

Impact of the integrated management system on business strategy: Critical success and failure factors

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Abstract

Organisations in recent years have opted for an Integrated Management System (IMS), especially in Quality, Environmental, and Occupational Health and Safety, which by design are generally considered to be compatible or rather easier to integrate. IMS is intended to consolidate the resources of the organisation in terms of people, documentation, auditing, compliance, etc. and as such it reduces costs and brings focus to the business. However, the downside is that the implementation process is not a “same fit for all”, but rather each situation is dependent on many factors including the state of readiness of the organisation, its size, maturity level of individual management systems and support from the executive management. Despite the rise in the number of organisations that have implemented the IMS in the last number of years, problems related to integration difficulties and lack of alignment with business strategy still exist. This paper presents a practical perspective of the challenges and critical factors concerning the implementation of the IMS in a Fast-Moving Consumer Goods (FMCG) business, which by its nature is susceptible to quality, environmental, and safety risks due to its high speed of operation.

Keywords

Integrated Management System, ISO 9001, ISO 14001 and OHSAS 18001, Fast-Moving Consumer Goods (FMCG)

1.0 INTRODUCTION

Organisations in recent years have opted for an integrated management system (IMS), especially in Quality, Environmental, and Occupational Health and Safety, which by design are generally considered to be compatible or rather easier to integrate (Azadeh et al., 2019; Muzaimi et al., 2017; Nuhnes et al., 2017). IMS is intended to consolidate the resources of the organisation in terms of people, documentation, auditing, compliance, etc. and as such it reduces costs and brings focus to the business. However, the downside is that the implementation process is not a “same fit for all”, but rather each situation is dependent on many factors including the state of readiness of the organisation, its size, maturity level of individual management systems and support from the executive management.

The integration process needs to be aligned with the overarching business strategy to benefit all stakeholders including the organisation, customers, investors and surrounding communities. Garengo & Biazzo (2013) posit the view that despite the benefits that come with the IMS in ensuring that the separate management systems align with the organisation’s strategy, not enough studies investigate how a comprehensive combination system should be designed and implemented. Furthermore, only a few organisations are aware of the difficulties in aligning their IMS as a strategy, hence the need for further research on this topic (Barbosa et al., 2018).

1.1 Background of the Study

There has been an increase in the number of companies that have adopted global standards such as ISO 9001, ISO 14001 and OHSAS 18001 in the last decade (Poltronieri et al., 2015). This rise was driven by many factors, including the increase in competition (Simon et al., 2014), high rate of workplace accidents and fatalities, as well as environmental hazards (Sampaio & Neves, 2012; Santos et al., 2013; Oliveira, 2013). Lately, the focus has turned towards the IMS for reasons that are influenced by many factors including organisational, financial and benefits for employees (Domingues et al., 2015).

The IMS provides an alternative to single management systems with many benefits, including enhanced organisational sustainability and strategic decision-making capability of the business (Arda et al., 2019). It also simplifies the certification process, reduces management costs and minimizes paperwork (Zeng et al., 2010). Furthermore, the IMS can offer opportunities for continuous improvement in Quality, Safety and Environmental Management and provides significant prospects for organisations to adapt to the global proposed standards (Azadeh et al., 2019).

However, numerous challenges have emerged with the implementation of IMS and these serve as the basis for this research paper. Simon et al (2014) cautioned that the IMS is not immune to challenges if not implemented appropriately and that the sooner the organisations become aware of the problems that are associated with the integration process the sooner they can address them to allow a seamless and successful transition. Some organisations embrace the integration and succeed while others fail and revert to the original separate systems. Therefore, management commitment is crucial to instil focus and support for the proper implementation of the IMS. Moreover, initiatives aimed at increasing staff engagement and collaboration are necessary to bring together teams that had previously operated parallel systems in a competing fashion to ensure commitment and success in the implementation process.

2.0 RELATED STUDIES

2.1 Introduction

This literature review will discuss and compare the critical factors affecting the effectiveness of the IMS to provide an objective opinion on establishing a framework for the best possible integration approach. Various IMS implementation strategies will be evaluated to benchmark. The first part of the literature review will focus on the definition of IMS from different sources to align the researcher and the readers on the topic as a precursor to the main discussion. The final sections of the literature review will provide insights to common themes that appear in past research articles: the motivation for implementation of the IMS, its benefits to the organisation and its stakeholders, the challenges associated with its method of implementation, and various possible implementation methodologies.

2.2 Definition of Integrated Management System

Several definitions of IMS have been articulated by various sources in a comparable way (Karapetrovic & Willborn, 1998; Kaplan & Norton, 2008; C. Q. Institute, 2016). However, Olaru et al (2014) best describe it as “a management system which connects all components of a business into one comprehensive system to enable the achievement of its strategy”. In summary, the IMS combines all critical components of the management systems to align in a harmonising way such that the ever-changing and increasing demands of customers are met in a cost-effective, safe and environmentally sustainable way. The latter is achieved within the required legal and regulatory framework in direct configuration with the overarching business strategy. Garengo & Biazzo (2013) simply expressed that the IMS links strategy and operations utilizing an interconnected set of management tools.

2.3 Motivation for implementation of the Integrated Management System

The main motivation for IMS implementation is inspired by the non-IMS limitations such as the traditional organisational structure’s focus on departmentalisation, effort duplication and increase in bureaucracy and cost, among others (Domingues et al., 2015). Karapetrovic (2003) observed that the need for “business excellence” to meet the growing demands of stakeholders who are not only the customers but also the surrounding communities, employees, investors, and society at large has put pressure on organisations to find cost-effective ways of managing their separate management systems in a better-coordinated manner which has given rise to the IMS. Zeng et al (2010), Garengo & Biazzo (2013), Vitoreli & Carpinetti (2013) on the other hand felt that the challenges of managing separate systems have forced organisations towards the IMS, which provides superior benefits than the individual systems. However, Simon et al (2013); Muzaimi et al (2017); Barbosa et al (2018) differ slightly in that they believe that excessive competition has been the main factor that has forced organisations to implement a unified system as an alternative to single separate standards.

In summary, it can be deduced that numerous factors influence the decision for the integration of the systems, and therefore the implementation outcomes are likely going to differ based on the strength of the “pull” factors. Factors that are driven by immediate business survival and legal compliance are most likely going to present a sense of urgency and need for an IMS to support business sustainability.

However, factors associated with continuous improvement in a business that is already successful are likely going to be less urgent in their quest for IMS implementation, and thus result in a longer project implementation timeline.

The latter is likely going to achieve a more robust IMS implementation outcome due to better planning and project implementation approach. Eventually, the need to align the IMS with the overarching business strategy should always take priority to provide meaningful support to organisational success.

2.4 Benefits for implementation of the Integrated Management System

Almost all past researchers agree without contradiction that many benefits can be realised through the IMS. Zeng et al (2010) observed the improvement in the certification process, reduction in management costs and minimum paperwork as the main achievement, while Zeng, et al (2015) and Alexandra, et al (2012) highlighted the operational benefits, better external image, improved customer satisfaction and employee motivation, and Azadeh, et al (2019) noted an opportunity for continuous improvement.

Similarly, Olaru et al (2014) suggested that these benefits can be subdivided into internal and external, with those that are internal to be related to improvement in internal processes; whilst the external ones reflected the overall improvement in business performance in terms of profits, customer satisfaction, and staff motivation. Kim et al (2014) and Wening & Refflinghaus (2015) noticed an improvement in employees' health and the environment. Similarly, Nunhes et al (2017) pointed to the improvement in operational efficiencies and internal communication as well as the great speed and flexibility in the decision-making process.

In summary, an integrated system offers more benefits than single separate standards (Ferron & Darnall, 2016). It eliminates conflicts between individual systems, due to consolidation of some or all components of a business into one coherent Management System (Rebelo, 2014). Hence it would not have been possible to list all the benefits as they are just too many. However, the shortcoming of the past research is that it does not give a direct correlation between the manner and level of implementation and the nature of benefits that are realised at the end of the project. Therefore, there is an opportunity to try and link the implementation methodology to a specific form of benefit to avoid a generic integration approach in future IMS projects.

2.5 Challenges

The purpose of this paper is to propose a framework for the best possible approach for IMS implementation and that cannot be achieved without a deeper understanding of the challenges that are experienced by the organisations that have already implemented the combined system. These factors, cannot be disregarded as they provide great lessons for future IMS projects.

Human resource factors require great consideration given the past duplication of functions under separate management systems. Zutshi & Sohal (2005), Zeng et al. (2007), Asif et al. (2010) and Simon et al. (2012) are consistent in their views that human resource factors such as individual concerns of the people involved, lack of motivation, and conflicting agendas, contribute to the success or failure of the implementation process. Similarly, Nunhes et al (2017) observed that the involvement of too many people in the integration process may serve as an obstacle to project success. They also warned about the complexity of the integration process and the financial cost being the biggest challenges in the transition process.

Domingues et al (2015) classified the challenges to IMS implementation as of internal or external nature, whereby the former is related to resources (human and financial), attitudes and perceptions and obstacles during the implementation process, while the latter pertains to issues related to support and consulting, economic issues and those related to the certification bodies.

In summary, the challenges are subdivided into human factors, the complexity of the integration process, and financial costs as the main impediments to the best possible integration outcome. Finally, the existence of silos amongst different management systems may present a big challenge during the integration process if the clarity of roles is not defined upfront.

2.6 Implementation approach for Integrated Management System

IMS implementation through a “systems approach”, i.e. integration from the strategic level down to the lowest level of the organisation (Karapetrovic, 2003), “techno-centric approach” where the IMS benefits are confined in a technical sub-system of the organisation (Asif et al (2010), and an “ad hoc” approach (Lopez-Fresno, 2010; Abad et al., 2016), a process-oriented approach based on the concept of PDCA (Plan-Do-Check-Act) work process (Azadeh et al., 2019; Muzaimi et al., 2017), were identified, as well as several other hybrid methods as presented in Table 1 (Adapted from Zeng et al., 2010).

Wright (2000) was very distinct with a proposed five-step integration methodology based on continuous improvement philosophy. Wilkinson & Dale (2001), Oliveira (2013), Rebelo et al (2014), and Wening & Refflinghaus (2015) proposed integration through parallels in the structure of standards or aspects of the management systems such as documentation, management policy, planning, implementation and operation, performance evaluation, improvement and critical analysis. On the contrary, Zeng et al (2007), Bernardo et al (2009), Asif et al (2010), and Zeng et al (2010), felt that the integration of management systems according to strategic goals and business objectives of the organisation was the most effective approach; whereas Olaru et al (2014) recommended customer satisfaction and fulfilment of stakeholders' expectations as the main driver for an effective implementation strategy. Muzaimi et al (2017) suggested a PDCA approach that was based on continuous improvement which identifies and uses the common fundamental principles of separate management systems to integrate them into one management system. Finally, Salomone (2008) suggested integration starting from an investigation of common features or interests in terms of real motivations, such as company image, cost matters, etc. as well as considerations for impediments to business success. In bringing context to this topic, Nunhes et al (2017) resolved that the most integrated elements and functions are management responsibility, work instructions, control of documents and records, internal communication and structure and accountability.

In summary, though various implementation strategies may be employed for IMS integration, the most appropriate to the organization now can be considered suitable. However, the design approach should be fit for purpose to benefit the organisation the most. Furthermore, a process-oriented approach based on the concept of PDCA should be considered as a vital support irrespective of the methodology employed.

2.7 Conclusion

Different approaches to the integration of IMS exist; however, the implementation outcomes are dependent on many aspects, such as the strength of the "pull" (motivation) and "push" (challenges) factors. Motivation factors include the limitations related to the use of separate management systems, competition landscape, and appetite to meet customer demands and regulatory requirements, concern for workers and the environment, and finally the need for alignment with business strategy. Challenges include financial affordability of the integration project and its complexity, human resources in terms of availability of competent and committed staff, and lastly executive decision based on the IMS fit to business strategy. However, Asif et al (2010) strongly suggested that maximum benefits are achieved through "systems approach", which implies a starting point at a strategic level before the agenda gets cascaded down to the rest of the organisation.

In conclusion, it can be appreciated that this paper adds value to the current body of knowledge since none of the prior research has focused solely on FMCG organisations. Furthermore, it elevates the status of the management systems (MSs) and its practitioners in organisations to executive level because it enforces a paradigm shift from a "cost centre" to a "profit centre" point of view in terms of its contribution to business performance and this can be quantifiable through cost savings. The latter can be measured through improvement in stakeholder satisfaction and can also be incorporated in the annual company reports, contrary to the current qualitative reporting practice in this area.

Typical reporting could be structured in the following manner: Customer Satisfaction (percentage increase in customer numbers), Employee Satisfaction (staff retention numbers), Business Performance (IMS audit results, Annual Company Results, Share Price Performance). Ultimately the IMS will be directly aligned with the overarching business strategy and no longer be considered as another trivial function in the organisation.

Table 1: Summary of Implementation Strategies

Names of researchers	Implementation approach
Wilkinson & Dale (2002)	Two-stage implementation approach, through a merger of documentation through similarities in the standards; and through total quality management.
Zeng et al. (2007)	Multi-level synergy model (strategic synergy, organizational structural-resource-cultural synergy, and documentation synergy).
Salomone (2008)	Integration starting from an analysis of common aspects in terms of real motivations (company image, costs).
Bernardo et al. (2009)	Begin the integration “with the most “strategic goals, documentation and procedures, integrating operations and tactics later”.
Asif et al. (2010)	“Systems approach”, based on stakeholders-oriented MS that deals with integration at the strategic level and then cascades downward so that it results in complete strategic fit and everyone; “techno-centric approach” aimed at providing benefits at an operational level.
Zeng et al. (2010)	Aligning different management systems with business objectives and overall strategies of an organization.
Oliveira (2013)	Study of similarities, complementarities and contradictions of the standards.
Olaru et al. (2014)	Through customer satisfaction and fulfilment of all stakeholders’ expectations, with emphasis on identifying existing or potential problems as well as preventative corrective actions related to quality, environment, health and occupational safety.
Rebelo et al. (2014); Wening & Refflinghaus (2015)	Based on the similarities that the structure of ISO 9001 QMS, ISO 14001EMS and OHSAS 18001 OHSMS share concerning the management policy; planning; implementation and operation; performance evaluation; improvement and critical analysis.
Muzaimi et al. (2017)	Proposed a PDCA approach which identifies and use the common underlying principles of separate management systems to integrate them into one management system, where three standards of ISO 9001, ISO 14001 and OHSAS 18001 have a common underlying principle: continuous improvement based on Deming’s cycle (Plan-Do-Check-Act).

Source: Adapted from Zeng et al. (2010)

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4.0 REFERENCES

- Abad, J., Cabrera, H.R. & Medina-León, A. (2016). An analysis of the perceived difficulties arising during the process of integrating management systems. *Journal of industrial engineering and management (JIEM)*, 9(3):860-878.
- Alexandra, S., Karapetrovic, S. & Casadesús, M. (2012). Difficulties and benefits of integrated management systems. *Industrial Management & Data Systems*, 112(5):828-846.
- Arda, O.A., Bayraktar, E. & Tatoglu, E. (2019). How do integrated quality and environmental management practices affect firm performance? Mediating roles of quality performance and environmental proactivity. *Business strategy and the environment*, 28(1):64-78.
- Asif, M., Fisscher, O.A., Bruijn, E.J.d. & Pagell, M. (2010). An examination of strategies employed for the integration of management systems. *The TQM Journal*, 22(6):648-669.
- Azadeh, A., Nasirian, B. & Motevali Haghghi, S. (2019). An intelligent framework for performance optimisation of the integrated management system and resilience engineering in pharmaceutical plants. *Total quality management & business excellence*, 30(9-10):953-989.

- Barbosa, L.C.F., de Oliveira, O.J. & Santos, G. (2018). Proposition for the alignment of the integrated management system (quality, environmental and safety) with the business strategy. *International journal for quality research*, 12(4).
- C. Q. Institute, (2016). Integrated management system. [Online]. Available: <http://www.thecqi.org>.
- Domingues, J.P.T., Sampaio, P. & Arezes, P.M. (2015). Analysis of integrated management systems from various perspectives. *Total quality management & business excellence*, 26(11-12):1311-1334.
- Ferron Vilchez, V. & Darnall, N. (2016). Two are better than one: The link between management systems and business performance. *Business strategy and the environment*, 25(4):221-240.
- Garengo, P. & Biazzo, S. (2013). From ISO quality standards to an integrated management system: An implementation process in SME. *Total quality management & business excellence*, 24(3-4):310-335.
- Kaplan, R.S. & Norton, D.P. (2008). Mastering the management system. *Harvard business review*, 86(1):62.
- Karapetrovic, S. (2003). Musings on integrated management systems. *Measuring business excellence*. 7(1):4-13.
- Karapetrovic, S. & Willborn, W. (1998). Integration of quality and environmental management systems. *The TQM Magazine*, 10(3):204-213.
- Kim, Y.H., Sting, F.J. & Loch, C.H. (2014). Top-down, bottom-up, or both? Toward an integrative perspective on operations strategy formation. *Journal of operations management*, 32(7-8):462-474.
- Klute-Wenig, S. & Refflinghaus, R. (2015). Integrating sustainability aspects into an integrated management system. *TQM Journal*, 27(3):303.
- López-Fresno, P. (2010). Implementation of an integrated management system in an airline: A case study. *The TQM Journal*, 22(6):629-647.
- Muzaimi, H.Chew, B.C. & Hamid, S.R. (2017). Integrated management system: The integration of ISO 9001, ISO 14001, OHSAS 18001 and ISO 31000. AIP conference proceedings 1818, 020034 (2017); <https://doi.org/10.1063/1.4976898>
- Nunhes, T.V., Barbosa, Luis César F Motta & de Oliveira, O.J. (2017). Identification and analysis of the elements and functions integrable in integrated management systems. *Journal of cleaner production*, 1423225-3235.
- Olaru, M., Maier, D., Nicoară, D. & Maier, A. (2014). Establishing the basis for the development of an organization by adopting the integrated management systems: Comparative study of various models and concepts of integration. *Procedia-social and behavioural sciences*, 109693-697.
- Oliveira, O. J. (2013). Guidelines for the integration of certifiable management systems in industrial companies. *Journal of Cleaner Production*, (57):124-133.
- Poltronieri, C.F., Gerolamo, M.C. & Carpinetti, L.C.R. (2015). Integrated management systems: Literature review and proposal of an instrument for integration assessment. *Global journal on humanities and social sciences*, 1(2).
- Rebelo, M.F., Santos, G. & Silva, R. (2014). A generic model for integration of quality, environment and safety management systems. *The TQM Journal*, 26(2):143-159.
- Salomone, R. (2008). Integrated management systems: Experiences in Italian organizations. *Journal of cleaner production*, 16(16):1786-1806.
- Sampaio, P. & Neves, A. (2012). Integrated management systems quality, environment and safety-implementation and evaluation of efficiency. *TQM-Techniques, methodologies and quality*, 3130-145.
- Santos, G., Barros, S., Mendes, F. & Lopes, N. (2013). The main benefits associated with health and safety management systems certification in Portuguese small and medium enterprises post quality management system certification. *Safety Science*, 51(1):29-36.
- Simon, A., Bernardo, M., Karapetrovic, S. & Casadesus, M. (2013). Implementing integrated management systems in chemical firms. *Total quality management & business excellence*, 24(3):294-309.
- Simon, A., Karapetrovic, S. & Casadesús, M. (2012). Difficulties and benefits of integrated management systems. *Industrial management & data systems*, 112(5):828-846.

- Simon, A., Yaya, L.H.P., Karapetrovic, S. & Casadesús, M. (2014). An empirical analysis of the integration of internal and external management system audits. *Journal of cleaner production*, 66499-506.
- Vitoreli, G.A. & Carpinetti, L.C.R. (2013). Analysis of the integration of normalized management systems ISO 9001 and OHSAS 18001: Multiple case studies. *Gestão & produção*, 20(1):204-217.
- Wilkinson, G. & Dale, B.G. (2001). Integrated management systems: A model based on a total quality approach. *Managing service quality: An international journal*, 11(5):318-330.
- Wright, T. (2000). IMS—three into one will go!: The advantages of a single integrated quality, health and safety, and environmental management system. *The quality assurance journal: The quality assurance journal for pharmaceutical, health and environmental professionals*, 4(3):137-142.
- Zeng, S.X., Shi, J.J. & Lou, G.X. (2007). A synergetic model for implementing an integrated management system: An empirical study in China. *Journal of cleaner production*, 15(18):1760-1767.
- Zeng, S.X., Tam, V.W. & Le, K.N. (2010). Towards the effectiveness of integrated management systems for enterprises. *Engineering economics*, 21(2)
- Zeng, S.X., Tam, V.W. & Khoa, N.L. (2015). Towards the effectiveness of integrated management systems for enterprises. *Engineering economics*, 21(2)
- Zutshi, A. & Sohal, A.S. (2005). Integrated management system. *Journal of manufacturing technology management*, 16(2):211-232.

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