

## Repositório ISCTE-IUL

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Deposited in *Repositório ISCTE-IUL*:

2024-06-25

Deposited version:

Accepted Version

Peer-review status of attached file:

Peer-reviewed

Citation for published item:

Geda, N. (2023). Change management science innovation methodologies. In John Wang; (Ed.), Encyclopedia of data science and machine learning. (pp. 1614-1626).: IGI Global.

Further information on publisher's website:

10.4018/978-1-7998-9220-5.ch096

Publisher's copyright statement:

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## INTRODUCTION

Digital Transformation permits new businesses implement, digital business models, and processes. Innovation is used as a key to companies for competitiveness, it is the way forward for firms that want to grow in today's complex and turbulent environment (Andrew, *et al*, 2009) (Barsh, *et al*, 2007) Whether organizations are long established or new, those that manage to grasp leading positions are the ones that innovate faster and possess the relevant knowledge to uphold their innovativeness (Desouza *et al.*, 2009).

Organizations faces two simultaneous challenges:

a) They constantly perform and innovate to sustain their position on the marketplace and secondly, they must transform themselves so that they can navigate fundamental shifts in their environment in terms of market and technology (Garud *et al.*, 2006). In other words, they have to re-design themselves with agility to anticipate and adapt to changes, searching constantly for innovation while sustaining performance daily.

b) In other way of analysis, recent literature echoes the emerging role of social media – a new practice for harnessing the power of mass collaboration, shaping new modes of behavior and facilitating knowledge flows in networks across organizational boundaries; all of these features are essential for company innovativeness (Noteboom, 2000; Weinberg *et al.*, 2013; ).

The use of social media applies methodologies constantly prints the essence, throw continuous improvement, of the Knowledge Management and Change Management. Through its capacity is to build up a model of intelligence from human interactions and processes, turning lead to collaboration if trust and reciprocity are at work (Boughzala *et al.*, 2010). The relationships between the design requirements for an innovative enterprise and the implementation of the emerging practice of social media takes the form of a layered cycle and draws a distinction between sectors, processes and components that delivers digital infrastructure, and create digital services, and consume digital services/infrastructure. Digital infrastructure consists of data as the raw material, the network sector, the data centre sector, and the cloud & hosting sector. Digital services are created and delivered by software and digital companies. Digital data, infrastructure and services are purchased by businesses, consumers, and the government (digital consumption), facilitated by linking on-premises IT infrastructure and devices such as smartphones, tablets. (Alaerds, Grove, Besteman, & Bilderbeek, 2017) social media (SM) has become very popular, etymologically speaking, social media dates from the ascent of humankind, since humans have always looked for different ways to communicate, and to change. Today, social media can be understood as “a group of Internet-based applications that build on the ideological and technological foundations of Web 2.0, and that allow the creation and exchange of user generated content” (Kaplan & Haenlein, 2010).

Consequently, organizations are required to adapt their operations, infrastructures, and strategies in coordination with challenges imposed by the intensive changes prevailing in the global environment and business. This can be achieved by adopting a continuous improvement methodologies approach, through which organizations can monitor and integrate all advancements in technology and business tools into their operations targeting efficient and effective business results (Hashem 2020); (Albrecht *et al.* 2020). According to the author the challenges of automating component integration, which can be summarized as the need for particular protocols and lower costs of hardware, software, and middleware tools to ease the knowledge exchange of integrators (Manesh *et al.* 2021).

## BACKGROUND

### THE CHANGE CHALLENGE

According to Turner *et al* (2009), It should be noted that these elements are most often not pertinent to manage an organizational change, however they are an integral and fundamental part of its success. This management model recognizes the need to reject old behaviors, structures, processes, and cultures before successfully adopting new approaches. Employees of organizations must bear in mind the concepts related to the hard and soft aspects regarding organizational changes as they are fundamental for the success of its implementation. The importance of the human side of change, according to Galpin (2000), presents a change management model, which, as a differentiating element, reconciles the soft aspects and the hard aspects. Turner, *et al* (2009) also reinforce the importance of applying a holistic approach to change management models, which focuses on both hard and soft systems.

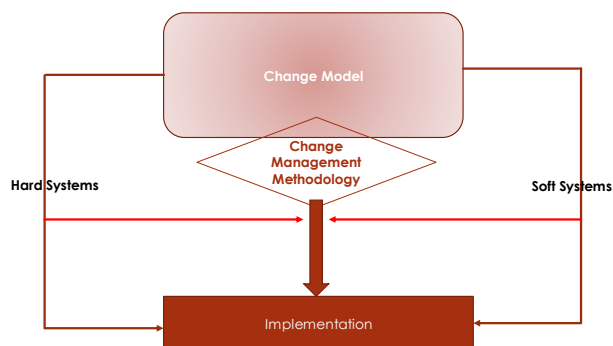


Figure 1- Adapted from (Turner *et al* 2009)

The value that is generated by this approach is the permanence and flexibility it provides organizations and their managers to adapt and be able to respond to changes. In practical terms, leveraging a change management methodology requires that organizations' leaders understand and synergistically apply the organization's hard and soft systems. The table below describes the synergy of activities related to the hard and soft system in order to manage change:

Hard Systems Implementation		Soft Systems Implementation
Define a desired outcome (Vision)	↔	Create dialogue around desired outcome
Prescribe the Steps	↔	Manage in between the steps
Manage the event	↔	Facilitate the change process
Measure quantitative results	↔	Measure qualitative results
Create structure	↔	Experience participative management
Name the change	↔	Experience the transition

Figure 2 - Application of the Hard and Soft System in Change Management adapted from Turner et al (2009)

According to Turner, et al (2009), the Change Management Methodology and the Change Management Model are two terms often used interchangeably. However, for organizations trying to use a change management model or methodology it is useful to distinguish the two terms as they correlate and complement each other. Change management models are typically a way of representing and describing a series of steps in a theoretical understanding of the change process. So, to understand the planned change, it is not enough to understand the processes inherent to change, but it is also necessary to understand the states through which the organization has to go, in order to move from an unsatisfactory present state to a desired future state (Gawke e Gorgievski 2019) ; (Nasiri et al. 2020); (Albrecht et al. 2020). The authors also pointed out challenges in the areas of employee recruitment and qualification, and they highlighted the importance of companies' ability to develop the know-how required to seize digitalization opportunities.

A methodology differs from a model in that it typically does not attempt to explain phenomena, but rather represents a set of activities or procedures that define the completion of an event or task. Another way to define the methodology is effectively comparing it to a repository of methods and problem solving that are governed by a common set of principles, rules, or philosophy for solving targeted problems (Kettinger, et al 1997). Kettinger (1997) verified and consolidated the additional differentiation between methodology, techniques, and tools. Methodology is represented as the highest level of abstraction followed by techniques that are defined as a set of specific steps or procedures and, finally, at the lowest level are tools, which refer to specific items that allow a task to be performed as software or an evaluation.

## METHODOLOGY OF CHANGE

In addition to change management models, there are also methodologies that, when correlated with the models, become an extremely powerful support and support tool. The ITIL methodology is widely used by top management, and worldwide today, and is associated with increased competitiveness between organizations. In order to apply good practices and control the existing change processes within the IS, ITIL is a tool to support methodologies. ITIL (Cartlidge, et al., 2007) is a methodology created in the late 1980s (initially it was called CCTA (Central Computer and Telecommunications Agency), which is based on the management of IT services, applying best practices to help companies to achieve their business goals, with the support of IS Services. Therefore, these managers thus face additional challenges, compared to most organizations, which derive from various factors:

1. Existence of multiple functions, such as providing health care to the population, maintaining fiscal solvency and constituting a primary employer in the community (Golden, 2006);
2. Convergence of professions, namely doctors, nurses, physiotherapists, pharmacists and administrators, and other diverse stakeholders (for example, users and the government itself), with incompatible interests and perspectives (Golden, 2006) (Iles & Sutherland, 2001) ;
3. The interdependence of individuals and teams, whose goals depend on collaboration with other individuals or teams (Iles & Sutherland, 2001);
4. The power and autonomy of health professionals, whose decisions and performance largely influence both the quality-of-service provision and, influencing user satisfaction, such as health expenses (Golden, 2006);
5. The constant changes in the environment, especially in terms of the market, the global economy, social values and politics (Rego & Nunes, 2010) (Applebaum & Wohl, 2000) (Church, et al 1996);
6. Need to keep up with major technological changes in the health area, in terms of processes, diagnosis, treatment and IS (Iles &

Sutherland, 2001) (Applebaum & Wohl, 2000);

7. Growing demands of customer groups, with different needs, expectations and increasingly informed (Iles & Sutherland, 2001) (Applebaum & Wohl, 2000);

8. Government and regulatory requirements regarding the performance and quality of health services provided (DGS, 2004-2010);

9. Investors' demands regarding performance and results (Applebaum & Wohl, 2000);

10. Lack of information needed to manage change processes in healthcare organizations (Golden, 2006);

11. Past change experiences of employees that had unintended and unintended consequences, giving rise to resistance to new change initiatives (Iles & Sutherland, 2001).

## **CHANGE MANAGEMENT AND HEALTH SERVICES**

In fact, IS progressively support automation processes in most activities and in modernization. However, this modernization is related to the levels of innovation of the various economic sectors, in each of the organizations impacting the operational dynamics and their interactions with the market. Therefore, the introduction of technological innovations in the functioning of hospital units still requires structural, organizational, functional, informational, and decision-making adaptations.

The systemic perspective under which hospital operation and dynamics are due should make it possible to question, in each innovation and consequent need for adaptation, the existing status quo. This logic of approach must allow management to open up competitive opportunities for change. Competitive opportunities can be driven internally by the fact that innovations provide reductions in the cost structure or efficiency gains in organizational dynamics. However, when addressing the issue of change management, it should be emphasized that these benefits cannot be achieved if economic organizations cannot match the innovation potential achieved by their competitors. Change management includes, among other variables, the identification and management of the gap between a given organizational context and the desired one. The latter, the desired context, should be seen in the possibility of introducing innovation in processes, in systems integration, in the development of new products and services, in cultural change, in the introduction of new models and instruments.

As we are in an essentially digital age, the rate of applicability of changes is increasing. Therefore, whatever the change, it needs to be managed in all areas, namely the technological one. Therefore, this is a challenge both for IT departments, who need to manage projects of constant adaptation and innovation, as well as for top management, who need to deal with business requirements and people management in order to balance changes with new expectations and needs.

As a tool, methodologies are used, which make it possible to gather a set of world best practices for the operation of IS services. The methodologies provide Change Management guidelines that make it easier for IT professionals to implement and prioritize changes efficiently, without negative impacts to customers (users). In the field of management, innovation within the scope of change must be assimilated at the strategic level and, at that level, the frequent need to rethink organizational logic and dynamics to improve economic performance, the adequacy of communication with the market, the differentiation of the commercial offer, among others. The successful implementation of a change within the IS largely depends on the commitment and commitment of its users, as the reactions of end users to the introduction of changes in their daily work routines are critical success factors for any project, since the IS do not increase organizational performance per se, but with the help of users and managers.

In this way, the introduction or alteration of an information system implies a change process that, if not properly managed, can cause the project to fail, so when analyzing the influence of the IS in the change processes, it is concluded that the introduction of the information system is effectively relegated to the background. Thus, giving greater weight to the restructuring of processes and to people's awareness as core factors affecting change. In the first instance, when we talk about changes brought about by the information system, we are talking about cultural change in terms of user habits. For example, the simple automation of tasks causes profound changes in the internal organizational functioning, requiring extra care regarding internal communications (horizontal and vertical), as only in this way is it possible to help users to identify and understand the benefits that the change will provoke when the IS expansion to other functional areas. Change is inevitable and necessary, as the individual, organizations and society are destined to live with the transformations unequivocally. The process of change is made up of various technological innovations associated with knowledge and global competitiveness. IS provide organizations with a way to build and plan a greater connection with organizational processes, providing more agility in development, thus contributing to improved performance and decision support. When you want to make changes in an organization, managing this change is as relevant and precious as the project in its essence and object, so the expectations created by a process of change can go down substantially for the simple fact that users do not understand them their object, or effectively resist the project. The operationalization of the change must be preceded by the identification and evaluation of the factors associated with it. In addition to the set of steps presented in the different models for change management, it is necessary to ensure the presence of these projects or processes that have a very strong cultural dimension.

Understanding the existing culture, regarding formal and informal rules, policies, norms, and habits, represents a critical success factor in change management, therefore, and to corroborate this premise advocates the following phases (Albrecht et al. 2020); (Lin et al. 2019); (Giannoccaro 2018):

- Establish the need for change.
- Define the purpose of the planned change.
- Diagnose and analyze the current situation.
- Create recommendations.
- Detail the recommendations.
- Create a pilot based on these recommendations.
- Prepare roll-out recommendations.
- Distribute the recommendations.
- Measure, reinforce and redefine change.

Even so, it is necessary to mention that the IS are dynamic, so it is necessary that their implementation process is duly accompanied by a process of continuous and coordinated change using tools and methodologies that enable apply good practices, such as ITIL, constantly involving people, information, and technology.

### **Challenge to use Telehealth.**

According to Smith et al (2020), the number of cases of coronavirus disease 2019 (COVID-19) Is increasing rapidly and, as of 11 March 2020, the World Health Organization has declared that this can be characterized as a pandemic. Outside of emergency situations, the overall uptake of telehealth has been slow and fragmented. Substantial efforts have gone into scaling-up the routine use of telehealth, often with limited success. In Australia, despite the introduction of generous financial incentives for specialist video consultations, telehealth represented less than 1% of all specialist consultations provided. The experience in the USA has been similar, where less than 1% of people living in rural areas have ever experienced telehealth. Reasons for the low uptake of telehealth are multifaceted and diverse, but factors such as clinician willingness, financial reimbursement and (re)organization of the health system may be to blame (Smith e Beretta 2020); (Smith et al. 2020).

## **SOLUTIONS AND RECOMMENDATIONS**

Once you know exactly what you want to achieve and why, you will need to determine the impacts of the change at various organizational levels. It is very useful to analyze the effect on each business unit. It is equally important to understand how changes cascade through the organizational structure to the employee. The information obtained in this analysis will help to plan the training and support needed to mitigate the impacts. All employees must be involved in the change management process. But the first step will be to define the key employees to whom you must communicate the changes. It is necessary to determine the most effective means of communication for the group or individually. The communication strategy should include a timeline of how the change will be incrementally communicated, key messages, as well as the communication channels you intend to use. With the message of change out in the open, it's important that your employees know they're going to be trained. It will allow them to gain the knowledge they need to operate efficiently as the change is implemented. The training may include a set of online microlearning modules or a face-to-face approach. For effective change management, it is also necessary to ensure that your company has a support team. It should help employees adapt to change and develop the behaviors and technical skills needed to achieve desired business results. Regardless of whether the changes result in redundancies or restructuring, you must view support as fundamental to the company's success. Throughout the process, a framework must be in place to measure the impact of changes on the business. It will ensure that there are opportunities for continuous reinforcement to create knowledge. It should also evaluate the change management plan to determine its effectiveness and document the experiences gained. Effective change management reduces the risk of the new system or other change being rejected by the company. In addition, it increases the teamwork required for the organization to accept change and operate more efficiently. Change management exists to help businesses plan for their transformations, rather than just reacting to them. Change management is the discipline that guides the agency to prepare, equip, and assist individuals to successfully adopt changes toward results for the organization. While all changes are unique and no two people are the same, it is evident that there are steps we can take to influence people in their metamorphoses. Change management provides a structured approach to helping your employees move from their current state to the future. There are basically three levels of change management. Even though it is a natural human psychological and physiological reaction to resist change, we are very resilient creatures. When we have support in times of change, we can be wonderfully adaptable. Individual change management requires understanding how people experience change and what needs to change. It also requires knowing what will make people transition successfully: what messages they need to hear and from whom, when is the best time to teach someone a new skill, how to instruct them to show new behaviors, and how to make those changes “stick to their own” in someone's work. While change happens at the individual level, it is virtually impossible for a project leader to manage change on a person-to-person basis. Organizational change management provides us with a guide with actions to take to impact the entire agency. This involves first identifying groups and people who will need to change because of your project, and how they will need to embrace these transitions.

This management encompasses the creation of a customized plan to ensure that impacted employees receive attention, leadership, and training to proceed with their processes. Driving successful individual transitions should be the primary focus of your organizational change management activities. This level corresponds to an organization's core competence, which provides competitive differentiation and the ability to effectively adapt to a constantly changing world. The enterprise's change management capability means that change is built into your agency's job competencies, structure, processes, projects, and leadership. In this way, process management is constantly applied to initiatives, leaders have the skills to guide teams in times of change, and employees know what to ask for to succeed. The result of a communication agency capable of managing change is individuals who embrace change faster and organizations better able to respond to market changes, launch strategic initiatives and adopt new management technologies with less impact on production. In this world where change is imperative, not adapting to the new times is being forgotten and left behind. But it's not enough just to adhere to all the trends that appear, but to have full control over the transitions your agency will go through. In this way, change management generates several benefits for the optimization of the company. Every transformation involves personal issues, as new leaders will be summoned to participate in the process, the roles of some teams and collaborators are changed and new skills will have to be developed. This can cause employees to look to the future of the business with uncertainty and become resistant to proposed changes. Keep in mind that ignoring the human side carries a huge risk for the company. When the idea is to implement management software, for example, and the focus is only on meeting the technical requirements, leaving aside the issues related to the adoption and use of the solution, there are chances that the team cannot handle the tool well which results in losses for the agency. Therefore, dealing with these issues reactively, that is, thinking about them only when they become a problem, is too dangerous. In this sense, it is essential to carry out a formal approach to change management, starting with the leadership teams and, later, working on actions with leaders and key stakeholders. Everything must be done in advance and with strategic planning. It is necessary to collect a lot of data, carefully analyze and plan the execution of the redesign of the company's strategies, processes, or systems. Ideally, the change management approach should be integrated into internal program development and decision-making strategies.

### **Expands possibilities for innovation**

Organizations that apply well-established change management have a greater entrepreneurial orientation — which means that they are always researching and integrating new things, which increases the chances of innovation and business growth. Those companies that are not afraid to change cannot be compared with the “discouraged” companies, who have been pushing the same processes with their stomachs for several years due to the fear of innovating and failing. Having the courage to change is an act that is rewarded by new opportunities and above-average growth.

### **Improves the team's quality of life**

A change management that considers human issues aims to establish processes that help improve the activities provided by the team, eliminating bureaucracy, and improving time management, for example. All this increases the quality of life of employees, as it excludes stressful factors, in addition to facilitating the process of adapting to changes. By proactively supporting employees in times of change, you show with actions that you value them, which stimulates engagement and motivation daily.

### **Benefits internal communication**

Communication failures cause rework and cause losses for companies. In some cases, change leaders err in believing that people are inside their heads and feel as they do that it's time to change. Even the best change programs offer no guarantee of success. Therefore, they reinforce not only the main messages, but also regular advice on simple points. One aspect that every company has to understand is that communication flows from the top down. With this, management makes business decisions, communicates to those who occupy management positions, and the information is directed to employees at the right time. For this, it is necessary to set up a large communication scheme, which uses different channels and often transmits redundant data. Such actions avoid the occurrence of failures and delays in deliveries.

### **Increases profitability**

The vision theory, which is based on resources, sees the company as a set of resources, including human, material, and financial ones. In view of this, the agency learns to strategically organize all these items, being able to establish the necessary changes. This theory also points to another benefit of change management: the ability to evaluate and reorganize all the company's resources, joining them in a strategic way, according to the interests of the enterprise. This allows for the elimination of unnecessary expenses and better investments, increasing the company's profits.

### **Raises productivity**

By defining new processes and improving the company's strategies, value can be added to the business. This is because change is only chosen if it provides a competitive advantage for the company. However, none of this works if there is no employee engagement. In change management, teams are prepared and trained to interact with new processes and structures, so there is little impact on productivity and a quick recovery of the desired results by the agency is also guaranteed.

### **Generates competitive advantage**

Undoubtedly, one of the great advantages of understanding what change management really is and applying it correctly in the company is the increase in competitiveness. The great speed with which people can access information and new technologies today, plus the

characteristics of the new global economy, are forcing organizations to quickly change the way they carry out their activities locally and remotely. The company that cannot adapt and keep up with the dynamism of the market ends up being left behind — after all, there will always be a competitor that successfully promotes change. In this scenario, agencies must react quickly and efficiently to follow market changes, without impacting productivity. Employees need to be empowered to learn to deal with new processes in order to reduce resistance to innovation. Discuss solutions and recommendations in dealing with the issues, controversies, or problems presented in the preceding section.

## **FUTURE RESEARCH DIRECTIONS**

This chapter is about the failure of general programs of change and, due to the scarcity of empirical research on the management of change within organizations, it is recommended that more research on the management of organizational change is conducted. In this sense, research of nature exploration should be prioritized to increase knowledge of the management of the organizational change. These studies should allow a critical analysis of the factor's success of change management. It is also suggested a work that elaborates indicators to assess and measure the success rate of change initiatives in organizations. "As Change Managers today, we have access to more information than ever before, and the amount of available information is growing exponentially. As a profession, our collective competency is higher than ever. However, many organizations say that change is not done well and/or the leadership of change is lacking and/or that change isn't happening fast enough." Change is an element present in organizations and affects, the business structure. There is a consensus among the authors studied that that the pace of change in today's business environments is constantly evolving. Therefore, successful change management is a necessary and desired skill for all the organizations. Perhaps investigate a construct named performance to achieve some more efficient assumptions.

## **CONCLUSION**

Health organizations manage a diversity and heterogeneity of essential information for the performance of their sensitive public activity, in the provision of health care. The paradigm shift in healthcare has profoundly changed behavior and the way healthcare organizations relate to and understand their surroundings, thus triggering needs and new forms of internal organization. The management of hospitals, as top management bodies, reveal strategic characteristics of concern with the impacts of change and the application of best practice methodologies. It is possible to discern that there is a strong concern on the part of Management to ensure a strategic change management policy within the IS that is based on a methodology, in this case ITIL, which makes it possible to apply good practices. While we may not be able to accurately predict the timing of natural disasters and infectious pandemics, we can be sure that they will present again in the future. The COVID-19 experience is not a first, and nor will it be the last. Telehealth does have a critical role in emergency responses (Krishnamurthy 2020).

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## KEY TERMS AND DEFINITIONS

**Change management:** It is a process of allocating resources, to transform the organization, with the objective of improving its effectiveness.

**Digital transformation:** it is a change of mentality that companies go through to become more modern and keep up with the technological advances that are constantly emerging.

**Digitalization:** is the process of turning analog processes and physical objects into digital

**Digital Sustainability:** In concrete terms, this means that digital information must be financially, organizationally, and technically modifiable and available to all.

**Information Technology Infrastructure Library (ITIL):** ITIL, an acronym for Information Technology Infrastructure Library, is a best practice guide, developed by the British government's Central Computer and Telecommunications Agency (CCTA), on managing of information technology services that focuses on aligning services with business needs. Developed in the 1980s with last update in 2019 (ITIL 4) The guide underpins the foundations of ISO/IEC 20000, the international standard for managing IT services (International Service Management Standard), becoming the most widely adopted IT service management in companies. ITIL describes processes, procedures, tasks and checklists that are neither organization-specific nor technology-specific, but can be applied by an organization to establish integration with the organization's strategy, delivering value and maintaining a minimum level of competence. It allows the organization to establish a baseline from which to plan, implement and measure. It is used to demonstrate compliance and measure improvement. There is no independent third-party compliance assessment available for ITIL compliance in an organization. ITIL certification is available to individuals only.

**Information Systems:** the collection of technical and human resources that provide the storage, computing, distribution, and communication for the information required by all or some part of an enterprise.

**Processes:** Integration of components for collection, storage and processing of data of which the data is used to provide information, contribute to knowledge as well as digital products that facilitate decision making.