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**Introducing a PMO Implementation Project by using
Change Management Principles in Adverse Environments**

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ΔΗΛΩΣΗ

Δηλώνω υπεύθυνα ότι:

«Η εργασία αυτή είναι πρωτότυπη και εκπονήθηκε αποκλειστικά και μόνο για την απόκτηση του συγκεκριμένου μεταπτυχιακού τίτλου. Τα πνευματικά δικαιώματα χρησιμοποίησης του μη πρωτότυπου υλικού ΜΔΕ ανήκουν στο μεταπτυχιακό φοιτητή και το επιβλέπον μέλος ΔΕΠ εις ολόκληρο, δηλαδή εκάτερος μπορεί να κάνει χρήση αυτών χωρίς τη συναίνεση άλλου. Τα πνευματικά δικαιώματα χρησιμοποίησης του πρωτότυπου μέρους ΜΔΕ ανήκουν στον μεταπτυχιακό φοιτητή και τον επιβλέποντα από κοινού, δηλαδή δεν μπορεί ο ένας από τους δύο να κάνει χρήση αυτού χωρίς τη συναίνεση του άλλου. Κατ' εξαίρεση, επιτρέπεται η δημοσίευση του πρωτότυπου μέρους της διπλωματικής εργασίας σε επιστημονικό περιοδικό ή πρακτικά συνεδρίου από τον ένα εκ των δύο, με την προϋπόθεση ότι αναφέρονται τα ονόματα και των δύο (ή των τριών σε περίπτωση συν επιβλέποντα) ως συν-συγγραφέων. Στην περίπτωση αυτή προηγείται γραπτή ενημέρωση του μη συμμετέχοντα στη συγγραφή του επιστημονικού άρθρου. Δεν επιτρέπεται η κατά οποιοδήποτε τρόπο δημοσιοποίηση υλικού το οποίο έχει δηλωθεί εγγράφως ως απόρρητο».

Η μεταπτυχιακή φοιτήτρια

Καρατζά Αλίκη

(Υπογραφή)

Abstract

This thesis defines the discipline of Change Management and analyses how its activities can help an organisation curb resistive behavior of its employees when planning to establish a centralised project coordination unit – the PMO. The role of Leadership in this direction is vital in infusing new elements in the Corporate Culture and facilitating transition.

The main types of Project Management Offices are presented according to the functions they serve and a literature review points new areas of thought in the academia and among Project Management practitioners.

The aim of this study is to demonstrate the relation between Project Management processes and Change Management principles. These need to be accounted for when effectuating a major Change through Project delivery as applied in the PMO implementation project and demonstrated by the use of a roadmap that incorporates activities from both practices.

Acknowledgements

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1. INTRODUCING CHANGE MANAGEMENT

1.1 Definitions

The notion of constant change has been acknowledged already from the 10th century BC in the *I Ching* (or *Yi Jing- the book of changes*) in China and since the 6th Century BC Greek philosopher Heraclitus and his famous saying that “Everything flows” which is evident in all aspects of life.

Passenheim (2010) provides a definition for change and its impact in the business world as “*an alteration of a company’s strategy or culture as a result of changes in its environment, structure, technology or people*”. He also stresses that a key competence of an organization’s leadership team is to manage that change in the company’s environment that would have an impact in its structure (design of jobs, span of control, authority relationships or coordinating mechanisms), in technology (equipment, work processes or work methods) and people (behaviors, perceptions, expectations or attitudes).

According to PMI’s *Managing Change in Organizations: A Practice Guide* (2013), “*change management is a comprehensive, cyclic and structured approach for transitioning individuals, groups and organizations from a current state to a future state with intended business benefits*”.

The PMI’s *Pulse of the Profession In-Depth Report: Enabling Organizational Change Through Strategic Initiatives* (2014) has made the case that change is a process that begins with organizational leaders developing an organizational strategy and continues with the creation of an initiative that is aligned with that strategy. These strategic initiatives are formulated as a direct response to a change in the business environment. The report summarizes the issue by noting that “*all strategic change in organizations is delivered through programs and projects, and successful organizations lead change by managing their projects and programs effectively*”.

The outcome is a new discipline that draws from the intellectual heritage of Organizational Development and is bordering with the Project Management field of research namely Change Management. This discipline is occupied with the impact of changes that result of Organizational and Project Management activities and the implementation of strategies to deal with change brought by initiatives through project delivery. The subject of change is the human capital of the organization, and hence Change Management is concerned with the “people side of change” and provides support and encouragement to them to embrace it.

1.2 Why Change Management?

Many definitions have been developed for change management, others focusing on the systematic process of strategy implementation, either as means for transitioning culture and personnel attitudes and practices or as a tactic to overcome competition.

In effect the applied methodology is designed to assist the adoption of the outcomes of the changes by all employees in practicing their duties in a novel way as introduced by the project delivery. Only by using the “new products” of change in the workplace the strategic goals of the organization can be achieved, and thus the desired benefits can be realized (Hiatt and Creasey, 2012).

Change starts with a vision which transforms through an initiative to a clear organizational goal and success can be measured by the extend of engagement and adoption by the organization. Therefore, change is an individual shift in behavior taking place in all levels of an organization to reach the desired future state in which every employee has acquired new capabilities, is able to demonstrate a new skill or adopt a new system of cultural values. Change is about transforming people as they are an important part of the change process (Balogun, 2001).

Hornstein (2015) has argued that “change is an inevitable consequence of project implementations, and how that change is managed impacts how successful the project will be”. This statement provides another function of Change Management in the project application as a mechanism to establish and reinforce implementation and promote wider acceptance.

Graham (2005) identifies the necessity for Change Management because it allows for changes to be made in “a planned and systematic fashion, in order to effectively better implement new methods and systems in an ongoing organization”. Unless changes are not closely monitored and facilitated by a coherent set of tasks and methodologies and actively supported by the Leadership it is perceived as less than priority and employees tend to ignore or avoid them, therefore a culture of disobedience is created that inhibits innovation and agility. Change in today’s business environment tends to be the norm which makes Change Management an imperative for an organization to survive the highly competitive conditions.

1.3 Types of Change

The study of AlManei et al. (2018) characterized change delivered based on magnitude as radical or incremental and changes spanning from the implication of a single business process to the transformation of the whole organization, thus core or peripheral.

Balogun and Hope Hailey (2008), categorized change based on the intended outcome (transformational or realignment) and as a function of the speed (rapid or incremental) in order to assess the ease and likelihood of achieving the change. Change can be classified by outcome as:

- **Evolution** (large-scale change carried out over a long period of time. It can be implemented gradually through inter-related initiatives and is intended to be proactively undertaken in the foreseeable need for future change)
- **Revolution** (a change that occurs over short period resulting from imposed changes. Transformational change that occurs through simultaneous initiatives, probably taken as a reaction to competitive conditions faced)

and by process as:

- **adaptation** (a small-scale change that is gradual, undertaken to realign the way in which the organization operates and implemented as a series of steps)
- **reconstruction** (a change rapidly carried out occurring through simultaneous initiatives in reaction to competitive context)

AlManei et al. (2018) also described change as “bottom-up” and “top-down” in relation to who it originates from and how it is introduced. Consequently, the **bottom-up** change would be driven from the lower levels of an organization:

- could be designed by practitioners and thus possessing credibility and acceptance

- time consuming introduction and adoption across the organization with unpredictable outcome

and the **top-down** change initiated by the seniors:

- structured and systematic approach as the change is involving the organization in its totality and is conceived already from the planning phase
- conducted in consultation with the responsible party for implementing change
- critical success factor is the involvement of practitioners in negotiating and agreeing the formulation of change

1.4 Models of Leading Change

1.1.1 *Rational-Social process Model*

AlManei et al. (2018) grouped the models of change into a) rational approach based and b) into social process lead. Below both types are presented:

Rational models theorize that the organization and the employees' behavior are managed and controlled. Therefore, change is brought in as a systematic and constructed process in a sequence of steps. This model is suitable for small-scale initiatives where goals are clearly defined and agreed. The most renowned model on the rational approach, was introduced in 1947 by Kurt Lewin. His approach presented as a planned model, composed of three phases **1) unfreeze 2) change and 3) re-freeze**. The basis for change is a state of relative stability of an organization, which is transformed into a new stable state.

In the unfreezing phase the need for change is established, the stakeholders are consulted, and the plan for change is formed. A force field analysis can assist in the assessment of the possibility of success of the planned change. The second stage, where the change is widely introduced, is about implementing the planned change. Opposition and resistance are anticipated and needs to be confronted. In the third stage stability and general acceptance is prevailing, and the new practices are standardized and become normative by the organization. In today's rapid change environment criticism of that theory address the issue that within short time lapse standardize practice has to unfreeze before the next change initiative is introduced and a new cycle of change starts again.

Social process models of leading organizational change are stressing the importance of the human dimension. The model for the leadership of processes is provided by John Kotter (1995) and is composed of eight steps for leading change as shown in Table 1 below.

Table 1 Kotter's model in 1995

8 Step approach to lead organizational transformation	
1	Establishing a sense of urgency ✓ Examining market and competitive realities ✓ Identifying and discussing crises, potential crises or major opportunities
2	Forming a powerful coalition ✓ Assembling a group with enough power to lead the change effort ✓ Encourage the group together as a team
3	Creating a vision ✓ Creating a vision to help direct the change effort ✓ Developing strategies to for achieving that vision
4	Communication the vision ✓ Using every vehicle possible to communicate the new vision and strategies ✓ Teaching new behaviors by the example of the guiding coalition
5	Empowering others to act on the vision ✓ Getting rid of obstacles to change ✓ Changing systems of structure that seriously undermine the vision ✓ Encouraging risk taking and nontraditional ideas activities and actions
6	Planning for and creating short term wins ✓ Planning for visible performance improvements ✓ Creating those improvements ✓ Recognizing and rewarding employees involved in the improvements
7	Consolidating improvements and producing still more change ✓ Using increased credibility to change systems, structures, and policies that don't fit the vision ✓ Hiring promoting and developing employees who can implement the vision ✓ Reinvigorating the process with new projects, themes, and change agents
8	Institutionalizing new approaches ✓ Articulating the connections between the new behaviors and corporate success ✓ Developing the means to ensure leadership development and succession

Kotter updated the eight-step model in 2012 where the eight steps became eight accelerators. He highlights areas where significant advantages for change management can be seen in the first two steps that create the climate for change. Steps 3 and 4 describe how creating and communicating a vision is essential, the benefits of which are increasing motivation of employees, aligned improvement projects and freeing up resources to work on the transformation process. The next two steps are occupied with the engaging of the organization while steps seven and eight have to do with “Building on Change” and “Making it stick”. Successful adoption of change according to Kotter is promoted by appropriate motivation to overcome resistance and by high quality leadership.

Both Kotter and Lewin models are focused on the organizational changes. The ADKAR change model by Hiatt and Creasey (2012) is focused on individual change. ADKAR represents the five milestones an individual must achieve in order to embrace change.

- Awareness of the need for change
- Desire to support the change
- Knowledge of how to change
- Ability to demonstrate new skills and behaviors
- Reinforcement to make the change stick.

This model is not considered as influential as senior management who have greater power of engagement on change direction. The works of ADKAR and Lewin focus on individual change and are therefore more aligned with projects which will impact smaller groups of people whereas, on the leadership of change, Kotter's model is more applicable with larger scale projects.

1.1.2 1st order and 2nd order Change

Another type of categorization of change models is by the work of Levy and Merry (1986) between 1st order and 2nd order change. The factors by which change types are differentiated is by magnitude and the pace of change.

1st order changes are related to adjustments that minimally affect the system's core and occur as the system develops thus, is considered part of a continuous process (Levy and Merry, 1986, p. 5). It is including changes that their nature concerns organizational structure, technology, communication systems, recognition and reward programs, and decision-making processes. In effect, their function is to shape perceptions, procedures, and behaviors.

The 2nd order change is a multi-dimensional, radical organizational change. It leads to a new identity of the considered organization and is viewed as discontinuous, deep structural and cultural change.

Gareis (2010) has also categorized change types based on the Levy and Merry (1986) model according to demand for change and the potential of the organization to achieve it. Potential for change is described as the availability of the organizational competencies for managing change.

It can be deduced that in 1st order low demand for change is generated in contrast to 2nd order changes. Radical change requires no previous experience or competence in management of the change. In a transforming change the need to learn from experience is greater but the venture of that process possibly affects the level of competences gained by the organizations' personnel. Further developing is a continuous process so practices and procedures should constantly develop as in areas of technology etc. Organizational learning is a process that should be embedded in the organizations' processes with clearly identified roles and responsibilities. The shading behind Transforming and Further developing identifies the potential maturity of an organization in managing this type of change.

1.1.3 Change (process) theories-Implementation theories

The study by Worley and Mohrman (2014) introduces another classification of organizational change, fundamentally theories that focus on change implementation and the activities change agents should perform to secure the success of the initiative, that involve steps and provide guidance such as the Lewin and Kotter Model, and the theories of change describing the factors that influence the pace and effectiveness of the change process, the triggers for change and the outcomes, represented by Greiner's (1972) five-phase model of "evolution and revolution". Greiner's 1972 Harvard Business Review article "evolution and revolution as organizations grow" suggested that changes in organizations, as they grow, are caused by crises and complexity and there was need to introduce new capabilities to manage and perform that lead to revolutions in the way they organize and operate.

Brown (2000) commended on the change of cultural structures that "*While Greiner addressed the natural progression of cultural change over a prolonged period,*

management's deliberate attempt to change the culture of an organization needs to scale this progression into a compressed period with a definitive target date. Project management can be an effective way to expedite the necessary stages while avoiding the crises". She also recognized that in this direction change management processes can benefit from project management methodology to deliver sustainable change implementation projects.

1.1.4 The Management Model of Strategic Change

Sujova and Rajnoha (2012) developed a model based on the methodology of process of change. Building on the concepts that Burns (2000) introduced that by using PM tools and methodologies the management of change is fundamentally using process principles. they created a management model of strategic change which is displayed in Figure 1. and incorporates the concepts of Lewin's model. The suggested model consists of structured sequential steps assisting an organization to increase efficiency of processes that bring measurable results. The success of change implemented is attributed to the analysis of need to change, power field examination, change project development and monitoring of its realization.

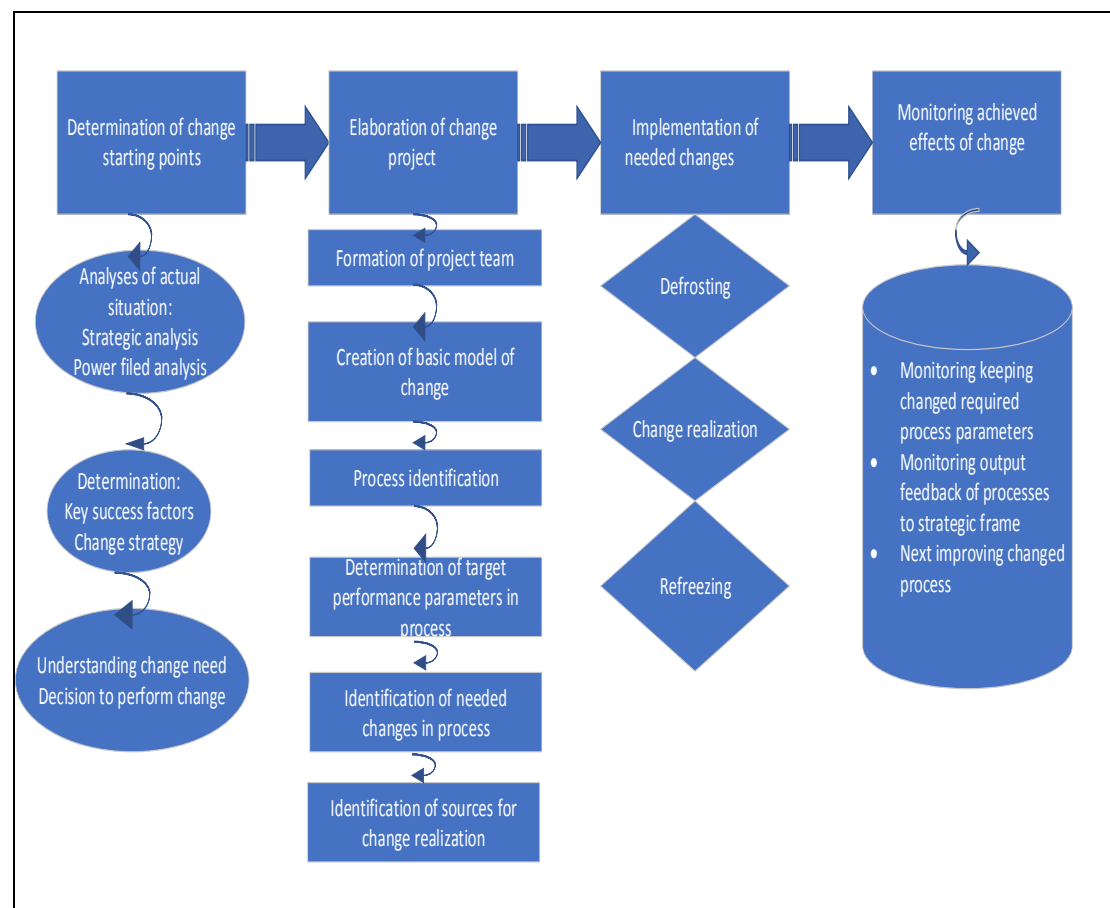


Figure 1 The Management Model of Strategic Change based on Process Principles

1.1.5 McKinsey 7S Framework

The McKinsey 7S Framework is a strategic planning tool developed by business consultants Robert Waterman and Tom Peters to assess and monitor changes in the internal state of an organization. In change types such as restructuring, new processes, acquisition, change of leadership it can be used to understand how the organizational

elements are interrelated and affect each other in the examined area. It composes of 7 elements of a company: Structure, Strategy, Skills, Staff, Style, Systems, and Shared values placing emphasis on human resources (Soft S) that impact the Structure Systems, and Shared values as a factor to achieve effectiveness in a company. Below in Figure 2 the McKinsey model is presented.

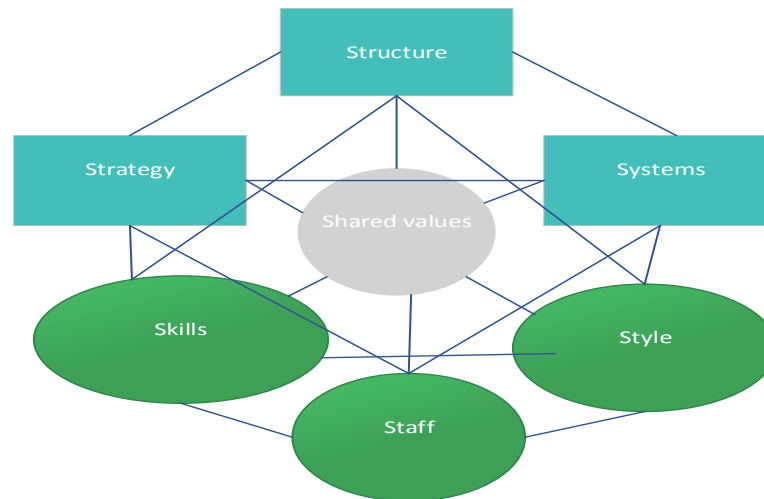


Figure 2 The McKinsey 7S Framework

1.5 Relation between Project and Change Management

Pollack (2017) argued that “*all projects involve an element of organizational change as the larger organization expands and contracts around an internal temporary project organization*”. The two disciplines of Change Management and Project Management share the same objective: to increase the possibility of Project success. The common of scope allows their integration in their separate fields of focus.

Horstein (2015) supports that “they both are complementary and mutually supportive disciplines that contribute to successful implementation of a wide variety of projects”.

Project Management methodology uses a highly structured approach to formulate a schedule and budget and strict specifications to control the outcome of the venture undertaken, whereas Change Management better qualifies in developing and communicating a vision, engaging leadership and stakeholders, ensuring strategic alignment and transforming the culture of an organization, in essence setting the scene for the adoption of the fabricated solution. The perspective on the one hand seems to be on the operational side for Project Management, and on the other hand for Change Management is perceived as strategic (Pollack, 2017).

It seems obvious that the focus of Project Management discipline is to the technical side, assisting in the product design, the development and effective project delivery by providing the processes and tools to realize it. Change Management is synergic by facilitating the human paragon so that the change is embraced and used by the employees who are shifting the way they work as a result of the project.

Change Management acts in a proactive way. It is used in front end of the process to articulate the need of the business objective, building awareness and commitment, allowing for stakeholder buy-in of change and thus mitigate risks by creating feedback mechanisms and minimizing resistance. Gordon and Pollack (2018) contrast the traditional approach of PM that project starts as soon as the business case has been approved and concluding with the product handover with the Change Management

processes that initiate with the identification of the need for change, the promotion of extensive support for the change and is continuing past the delivery of the solution to the operations, incorporating usage consideration, adoption, transition to business use, and assuring that transition is embraced by the totality of the organization.

Pollack (2017) noted that Change Management “*emphasizes in creating the conditions under which a change can occur*” it does not direct change, neither creates the change. For instance, she refers to a common Change Management technique, the change readiness survey that provides information of the organizational environment and the degree of acceptance of change in the organization. That can be used to reveal areas where disagreements might appear, areas of further need for communication and training, may assist in removing resistance and enhance engagement and support of stakeholders.

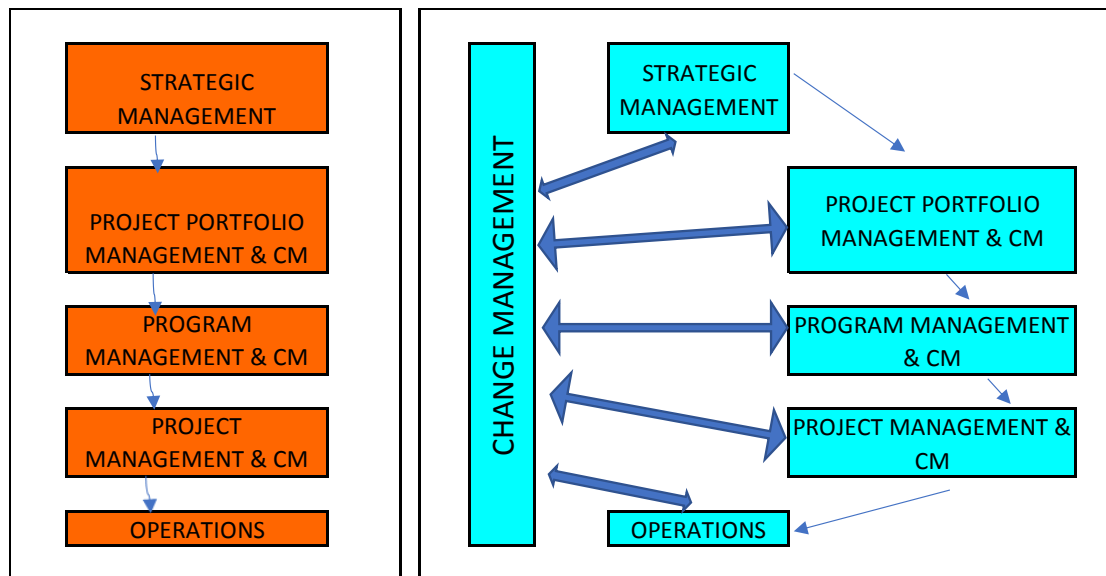


Figure 3 Models of the Relationship between Project Management and Change Management

Pollack (2017) developed two models of the relationship between Project Management and Change Management as presented in Figure 3. The first model displayed on the left presents a hierarchical transition from Strategic Management to Portfolio Management and the decisions and Change Management processes descent to lower levels until handed to Operations. This approach is in line with the framework introduced by PMI (OPM, 2013) to deliver change projects across the organization.

The second model, presented on the right, takes the hierarchical approach from Strategic Management through to Operations by having Change Management working alongside these functions to achieve common goals. Change Management receives directives from leadership and collaborates with them to formulate the vision for change, communicate the relative information, create a coalition and set the stage for change. Change Managers would cooperate with Project and Program delivery to communicate early wins and attract attention to the success. Working with operations creates certainty of change readiness, helps overcome resistance and empowers stakeholders embrace change. There needs to be a consent and involvement from the lower levels of the hierarchy up to senior management to establish communication and leadership support to ensure alignment to the change initiative incorporating Change Management specialists and Project Management practitioners.

Although Pollack & Algeo (2014) focus on the small amount of time that Change Management and Project Management approaches has been working together as a factor of misalignment between disciplines, and the lack of commonly accepted guidelines of how they should cooperate and integrate, PMI has taken some steps forward. It has issued two practice guides on “Managing Change in Organizations” in 2013, and in 2014 “Implementing Organizational Project Management” and has developed in 2018 “The Standard for Organizational Project Management”.

The PMI Standard for OPM defines Organizational project management as “*a framework used to align project, program, and portfolio management practices with organizational strategy and objectives, and customizing or fitting these practices within the organization’s context, situation, or structure*”. This definition provides the intent of PMI to form a context where the two disciplines can integrate at all levels of the Organization.

This is also conveyed by Aubry et al. (2007) in the definition of Organizational Project Management as “*a new sphere of management where dynamic structures in the firm are articulated as means to implement corporate objectives through projects in order to maximize value*”, where the dynamic and flexible approach of Change Management can be combined effectively under the Project Management structures to achieve the Organizational targets.

In PMI’s “How Successful Organizations Implement Change: Integrating Organizational Change Management and Project Management to Deliver Strategic Value”, it is argued that the definition of change management “*supports the approach of organizational project management (OPM) in which work is guided by the organization’s strategic goals and vision and, in turn, serves as the basis for portfolio, program, and project work along with operational activities. This OPM approach then emphasizes the overall benefits that will be delivered to promote business value*”. In essence Change Management practices are now appertained in the Project Management process methodology for developing and implementing solutions and strategic goals.

The practice guide “Managing Change in Organizations” (PMI, 2013) introduces a framework for applying Change Management to the organizational environment, the “Change Life Cycle Framework” shown in the Appendix A which describes the phases of Change Management and how it is applied to portfolio, program and project management. Sustainability of the initiative is realized by monitoring the strategy implementation throughout its lifecycle.

1.6 Managing Resistance to Change

According to PMI’s Pulse of the Profession In-Depth Report: Enabling Organizational Change Through Strategic Initiatives (2014), Projects initiate change. It is important to employ managers with the right set of capabilities to guide the change initiative and oversee that changes are in pace with business targets. The outcome of a change initiative is more than setting the processes and systems ready to deliver the change. It is connected with actions and aim to create an environment that can embrace the change and positively influence all stakeholders to adopt the change by the use of engaging executive sponsors to advocate change during the whole process of implementation. This statement emphasizes the importance of managerial skills in effective Change Management to overcome obstacles to change and importantly, resistance.

Zafar and Naveed, (2014) explain that the need to support the employees in the process of making transitions to overcome resistance is derived from the insecurity that the change in status quo brings and the fear of the unknown. They present a number of reasons for employee resistance. Inadequate communication about the Change resonance, the impact and the objective of the Change are identified as crucial ones adding to them lack in skills and knowledge how to cope with change that results from high complexity. Insufficient organizational guidance and reinforcement by sponsors and limited resources might also contribute to minimal attendance in the Change process.

Kanter (1985) discusses that the result of change may be perceived as a loss of power, control and a threat to a persons' position and give rise to concerns about future competence. Information and support from the Management is of crucial importance to dissolve the climate of resistive behavior, frustration and skepticism.

Lines et al. (2015) examined the behavioral aspects of resistance to change as manifested by certain acts and has categorized them as presented in Table 2.

Table 2 Types of Resistive Behavior

Type of resistive behavior	Definition of the resistive behavior
Reluctant compliance	Doing the minimum required, lack of enthousiam, guarded and doubtful
Delaying	Agreeing verbally but not following through, stalling, procrastinating
Lack of transparency	Hiding or withholding useful information during implementation
Restricting education	Avoiding or restricting the spread of the change message
Arguing and open criticism	Verbally opposing and /or finding fault with the change implementation
Obstructing & subverting	Openly sabotaging, blocking, undermining the change implementation
Spreading the negative word	Spreading negative oppinions and rumors, appealing to fear in resistance
Termination	Voluntary or involuntary removal from the project or organisation
Reversion	Changing back to traditional practices during the implementation
Misguided application	Changing the implementation beyond the stated process, goals, method
Forcing the change	Striving for perfection at expence of implementation efforts
External influence	Behavior in response to negative feedback from external sources

A useful tool to understand changes and the stages of how employees react in response and can support Leaders in this process is the Kubler Ross Change Curve shown in Figure 4. It is used by business leaders across the world to help their workforce adapt to change and move towards success.

The model was introduced by Elisabeth Kubler-Ross in her book published in 1969 called 'Death and Dying', consisting of the various levels or stages of emotions. The 5 stages included in this model are denial, anger, bargaining, depression and acceptance (Elrod and Tippett, 1999). The model can be validated in the business as every organization needs to undergo changes in policies and systems that have to be adhered by the employees as well. The endorsement of changes that are not supported and embraced by the staff then the stipulated benefits cannot be realized.

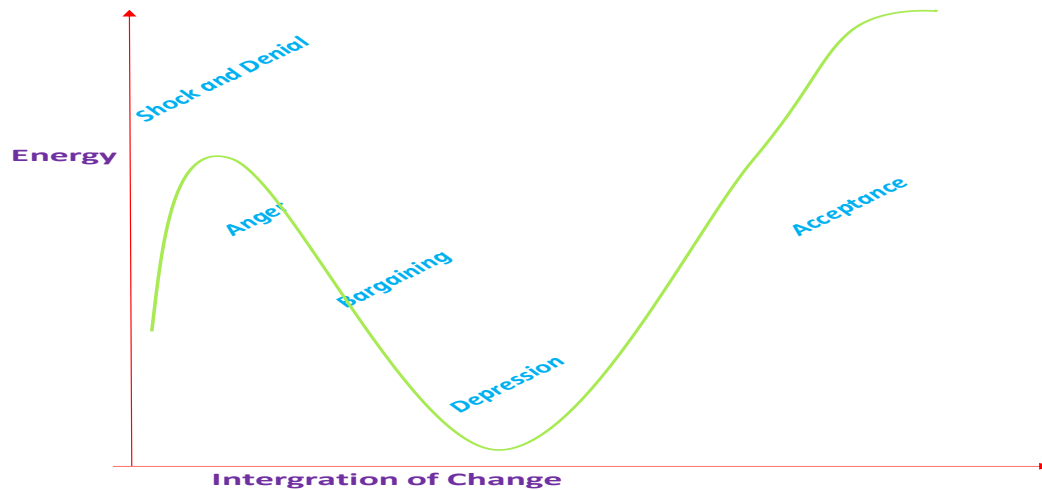


Figure 4 Kubler Ross Change Curve

The emotional stages are described below along with the behavioral pattern:

- **Denial:** In this stage a person is taken by surprise and shocked to learn about the change, is acting in defense and deny the reality that is happening. It may experience a loss in productivity and remain focused on the past and question the need for change.
- **Anger:** As time passes a person gradually understands the situation, become angry and tend to be frustrated and tempered. Moral tends to be low and emotions experience include anxiety and self-doubt to cope with change.
- **Bargaining:** During this stage a person may look for ways to delay confronting with change and try to negotiate to receive favorable compromise. Bargaining is a search for a different outcome and lessen the impact of change on the individual.
- **Depression:** In this stage negative emotions prevail such as indifference and lack of interest and motivation. Work may still be handled in the old fashion even if it is inappropriate.
- **Acceptance:** At this point as change integration proceeds people realize the inevitable of change and accept and work with it. They grow trust in the new situation and see themselves in the future, finally adapt to the change and productivity is rising again.

A variation to the Change Curve is the Transition Curve illustrated in Figure 5, introduced by Balogun (2001). Using the Transition curve to depict a gradual process in which individuals experience their capability to embrace change, Leaders of Change can understand how people deal with their personal transitions and design effective change strategies to support staff in adopting change and consequently increase moral and level of performance. The means to succeed that involve drawing of suitable communication plans, employ training material and coach employees into learning the new systems and behavioral styles to gradually quit the old habits, acquire new skills and comprehend the new culture and the way things are conducted in the future.

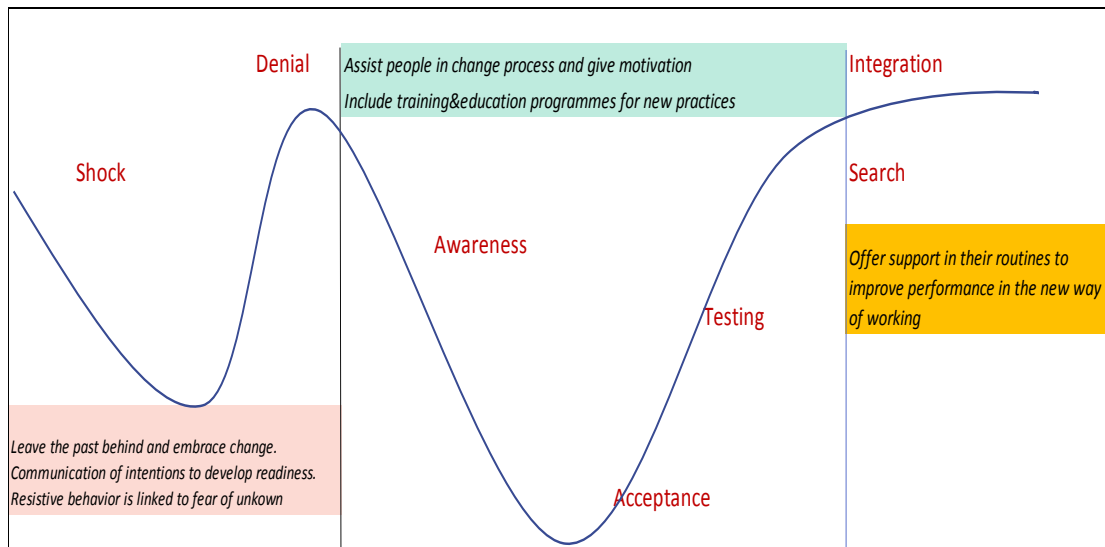


Figure 5 Transition Curve

Therefore, it can be deduced that employee resistance to Change due to lack of understanding of the vision and sufficient information of the initiative can be eliminated by engagement and communication strategies supported from competent Executives and direct Sponsors who can motivate and inspire the recipients of Change (Calem, 2016).

A possible threat to Change success may rise from middle management according to Balogun (2001) as they have significant contribution in the process. Their responsibilities consist of liaising with Sponsors in order to receive directives and understand the scope of change. They also need to undergo training and develop skills to promote their change transformation, so they are able to foster change in their teams. Additionally, they are acting as channels of communication and assist staff in the transition process in tandem with applying changes in their fields. She also stresses the importance of creating peer groups and building connections where they reveal experiences, how they are influenced by the events, offering encouragement during the process.

Lundy and Morin (2013) in their empirical study state that resistance to change is ever present as it affects the way a person perceives the world around him, and document employee worries on workload which establishes a connection to resistive behavior. The study presents a number of factors that contribute to decreasing resistance as shown in Table 3.

Table 3 Factors Decreasing Resistance to Change

<ul style="list-style-type: none"> • Clear communication/communication strategy, including presenting clear intentions/vision and set desired outcomes 	<ul style="list-style-type: none"> • A clear commitment from high management and clear leadership from proper people and leadership by example
<ul style="list-style-type: none"> • Supply of adequate resources, including appropriate human resources, time allocation, proper funding, and tools 	<ul style="list-style-type: none"> • Organized training, adapted to audience
<ul style="list-style-type: none"> • People seeing themselves as part of the solution, being clear about “what’s in it for them,” building a sense of ownership 	<ul style="list-style-type: none"> • A clear demonstration of the value of the change in terms of increased efficiency, effectiveness
<ul style="list-style-type: none"> • A change implementation strategy and good planning including change management techniques 	<ul style="list-style-type: none"> • A people management approach including psychological techniques and being empathetic to employees’ context and reality

1.7 Roles and Responsibilities

Ionescu et al. (2014) have identified five main functions that Managers and supervisors perform during change implementation:

1. **Communicators:** Employees prefer to be notified about Changes from their superiors as they are the most appropriate to inform them how they would be influenced by the Change
2. **Supporters:** Managers set the example of actively engaging in Change adoption, and their model is followed by the personnel who are in charge of.
3. **Trainers:** The close relationship between members of a team can held managers serve as mentors and support staff during their change effort.
4. **Mediators:** Managers often act as transmitters of information from the employees to the Change Team as feedback mechanism which assists in better design and implementation of the process.
5. **Managers of resistance:** Managers can diagnose resistance when it takes place and the rational for the occurrence, which they can handle with coaching and training.

In PMIs', Managing Change in Organizations (2013) the necessity of defining roles and responsibilities for key duties in the Change process is stressed as a paragon for introducing intelligent know-how, judgment and enhanced learning. Principal activities identified should be undertaken by the following players:

- **Governance board:** Provides high level guidance concerning the Change process and observes the benefit realization of Change initiatives.
- **Sponsor:** Is the main authority for resource mobilization and for keeping top level Management aware, motivated to take their part in the process and committed to Change initiatives. He clarified the scope of change and communicates the vision of the initiative as a successful outcome. His active and visible role ensures implementation and encouragement to diminish oppositions and threats and accelerating integration. By creating a coalition of support among high level Managers and all stakeholders he ensures that problems are resolved, and moral is kept high.
- **Leads:** This role is taken up by a number of actors in coordination of tasks and communication with the appropriate stakeholders. Change processes and the impact on the staff and systems is closely monitored and issues are consulted with sponsorship so that implementation is not hindered.
- **Integrators:** This role is served by Operational Managers as well as by the Organizations' Leadership or by other specialist and provide assurance that implementation is in line with business goals.
- **Agents:** They act as Change Champions and encourage other to embrace Change. The become change enablers and encourage integration in their domain.
- **Recipients:** They are subject to Change and it is necessary to be informed how change will affect them and should be involved in the process of Change and empowered to make their transition. Organizations engage in communications activities to assist recipients in facilitating changes and following implementation according to expectations.

Lines et al (2015) found that by establishing clear roles from the beginning of the Change initiative responsibilities are assigned to Organizational associates who become

accountable for the success of the implementation. Furthermore, observation showed that when employing Change agents Organizations were confronted with four times less resistance and confidence to cope with Change improved.

1.8 Change Competencies and the Role of Leadership

Crawford and Nahmias (2010) had studied the competencies required for effective Change Management and their finding are presented in Table 4. Although they argue that there are many similarities between Project Management capabilities the focus of Change Managers is mainly on communication for the commitment of participants in Change efforts into actively supporting implementation of business initiatives. The ability to create alliances and build networks to promote Change initiatives is another important qualification as Change reinforcement requires closely monitoring those impacted to ensure alignment.

Table 4 Competencies and Activities Required to Manage Changes

Competencies required	Change activities to be undertaken
Leadership	Changing behaviors and organisational culture to achieve goals
Stakeholder management	Preparation of users
Planning	Organisational structure
Team selection/development	Political diffusion
Communication	Impact Analysis
Decision making and problem solving	Selling the change
Cultural awareness /skills	Champion schemes
Project management skills	Involvement in process analysis work Training and education to affected staff

Hiatt and Creasy (2012) characterized Change competency as “*the infusion of a business culture that expects change and reacts with the understanding, perspectives, tools, and technique to make change seamless and effortless*”. In this case flexibility and responsiveness to environmental conditions has become the norm in a company’s Organizational Culture resulting from extensive Change Management activities.

Change competency has become a value and has been embedded in the Culture through all levels of staff and Management, as they had developed skills to support it. Therefore, creating a change ready organization requires Leadership that can influence the organization to follow the vision of its strategy.

Change projects consist a challenge to Leadership. Kotter (2011) differentiates between Change Management and Change Leadership. He defines the first as a methodology with the aid of tools to coordinate and control a Change initiative and eliminate diversion from goals, whereas Change Leadership is related with Strategy and Vision that alternates an Organization. He discusses that the role of Leadership is concerned with inspiring people across the organization to collaborate into realization of the Change effort and “make the bigger leap towards the opportunity that comes fast”.

The ICB Standard (IPMA, 2015) codifies the qualities of Leadership as most important in project lifecycle and foremost in introducing Change initiatives into the Organization. Leadership is in the position to formulate opinions and influence perceptions because of the power that can be exerted and the ability to motivate and

direct people into action. By taking ownership and showing commitment to the goals is serving as an example to lead other to buy-in the new norm. Leadership is responsible for determining the Strategy of the Organization and set the new standards and processes that are included in the Culture and Values.

Saladis (2017) in “How Successful Organizations Implement Change” examines Leadership factors that promote transformational success. He underlines the quality of systems thinking as essential to conceptualize and let people understand how each part operates and contributes to efficiency to remain competitive. Leading change requires novelty thinking and inspiring individuals to embrace improvement initiatives. An emotional intelligent leader acknowledges the distress that a Change may impose on individuals and patiently works to support people and gain their trust to follow the organizational objectives rather than their own. As a good communicator highlights the objective for change and clearly articulates how beneficial it is to realize. By keeping a positive attitude and providing regular information updates he sets the priority and contact is creating a high moral and commitment.

1.9 The Next Step

Successful initiatives require more than powerful and engaging Leadership. Transformational efforts necessitate an enforcement mechanism to assist the implementation phase. A PMO that is assigned this task can be entrusted to deliver the goals of the organizational strategies skillfully and avoid overspending of time and resources.

2. THE PMO

2.1 Introduction

Hill (2004) through his study of PMO evolution of competencies has commented that “many organizations today have recognized the need for a Project management office (PMO) to achieve project management oversight, control, and support. The PMO’s role is to help both the project manager and the relevant organization partly to understand and apply modern project management practices and also to adapt and integrate business interests into the organization’s project management efforts”.

Before examining PMO literature it is essential to clarify first the term and comprehend the importance of Project Management.

The PMI PMBOK Guide (2017) defines Project Management as “the application of knowledge, skill, tools and techniques to project activities to meet the project requirements. Project management is accomplished through the appropriate application and integration of the project management processes identified for the project. Project Management enables the organizations to execute projects effectively and efficiently.”

Another advantage identified is that it links effective and efficient project delivery with strategic competencies because it permits organizational continuity. Additionally, when project outcomes respond to business objectives, it is supportive for the organizations’ competitive position and promotes agility to environmental factors that lead to changes in business planning. The guide also acknowledges the vital role of projects in value creation in a fast pace changing environment driven by technology and competitive economic conditions. In Figure 6 a list of benefits relished by Organizations that make Project Management a core competency in project delivery is presented.



Figure 6 Project Management Benefits (adopted from PMI)

2.2 PMO Literature Review

The PMI PMBOK Guide (2017), published by the leading association of professionals in Project Management, provides a definition of the PMO as follows: “project management office (PMO) is an organizational structure that standardizes the project-related governance processes and facilitates the sharing of resources, methodologies, tools and techniques. The responsibilities of a PMO can range from providing project management support functions to the direct management of one or more projects”. The Guide presents three types of PMO scaled by the influence exerted as a project facilitator up to assisting the Organization in decision making:

- The Supportive type has a consultative role and may act as project repository. It provides templates, training, information and advice on best practices
- The Controlling type assures compliance to governance frameworks, project management methodology and the use of specialized tools and forms
- The Directive type has control over the management of projects and the monitoring and reporting of activities are administered by personnel under its command.

According to PMI PMBOK, PMO responsibilities are related mainly to the coordination of communication and resource assignment, monitoring of work as dictated by procedures and corporate policies and assisting in the training according to standards and methodologies. Depending on the level it is positioned it may be involved in strategic projects and ensure they are developed in agreement with the Organizations' targets.

The significance of PMO in project management is well documented in the literature as it most importantly enables strategic alignment with Organizational objectives, and therefore many PMO types have been introduced with distinct functions.

Hill (2004) describes five phases in PMO transformations according to competences accomplished conditional upon the 20 operated functionalities. These competencies are indicative of the degree of PMO maturity in project management, its duties and obligations, ranging to the highest capability level to suit as a tool in PMO implementation and are summarized in Figure 7.

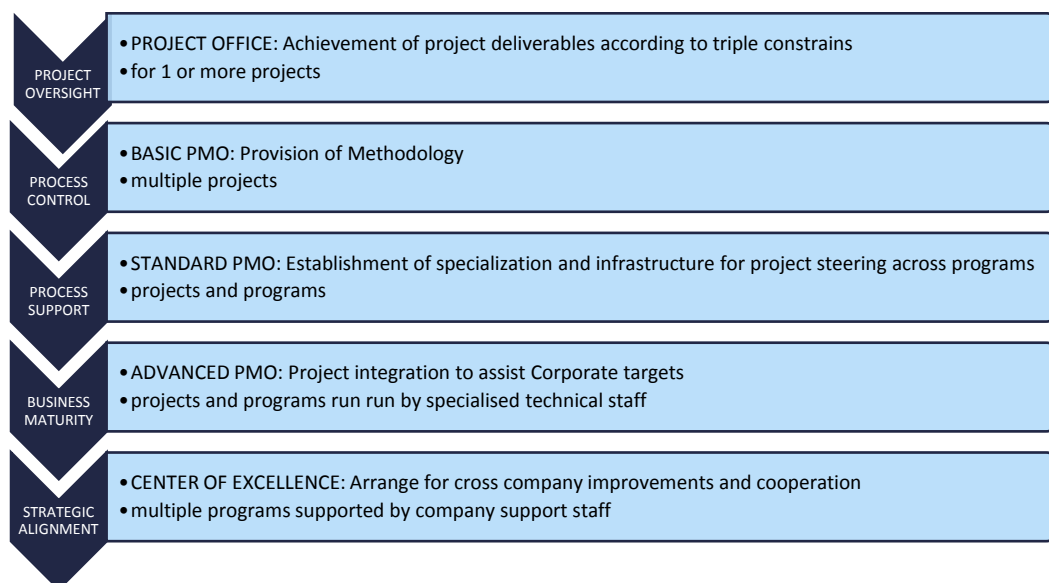


Figure 7 PMO Capabilities of Competency Continuum for each PMO Stage (adopted from Hill, 2004)

Hill (2004) also explains that as an Organization advances in project management performance it moves to a higher level of PMO structure provided that it has adequately fulfilled the functions in the previous stage. A list with PMO functions is shown in Figure 8. The first category is the best practices management followed by the second, the provision of infrastructure. The third is related with the integration of resources and the fourth is the methodological support, which includes assistance in the project planning, conducting audits, and recovery of projects. The fifth category relates to development support for the business.

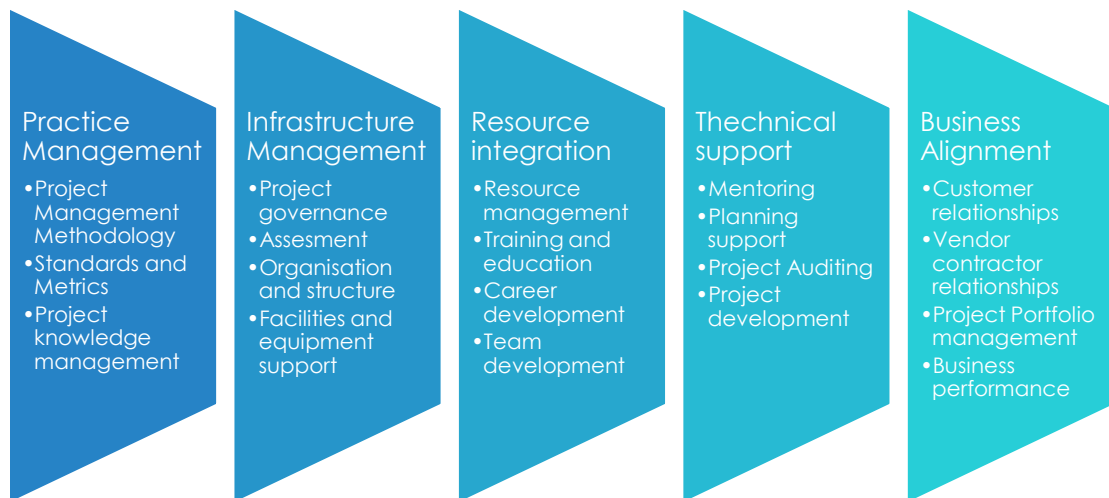


Figure 8 The 20 PMO Functions (adopted from Hill, 2004)

Aubry et al. (2008) have researched four organizations and observed how the PMO has unfolded through organizational changes that resulted in its reestablishment that redefined its role. They note that changes in the industrial environment become determinants in business strategies that induce transformations in business patterns in the managing of projects. This provides a justification on the need of frequent PMO restructurings that support the reasoning that lead to PMO “creative destruction process” as dynamic formations of innovation. PMO as a political setup may be subject to strains as the organization evolves abolishing functions that are no longer instrumental to the new era while crafting new ones that help in dissolving complexity and endorse “new ways of doing things”. Each organization in the research experiences at least two to five PMO types, with periods with relative stability spanning a decade to a rapid change of a rhythm of three to four transformations per decade.

Monteiro et al. (2016) have noticed that “Many organizations implement projects that are not managed according to a formal project management methodology and instead apply ad-hoc processes with weak outcomes. Seeking to solve this problem, in recent years new structures have emerged in some organizations, such as the Project Management Office, in order to improve project execution and avoid wasting resources”. They have examined several of the existing PMO models found in the literature and presented a review of the typologies. Their research analyzed twelve studies and found 47 PMO Models some of them sharing the same name. The PMO models as suggested by the authors, were ranked according to frequency of appearing in the studies where the “Enterprise PMO”, “PMCoE (Project Management Center of Excellence)”, “Project Office”, and “Project Support Office” being the most ordinary encountered. All studies identify three to five typologies, but PMO structures, the level positioned in the hierarchy in organizations, and the role they fulfil (strategic, tacit, or operational) have considerable variations affecting their power, acceptance and decision-making authority.

The study of Bredillet et al. (2018) is an attempt to provide an answer as to why and how PMO change, departing from the realization of many studies that view changes in PMO as a failure to create value. They outline this phenomenon as lacking theoretical foundations to explain PMO ability to change and adapt to the organizational contexts that is influenced by and in turn has an effect on by the creation of artifacts (rules,

records and procedures). They created a conceptual framework based on structural realism to uncover relations between the subjects participating in the construction of routines (the PMO and Project Portfolio Management PFM) using mathematical methods and organizational becoming assumptions as ontological approaches to theorize the process related and iterative nature of change taking an epistemological viewpoint.

Their research perspective is based on six case studies of two project-based organizations based in Iran where structural analysis is applied on individuals, processes and structures to unveil the influential relationship on organizational routines system. They found a significant influence of the organizational context on the routines that drive changes in the status of the PMO as an establishment and the PFM as organizational capability that illustrates the reason underlying their co-transformations in response to corporate direction producing particular states of routines elements (influential, non-influential, mediating and dependent) which provide an alternative scheme to the PMO typologies, by focusing on the changing nature and interactive relation of PMO and PFM that co-evolve and generate new motifs of adaptations.

Aubry et al. (2007) are seeking to develop a theoretical framework to satisfy the research question that deals with comprehending the PMO and its contribution to organizational performance. They observed that strategic needs in organizations are translated in a structural transformation to serve portfolios and program management and the development of Project Management Maturity and capabilities. They reject the logic that resonates PMO development to assist with project complexity as they identified 75 functions in the literature that PMO centralization can leverage. On top of that the issue of performance is subject to many views that they distinguish in economic and pragmatic. The economic is linked with the index ROI but fails to acknowledge the beneficial aspects of PMO such as organizational innovation on the human factor and processes. The pragmatic uses methods as the balanced scorecard that its fundamentals lay on ROI and success factors which are introduced by empirical evidence. The conceptual framework that they propose accounts for the historical context that PMO develops and the co-evolution within the social system of an organization. They visualize PMO as a network structure based on its position, action and knowledge and as an actor network (ANT) that process information and integrates it within all organizational levels. Based on the competing values approach (the rational goals, human resources, internal process and open system) their premise allows for a multiple factor variable to appreciate performance.

Szalaya et al. (2017) presented a new framework for analyzing PMO based on the uniqueness of its characteristics and functions it performs as it is embedded in a specific organizational context that also has to be accounted for in the analysis. The services offered play a key role in the study of the performance along with the processes it manages and the impact they have on risk and quality on the project administration. Another aspect of investigation is the typology applied as the absence of standard allows for variations in structure and the maturity level of the PMO with a dual task, acting both as organizational objective and as link with best practices and current innovations to boost performance.

Blažević et al. (2014) have as trailhead in their study to test the common belief that investments in PMO implementation have an influence in project and program success. The objective of their research in 24 Croatian companies that have a PMO structure, is to increase understanding of the PMO characteristics and functions and to disclose

regional PMO management practices. The main query was whether PMO governance has the total control in project lifecycle and the extent that it accommodates strategic management in its processes. The outcomes of the study confirm the growing importance in PMO establishments especially in IT, telecom and finance services that apply strategic planning and program and portfolio management practices in projects. Their staff is trained according to modern practices and use the established project management methodology within the direction of the PMO that has a potent communication with the companies' governance.

Aubry (2015) by her empirical study of 184 PMO changes is focusing on the controlling and supportive function of the PMO in relation to the result of PMO transformations on business and project management performance and maturity. The study claims that conditions that hub PMO changes are regulated by the organizational environment measured by 4 variables (such as Change Management, maturity, size and organizational support culture) and by service functions fulfilled by the PMO that affect performance. The study supports that external events have a significant impact as agents for change and as motivation in performance advances, whereas six variables (new vision and/or new strategy, increased workload, project accountability, PMO cost, lack of standardization, collaboration) were not found to provide an explanation to the relationship with the moderators and the suggested outcome of performance and maturity. The model premises that control and support roles can coexist, but results proved that if increasing the PMO's supportive role may have a positive impact on performance, whereas in contrast, increasing the PMO's control has an adverse effect on performance.

The study by Dai and Wells (2004) presented the results of an empirical research concerning the institutionalization and operation of PMOs and their context. Six functions were isolated (Project Management standards utilization, archiving, provision of administrative support, training, staffing and consulting) and their impact was appraised relatively to project performance. Additionally, they developed a number of values to measure project and organizational performance.

Their study used a random sample of 113 responses and 96 targeted, that indicated that motivation to adopt PMO is high in both categories. Examination of the survey outcome exhibits that project standards and methods show a closer connection to performance in both categories followed by the use of historical archives. It also appears to be a strong tendency towards integrating a PMO in the organizational structure and using PM standards and practices even in the absence of PMO.

Pansini and Terzieva (2013) investigated the importance and role of the PMO for an organization by conducting a survey in a sample of six Italian banks. They introduced three categories of PMO: Basic, Intermediate and Advanced, that can coexist, and they also acknowledge organizational culture as a means to override barriers to innovation. Mostly used functions of PMOs surveyed underlying that Project Portfolio Management is a core reason for PMO implementation with Communication Management only second confirming that PMO serves as a coordination tool.

Results showed that PMO implementation is rather low and practices are not strictly followed owing to the lack of training in PM, due to hesitations of the established organizations' Management to introduce changes both as a cultural stance and due to lack of confidence in the perceived benefits. Hence, they have produced a catalogue of the advantages in investing in a PMO as shown in Figure 9 below.

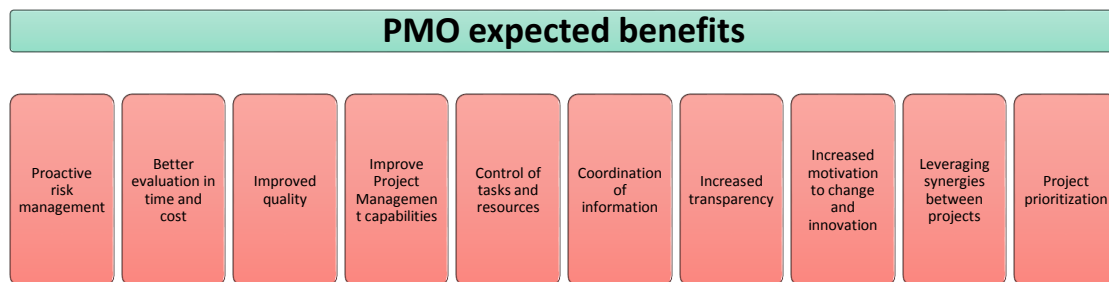


Figure 9 PMO Expected Benefits (adopted from Pansini and Terzieva, (2013))

The research conducted by Widforss and Rosqvist (2015) is based on a survey of ten PMO directors in Sweden mainly from banking, construction and automotive sectors in order to comprehend how PMOs deal with complexity. Firstly, the authors defined complexity in projects based on IPMA criteria and grades of complexity (adopting all three aspects of complexity; the environmental, content and resource) and asked the directors about the type of complexity they encountered including ways how they managed it. The respondents stressed the need to apply soft skills and coaching from experienced personnel or consultants. Results are paralleled with the attempts of PMO specialists at a Swedish University that are serving as researchers and use project management methodologies to manage large funded projects. They concluded that researchers can benefit from the advice of professionals' experience and communication tools and that the classic project management tools and templates are less helpful in particular situations that portfolios of complex projects face.

Aubry et al. (2010) have created a framework to capture the process of frequent PMO changes, understand their patterns and the reason for the short life span in 17 case studies. They came to the realization that transformations in PMOs status is a direct outcome of the organization's internal or external environment. Assuming the PMO structure as an innovation based on the Schumpeter's theory of creative destruction process the PMO constantly creates and manages routines that become part of the organization that formulate its culture, in essence the PMO acts as a change agent sharing and increasing knowledge transfer. As a social innovation system, the organization interacts with the PMO and they coevolve defying the PMO environmental context, its characteristics and functions that performs. They claim that *"Changes to PMOs are both caused by political forces and shape a new political environment. Tensions within the organization play an important role in determining the path that an organization's development will follow. In turn, each new structural arrangement realigns the power structure and creates new tensions. The investigation of the creation or restructuring of PMOs will need to integrate the political dimension of organizational change"*. The framework begins with the definition of the PMO role, being subject to environmental influences that become integral part of its change. As soon as transformation is embedded in the system a new PMO model is created and therefore conditions become drivers so that new consequences can emerge.

They also identified 6 types of drivers of change differentiated between Internal (Project Management process, human relations, Performance issues) and External (internal, external factors and organizational context issues) and observed three patterns. The first comes from the alteration from being standards observing function shifting to a standards provider thus transforming from a controller to an adviser. In the second they noticed a tendency to expand when the economic conditions allow for investments and contract when faced with adverse economic conditions. The third pattern is connected with the delivery process. In cases where market competition calls

for a shorter project lifecycle, agile methods tend to be used and that shapes the PMO characteristics.

Pellegrinelli and Garagna (2007) introduced the notion of PMO “*as an agent and subject of change or renewal*”. The PMO is an organizational creation that is formulated based on the business needs. As soon as the need is fulfilled, or as they put it “*emptying of value to the rest of the organization*” the PMO worth is doubted, leading to either its disbandment or to upgrading its services and activities.

They assume that PMOs’ value is linked to influence and authority and they list a few examples: “*supervising funding submission; ensuring mandated processes are followed; collating, summarising and reporting on the progress and status of projects and programmes, and by extracting synergies: e.g. leveraging economies of scale and scope (e.g. deployment of specialist skills, shared tools); transferring knowledge; facilitating re-use (e.g. templates, software modules, development protocols)*”. The establishment of a PMO may lead to tensions as some degree of control is transferred to its premises and taken away from sponsors and project managers causing frustration and pressure for its abolishment. Organizational change brings focus to project and programme management in promoting new roles and competencies in the organization thus provoking the re-establishment of a PMO. Complexity that is inherent in projects and programmes undertaken by the affected organization makes PMO establishment indispensable to assure the sophistication of practices. An initiative to implement a new strategy may also require the expertise of a PMO to direct resources and monitor development progress.

The study by Viglioni et al. (2016) introduces a framework tested in a Brazilian IT public sector organization, in order to define a performance evaluation scheme aiming to measure how could the PMO handle the stakeholder’s concerns and assist the strategy implementation. This performance evaluation model is based on a multicriteria approach of 79 indicators categorized by 17 criteria (FPV-Fundamental Point of View) selected on the basis of the Competing Values Framework as an evaluating mechanism. The duties of a PMO are formed in line to the strategic objectives of the organization conforming to the expectations of the management and the project managers. The results illustrate the strengths and weaknesses of the performance of the PMO and are prioritized according to the views of the stakeholders involved. The PMO team favored the human aspects, in contrast to the management’s preference for economic goals according to a performance evaluation chart that was produced to help the organization map out its strategy for improving PMO performance.

Paton S. & Andrew B., (2019) are examining the role of the PMO from another perspective building in the study of Artto et al. (2011) of the initial lifecycle stages of innovation projects. Their focus is on the product lifecycle stages management when an interphase gap exists as the project moves into a new stage. They examine the case of a company from the defence industry where, as typically practiced there is a time lapse between the preparation of the bid to undertake a project to the award of the contract and the start of the delivery stage.

The contribution of the PMO is higher when participating in the bid evaluation spanning to the coordination of the human resource and information related to the bidding to assist the delivery, especially in an PBO that undertakes portfolio of projects. Eventually these augmented responsibilities upgrade its role as a tool in strategy implementation and upgrade the PMO in the level it takes in the hierarchy and expand the functions it performs. The advantages they list when the PMO assumes responsibility for the bid

and handles the delivery stages, mainly concern the avoidance of costs of reworks and re-planning, consistency in the use of tools and methodology in all stages of lifecycle management and thus more efficient control. Additionally, when PMO is handling bids it is building a capacity that promotes knowledge management especially when information has to be available to all personnel working on the project development regardless of the phase they were employed, as well as by serving as an asset to be reused across operations.

Mariusz (2014) is researching how PMO models function by studying the cases of four companies from different industries. He provides details of the adopted model that is developed to suit each organizational need. A comparative analysis is achieved by focusing on the advantages and disadvantages that each solution represents.

The first case is an e-commerce company that has adopted the form of a Project Support Office and the standard PMO model in its operations. The PSO is concerned with the application of methodological standards to make project proposals eligible to be selected for implementation whereas the PMO is mainly occupied with portfolio management.

This structure serves as a preparation of projects by the PSO that are later implemented by the PMO which is also playing the role of a knowledge sharing unit that cultivates a project culture in the organization. In the event of delays in a project progressing by the PSO this solution is presented with the disadvantage of implementation problems in the PMO, in the flow of the project and the communication between the units, that calls for more precision in the way the units cooperate.

The second case is an example of a company operating in the form of outsourcing services. The model used here is the PMO and the PMO of Program. The PMO is handling the customers' project portfolio. It also coordinates resources, develops standards and disseminates knowledge. PMO of Program directs program managers in the realization of individual projects and groups of projects.

This distinction of the PMO functions helps in better tactical support on behalf of the PMO and in operational support from the PMO of program. The PMO also has the supervision on PMO of the Program and undertakes the training for all staff and project managers. Thus, distinguishing between functions may lead to capability issues and require clear definitions of authorities and duties between functions. The PMO of the program needs highly skilled staff of significant expertise to coordinate complex projects and manage their teams.

The third case is a company that belongs to electrical engineering infrastructure. The structure of Strategic PMO adopted here is related to the strategic role of projects undertaken. Another establishment is the Operational Programs Office, which are temporary and instrumental in assisting project managers in administrative issues.

The weakness in this dual motif is that staff that are occupied with the operations are not participating in development of projects and may give rise to clashes between people with power in these divisions. Another issue is the lack of education and training initiated by these institutions.

The last case is a company from the manufacturing industry that has adopted the PMO function to coordinate resources between projects in portfolios. The Program office serves as an administrative arm in the support of programs. Large important projects belonging to portfolios may be run by specially installed projects offices.

Merits of this solution include higher efficiency and benefits from close cooperation of managing projects in portfolio and in special units to support programs and specific projects to suit the needs of complex technical issues. This model presented in the table, has some shortcomings concerning the specialization of the functions mainly on administration and technical features with limited focus on training that capacitates the formation of a project-oriented mentality and continuously reviews and develops standards.

Artto et al (2011) have based their research on literature connected with the notion of ‘*management control*’ that supports the need for an array of skills to manage and organize business establishments that require soft leadership and governance styles such as bottom–up mechanisms. They stress its necessity as a strategic perspective at the front end of innovation procedure to ensure feasibility of implementation of original concepts as well as enabling synergies and cooperation between departments. For this to succeed they advise the application of matrix structure that introduces the use of “*facilitators, innovation groups, innovation processes and/or idea management and innovation software systems*”. In this sense PMOs are viewed with an enlargement of scope as an “*integrative arrangement*” that incorporates the concepts of management control, organization design and front-end processes complementing regular tasks.

They have also described different integrative organizational arrangements that exemplify how executives manage the front end of multiple innovation Projects by means of distinction between assigning tasks and designing the flow of processes, roles, goals and incentives (behavioral management). These can be demonstrated in Figure 10 below that shows four types of Management control systems and control mechanisms that serve as organizational arrangements.

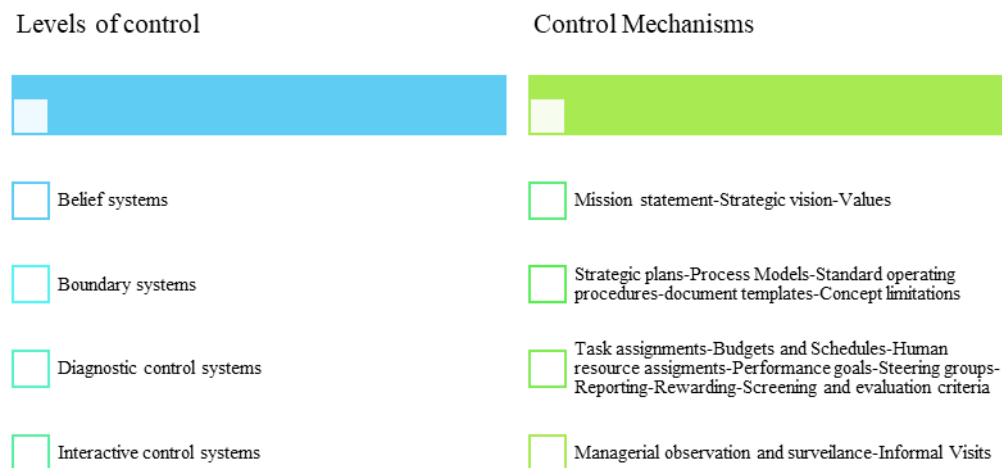


Figure 10 Management Control Systems and Control Mechanisms that Serve as Organizational Arrangements (adopted from Artto et al (2011))

This study used empirical evidence from sample Companies belonging to the Broadcasting, Forestry, Communications services, Gaming and lottery industry. Findings confirm that different organizational arrangements exist even though the lack official PMO establishment that apply the part-time scheme in a matrix setting utilizing “*coaches, facilitators, groups, boards, innovation strategy, innovation process, coordinators for strategy and process implementation, idea management software systems, idea campaigns, specialized task forces for supporting executives and the staff are challenge-driven idea generation processes*” to name a few.

Pemsel and Wiewiora s' (2013) research objectives provide justification to PMOs' attributes as *“a knowledge broker, that is, if the PBO understands and supports PMs' learning and knowledge sharing processes”*.

Their research suggests that by focusing on PMO's functions and examining the viewpoint these are in connection with the knowledge sharing needs of Project practitioners. The sample is composed of 7 Companies, Swedish and Australian and subsidiary PBOs. The results indicated that PMOs' KS functions and PM's KS needs of the PMO were identical and bind with the sections of: 1) acting as repository for LL, 2) involved in KS, 3) being responsible for training, 4) engaging in formal and informal social networks, 5) being occupied with control quality assurance, 6) involving in the application of project standards and procedures. Research also shown that the practitioners were *“protective and preferred to rely on experiences instead of engaging in knowledge sharing activities”*. Therefore they proposed in order to provoke a shift in behavior that KS would be better introduced by management strategies in order to promote adoption.

3. PMO IMPLEMENTATION

3.1 Introduction

The PMI white paper (2014) “The Project Management Office: Aligning Strategy & Implementation” claims that success in organizations is depended upon strategic choices of projects and programs. The establishment of a Project Management Office (PMO) is instrumental in this aspect as it creates the link “*between high-level strategic vision and in-the-trenches implementation*”. To fulfil that goal, PMO focuses on the selection of the right projects to invest and assures that those are properly executed and delivered.

Adding to that the Economist Intelligence Unit report (2013) outlined that projects which received backing from the C-Suite were successfully implemented and gained extensive commitment and buy-in.

Hogan (2010) supports that the PMO is not directly related with strategy if it’s merely occupied with “*tactical*” project management operations because strategic plans are drawn by Senior Management. He infers that “*creating change is the driver for this link. Without change, a company cannot move along its strategic plan that is typically encapsulated by the mission and vision. The mission is the reason the company exists now, but the vision is the reason why the company will exist in the future.*” In the case that the instructed change consists of project management adoption through the introduction of a PMO in an organization it is imperative for the Leadership team to acquire ownership of the introduced change to be acknowledged as strategic.

In the following section this study will present models of Project implementation and present a roadmap for change management initiatives to secure that the PMO introduction project is well embedded in company operations.

3.2 Implementation Roadmap

There are many variations in the literature that propose a roadmap into putting a PMO into effect. Amer & Elayoty (2018) suggest that it is mostly preferred to take gradual approach when implementing a PMO that runs a small selection of projects and the pace is accelerated as soon as the organization gets more educated on the way projects are conducted. Specific parameters are chosen on project selection on which the PMO would get in the final steps its value assessed.

They strongly advice to start the procedure with analyzing the KPI for projects concerned and to the depth for each party involved (strategic importance etc.). The KPIs are then classified according to the perspective of management level, the performed function and a number of factors are accounted for in case of adverse project results that include:

- Project category significance and clientele significance
- KPI value, accounting for time lags, costs and scope creep
- Economic criteria such as project cost, project earnings, amounts paid due to fines
- Client records concerning cooperation and agreements
- Project phase

They stress that it is also crucial to define the communication flows between the PMO and other company departments and the timing of information feedback it gives. The framework of actions and responsibilities during the projects phases is also important to define early along with the tools to disseminate information, reports and debriefing.

They make a point by underlying as final step in PMO implementation the inauguration. The Launching event can take place as an official opening date in the commencement of service which will acknowledge the importance of this management institution and its embedding in the organization. This acts as a new culture manifestation of how to deal with projects, enriching operations with experts on Project tools and processes and training all the PMs in departments when facing a challenging task.

Wright (2012) describes a comprehensive roadmap for the creation of a PMO that is presented in Figure 11. He introduces a streamline approach to guide the practitioner from the present state through a list of domains that help outline how the implementation would be realized in the scheduled timeline to reach the future state.

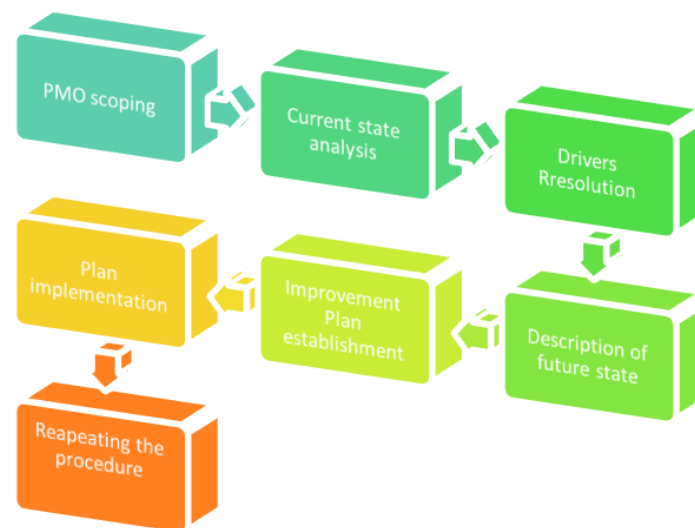


Figure 11 PMO Implementation Roadmap (adopted from Wright (2012))

The domains can assist in selecting the activities to introduce the improvements. A list of the domains is presented below in Figure 12.



Figure 12 PMO Sample Domains (adopted from Wright (2012))

The planning of activities includes the establishing a number of milestones, to account for short term goals (and deliverables), mid-term goals, and long terms goals. The

roadmap can be visually presented in a form of a template that is presented in the Appendix and it reports for each domain the previous state and depicts through the timeline of undertaken activities during the periods under examination the achievements in the future state. Merla (2005) proposed a model to deliver a PMO in thirty days based on the seven success factors listed in the Figure 13 shown below, that would drive successful implementation.

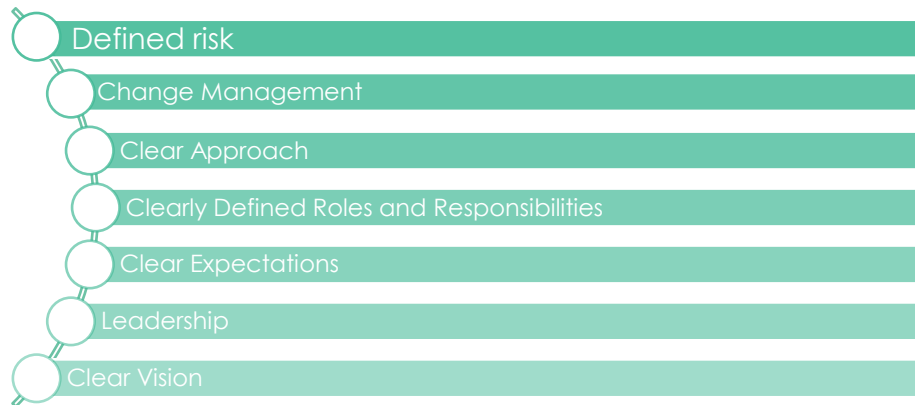


Figure 13 Factors for Assessing Organization Readiness for a PMO Implementation

These factors consist the basis for discussions to evaluate the readiness of the organization in order to schedule a PMO implementation plan that can be achieved in 30 days, provided that key stakeholders have agreed and settled on the previously mentioned seven issues before the launching. In Table 5 Merla presents how such a venture can be successful in a four-week timeframe.

Table 5 High Level 30 Day Plan (adopted from Merla, (2005))

	PMO INSTALLATION ACTIVITIES	Timing
1	PROJECT MANAGEMENT	
	DEFINE VISION-SCOPE-PREPARATION OF PROJECT PLAN	Week 1
2	PORTFOLIO GOVERNANCE	
	Governance committee processes-prioritization processes-Change management processes	Week 2
	Project Dashboard Reporting-Project review process and other Reports	Week 3
	Establishment of Governance Committee	Week 4
3	METHODOLOGY AND STANDARDS	
	Status reporting-Project Deliverables management processes	Week 2
	Project initiation processes-Estimation processes-Project plan templates-Project Milestone standards-Scope and Change	Week 2
4	RESOURCE MANAGEMENT	
	Time & Resource Forecasting	Week 3
	Resource Management process	Week 4
5	TRAINING AND MENTORING	
	Enterprise and Project tools and processes-Time& Resource Forecasting	Week 4
6	IMPLEMENTATION	
	Enterprise and Project tools and processes	Week 4

Rittenhouse (2014) affirms the importance of applying Change Management concepts in the process of planning and implementing a PMO as a project. When combining Project Management processes with Change Management approach, the CM initiative to introduce a PMO transforms this project as a matter of interest to all company stakeholders upgrading its importance and value for the whole organization and bringing to a focal point the perceived PMO value as a mechanism that advocates organizational reform and enhancement. Change Management is the tool that orchestrates and arranges that the PMO's goal is achievable in accordance to stakeholders' needs. She also supports that *“PMOs are often established to provide the venue for executing changes (structured as projects and programs) to support these adaptations within the organization”*.

Rittenhouse recommends a plan to align all company functions with PMO standards in order to gain acceptance of this new establishment and buy-in from the wider organization subject to the change. The plan is based on Change Management strategies abiding with the form a project is structured according to Project Management stages and methodology.

These change stages are paralleled to adjust to the Project life cycle of establishing a PMO and Project Management Governance. The implementation roadmap that results it is including the procedures and outputs that follow the PMBOK Guide. Table 6 presents details of the two methodologies that match while offering guidelines for the activities taking place in each one.

Table 6 Integration between Change Stages and Project Phases, (adopted from Rittenhouse (2014))

Change Stage	Project Phase	Guidelines
Formulate the change	Initiating Phase	Identify and clarify the need for change, assess readiness for change and delineate the scope of change
Planning the change	Planning Phase	Define the change approach, plan stakeholder engagement as well as transition and integration
Implementing the change	Executing Phase	Prepare the organization for the change, mobilize the stakeholders and deliver project outputs
Managing the change transition	Monitoring and Controlling Phase	Transition the project outputs into business operations, measure the adoption rate and the change outcomes and benefits, adjust the plan to address discrepancies
Sustaining the change	Monitoring and Controlling or Initiation Phase as needed as adjustments identified	Sustain the change on an ongoing basis through communication, consultation, and representation of the stakeholders; conduct sense-making activities, and measure benefits realization.

In the first stage “*Identify the Change*” Rittenhouse (2014) underlines the importance of scoping the change project which is a common goal for the Project Manager and the Sponsor of the project. During that stage the business documents that should be produced are the Business Case for Action, the Project Charter and high-level estimations for the duration and work.

The Business Case for Action is a document for the planning of the Project and an opportunity to meet with and draw Senior Management’s attention to the Change initiative and create a momentum for a “Powerful Coalition” and a “sense of urgency” according to Kotter’s accelerators for change.

Rittenhouse highlights the Initial Gap Analysis as an important documentation when inquiring about the present state. This includes consultations with stakeholders, examination of past documentation and established procedures. The outcome of this examination is an evaluation of the change readiness of the organization and a gap analysis concerning the scope of change. Receiving the approval and active engagement from the Senior Management is vital to the success of the project (Kotter’s “Create a Vision for Change”).

The Project Charter should portray the concerns of the organization that the PMO would support relatively to the goals set and incorporate the relationships, the established communication connection flows with the executives and the rest of the organization and its vision and mission.

Rittenhouse also stresses the significance of this stage in the event that the responsible Project Manager is outsourced. This stage creates the opportunity to meet with the main stakeholders, instruct them about the Plan and familiarize them with the prospect of Change that would affect them (Kotter’s “Communicate the Vision”). In the assumption that any queries exist the Project Manager provides advice and support in order to influence and predispose their view on the necessity of the Project (Kotter’s “Remove Obstacles”). The Initial Gap Analysis is meaningful as it invigorates the development of the PMI Methodology “*Initiation Phase*” deliverables. Stakeholder consultation would assist in the ranking of deliverables that would be placed in the drafted Work Breakdown Structure.

The first stage of the Project PMO implementation has applied Kotter’s accelerators for change as far as the first five steps as displayed in Figure 14 below.

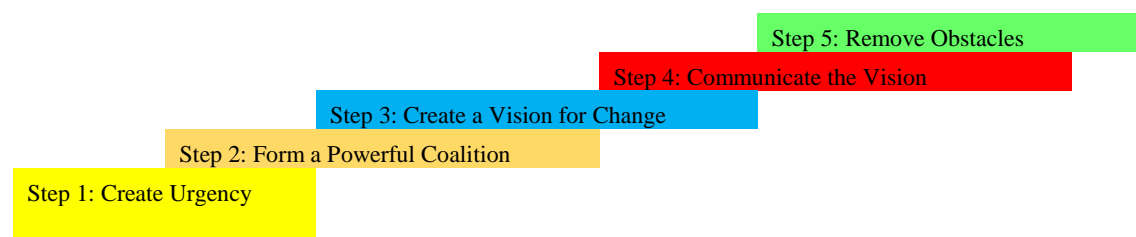


Figure 14 Kotter’s Accelerators for Change (adopted first 5 steps from the model)

The second stage of implementing the PMO change “*Planning the Change*” is reactive to the feedback from the previous stage in order to create a high-level schedule based on the “*new processes, organizational structure, project management methodology adjustments*” as Rittenhouse suggests. When forming the Project Schedule, activities should be arranged with regard to the philosophy of change management, acknowledging that “Quick wins” (Kotter’s “Create Short-Term Wins”) are regularly

scheduled, showing achievability of the goal to heighten moral and staff motivation in the change initiative through the project life cycle.

In the PMI Methodology “*Planning Phase*” the stakeholder management and communications plan are developed, intending to influence all parties involved of the value the PMO change initiative brings. Each stakeholder group may have an effect on the achievements of the project hence this plan would be scrutinized and regularly updated. The plan consolidates information from sources such as observations on how stakeholders cooperate with the project and its outputs, their interest and stakes on the outcome and their expectations on the deliverable.

Some stakeholder groups that benefited in the past from project execution with less formalities enjoying accessibility to resources, may object to the change in procedures and transparency as it may restrict their decision-making ability and access to funding. Until they are frequently contacted, received proper communication and be informed on the necessity of the change the vision and the schedule of the change they might be mistrustful of the outcome and doubt the success and resonate for change.

As soon as the PMO project schedule is prepared it starts being communicated in the timing and accordance to the stakeholder management plan when assurance on the validity of the timeline is set. The communication procedure needs to be detailed enough, inclusive for all parties and carefully planned to support and accommodate the change. The schedule should incorporate enough time for the change to be executed, spanning more than a year in order to successfully accomplish the change in rooted beliefs and organizational culture while allowing for showcasing deliverables that honor short wins that give prominence to the projects achievements and revive stakeholders interest in the change initiative.

The third stage of implementing the PMO change “*Implementing the Change*” is realizing the Project plan and in the meantime putting more attention on the stakeholder engagement and communications. The deliverables that Rittenhouse (2014) lists are:

- “*PMO organizational charter*”
- “*PMO organizational structure and chart*”
- “*PMO critical success factors (CSFs) with annual KPIs associated with each CSF*”,
- “*developed or revised organizational standards around project implementation methodology*”
- “*job descriptions for required new or revised roles (such as project managers, schedulers, business analysts, etc.), hired or shifted workforce*”
- “*a training plan to address any competency gaps identified during the gap analysis*”
- “*execution of the training and workforce changes*”
- “*the initial list of projects and programs that will be delivered as the first snapshot of organizational activity*”

In order to provide assistance to the operations of the organization the PMO must record the needs of its stakeholders and communicate them in the form of a Business Plan, which explains the utility of its functions and by making an argumentation on the rational of the need for change, frequently updated according to the requirements of the executives.

Rittenhouse (2014) is considers important that the PMO should be able to provide evidence of its value to perpetuate its existence inside the organization, therefor its

outputs should be subject to appraisal procedures. Hence, for each output from the previous stage, a system should be determined to measure its performance based on established metrics.

The PMI Methodology “*Executing Phase*” should be benchmarked around the vision developed in the earlier stages and stakeholder anticipations should be managed to avoid falling short in confidence in the project. Their expectancies may range from losing commitment in the Project to frustration and disappointment in the change initiative in the event that something unpredicted happens. During this phase the procedure requires the passing of responsibility of the PMO functions to enterprise departments and cooperation on the joint effort is imperative between all parties involved.

The fourth stage of the change initiative “*Manage the Change Transition*” is about to observe and adapt the Project Plan for the duration of the transition. The involved parties (the project manager, sponsor and project management team) should be prepared to communicate in contingency of stakeholder distress attributed to change and contacting each stakeholder as prescribed in the communications plan produced during the planning. Attention should be kept on the time of the approval and endorsement of the Change that should keep all of the affected parties under vigilance of the procedures.

Rittenhouse (2014) acknowledges the criticality of the PMO role in handling stakeholder relations and furthermore when the prevailing culture in an organization is based on common consent. Some stakeholders may object to the project if they feel there is a mismatch to the prevailing corporate values. In the first stage of the gap analysis this issue should be predicted and put forward by the team. On the other hand, in an individualistic culture resistive behavior to change is only expected in case that projects have not won experts hearts and minds. As a result, it can be deduced that a project would be more reassured of its success if key stakeholders are involved from the beginning of the process as this would create more buy-in among affected parties and gain their support for the change.

Rittenhouse (2014) views this change process as an important step towards educating the organization to act in a dynamic and proactive manner. By constructing the stages to be subject to frequent examination and receive feedback on improvements, it also provides the floor for stakeholders to communicate their hesitations and their propositions concerning the PMO and governance issues resulting to improvements in performance for the whole Corporation in the long run. This process corresponds to the PMI Methodology “*Monitoring and Controlling Phase*”.

Moreover, she notices that it is of utter importance for the Project Manager to be constantly occupied with the preparation of strategies on how to approach the stakeholders and how to establish communication channels in order to prepare them for the PMO organizational change.

According to Rittenhouse (2014), the final stage of the change initiative “*Sustaining the Change*” is about activities to assure that the PMO remains responsive to the needs of the organization, echoing the changes and the progress that is taking place in the external environment. The PMO is an organization construct to institutionalize changes and promote efficiencies to improve organizational business potential, therefore during its lifespan its goal is to assist in the remodeling and transformation of the organization according to business requirements.

In this stage the Project Manager should follow the recommended actions on the change process of the model by John Kotter (2012) to make necessary adjustments by “*removing barriers*” and create “*short-term wins*”. This would revive interest in change and put focus on acknowledging the common effort and the resulting benefits to the organization, that would yield stakeholder buy-in to the cause for change. It is important to keep in mind that various stakeholder groups would have different anticipations and consequently, communication feeds would have as objective to provide assistance and enhancement to the level of services so as to conform to their needs. Corresponding to PMI Methodology “Monitor and Control” and “Initiation” Phases are applicable in this change initiative on the grounds that PMO should harbor values that contribute to constant improvements in order to adjust to new business contexts and inspire the organization to embrace the changes.

As discussed in the previous stages the last three steps in Kotter’s model have been applied and they are illustrated in the Figure 15 shown below.

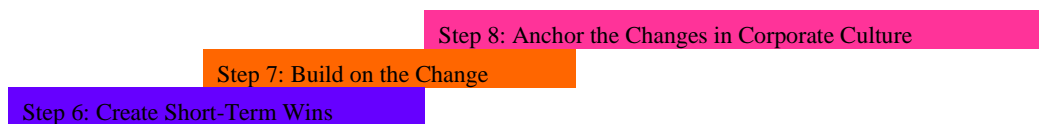


Figure 15 Kotter’s accelerators for change (adopted last 3 steps from the model)

3.3 Understanding the ‘Human’ Dimension of Change

In the previous section the stages of the technical aspect of the Change process have been presented. In this section this study analyses the behavioral impact of the change and the strategies to coordinate and transition all stakeholders involved in the PMO implementation.

An example taken from Duggal (2006) which refers to the compliance of the PMO standards introduction, is the one that shows that this change is only followed to the letter and not in the spirit owing to the top-down change solely based on reward system. This notion is aligned with the “Social movement approach” by Carnall (2007) which promulgates that unless engaging people to become self-motivated in pursuing change commitment to the cause, collaboration would not materialize.

Duggal (2006) supports that “*motivation of work means finding out what is important to people, what they people want to do, what they’re good at and building the PMO around those needs if stakeholders*”, he further explains that this way “*self-discover the value considerable increases the chances of behavioral change and voluntary compliance*”. He argues that by committing stakeholders to the formulation of the process, their participation promotes trust and buy in in the change that actualizes as a cultural change and adaptation from all involved.

Graham (2005) suggests that it is essential for the management to develop a communication plan to incorporate activities responding to shareholder expectations to fulfil their needs in information in order to mitigate the feeling of discomfort that change, and uncertainty provoke. She proposes a model based on stages of acceptance and engagement to change. This approach is presented in the **Figure 16** below that shows the progression of the impacted individuals’ attitude towards cooperation with Change over time as Change Management activities are introduced.

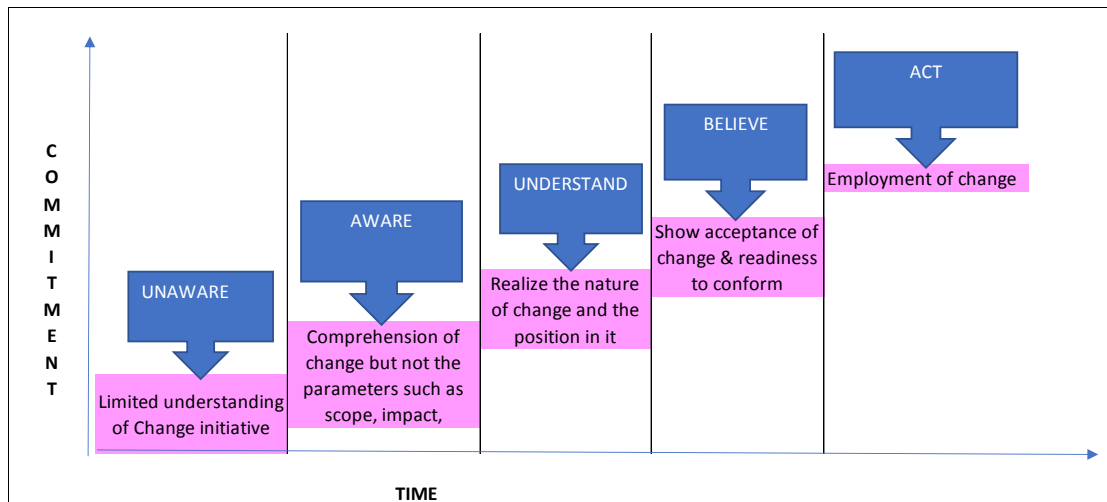


Figure 16 Stages of Commitment over Time adopted from Graham (2005)

This is also graphically represented in the Figure 17 illustrated below. The evolution of stakeholders’ conceptions and motivation should be considered when drafting the change plan.

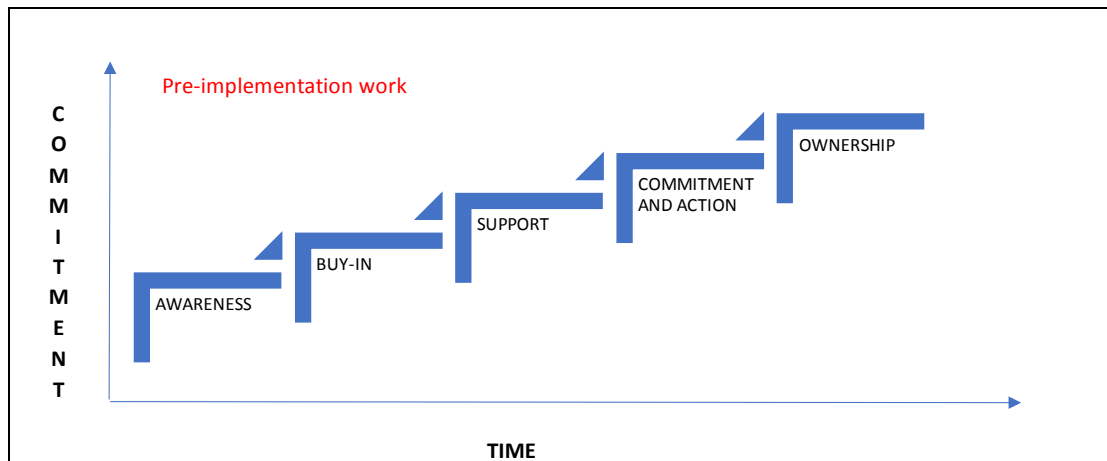


Figure 17 Example of Implementation Schedule, adopted from Graham (2005)

Carnall in its 2007 publication “Managing Change in Organizations” (p 177) explains that the most essential elements that contribute to change implementation are threefold and are presented in Figure 18 shown below.

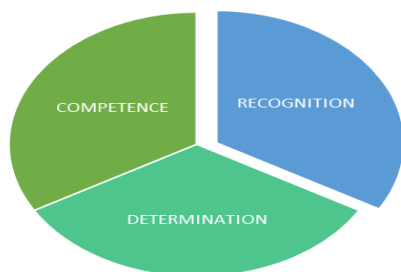


Figure 18 Conditions for Effective Change Implementation (adopted from Carnal 2007)

First of all, building comprehension and trust in the envisioned future change state, secondly promoting a learning environment to make people feel confident with the

change that they are called to adapt to and become adept to, and thirdly, appraise the emergent change as meaningful and supporting to them in improving.

He also portrays a model that reflects the way change is received emotionally, that can be used by the Management as a guide to interpret employee patterns of behavior when they are faced with a change, and plan strategies to facilitate their adjustment of change, which is demonstrated in Figure 19 shown below.

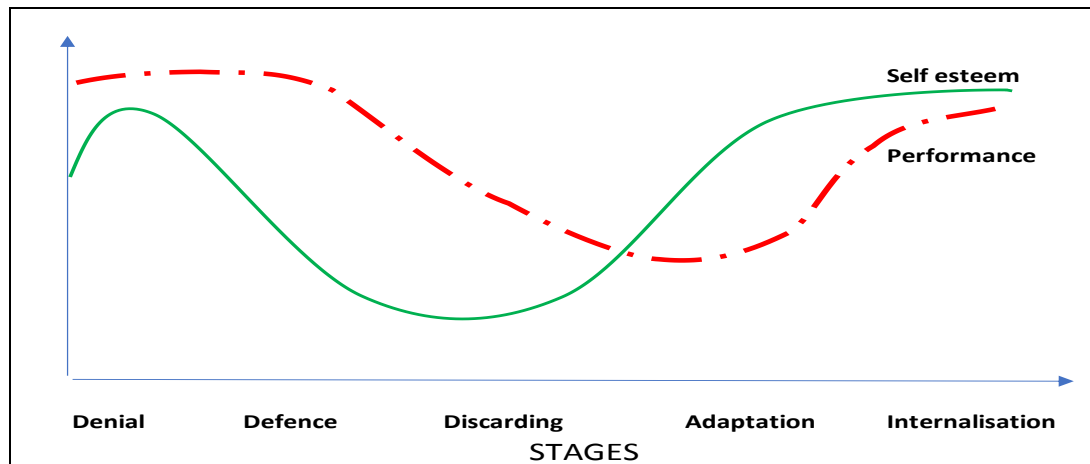


Figure 19 The Coping Cycle, adopted from Carnal (2007) page 241

The diagram depicts a sequence of stages concerning the psychological effect of Change on employees' self-esteem and performance as he theorizes that they are strongly connected. These are also connected on the ability to learn and assimilate new information, standards and keep up to technological advances. The model is composed of five stages:

- The first stage is related with “*denial*”, because the prospect of change creates an astonishment as the reasoning of change is not fully grasped thus motivation remains low. People are accustomed to a way of working and behaving and do not detach themselves from their routines as it provides a sense of stability. In order to handle these feelings, it is sensible not to introduce the change plan in a sudden mode, but rather allow for some time to familiarize with the impact of changes. It is essential for staff to rationalize the need for change and receive information from people responsible for the initiative.
- The second stage is related with “*defence*” mechanisms, as plans and schedules are finalized, and change becomes factual employees are invited to embrace new norms as part of the new way of doing things. Emotions may be burden with dissatisfaction and the urge to impede changes. In order to control these reactions and tackle their concerns it is advisable to establish an atmosphere of understanding and trust in order to comprehend the need for change and their place in the process.
- The third stage is concerned with “*discarding*” old notions and doubts. People begin to favor new systems and acknowledge the benefits derived from the application of the new systems and their confidence is restored together with rise in productivity rates. In order to deal with this stage individuals may need encouragement to continue practicing and eliminating fears of inadequacy and comprehend their roles and evolve to excel in their new duties. Developing new skills is a paragon that assists in the process of discarding; hence focus should be placed in offering seminars and guidance to overcome problems.

- The fourth stage is concerned with “*Adaptation*” to new forms of behavior. Acceptance leads to experimentation and enables capabilities building through learning. Management should therefore focus on training staff to operate in the new era and cope with the changes while being alerted to provide support whenever required. In this phase seniors should show recognition of the efforts of the staff to abide by the change and responsiveness to their concerning that may exist residually.
- The fifth stage is concerned with “*Internalization*” which takes place when individuals have reached the status of absorbing the idea of change and follow new norms and show commitment. In this phase Management should share examples of people that actively engaged in the change to encourage and motivate the entire corporation to increase trust in the Change Initiative and increase performance of all staff participating in change or introduce a rewarding system.

3.4 Morals Deriving from PMO Implementation

To sum up all the previous, time is required to be accounted for in a Change Project in order to work out the solutions in the posed situations. Inspiring people to take initiatives for training and goalsetting helps them navigate through change and believe in the success of the change as they better know how a proposed solution is properly implemented. This way they become responsible for the application and work towards adopting it.

4. RESULTS AND DISCUSSION

4.1 The Need for a PMO Justified

Foreman & Travers (2009) have associated project excellence with meticulous planning and monitoring. This is confirmed when an organization involves into actions to check on the performance of existing resources, processes and tools that are applied to project delivery. The realization of the need for projects coordination by a proficient organizational unit, the PMO then surfaces up. They argue that by introducing a PMO as a consulting and coordinating mechanism to systematic project conduct and direction, leads to improvements in implementing projects and effective cost control.

Additionally, by introducing metrics in the outset of the project planning that assist in management control activities (such as quality and risk management to assure standards and processes are followed) the expected outcome is precisely defined.

Finally, they also claim that the PMO endorsement results in resource efficiencies owing to the development of Project Management competencies through training and coaching according to PM standards of performance and Project Management methodology.

The following figure identifies four categories of problems that rise in absence of a disciplined Project Management approach.

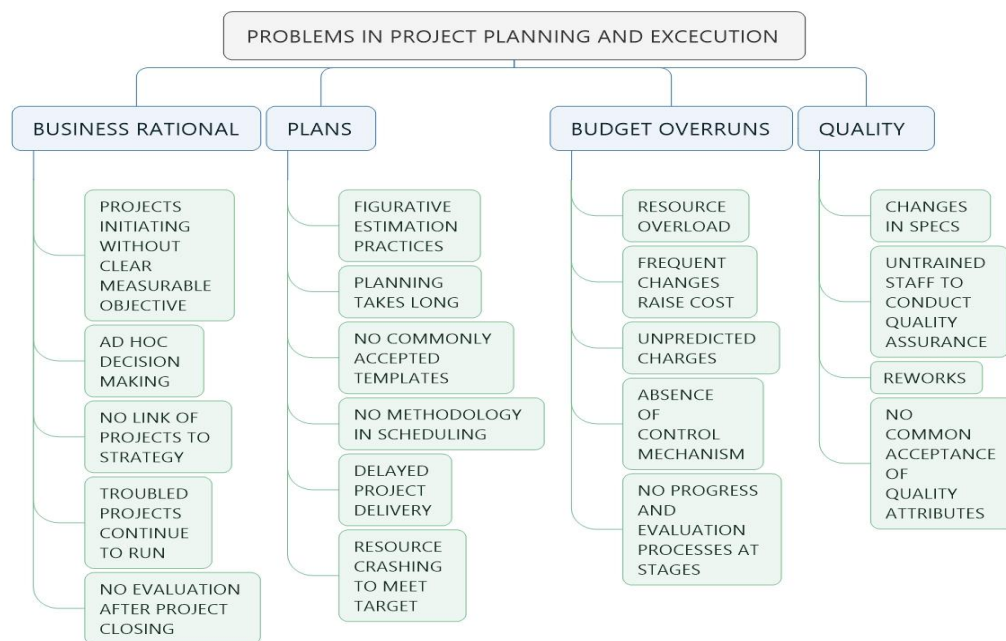


Figure 20 Problems in Project Planning and Execution when Project Management Methods are not Applied

4.2 The PMO Solution

Christie (2006) suggested that in order to assist the organizational efforts to improve project performance, the organization must firstly recognize the need for change in the culture and foremost among the C-suite. She primarily proposes the conduct of an

effectiveness study in the development organization. If the study points out the need for advancing Project Management performance, then the establishment of a PMO is a solution to facilitate this culture change and gain acceptance.

Brennan & Heerkens (2009), addressed the issue of positioning the PMO to be in close link to senior Management to establish a connection with strategy formulation and the handling of a portfolio of diverse projects. This way its actions are reinforced by Management and ensures skillful resources are provided. Hence when Project Governance oversees project delivery, Projects are initiated with informed decisions.

The PMO contribution to the project selection process includes the formation of working teams that prepare documentation for review by the Governance Committee for project prioritization and retention. PMO duties concern proposing portfolio of projects to get their consent, and thus PMO becomes part of the strategic planning. To support the project selection process a scoring system is undertaken such as the balanced scorecard, to evaluate each project and choose the most profit yielding ones.

Another important input of the PMO is in introducing process, templates, and scheduling tools, facts base estimation practices which follow up to date Project Management standards and best practices. These provide administration and structure to the way a project is developed. By encouraging the whole organization to adhere to Project Management methodology it provides assurance that the processes are audited, and any misalignments (such as uncontrolled changes) are traced early, the project is put back on track and Project Managers can meet the Schedule-Cost -Scope and Quality objectives.

The PMO role in resource management is vital as it influences all activities spanning from estimations, training, mentoring, managing relationships between all involved parties, stakeholders and work teams (from employee to customers and vendors). It also advances project expertise, keeps records and contributes to knowledge sharing (for instance “lessons learned”). What’s more, Project Status reporting and evaluation processes safeguard the pursued result will be achieved and support on time delivery.

The PMO is a source of guidelines for Quality Assurance and provides formal training concerning Quality Management processes and tools. It maintains checklists of desirable attributes and templates to evaluate process performance for Quality Control measurements. This way it confirms compliance to standards and commitment to continuous improvement. Additionally, as Haddad (2014) claims “*The PMO should verify the proper implementation of all procedures developed and validate the outputs of the projects with the agreed-upon specifications and requirements*”.

4.3 Change as a Cyclical Process

After associating problems to solutions provided by the PMO its time to recapitulate the change process in the PMO implementation plan and take a view from another perspective. For example, Carnal (2007) acknowledges Change as a three-phase process: *beginnings*, *focusing* and *inclusion* which are described below.

- *In phase 1* the change process begins by starting to acknowledge the issue. The organization takes a formal approach to comprehend and handle the emerging situation, by undertaking a feasibility study. In the PMO implementation paradigm a Change readiness assessment was undertaken.
- *In phase 2* the creation of a Steering Group is endorsed in order to be accountable for strategic decisions and motivate people to inspire action. To this

direction the encouragement by change champions may disperse hesitations or fear of change. More people risk and experiment with solutions newly initiated. In the PMO introduction plan this is realized by PMO governance which is closely monitored by the senior Management. The executives are the first ones to inspire faith into this project to all staff subject to this change and strongly advise them to follow the transition plan.

- *In phase 3* actions approach a bigger audience by effectuating a Communication Plan and an Implementation Plan to transition the staff into the new situation.

Thus, in the PMO implementation project a Communication Plan was created along with a phased schedule for PMO deliverables. The figure presented below is illustrating the stages as a cyclical process.

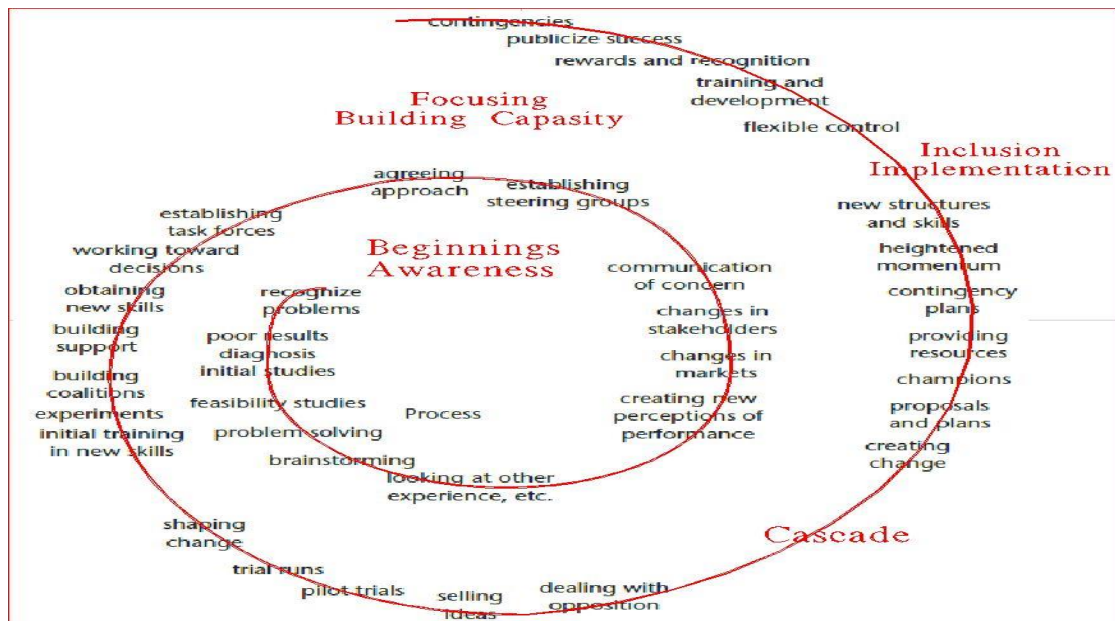


Figure 21 Change as a Cyclical Process

5. REFERENCES

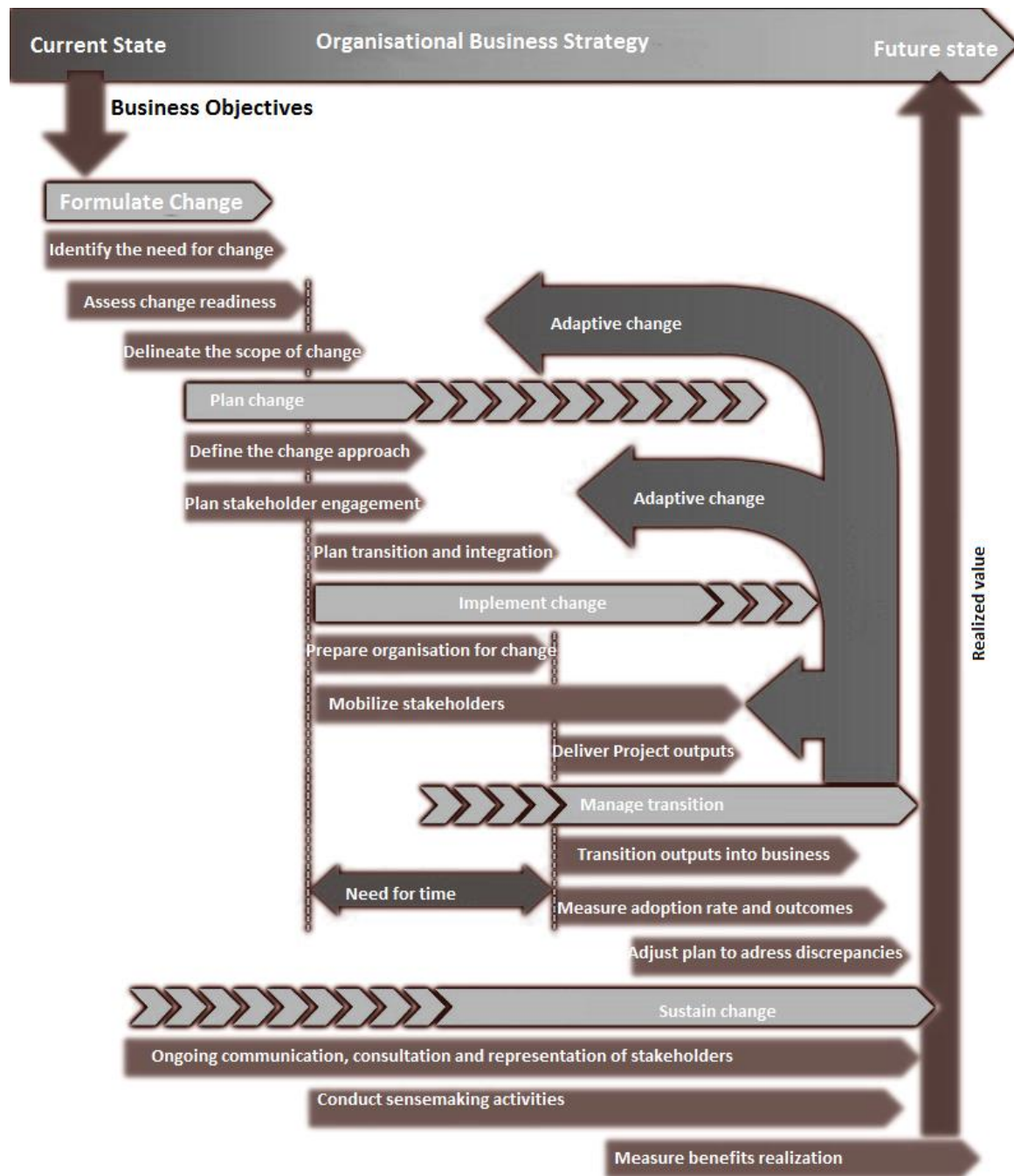
1. AlManei M., and Saloniitis K., and Tsinopoulos C., (2018), A conceptual lean implementation framework based on change management theory, *Procedia CIRP.*, 72. pp. 1160-1165.
2. Amer M. & Elayoty N., (2018), Roadmap to Project Management Office (PMO) and Automation using a Multi-Stage Fuzzy Rules System, *International Journal of Advanced Computer Science and Applications*, Vol. 9, No. 10
3. Artto, K., Kulvik, I., Poskela, J., & Turkulainen, V. (2011). The integrative role of the project management office in the front end of innovation. *International Journal of Project Management*, 29(4), 408–421.
4. Aubry M., Hobbs B., Thuillier D., (2007) A new framework for understanding project management through the PMO, *International Journal of Project Management* 25, p 328-336
5. Aubry M., Müller R., Hobbs B & Blomquist T., (2010), Project management offices in transition, *International Journal of Project Management*, 28, 766–778
6. Aubry, M. (2015). Project Management Office Transformations: Direct and Moderating Effects that Enhance Performance and Maturity, *Project Management Journal*, 46(5), 19–45
7. Aubry, M., Hobbs, B., & Thuillier, D. (2007). A new framework for understanding organizational project management through the PMO, *International Journal of Project Management*, 25(4), 328–33
8. Aubry, M., Hobbs, B., & Thuillier, D. (2008). Organizational project management: An historical approach to the study of PMOs. *International Journal of Project Management*, 26(1), 38–43.
9. Aziz E. E., Curlee W.,(2017), *How Successful Organizations Implement Change: Integrating Organizational Change Management and Project Management to Deliver Strategic Value*, PMI
10. Balogun J, Hope Hailey V., (2008); *Exploring Strategic Change*, 3rd ed. Pearson Ed.
11. Balogun J., (2001), *Strategic change*, *Management Quarterly*, Part 10
12. Blažević, G., Mišić, S., & Šimac, M. (2014). Importance of Managing PMO in Croatian PM Market. *Procedia - Social and Behavioral Sciences*, 119, 949–956
13. Bredillet, C., Tywoniak, S., & Tootoonchy, M. (2018). Why and how do project management offices change? A structural analysis approach. *International Journal of Project Management*, 36(5), 744–761.
14. Brennan, M. V. & Heerkens, G. (2009). How we went from zero project management to PMO implementation—a real life story. Paper presented at PMI® Global Congress 2009—North America, Orlando, FL
15. Brown K., (2000), *Analyzing the Role of the Project Consultant: Cultural Change Implementation*, *Project Management Journal*, Vol. 31, No. 3, 52–55
16. Burns, B. (2000). *Managing change: a strategic change to organizational dynamics*. Essex: Pearson Education Limited
17. Calem D., (2016), *Integrating Change Management with the PMBOK® Guide for ECM Solutions*, available at <https://www.projectmanagement.com/articles/337636/Integrating-Change-Management-with-the-i-PMBOK--Guide--i--for-ECM-Solutions> accessed on 10th May 2019,
18. Carnall, C, 2007, *Managing Change in Organizations*, Prentice Hall, fifth edition

19. Change Management Leadership Guide, available at <https://www.ryerson.ca/content/dam/hr/manager-resources/docs/change-management-leadership-guide.pdf>, accessed on 10th May 2019,
20. Christie, A. (2006). Successes and challenges in maturing the PMO. Paper presented at PMI® Global Congress 2006—EMEA, Madrid, Spain
21. Combe, M. (2014). Change Agility: Readiness for Strategy Implementation. PMI White Papers.
22. Crawford L., Nahmias A.H., (2010), Competencies for managing change, *International Journal of Project Management* 28, 405–412
23. Dai C.X., Wells W.G., (2004), An exploration of project management office features and their relationship to project performance, *International Journal of Project Management*, 22, 523–532
24. Economist Intelligence Unit, (2013), Why Good Strategies Fail: Lessons for the C-suite, sponsored by PMI available at { <https://www.pmi.org/-/media/pmi/documents/public/pdf/learning/thought-leadership/why-good-strategies-fail-report.pdf?v=14e7a7f5-ac4c-4331-b1cf-be9e26a30d18> } accessed on 10th October 2019,
25. Eduard-Ionel Ionescu, Alexandrina Merut ă, Rodica Dragomiroiu, (2014), Role of Managers in Management of Change, *Procedia Economics and Finance* 16, 293 – 298
26. Foreman, J. H. & Travers, P. (2009). Selling the PMO to the CFO. Paper presented at PMI® Global Congress 2009—North America, Orlando, FL.
27. Gareis, R., (2010) *International Journal of Project Management* 28, 314–327
28. Gordon, A., & Pollack, J. (2018). Managing Healthcare Integration: Adapting Project Management to the Needs of Organizational Change. *Project Management Journal*, 49(5), 5–21.
29. Graham, J. (2005). Organizational change management and projects. Paper presented at PMI® Global Congress 2005—North America, Toronto, Ontario, Canada.
30. Graham, J. (2005). Organizational change management and projects. Paper presented at PMI® Global Congress 2005—North America, Toronto, Ontario, Canada. Newtown Square, PA: Project Management Institute.
31. Greiner, L.E. (1972). Evolution and Revolution as Organizations Grow. *Harvard Business Review*, 50 (4), 37–46.
32. Haddad, Raed S. (2014). Five ways to boost your and your PMO's value. PMI Global Congress 2014, Dubai, United Arab Emirates
33. Hiatt J., Creasey T., (2012), *Change Management*, Loveland Colorado: Prosci Learning Center Publications
34. Hill G., (2004), Evolving the Project Management Office: A competency continuum, *The Information Systems Management Journal*,
35. Horgan, B. M. (2010). PMO as change agent. Paper presented at PMI® Global Congress 2010—North America, Washington, DC
36. Hornstein H.A., (2015), The integration of project management and organizational change management is now a necessity *International Journal of Project Management*, 33, 291–298
37. IPMA ICB 4.0 — A global standard for project, programme and portfolio management competences, *International Journal of Project Management* 34(8) · November 2016
38. Kanter M, (1985), *Managing the Human Side of Change*, *Management Review*, 52–56

39. Kotter J. (1996), *Leading Change*. Boston: Harvard Business School Press
40. Kotter J., (1995), *Leading Change: Why transformation efforts fail*, Harvard business review
41. Kotter J., (2012), *Accelerate!* Harvard business review 90(11):44-52, 54-8, 149
42. Levy, A., Merry, U., 1986. *Organizational Transformation – Approaches, Strategies, and Theories*. Greenwood Publishing Group, New York.
43. Lewin, K. (1947). *Frontiers in group dynamics: concept, method and reality in social science; social equilibria and social change*. *Human Relations*, 1, 5-41.
44. Lines B. C., Sullivan K. T., Smithwick J. B., Mischung J., (2015), *Overcoming resistance to change in engineering and construction: Change management factors for owner organizations*, *International Journal of Project Management*, 33, 1170 – 1179
45. Lundy, V. & Morin, P.-P. (2013). *Project leadership influences resistance to change: the case of the Canadian Public Service*. *Project Management Journal*, 44(4), 45–64
46. Mariusz, H. (2014). *Models of PMO Functioning in a Multi-project Environment*. *Procedia - Social and Behavioral Sciences*, 119, 46–54.
47. Merla, E. (2005). *From zero to PMO in thirty days*. Paper presented at PMI® Global Congress 2005—Latin America, Panama City, Panama
48. Monteiro A., Santosa V., & Varajão J., (2016), *Project Management Office Models – a review*, *Procedia Computer Science*, 100, 1085 – 1094
49. P. David Elrod & Donald D. Tippett (1999) *An Empirical Study of the Relationship Between Team Performance and Team Maturity*, *Engineering Management Journal*, 11:1, 7-14,
50. Pansini F., Terzieva M., (2013), *Challenges and benefits on the path towards discovering PMO:cases from Italian banking sector*, *Procedia Technology*, 9, 627-637
51. Passenheim Olaf, 2010, *Change Management*, ISBN: 978-87-7681-705-3 available at <http://www.mahavirlibrary.org/files/change-management.pdf> (accessed on 16th March 2019)
52. Paton S. & Andrew B., (2019), *The role of the Project Management Office (PMO) in product lifecycle management: A case study in the defence industry*, *International Journal of Production Economics*, 208, 43–52
53. Pellegrinelli S, Garagna L., (2007) *Towards a conceptualization of PMOs as agents and subjects of change and renewal*, *International Journal of Project Management*, 27, 649–656
54. Pemsel S., Wiewiora A., (2013), *Project management office a knowledge broker in project-based organizations*, *International Journal of Project Management*, 31, 31–42
55. PMI white paper, (2014), “*The Project Management Office: Aligning Strategy & Implementation*”
56. PMI, *The Standard for Organizational Project Management* (2018)
57. PMI. *Managing Change in Organizations: A Practice Guide*. 2013.
58. PMI. *Pulse of the Profession® In-Depth Report: Enabling Organizational Change Through Strategic Initiatives*, March 2014
59. Pollack, J. (2017) *Change management as an organizational project capability*. In Sankaran, S., Müller, R., Drouin, N. (eds.) *Cambridge Handbook of Organizational Project Management*, Cambridge University Press, Cambridge, ISBN: 978-1-107-15772-9, Ch. 16, pp. 236-249.

60. Project Management Institute. (2017). A guide to the project management body of knowledge (PMBOK® guide) – sixth edition. Newtown Square, PA: Author
61. Project Management Institute. 2014 Implementing Organizational Project Management: A Practice Guide
62. Rittenhouse, J. (2014). Change management as a project: Building a PMO. Paper presented at PMI® Global Congress 2014—North America, Phoenix, AZ
63. Sujova A., and Rajnoha R., (2012), The management model of strategic change based on process principles, *Procedia - Social and Behavioral Sciences*, 62, 1286 – 1291
64. Szalay I., Kovács A., & Sebestyén Z., (2017), Integrated Framework for Project Management Office Evaluation, *Procedia Engineering*, 196, 578 – 584
65. Viglioni, T. G. A., Cunha, J. A. O. G., & Moura, H. P. (2016). A Performance Evaluation Model for Project Management Office Based on a Multicriteria Approach. *Procedia Computer Science*, 100, 955–962.
66. Widforss G, Rosqvist M., (2015), The Project Office as Project Management Support in Complex Environments, *Procedia Computer Science*, 64, 764 – 770
67. Worley C., and Mohrman S., (2014) Is change management obsolete? *Organizational Dynamics* Volume 43, Issue 3, 214-224
68. Wright, D. (2012). Developing your PMO roadmap. Paper presented at PMI® Global Congress 2012—North America, Vancouver, British Columbia, Canada
69. Zafar F., Naveed K., (2014), Organizational Change and Dealing with Employees Resistance, *International Journal of Management Excellence* Volume 2 No. 3

6. APPENDIX A



The Change Life Cycle Framework (adopted from PMI, 2013)

Current state	PMO ROADMAP				Future state
	TIMELINE				
	PROJECT INITIATION	Short term	Medium term	Long term	
	STAKEHOLDER MANAGEMENT	Details of the initiatives			Place details of characteristics of the state
	PMO GOVERNANCE				
	RISK MANAGEMENT				
	RESOURCE OPTIMISATION				
	METHODS AND TOOLS				

Roadmap Template (adopted from Wright (2012))