Change Management Models: A Comparative Analysis and Concerns

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Abstract*—*To better understand change management, we compare some popular change management models in relation to project management and organizations in this study. After a brief introduction of five major models, various advantages and disadvantages are identified for each. Lessons and implications for organizations and management are also introduced.

Key words: Change management, project management, change management models, Kurt Lewin, Kotter's 8-Step, ADKAR, McKinsey 7-S, general electric CAP

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Introduction

Change is inevitable, whether it is personal or professional. Also, change is necessary in order to grow, especially in your professional career. Maintaining the same position ten to fifteen years later usually means that change has been limited. However, we as individuals and organizations are creatures of habit, so change is not always easy. Professional changes are even trickier to deal with as a project manager or organization leader. In these positions, you are responsible for helping your team members and employees to reach their full potential and to produce great work. This goal is tricky because of the multiple personalities involved, but change management may be a useful mechanism in this circumstance.

A proactive organization and project management team customarily has a preset change management plan for project or organization structure, business systems/processes, or employee role change requirements. Change management consists of three layers: organizations, people, and projects. To fully understand the various change models, we must first understand why they are needed and what change management means at its core.

Change management is "the application of a structured process and set of tools for leading the people side of change to achieve a desired business outcome; it is both a process and a competency" (Creasy, 2018). This situation requires an organization, project team, or individual to notice a need for change. Furthermore, it seeks to evolve from their current state to implement change/s to reach a desired state. Calling it a process means that once it is implemented, it can be used repeatedly, but calling it a competency means that it should generate an effective outcome for the majority of the time.

Before a project team or organization can construct a viable change management plan, they should understand the available change models to find which is most effective for their project or organization. There are many recognized models available; in this article, we will focus on some of the more popular and theoretically sound models.

A General Change Management Process

As mentioned earlier, change management (CM) is evolving from a current state to a desired state. Before executing change, a series of phases need consideration. Figure 1 shows a general change management process from a project management perspective. In the

project planning cycle, the project manager has a process and change management model in place that is specific to their management style.

The first phase involves identifying the need for a change. This means that either something has come up in the project that the team or manager would like to change or a different outcome arises than previously discussed. When this situation happens, the activities that take place are deciding the current, the future, and the transition state. A basic question is how it will affect the scope of the project and if the scope needs to be altered.

In the second phase, the team or manager determines the change details. It is a process in the sense of how the team conducts certain tasks and activities will be changed. A question arises on whether there is a role change where a team member(s) will take on a new role or responsibility. On the other hand, is it an overall change to be based on client needs? Cost and risk analyses are performed in this phase to consider the feasibility of change based on time and financial resources.

The next phase is when CM models roles begin. This plays a large role in how the change will be implemented. Stakeholders' needs and interests require assessment, with commensurate communication to them, for effective change to progress. Whether the change is minor or major, the project manager will experience some resistance to the proposed changes from both team members and stakeholders. This is why the selected change management model is such a crucial part of the CM process; each model has methods in place to help curb resistance. This is also where the action, communication, and resistance plan for the CM process need to be created and tailored to the different stakeholder groups.

Fourthly, there is the implementation stage. The transition state occurs and the plans are now put into motion, while a CM process has actually been formed. Lastly, the monitoring phase controls the changes and ensures that they are on track to get to the desired state. Any errors are caught and lessons are learned for future references to update the CM process, which helps to ensure success future CM process use.

Now that we understand some of the generic CM process stages in a project environment, we will discuss in detail some of the models that are most commonly used. This comparative discussion includes their differences and similarities. Then, a recommendation that is based on some CM model strengths and weaknesses is made.

Change Management Models

"Due to varying factors internal to an organization's environment, not all changes are the same; therefore, management needs to use different change models and methodologies depending on the situation" (Schech-Storz, 2013).

CM models typically utilize various theories. Variations in personnel and organizational cultures have led to various perspectives. Five popular and tested models are reviewed here, including Kurt Lewin's Change Management Model, Kotter's 8 Step Change Model, ADKAR Change Management Model, The McKinsey 7-S Model, and General Electric's Change Acceleration Process (CAP).

Kurt Lewin's Change Management Model "Kurt Lewin and E.H. Schein, considered precursors of change management models, believe that the process of change involves three basic stages: the behavioral thaw (unfreezing), the change (transition) and the recrystallization of behaviors (change)" (Talmaciu, 2014).

Lewin's theory (Lewin, 1951) proposes that organizations need to have time initially to reflect on the change and organizational

Figure 1. A general change management process. Source: http://www.adaptivehvm.com/changemangement.

involvement analysis prior to "unfreezing" the organization. Lewin made several assumptions for effective change. His first assumption was that there needs to be a change motivator or else the change does not occur. The second assumption was that employees are at the heart of changes within the organization. Then, his third assumption was that those affected by the change need to adapt, incorporate the new processes into their routine, and discontinue past practices. Lastly, Lewin postulates that even with desirable goals, resistance to change is common. For a change to be effective, replacing organizational behaviors and attitudes must reinforce it.

Figure 2 summarizes Lewin's theory. There is an initial understanding that the organization or project process needs to be changed. Initial understanding requires an in-depth analysis for what is and what isn't working. A plan then needs creation. The CM process has now entered its transition phase. This phase is where the resistance from employees will begin to take place, as well as hiccups, because the employees are not used to the new changes. When this occurs, it is important to have resources readily available for team members or employees to ease the transition. These resources can be in the form of training, instructions, or simply having access to the project manager or department manager to make inquiries. In the third phase of refreezing, according to Levasseur (2001), the model requires change agents to work actively with organizational personnel to install, test, debug, use, measure, and enhance the new system.

Kotter's 8 Step Change Model Kotter's 8 Step Change Model (Kotter, 1996) expanded Lewin's original change theory. Kotter believed that "Leadership must create and sustain the kind of changes needed for successful organizations to compete in the current competitive world" (Kotter, 1996).

Figure 2. Kurt Lewin's change management model.

Figure 3. John Kotter's model.

The eight steps in the model include:

1. Create a sense of urgency.
2. Create a core coalition.
3. Develop and form a strategic vision.
4. Communicate and share vision plans.
5. Empowering employees to act on the vision.
6. Generate short-term wins.
7. Consolidate gains and produce more change.
8. Initiate and set new changes.

Figure 3 below shows an example of how the model operates. In step one, the project team or organization realizes the need for change, which is where they create a sense of urgency to get the ball rolling. Kotter (2012) stated in the *Harvard Business Review* that "creating a sense of urgency is critical to increasing the organization's awareness that it needs strategic adjustments and that there are always opportunities in sight." In the second step of creating core coalition, Kotter notes that for "effective change to happen, a team of effective leaders must develop into a coalition to build urgency around the need for change. People must know change is necessary" (Kotter, 1996).

Developing a strategic vision requires formulating a clear and sensible transformation vision. The transformation vision is required to align objectives and to progress as a group (Calegari, 2015). Change will not be successful without a well-developed strategic vision because the project team or organization does not have an overall roadmap for the change process. Also, the employees must understand why the change is needed in order to support it.

Effectively communicating the strategic vision is the next step. Management and the CM team

should share the vision of change to get employees and team members onboard. The CM team needs to get the employees to see the need for the change. This step is crucial because if not handled properly, there could be fundamental resistance from employees, and team members can feel left out.

In step five, to empower employees means to allow them to try new ideas and approaches. Communication alone is never sufficient. Employees need support in removing obstacles to the vision (Kotter, 1996). Meanwhile, step six, sees that the changes and progress is made with significant outcomes and sharing is needed. Short-term wins help, and demonstrating that the change effort is constructive is important. These wins help the CM team to test the vision against real conditions and to make necessary adjustments.

Step seven requires that the organization or project team should consolidate gains and produce more change. Not allowing complacency and continuous progress is a goal. Change efforts often fail because participants revert back to their prior habits, usually failing to continue change implementation. Finally, there is the initiation of new change. In this stage, the goal is to institutionalize the change and to anchor it in the organizational culture (Kanter, 2003).

ADKAR Model The ADKAR Model (Hiatt, 2006), as opposed to the previous models, focuses on people change adaptation, as opposed to the change itself. The ADKAR model is sequenced by how an individual experiences the change. The ADKAR lifecycle begins after identifying a change. From this initiation point, there is a framework and sequence for managing the people side of change (Hiatt, 2006). The acronym stands for five goals that the model aims to accomplish. These are:

1. **A**wareness
2. **D**esire
3. **K**nowledge
4. **A**bility
5. **R**einforcement

Figure 4 shows the ADKAR Model sequence. We now consider the factors that affect the 5 steps. Awareness is when an organization or project team informs employees of a need for change. The primary issue at this stage is determining the level of change for a specific project. Desire from the employees and project team requires the motivation to participate in the change along with the ability to perform necessary changes. Thus, employees need knowledge of how to change and what the change entails. ADKAR continues to Ability, which are the skills required to implement change on a day-to-day basis. Reinforcement is then needed to maintain and sustain change in the organization or project (Hiatt, 2006).

The McKinsey 7-S Model The McKinsey 7-S Model was developed by Tom Peters, Richard Pascale, and Robert Waterman Jr., while McKinsey & Company employees. The model analyzes seven organization or project team aspects, highlighting the changes to be made. The 7 S Model consists of:

1. Strategy
2. Structure
3. Systems
4. Skills
5. Staff
6. Style
7. Shared Goals

Figure 5 shows a McKinsey 7-S Model and its linkages. Strategy involves transforming the organization from the current position to the new position, as identified by the objectives. The structure identifies and defines the roles, responsibilities, and accountability relationships (Singh, 2013). Systems are formal procedures of the organization or project team. They include management control systems, performance measurement/reward systems, planning, budgeting, resource allocation systems, and information systems. The systems influence behavior because they are the mechanisms that affect resources available for a given entity, as well as the processes by which individuals are rewarded and groups measured (Spaho, 2014).

Skills are the ability of employees and team members to do the organization's or project team's work. The staff possesses the skills, which is the model element. Also, this element looks at the way in which the company hires and retains staff into the organization or project team. Lastly, shared goals are the central organizational beliefs and attitudes helping employees to understand the organizational purpose, as well as how it will affect the internal and external environments.

General Electric's Change Acceleration Process Model (CAP) General Electric Company came up with its own version of a CM model to transform how people accept, operate, and employ new business strategies. The CAP Model allows an organization to manage business model change implementation. GE recognized a need for the model, since the success or failure of a new business project deals with both acceptance and quality. They represent this with the

Figure 4. The ADKAR change model stages.

equation Q × A = E. (Polk, 2011). The equation means that good quality work with good acceptance will result in effective change or results.

The model has 7 steps, see Figure 6 (Neri & Mason, 2008) and include:

1. ***Leading Change*:** A champion who will drive change is identified. A champion who sponsors the change management program initiates most successful change initiatives; the champion must be publicly visible, committed to the change.
2. ***Creating A Shared Need*:** The team identifies the reason for a change, makes certain reasons for a change, makes certain the reasons are widely understood, and overcomes resistance to change.
3. ***Shaping A Vision:*** The team delineates a desired outcome of change and conveys it to key stakeholders.
4. ***Mobilizing Commitment:*** Key stakeholders are identified; resistance analysis is performed; actions are developed to gain support and commitment.
5. ***Making Changes Last:*** The team institutes appropriate systems and structures to sustain results.
6. ***Monitoring Progress:*** Realistic benchmarks are set and measured.
7. ***Changing Systems & Structures:*** Changes are integrated into the organization's culture.

Comparative Findings

Each Model's Strengths and Weaknesses Lewin's model is a simple and effective three-step process, which makes it attractive for large organizations and project teams to use. Analyzing aspect changes is easy to do. The three major steps are transparent enough for change

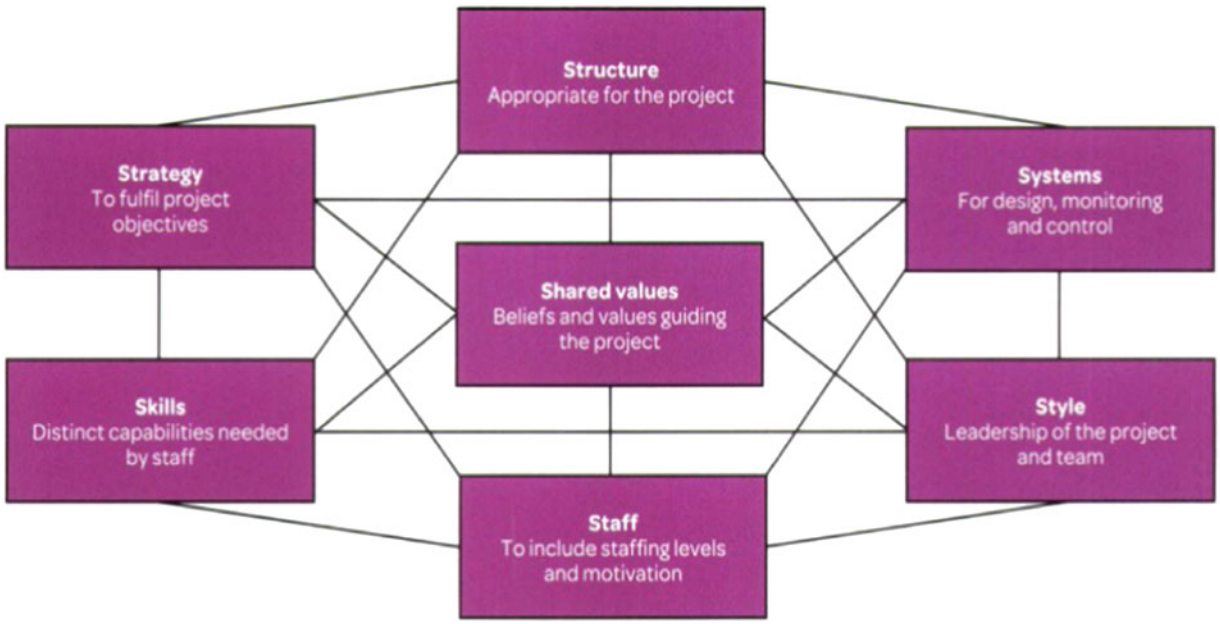

Figure 5. The McKinsey 7-S model. Source: Hughes (2012).

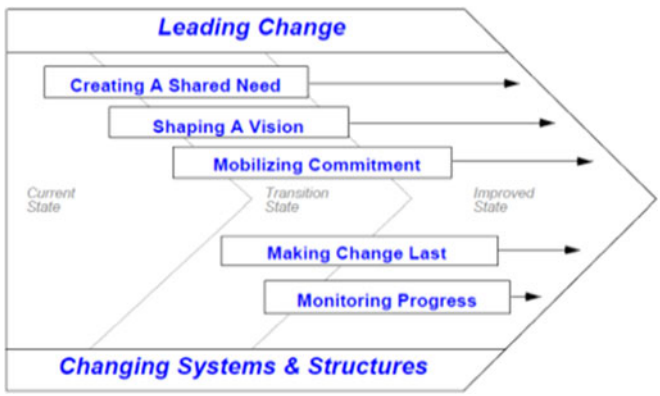

Figure 6. GE's change acceleration process. Source: Holloway (2015) leading and engaging sustainable change.

management novices to understand how to do the change from start to finish. However, a disadvantage is that the model does not detail how to deal with the human part of the change, which is a common limitation of most methods. People resistance to change could potentially impact the organization/project team if not handled correctly. Another disadvantage is that the unfreezing phase can be time-consuming and costly if planned poorly or with minimal top management support.

The Kotter model, in comparison to Lewin's model, provides greater direction on how to implement change. It further incorporates the people side of change. Unlike Lewin, Kotter gives advice on which point in the process to communicate with employees in the model. The advice on including employees is effective for organizations with a traditional managerial hierarchy. While the model includes employees, it comes across as a top-down approach. The employees do not have input or the option to share ideas before strategic vision creation. Another disadvantage occurs if a step is skipped or executed incorrectly. This affects other steps and leaves the organization and project team to delay or regress. As a result, there could be wasted time and effort.

The ADKAR model's advantage is the relatively increased focus of employee and project team member acceptance of change. The process starts and ends with them as the forefront of change, so this characteristic is extremely important in choosing a CM model. The disadvantage of using this model is that since it focuses primarily on the people side of the change, it is better suited for project teams and environments, as opposed to large-scale organizations with complex processes.

The McKinsey 7-S model advantage occurs in showing the weakness and strengths in seven core dimensions of the organization or project team. This characteristic provides managers with an opportunity to more clearly identify where the need for change lies. However, the disadvantage of this model is that it can be time-consuming and tedious to go through all of the levels. Since it is a complex model, it would be difficult to implement in a large organization. Another disadvantage is that instead of focusing the entire model on the people side of change, it really only focuses on the skills and staff portions of the model.

The advantage of GE Change Acceleration Process method is its flexibility. When management utilizes this model, they must understand that it can exist in a nonlinear fashion, as various elements change in important to the CM team and their constituents. The disadvantage of the CAP Model is in its requirement of a strong leader, otherwise the model weakens. The leader must be able to get everyone onboard and committed to making the change.

Model Comparisons In a careful review of these five models, one thing becomes abundantly clear with every one. No matter the model, change will only be successful if communicated and accepted by employees or project team members. It is also critical that an organization or project team should be able to manage CM effectively with appropriate support, knowledge, and resources. CM has a lot of moving parts to it, so management must understand all resistant forces. Failure to do so can be costly, decrease loyalty, reduce the probability of reaching goals, waste money, or squander resources. Nevertheless, not all resistance to change is bad because it forces management to check their vision or roadmap to help identify problem areas. Resistance also provides management with information about the intensity of an employee's emotions on the issues or provides a means of releasing emotions.

Each of the models grasp the basic concept of CM, which is starting at a current state and realizing a need for change, entering the transition phase, implementing the change, and then getting to their desired state. Three of the five models (Kotter's, McKinsey, and CAP) provide the substantial details on beginning, managing, and sustaining change. This level of detail provides clarity and structure, such as if Lewin's Model is not managed properly, things can easily go awry.

Some models focused more on the process of executing change itself, rather than on the people dimension. Furthermore, Lewin's and Kotter's models were the most limited on the people aspect. ADKAR had the greatest focus on employees and team members, but it is limited when seeking large-scale implementations.

Failure to effectively understand and manage CM models contributes to why change management initiatives are branded as nebulous and trivial undertakings. Thus, it is critical that the selected CM model reinforces change and is linked to a successful and sustainable implementation (Holloway, 2015).

The initial goal of this paper was to find the most effective model. After all of the research was done, it was clear that the most effective model is contingent. There are a couple of perspectives on the most effective model because of the differing characteristics of project teams and broader organizations.

For large organizations, our perspective is that the most effective CM model is likely to be General Electric's Change Acceleration Model. This is the most effective because it was designed with large organizations in mind. The large quantities of people in large

organizations need to have many who are committed to a change to work successfully. As a result, this model separates the steps into enough detail to manage change elementally and in smaller pieces. Most importantly, it monitors the progress of the change before implementation.

Since a project has the constraint of a schedule, the CM process that it employs needs to be extremely effective to not throw the project into overruns or scope creep. The most effective model that can support this critical element is likely to be Kotter's 8 Step Change Model. This model concurrently incorporates relevant change agents, stakeholders, and team members to carry out an effective change, which expedites the CM program.

These perspectives are very general, and we are only mentioning the effectiveness, advantages, and disadvantages in a broad overview. There are many other items to consider. This section provides a starting point for managers to consider what is appropriate for their organization and/or project team. Also, the insights provided are based on the broad literature in this area.

Dealing with Change Management Models: Organizational and Managerial Concerns

There are many concerns and implications at various levels of the organization and managerial layers. Some of these dimensions are obvious, and the research literature confirms them. However, these concerns and issues bear repeating. They are meant to aid managers and organizations to remember that a broader picture for the application of these models is needed, especially before they are consumed by the minutiae of CM models and implementation.

Strategic and operational change is a constant concern to remain competitive. Top-down and bottom-up leadership approaches are necessary. Additionally, strong and well-directed visions could aid change management. Poorly delivered organizational policies and a misalignment between top-down and bottom-up philosophies will doom CM.

Adequate training is needed for management and leadership to oversee their approach. Furthermore, leadership training on various aspects and importance of overall performance is necessary. Inadequate leadership development programs, skills, and supervision are major concerns for these CM models. With the proper training, a leader can see that the focus should be on managing these variables, their concepts, and models, rather than being concerned over short-term profits and costs alone.

Financial elements and resources allocation will limit organizational CM programs. Focusing on short-term problems may not produce long-term solutions. The network and complexity of organizations means that unintended consequences will arise; managers should be aware of these to think systematically and holistically (Clancy, 2018).

At the managerial level, leadership and collaboration play critical roles. Management should broaden mentoring and leadership skills for every department or team to identify weaknesses. Gap analysis and benchmarking, to identify change needs and weaknesses against standard and industry practices, is always a tricky proposition. The relationships of models, factors, and tools beyond the CM models presented here can become a difficult to integrate. Thus, awareness and care are needed when various tools are sought to be integrated with these CM models.

Team thinking and buy-in goes beyond the individual. Project teams, as well as project and organizational leadership, need to determine the type of training content. Understanding the choices is the first step.

Team performance evaluation is important for their effectiveness. This is beyond training, measuring, and monitoring the various aspects of teams. Essentially, knowledge and expertise in delivering on the vision is necessary. Also, linking project and team performance and effectiveness to broader business performance is necessary. Linking these performance metrics and goals to CM programs is a non-trivial task.

Even with all of these caveats, managers should be wary when implementing CM programs where paralysis occurs. Sometimes focusing on the many peripherals and preparation may cause CM efforts to drag out. As a result, motivation and moral need careful examination.

Engineering and technical professions typically prefer analytical solutions and have these skills. Providing the project management and engineering community with an overview of these CM models is a first stage. Then, selecting the appropriate one for your situation is critical, especially based on culture and skills of project and engineering managers.

Decision tools can be integrated throughout these CM models; project managers and engineers have a variety of analytical tools at their disposal. Similar to broader managerial concerns, falling prey to poorly integrated tools used for CM can cause difficulties and barriers to progress. Focusing too much on the analytics and not enough on the

culture can be a trap for many analytical thinkers.

Conclusion

Overall, this paper examines five popular CM tools. Each tool has a slightly different perspective. Although we provide some direction and concerns, it is ultimately your environment that will determine which is best for you. Whether at the organizational or project management level, change is ubiquitous. However, be aware that the model itself can be perfect for the organization or company, but without the willingness or desire to change from employees and team members, the process to implement change will almost always fail.

Poor leadership is a big influence on the success of the change. This led me to my final thoughts on the topic of CM: people are the changes, not the models, and people will only change if they see and feel the need to do so. Thus, it is so important to effectively communicate the need for change and to include employees, as well as team members, to feel part of the change.

Resistance is normal, but it comes into play when employees feel left out or that someone is telling them how to do their jobs. This is where conflict arises. A proactive change management leader will address his/her project team members' concerns immediately to ensure that they are comfortable with getting onboard with the changes.

This overview is intended to build your knowledge, lessons from the research, and long history of CM models. The references provided present details into some of the various aspects of the issues presented here. Finally, these references prove to be valuable resources.

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