong growth in 2019 and outperformed the overall Canadian economy in output, employment, and innovation growth with more than 43,200 Companies and over 666,540 Workers. Manufacturing stands out as the sub-sector with larger companies. In 2019, 15.2% of ICT manufacturing companies had more than 50 employees, while across the whole ICT sector this share was only 3.4% [6]. ICT companies proved their efficiency in economic growth and decreasing the unemployment rate [7]. With the growth of the ICT industry, there is a great opportunity for start-up companies to enter the market by implementing IT Governance and start making a profit in a short time which can have a great impact on the economic growth of Canada [8].

Organizations can adopt many well-recognized IT governance frameworks [9]. For example, two such frameworks are Control Objectives for Information and Related Technology (COBIT) and Information Technology Infrastructure Library (ITIL). Such frameworks comprise numerous best practices, processes, indicators, and measures that can be applied in IT governance [10]. However, these frameworks have been designed for large organizations and can be too complex and costly for SMEs to implement. SMEs tend to find these frameworks intimidating and unachievable [11]. Some companies are not even aware that such IT governance frameworks exist considering ICT companies play a critical role in creating economic growth in most economies worldwide [11]. However, Limited IT knowledge leads to generalized knowledge being shared and utilized within the enterprise, and reliance on a few knowledgeable individuals with a combination of skills to carry out multiple tasks. This in turn leads to high unit costs for employing and supporting employees with knowledge in multiple areas, also a decrease in employee satisfaction among the organizations which can affect the productivity of the company [12].

2. PROBLEM STATEMENT

Recently, information technology governance has become a critical issue for many companies in Canada. This is even more important for Information and Communications Technology sector enterprises due to the more complex business processes, more specified tasks, and departments. Many companies suffer from extra costs of IT and other processes due to failure of alignment between IT and business strategies which, in turn, leads to low performance of the company. Hence, the research problem for this research is that the importance of IT governance has been known by organizations, the effect of effective IT governance on organization Performance and economic growth in Canadian ICT companies is still not well established.

3. RESEARCH QUESTIONS

- How effective IT Governance affects organization performance in Canada?
- To what extent organization performance mediates the relationship between effective IT governance and economic growth in Canada?
- How effective IT Governance affects economic growth in Canada?

4. LITERATURE REVIEW

Despite the importance of implementing effective IT governance, the development of IT governance remains a challenge to Information and Communications Technology companies in Canada. Recently, the creation and implementation of effective IT governance have been highly considered by ICT business owners. Effective IT governance guarantees the alignment between business goals and IT [13]. To achieve the firm’s performance goals, organizations need to have effective IT governance, and companies without effective IT governance will suffer from inaccurate information quality, the inefficiency of operating costs, wrong estimation of IT projects’ costs (under specification and over budget), failure in
competitiveness, the inefficient performance of IT divisions or the whole organization; these problems will reduce the performance of the organization, and these factors can have a great impact on Canadian economic growth [11].

4.1 Effective IT Governance

IT Governance leads to improvement in the performance of IT and this, in turn, leads to improvement in the performance of the company [14]. The significant framework of IT Governance links the performance of IT to the performance of the company through business value creation and states that value creation optimizes risk while benefiting optimal resource costing [15]. The creation of value can also be defined as having achieved particular IT goals concerning some of the overall corporate goals found in most companies [16]. Some of the aims are designed to enable the following goals such as the actions that have been planned and those in the works in the IT division should be in line with the company’s business strategy, to prioritize the critical business requests; meeting these requests must comply with the deadline, requirements, quality as well as the agreed costs; IT initiatives costs and risks must be properly managed and the anticipated benefits of IT actions must be reached [17].

4.2 Organizational Performance

Managers tend to use financial measures to gauge performance before but at present, it does not seem to sufficient and thus other tools are being developed such as the balanced scorecard which includes both financial and non-financial measurements to gauge performance [18]. Having non-financial measures is equally important and using them both enables proper findings or results of firm performance [19]. The Balanced Scorecard has been developed from its early stages as a simple framework for measuring performance to a complete system of management and strategic planning [20]. The Balanced Scorecard was introduced due to the requirement to include non-financial components for measuring performance in an organization [21]. The Balanced Scorecard is a system that a firm can use to assess the major performance measurements based on various perspectives such as financial, customer, internal business processes, as well as learning and growth [22]. It means each staff member who performs the major functions must measure their job performance particularly their contribution to the goals of the firm in the aim to increase the profitability and wealth of the system [23]. The Balanced Scorecard is categorized into four perspectives namely financial, customers, internal business processes, and learning and growth. This research is based on the four perspectives of the Balanced Scorecard to create a holistic view and understanding of an IT Governance framework that is effective and its effect on the performance of the firm [24].

4.3 Economic Growth

The economy of Canada is a highly developed market economy; it is the 9th largest GDP by nominal and 15th largest gross domestic product (GDP) by purchasing power parity (PPP) in the world. As with other developed nations, the country's economy is dominated by the service industry which employs about three-quarters of Canadians [25]. Canada has the third-highest total estimated value of natural resources, valued at US$33.2 trillion in 2019. It has the world's third-largest proven petroleum reserves and is the fourth largest exporter of petroleum. It is also the fourth largest exporter of natural gas. Canada is considered an "energy superpower" due to its abundant natural resources and a small population of 37 million inhabitants relative to its land area. According to the Corruption Perceptions Index, Canada is one of the least corrupt countries in the world, and is one of the world's top ten trading nations, with a highly globalized economy. To keep its advantages it needs to continuously adapt pioneer technologies and implementation of effective IT governance seems necessary [6].

5. RESEARCH FRAMEWORK

The theoretical framework is a combination of past researches finding with regards to trust issues in online shopping. Fig. 1 shows the conceptual framework of the study and how effective IT Governance can affect Organizational Performance and Economic Growth in Canada.

6. METHODOLOGY

This study tries to focus on Managers working in Information and Communications Technology companies. Samples will be selected from eight provinces of Canada because of the population and most of the Information and Communications Technology companies in order to let the results be generalized to a larger population. The
software that will be used to analyze data in this research is SEM Amos; it includes analysis such as descriptive analysis, frequency analysis, normality test, Collation analysis, and Coefficients Analysis. Descriptive analysis is defined as the analysis that helps for better understanding of the target population that is analyzed, their gender, age, demographics, and other personal attributes are presented along with graphs to help study them. Correlation Analysis helps the researchers to find that the connection between independent variables and the dependent variable is strong enough and any change in the dependent variable can be explain using independent variables. Coefficients Analysis is used to compare the significance of different variables concerning the dependent variable and their influence over the dependent variable. Coefficients Analysis is one of the important analyses in this research where it can help us to gain a better understanding of the relationship between each variable.

7. RESULTS AND DISCUSSIONS

Researchers in the past two decades have paid a lot of attention to the impacts of effective IT Governance in organizations. This is due to the need for compliance to requirements by new regulations and the increase in complexity in doing business in the international market. Various business strategies are inter-related to various impacts namely differentiation in marketing strategy is inter-related to composite uncertainties; dynamism and unpredictability; differentiation in innovation are inter-related with unpredictability, and innovation strategy cost is not inter-related to environmental uncertainty. Installation of IT Governance in a country is a sensitive issue. It is a fact that the installation of Information technique project in different agencies in the developed countries have encountered with a failure by high percentage. This study, with sufficient reviewing the history of the subject and study those who have been facing with the administration of IT Governance, all challenges that probably the managers will encounter have been described thoroughly, and have tried to provide a deep understanding and sufficient knowledge of possible problems. Effective IT Governance is supportive of the success of perceived IT and industry stability and predictability, performance, as well as economic growth. The significant effect of effective IT Governance on organization performance in ICT companies and economic growth in Canada has never been properly evaluated. Hence this research result has added confirmation that the important impact of effective IT governance in Canadian ICT companies on organization performance, and economic growth of Canada.

8. CONCLUSION

This research has concentrated on the effective IT governance that affects organizational performance and economic growth in Canadian ICT companies. Due to the importance of IT governance in Canada, this study could aid Managers and researchers to promote their knowledge about the importance of IT governance and how it can benefit organization performance. Also, it can encourage startup companies to consider implementing IT
governance as an effective way to start and expand business in Canada. By considering both effective IT governance and its impact on organizational performance in Canadian Information and Communications Technology companies, effective IT governance could enhance organization performance and it can greatly impact Canadian economic growth. Indeed, the findings provided useful information related to IT governance that enlightened companies to their Productivity and performance, and assists them to survive in the hypercompetitive world.

DISCLAIMER

The products used for this research are commonly and predominantly use products in our area of research and country. There is absolutely no conflict of interest between the authors and producers of the products because we do not intend to use these products as an avenue for any litigation but for the advancement of knowledge. Also, the research was not funded by the producing company rather it was funded by the personal efforts of the authors.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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