Use of Information Systems (IS) to Transform Small Businesses in France

I. Introduction

In today's business environment, the interaction, interdependence, and timely exchange of information necessitate the adoption of innovative systems to address the complex demands of customers (Baldassarre , et al., 2017). Additionally, SMAC technologies (social, mobile, analytics, and cloud computing) have triggered a digitization wave, driving innovation in business and society (Legner, et al., 2017).

Using diverse range of credible academic sources (databases, books and reports), reputable journals, and industry reports, this review will critically examine the use of Information Systems in transforming small businesses in France. Moreover, it will explore the current knowledge and research on the topic (Use of Information Systems (IS) to transform small businesses in France), while also providing a thorough analysis and evaluation of implications for small business owners, policymakers and researchers. Not forgetting, the recommendations for future research and practical implementations.

II. Overview of Current Knowledge on the Use of Information Systems in Small Businesses

Information Systems (IS) as a discipline involves analysing, developing and utilizing computer-based products for individuals, groups, organizations and society (whereby it is more concentrated on technology over social aspects) (Oates, et al., 2012).

Below are a few examples of Information Systems technologies that are utilized in various sectors and industries to support and enhance business operations (Rainer & Prince, 2022):

- Enterprise Resource Planning (ERP) Systems: Integrates various business processes and functions throughout an organization, system examples: Oracle, SAP system (Rainer & Prince, 2022).
- Customer Relationship Management (CRM) Systems: Help businesses to strategically manage interactions with customers (Bélanger & Slyke, 2011).
- Decision Support Systems (DSS): Assist in complex decision-making by providing access to data and analysis tools (Rainer & Prince, 2022).
- Supply Chain Management (SCM) Systems: Optimizes the flow of goods, services, and information among organizations, system example: NetSuite (Rainer & Prince, 2022), (Capterra, N.D.).

And many others.

Small businesses in most countries are mainly identified by the number of hired employees or by various revenue measures, and leadership characteristics, such as their potential market size (Passerini, et al., 2012). In France, small businesses have less than 50 employees and in 2015, around 2.5 million Small and Medium Enterprises (SMEs) fell into this category, thus representing 99.8% of all enterprises in France (OECD, 2016).

Additionally, since most governments value the contributions that small businesses have made to their country's economic growth, and technology keeps on becoming more affordable and compelling; adopting to a business-oriented information system is necessary to support all aspects of small business operations (Hunter, 2015).

III. Similar and Contrasting Views on the Use of Information Systems in Small Businesses

This chapter will explore the benefits, challenges and approaches of using Information Systems in a small business.

A. Benefits And Advantages of Implementing Information Systems in Small Businesses

By implementing IS systems, such as Customer Relationship Management (CRM) systems, small businesses greatly improve their customers' experience, satisfaction, loyalty and retention due to the customers receiving more streamlined and personalised interactions, goods and services, faster response time when the customer needs support (Bélanger & Slyke, 2011).

Increase of revenues due to maximization of profits by reducing the cost of gaining and servicing a customer (Bélanger & Slyke, 2011).

Businesses achieve efficiency due to communication improvement, data redundancy reduction, streamlining of business operations (Bélanger & Slyke, 2011).

Decision making process has become increasingly complex due to competitive environment, limited resources, time constraints and need to achieve goals (O'Brien & Marakas, 2006). Fortunately, application of Information Systems empowers businesses to make complex decisions, ease operations, minimize errors, boost productivity and much more (Radu & Tabirca, 2018).

The use of IS, such as Supply Chain Management and e-commerce platforms can lead to cost reduction, increase of productivity and expanded access to markets from around the world (IndiaFreeNotes, 2023).

Competitive advantage will be achieved since successful implementation and adoption of IS will lead to the business being more efficient than its competitors (Hunter, 2015). Thus, resulting to the business to have a sustainable growth and thrive (Hunter, 2015).

B. Challenges And Barriers Faced by Small Businesses in Adopting Information Systems

Most businesses are held hostage by Information Systems due to the businesses' heavily reliance on Information Systems for them to function (Rainer & Prince, 2022),

Information Systems are very costly to acquire, implement, manage and maintain, for instance: the total costs of hardware, software, networking, data,

licences, people involved in the stages like technical support, end-users training, IS implementation, etc.- can be very high (Bélanger, et al., 2021)

Even though some IS like ERP systems are adaptable to any business, they can also be complex and difficult to implement because they need to be customised to fit the needs of the business and computing platforms used in the organization (Bélanger & Slyke, 2011).

Deployment and implementation of IS projects are time consuming and can lead to disruptions in business operations, thus resulting to discontinuity in quality and plus creating disruptive atmosphere among employees (Ulrich & Newcomb, 2010).

Risks of failure in IS implementation are high, whereby, the Standish Group reported that less than 10% of ERP systems implementation succeed (Ulrich & Newcomb, 2010). Such failures could be due to: loss of data, lack of finance to sustain the whole process, lack of skills or workforce, etc., – therefore businesses affected may end up been dissatisfied with the results, experience revenues or customers losses, etc. - instead of fully benefitting from the IS (Ulrich & Newcomb, 2010).

Not all IS integrates well to other industries. For instance, information systems like the logistic information systems, lack integration and real-time decision-making capabilities, therefore resulting to insufficient support for agri-food supply chains (Verdouw, et al., 2014).

Businesses lack adequate information security policies and procedures thus causing data breaches and losses (Deschoolmeester, et al., 2013). Furthermore, businesses should also recognize that information security risk extends to legal, regulatory, and to lesser extent, government liabilities (Deschoolmeester, et al., 2013)

C. Comparison of Different Approaches and Strategies in Implementing Information Systems

When it comes to costs, there are different Information Systems funding approaches, whereby, the 3 main methods include: overhead (simplest method because all IS expenses are treated as the organization's overall cost), chargeback (billing functional departments for the IS resources and services they use directly) and allocation (billing functional departments for IS resources and services that are based on a metric or ratio rather than actual direct costs) (Bélanger, et al., 2021). Therefore, it is essential for businesses to have a plan on the best approach they will use to fund IS.

Even though bank lending is France's main source of finance for small businesses and has proven to be satisfactory, especially during the Covid-19 crisis in 2020 where France government guaranteed EUR 300 billion loan scheme for Small & Medium Enterprises (SMEs) affected by the pandemic (OECD, 2022), the government should still implement more policies, support, campaigns and laws that promote alternative sources of finance for small

businesses. This could reduce the rate at which businesses file for bankruptcy thus enabling the businesses to have access to more and better information systems (OECD, 2016).

More surveys like the ECB, which is done in Europe every 6 months to assess the latest financing conditions and developments, and small businesses' accessibility to finance, - should be done. This will consequently result to an increase of awareness, and businesses can have the need for better IS technologies and conditions to be implemented and practiced (OECD, 2016).

To ensure IT and IS continuity, businesses opt for disaster recovery planning (DRP) to survive potential IT incidents that could severely impact their business operations. As a result, businesses realize the importance of making contingency plans for coping and managing such IT and IS incidents, and ensuring that backup copies are stored in secure locations (Järveläinen, 2013).

To address and mitigate challenges like failure, all departments within the enterprise should work hand in hand and be aligned with IS management and staff so as to ensure that they collectively serve the enterprise's primary business objectives (Moreton, 1995).

Both the business and IS management and staff need to understand the organization strategy of the business, have positive attitude and take part in

the decision-making and purchasing of the IS and anything related to it (Grundspenkis, et al., 2012).

Education and training of employees is essential to ensure successful implementation and usage of IS (Grundspenkis, et al., 2012). Moreover, this contributes significantly to IS security, as human factors play a major role in information security (Deschoolmeester, et al., 2013).

Businesses should invest in and pay more attention to IS security and safety measures, including cybersecurity (Grundspenkis, et al., 2012). This measure ensures that the business is safeguarded from both internal and external risks and threats that may cause it harm (intended and unintended harm) (Deschoolmeester, et al., 2013).

IV. Conclusion and Recommendations

Based on the literature review, several key conclusions can be drawn regarding the use of IS to transform small businesses in France. One been the significant potential of IS to enhance productivity, improve decision-making processes, and strengthen customer relationships, loyalty and retention, etc. However, for IS to be successfully implemented, challenges such as financial constraints, complexity, risks of failure, data security concerns, etc, - needs to be addressed through strategic planning, appropriate funding approaches, etc, - so as to ensure smooth integration and continuity.

Secondly, so as to capitalize on the benefits of IS and overcome challenges, the review emphasized on the significance of government policies and support in facilitating IS

adoption by promoting alternative sources of finance for small businesses. Therefore, policymakers must continue to refine and expand initiatives to enable greater access to IS technologies and foster innovation and growth.

Additionally, small businesses must prioritize working hand in hand with IS management and implement cybersecurity measures to safeguard against potential risks and protect sensitive data. Not forgetting, invest in IS, education and training of employees to ensure successful IS implementation and usage, as human factors significantly affect information security.

Even though this literature review has shed light on the transformative potential of Information Systems in small businesses in France, it is evident that further research is needed to address existing gaps and to explore practical applications and solutions for businesses to effectively harness IS technologies.

Future research should focus on conducting longitudinal studies that track the impact of IS implementation over time. Additionally, comparative studies across different industry sectors and geographical regions would provide valuable insights into the contextual factors influencing the effectiveness of IS in small businesses. Exploring the social and ethical implications of IS implementation would also contribute to a more comprehensive understanding of its transformative potential.

In addition, by adopting a more comprehensive and critical approach to IS adoption and implementation, small businesses in France can navigate the challenges and gain full benefits of technological transformation, contributing to their sustainable growth and success in an increasingly competitive global marketplace.

Consumers today often remain unsatisfied even though they have a large variety of products and services to choose from. Consequently, it is necessary to create personalized products so as to generate value, maintain market presence, and retain or expand customers (Baldassarre , et al., 2017). Therefore, policymakers, business owners, and researchers must all collaborate to drive innovation and develop strategies that harness the full potential of Information Systems to drive economic growth and prosperity in France.

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