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Leading Complex Change in Facility Management: A Prescriptive Analysis of Software Adoption Using Kotter's 8-Step Model

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Abstract

This study provides an insight and prescriptive approach in leading to a complex change in a facilities management company aiming to have a technological upgrade through a purchase of Software Applications Product (SAP). The prescriptive study aims to determine the employees' readiness to embrace change in terms of both technical and human aspects. This study provides guidance on the use of both quantitative and qualitative research methods using the theoretical framework of Kotter's 8 step model. The patterns and results from the qualitative research methods will serve as the framework for quantitative analysis in testing its generalizability. The study focuses only on prescriptive approach since the mixed methods mentioned were not done to test the hypotheses and that the expected results were purely based on literature review pertaining to employee's resistance to change and different frameworks about leading complex changes.

1. Introduction

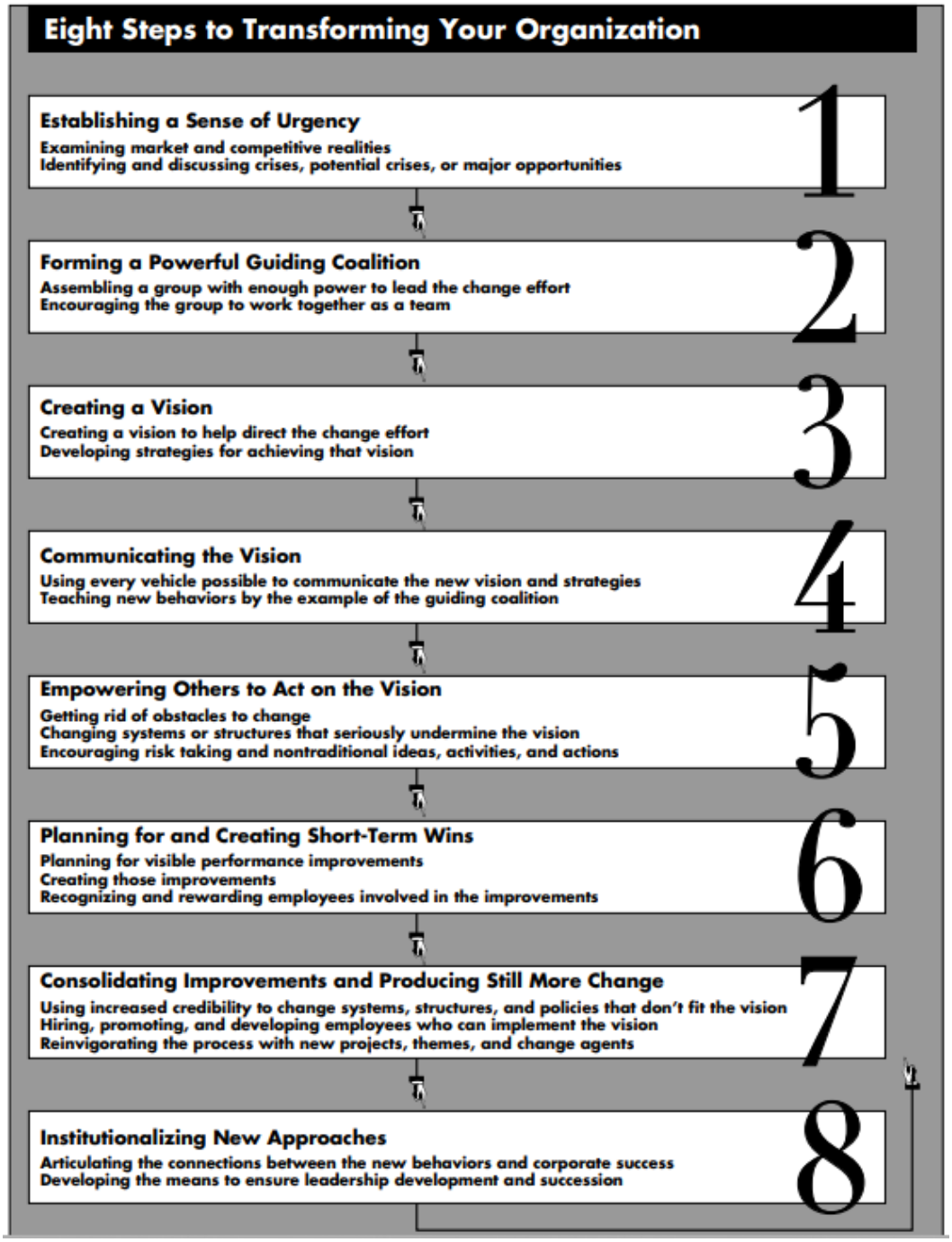
This study adopts a prescriptive and conceptual approach rather than an empirical research design. The primary objective of the paper is to provide a strategic framework for leading complex organizational change in facility management through the application of Kotter's 8-Step Model. Since the study is focused on developing a theoretically grounded prescriptive framework based on existing literature, organizational change theories, and established models of resistance to change, conducting a pilot qualitative study is beyond the scope of the present paper. The proposed framework is intentionally anchored on Kotter's model as the foundational structure for analyzing employee readiness, leadership response, communication strategies, and organizational adaptation during software adoption. Consequently, the study does not aim to empirically validate hypotheses at this stage, but rather to provide a conceptual and practical guide for future researchers and practitioners who may later operationalize and empirically test the framework in real organizational change.

Leading a change has always been a challenge to organizations. Most of the organizations failed to transform into better competitors (Kotter, 2007). A change process is a step-by-step procedure which requires a huge amount of time to become successful. There are different frameworks and models on how to lead and manage a complex change within an organization. Some of these popular models are ADKAR model and Kotter's 8 Step Accelerate Model.

ADKAR model is an acronym for Awareness, Desire, Knowledge, Ability, and Reinforcement. It is an approach to understand the factors affecting resistance to change within the organization (Paramitha et al., 2020). However, Hiatt (2006)

emphasized that this model lacks focus in addressing the psychological aspects of employees such as emotions. Which is very crucial in managing changes in organizations. Additionally, the model assumes that change happen sequentially and that individuals move in linear pattern (Hiatt, 2006). Whereas it is more complex and individuals may or may not follow the steps sequentially to lift their resistance to change. Making the model less effective in complex transformations that require beyond a linear approach. ADKAR model also emphasizes management over leadership, which can result in insufficiencies in dealing with emotional aspects (Hiatt, 2006).

On the other hand, Kotter (2007) observed that there are key steps that organizations fail to address which results to failure. Kotter (2007) emphasized that these steps should be followed thoroughly and skipping it will jeopardize the overall efforts and results (Kotter, 2007). According to Kotter (2007), there are 8 steps to follow to transform the organization (see photo below):



Aside from ADKAR and Kotter's 8 step accelerate model, there are various frameworks and models in the literature that provide guidance in leading and managing change within an organization. This paper will examine the feasibility of Kotter's 8 step model in implementing a Software Application Product in a Facility Management Company in Asia Pacific.

2. Background

The company to assess in this study is named Company A. For this study, it will only focus on Company A's multiple shopping centers in Asia Pacific

Over the years, the company has been using the same system to manage its facilities. These includes the following services (Lepkova & Žūkaitė-Jefimovienė 2012):

- Property and Real Estate Management (e.g., retail, leasing, subleasing, and space rental).
- Project Management of Facility (e.g., demolition, new construction, relocation, and additions).
- Repairs and Maintenance (e.g., renovation, upkeep, landscaping, and cleaning of facilities).
- Building Operations and Services (e.g., distribution of energy, health and safety, getting rid of garbage, and pest control).
- Office Services (e.g., phone systems, mail delivery, storage, corporate hospitality, public relations, and fleet management of automobiles).
- Programming and Planning (e.g., planning for resources, development, and work scheduling).
- Space Management and Planning (e.g., facility planning, space use audit, space planning, and configuration and allocation).
- Management and Operations Administrations (e.g., office furniture provision, contract negotiation and control, and budget and cost management).
- Employee Services and Support (e.g., childcare services, facilities, entertainment, food, and community activities).

The challenge is the implementation and the buying in of the employees to adopt the new technology. On top of their daily workloads and tight deadlines that need attention. Implementing new technology will have a huge shift in employee behavior and might affect their performance. Furthermore, there are factors that need to address which contribute to resistance to change such as fear of the unknown, perceived loss of control, and job security (Hubbart, 2023; Khaw et al., 2023). However, employee involvement and engagement, effective leadership, and clear communication could help to mitigate these resistance behaviors (Khaw et al., 2023).

The study will focus on identifying the best approaches and practices on how to successfully lead the implementation of SAP (facility management software). The researcher will adopt the Kotter 8 Step Accelerate Model in addressing the challenges which the organization will experience during implementation. Specifically, the study aims to answer the following research question below:

Does the use of Kotter 8 Step Accelerate Model supported with polarity map can help the organization to successfully implement the introduction of new SAP by determining the human factors that contribute to resistance to change?

Null Hypothesis: The Kotter 8 Step Model is not an effective framework in identifying the factors that contribute to the employees' resistance to change.

Alternative Hypothesis: The Kotter 8 Step Model is an effective framework in identifying the factors that contribute to the employees' resistance to change?

To support the above research question, some of the few literatures regarding facility management, SAP applications, and leading complex changes are presented in the next chapter.

3. Literature Review

This Chapter presents the related literature reviews about alignment of leading a complex change in the adoption and implementation of advanced SAP in a facility management company in Asia Pacific.

Property / Facilities Management Services

The beginning of PM can be perceived to be developed in 1978 when one of the leading furniture producers in the world, Herman Miller Corporation conducted a conference entitled "*Facilities Impact on Productivity*", to which facilities pertain as infrastructures, equipment, buildings, and technical auxiliary devices (Lepkova & Žūkaitė-Jefimovienė, 2012). Secondly, in the late 1990s in Northern Europe, new academic subjects and occupations related to PM emerged (Lepkova, Vilutiene, 2008; Lepkova & Žūkaitė-Jefimovienė, 2012; Pitt, Tucker, 2008).

PM pertains to the management of establishments and services needed to support and accommodate the business activities of companies while consistently providing value to the stakeholders (Mudrak et al., 2004). A common definition of PM is the "management of integrated workplace to improve organization performance" (Mudrak et al., 2004). Organizations give less importance when it comes to PM because they perceive it as a cost-generating activity that does not give much in return (Read & Carswell, 2019). This misconception is important to address as it will lead organizations to neglect the emerging trends in property management that are likely to improve customer satisfaction (Sanderson, 2020). On the other hand, PM has a lot of positive indirect effects on the performance of the businesses of all the parties involved in the establishment (Rasila & Gelsberg, 2007). Therefore, PM plays a crucial

role in overseeing facilities resources, support services, and the workplace to sustain an organization's core business over the long and short terms (Lepkova & Žūkaitė-Jefimovienė, 2012).

There are also articles that narrow it down into more specific scopes. Lepkova & Vilutiene (2008) and bin syed Mustapa et al. (2008) defined PM as a unified complex that was formulated to deliver comfort and efficiency in building operations and maintenance. Because buildings should be able to provide the occupants with a conducive environment for performing different kinds of activities such as recreation, social interactions, study, and work (Piyush et al., 2016). These services in the facilities management industry could be enhanced by using SAP, which is applicable in facilities management.

Software applications product in Facility Management

In today's competitive world, it is necessary for an organization to adapt and change not only to remain competitive (Paramitha et al., 2020; Hubbart 2023) but also to ensure operational efficiency, enhanced customer satisfaction, security, and employee flexibility (Mckinsey & Company, 2020). One way is technological upgrades or introduction of advanced SAP.

In the context of Facility Management (FM), there are different approaches that an organization could pursue towards technological upgrades. Below are some of the practices that the facility management industry has adopted:

1. Building Information Modelling

   Integration of building information modelling (BIM) in the facilities management industry allows the organization to visualize any important information in the

building which are vital in enhancing operational facility usage and space consumption, facility upgrade, cost optimizations, and facility planning (Eastman, 2011).

2. Internet of Things (IOT) for smart facilities

   IOT provides instantaneous information of facilities through the integration of sensors and devices to the mechanical equipment and facilities. These systems provide data and information for energy management, utility consumption optimizations leading to a lower operational cost, predictive maintenance, and optimized space utilizations (Perera et al., 2013)

3. Artificial Intelligence (AI) for Predictive Maintenance

   AI is becoming more widely used in different industries. In facilities management, the used of AI helps an organization leverage its existing and retrieved data from the sensors for data processing and optimization. AI could also see trends and patterns for any mechanical failure in future and provide insights for proactive approaches leading to reduced downtime and extend asset life (Zhou et al., 2016).

4. Cloud based facility management software

   Cloud based facility management software provides a centralized access of information within the organization making any needed information to be readily available which could help streamline processes and hasten decision making (Alam, 2020).

5. Augmented Reality (AR) for maintenance and repairs

   Unlike the building information modelling, AR provides a visual simulation with the user. Thus, providing a clearer information and visualization for the facility

staff in helping to resolve complex issues that require visualizations specifically in narrow spaces where information is restricted (Irizarry et al., 2020)

6. Sustainability and Energy Management Systems

   Technological advances like smart meters and energy management software help facilities reduce energy consumption and improve sustainability (Ahmad & Zhang, 2020).

The above technological advances are used to improve the services and practices in facilities management industry. The company plans to manage these technological advances in the abovementioned through purchasing new software. Although the literature presents a promising future on how facility management has evolved and improved; the real challenge is how the employees of the organization could buy in with these ideas, given that these changes are way beyond complex and require time and training to implement successfully. Aside from the technical aspects, the human aspects of the organization, such as human factors, should also be addressed, and this is where the strategy on how the organization will handle these complex changes which is presented in the next sub section of this chapter.

Leading Complex Change in Organizations

Leading an organization towards a complex change is challenging and 70% of the organizations fail in implementing change initiatives (Forbes, 2022). Furthermore, there are multiple reasons why organizations fail (Forbes, 2022), and human factors is one of the major contributors. Furthermore, change management requires lessons learned from past experiences, running the process smoothly and properly, and

designating roles and responsibilities to all involved stakeholders (Paramitha, 2020). Below are the related studies about implementation of SAPs and their findings:

A study on Enterprise Resource Planning (ERP) implementation in UK was analyzed by Finney and Corbett (2007). The study aimed to determine the prevailing factors that could affect the implementation of new ERP system and foresee any possible gaps that may arise. However, the study lacks research focus and concentration on the key stake holders and the strategies presented in the study are not clearly stated. Thus, making it confusing for the stakeholders to get involved during the change management.

Another study about the implementation of ERP and the associated factors that affect it was conducted by Chou and Chang (2008). They examined the ERP's post implementation performance from managerial perspective. The findings of the study had supported its following hypothesis. (H1) Companies that have experience in ERP implementation tend to have greater coordination. (H2) or companies that have experience in ERP implementation tend to have greater task efficiency. (H3) Companies that have experience in ERP implementation have greater improvement and coordination to which Organization Mechanism (OM) is characterized by OM strategic and operational. (H4) For companies that have experience in ERP implementation, the greater the extent to which OM is considered, the greater the efficiency of their duties will be. (H5) Companies that have experience in ERP implementation, greater improvements in coordination with other sub-units were observed. And (H6) For companies that have implemented ERP, a bigger task in efficiency associated with the overall benefits of ERP.

Several studies have been published in leading and managing complex changes in an organization. But it still depends on the strategic approach of the researcher on how to lead the organization towards success. For this study, the author will identify the impediments towards employee adoption of the new system based on Kotter's 8 Step Accelerate Model. Below are the lists of semi structured survey questionnaires to understand employees' readiness about technological upgrade:

K1. Establishing a sense of urgency:

Question: *What are the challenges or issues do you face that make you feel the need for change is unnecessary?*

Follow-up question: *How could we improve our communication so that you will feel the need for immediate change to motivate you and your colleagues?*

K2. Forming a powerful guiding coalition.

Question: *In your own opinion, how capable is the leadership team driving the change? Are there any gaps in leadership or collaboration that hinders progress?*

Follow-up question: *What can be done to strengthen this leadership group's credibility and effectiveness?*

K3. Creating a vision.

Question: *Is the vision and strategy for the organizational change clear and compelling? Do you think it is aligned with the change process?*

Follow-up question: *Which changes should the organization do for you to better understand or feel more committed to the vision?*

K4. Communicating the vision:

Question: *How well has the vision for change been communicated to you? Do you feel that important details have been left out or that the communication is insufficient?*

Follow-up question: *What communication methods would help you feel more engaged or informed about the change?*

K5. Empowering others to act on the vision.

Question: *What impediments do you encounter in taking the actions needed to support the change? Are there any barriers such as environmental, technological, or resource limitations that hinder you from contributing and coordinating effectively?*

Follow-up question: *What can be done to empower you and your team to take the initiative and necessary steps?*

K6. Planning and creating short term wins.

Question: *Do you feel motivated if small wins are rewarded during the change process? Do you feel that the results of the small changes could be observed within a week? How do you feel about the progress of the change?*

Have you seen any early successes or small wins that motivate you, or do you feel progress is too slow?

Follow-up question: *What short-term goals would help you feel that change is achievable?*

K7. Consolidating improvements and producing still more change.

Question: *Do you feel that initial successes are built effectively, or is there a risk of losing momentum? What challenges do you see in sustaining progress?*

Follow-up question: *What would help maintain the momentum for change in the long term?*

K8. Institutionalizing new approaches.

Question**:** *How do you see the change being embedded and integrated into the organization cultre? Are there any existing cultural norms or behaviors that might block the change from becoming permanent?*

Follow-up question: *What could be done to help these changes become part of the organization's culture?*

The above questionnaires (K1 to K8) will help the organization in understanding the human factors affecting the successful implementation of SAP based on their past

experiences and the factors that hold them back from fully embracing the change process.

Literature Review Synthesis

Although several studies have examined organizational change, ERP/SAP implementation, and employee resistance, the findings in the literature remain fragmented in terms of strategic integration and practical application. Existing studies on ERP implementation primarily focus on operational efficiency, coordination, and post-implementation performance (Chou & Chang, 2008), while other studies emphasize technical implementation risks and organizational gaps (Finney & Corbett, 2007). However, many of these studies place greater emphasis on technical and managerial dimensions rather than the human and behavioral aspects of organizational transformation.

Furthermore, studies on change management frameworks reveal contrasting perspectives regarding how organizations should manage resistance to change. The ADKAR model emphasizes sequential individual transition through awareness, desire, knowledge, ability, and reinforcement, making it useful for understanding behavioral adjustment at the individual level. However, critics argue that the model may oversimplify complex organizational dynamics because resistance to change does not always occur in a linear manner (Hiatt, 2006). In contrast, Kotter's 8-Step Model provides a broader leadership-oriented framework that emphasizes urgency creation, coalition building, strategic communication, empowerment, and institutionalization of

change. Compared to ADKAR, Kotter's model places stronger emphasis on leadership influence, organizational alignment, and sustaining long-term transformation.

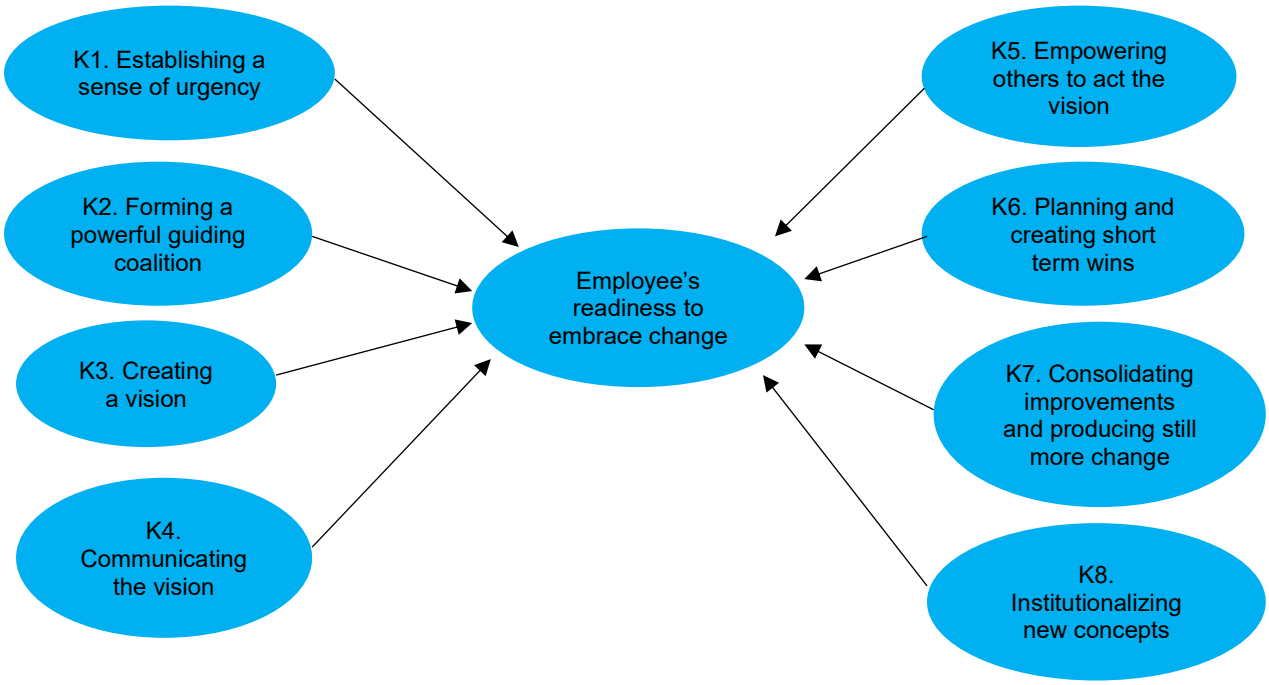
The literature also suggests that employee resistance remains one of the most significant barriers to successful technological adoption. Resistance is often associated with fear of uncertainty, perceived loss of control, workload increase, insufficient communication, and threats to job security (Hubbart, 2023; Khaw et al., 2023). While technological innovations such as cloud-based systems, AI integration, and predictive maintenance provide operational advantages, existing studies frequently underestimate the emotional and adaptive challenges experienced by employees during implementation. As a result, many organizations become technically prepared for transformation but remain behaviorally unprepared for organizational adaptation.

Therefore, this study attempts to bridge the gap between technical implementation and human adaptation by synthesizing literature on ERP/SAP adoption, resistance to change, and leadership driven transformation using Kotter's 8-Step Model as the primary analytical framework. Unlike purely descriptive studies focusing only on technological benefits, this paper critically examines how leadership strategies and employee readiness collectively influence the success or failure of complex organizational change in facility management settings.

4. Complex Change Analysis and Evaluation

The above questionnaires will be distributed to the facility managers so that the organization can have an idea how and why these factors contribute towards employee readiness in embracing change. The answers of the employees will be analyzed using qualitative analysis in the form of deductive coding. The independent

variables will be the Kotter's 8 Step Accelerate Model, and the dependent variable will be the employees' readiness to embrace change:



Upon conducting interviews with the facility managers. The results of the qualitative analysis through deductive coding will be used as a basis in the formulation of the new framework that impacts the employee's readiness to embrace change. This newly formulated framework will be distributed to the supervisors up to stake holders involved in running the facility and will be further analyzed using quantitative analysis. Doing this ensures generalizability, reliability, validity, and credibility was established in this study.

Background

A declining customer satisfaction was observed and there was multiple feedback received from tenants. Additionally, competitors are starting to take over the market share, and the company is slowly losing its clients.

The technology and system of the company is also outdated, which makes it difficult to rival its competitors. Some of the current trends being widely used in the facility management industry are cloud-based system software, AI integration to optimize processes and reduce cost, energy modeling and management system, predictive maintenance, and Building information modeling (author). These were the reasons why the competitors can produce fast and quality outputs whenever the clients raised a query.

Third is that there are recurring maintenance feedback and swelling maintenance problems in the facilities managed by the company. Neglecting all these signs could put the company in jeopardy.

Upon further investigation, the company could initiate a technology upgrade since there are no lapses observed in manpower and processes. Thus, an upgrade in technology would be the best option to start the change in the company.

Thus, the organization should decide to start the change by technology upgrade where there will be an integration of cloud software for facilities management.

The project is still on going and there are some key considerations to the following limitations:

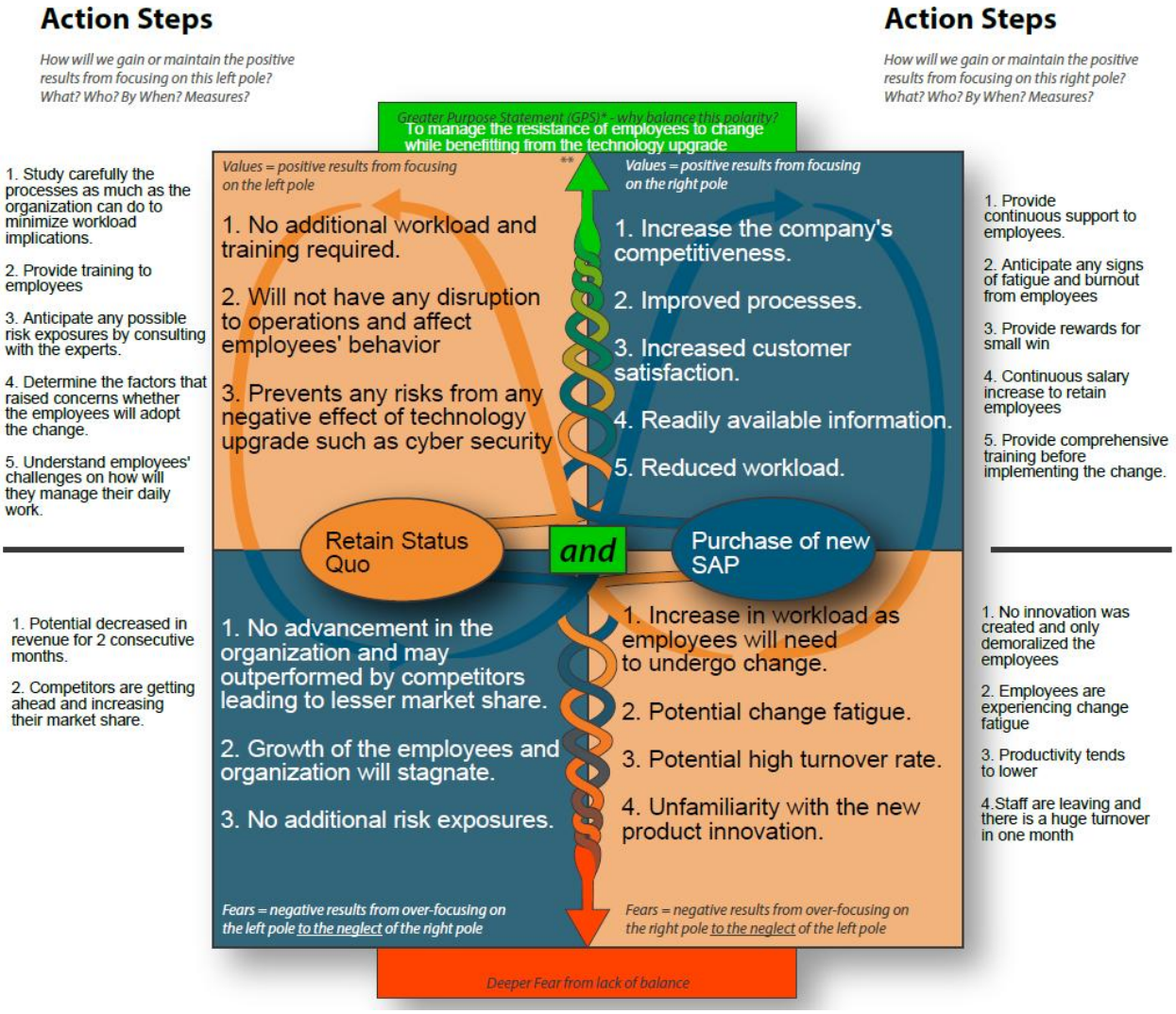
There are further underlying conditions on why there are a lot of unresolved maintenance issues. Some of the possible reasons are employee behaviour, leadership style, unclear communication of company's goals and vision, and salary compensation.

Even if the technology upgrade was the best option based on the findings, technical solutions alone is not enough to resolve the issues. Factors contributing the resistance to embrace change also play a major role. That is why questionnaires in

understanding the behaviour towards resistance to change were formulated in the literature review section. Thus, having an understanding not only in technical aspect but also in terms of human factors will increase the probability of success in addressing the issues.

Polarity Map

The polarity map below shows how the organization could manage the employees' resistance towards change while as much as possible maximizing the potential benefits from the technology upgrade.



The organization is a one entire complex adaptive system and a change in one employee could impact the entire department. And a change in one department could impact the entire organization.

The solutions that the organization had pursued must be viewed in different perspectives. The impact to other departments and their reactions must also be anticipated to minimize any potential problems. On top of that, a technical change such as technology upgrade is always tied up of willingness to learn and apply it for the benefit of the entire organization.

Organization Change

Rootcausethat needed the direction to change

The frequent customer dissatisfaction and the adoption of industry towards technological advancement. If the company will not keep up with the trend it will be left behind and it will lose its market share.

Upgrading to an advanced facilities management software also provides better services, ensures operational efficiency, keeps track of information, provides better data for analysis and recommends future potential problems.

Moreover, the benefits that will be reaped from this change is far greater compared to the sacrifices that the employees will experience. There is a need to embrace change to remain competitive in the market.

Potential employee responses to change

There are different employee responses to the change contrasting with the planned change. In this study the employees' readiness to embrace change will be

evaluated using the Kotter's 8 Step approach. Some will deviate from what was expected and some will display as what was describe in the formulated independent variables. One of the common responses of the employees will be the change fatigue. This creates confusion, quite resignation, high employee turnover rate, inability to keep up with the changes, disconnection with the workplace, and overwhelmed. The employee performance will be hugely affected specifically if the change is fast and complicated.

Employees may also form a coalition that resists the organization's movement towards change.

Potential reason for change

The reason for the change in structural, process, cost and cultural are the same. For advancement and optimization.

Leveraging new emerging technology optimizes processes and poses cost savings. The structural and cultural might remain the same but the organization has to keep track of the unusual changes in the cultural changes which might imply negative effects.

Potential impact of change in organization

The change requires a lot of adjustments, and it will be highly impactful as it does not only focus on the technical aspect of the organization. Aside from the technicalities, trainings, and new technology adoption. Employees might feel a culture shock and the resistance will likely be very high. The more complicated and impactful the change is the higher is the employee's resistance as it requires a lot of adjustments.

The organization should also anticipate for any resistance fatigue and provide an action plan on how to mitigate it.

In terms of an organizational structure, there will be a moderate change since some might have to change roles, and some might also leave. A reduction and an optimization of process also mean lesser manpower which might impose a threat to the employees' job security.

Barriers to change

According to the Kotter's 8 step accelerate model. The barriers to change that the organization could anticipate are not establishing a sense of urgency, not forming a powerful guiding coalition, not communication and creating the vision well, no empowerment to act on the vision, not planning and not creating short term wins, not consolidating improvements, and not institutionalizing new approaches.

Stakeholder participation

A complex change requires the participation of each department and each employee to become successful.

In facilities management, stakeholders include individuals or groups who have an interest in the effective operation and management of a facility. Key stakeholders typically include:

1. Building Owners – Are the group of people who owns the property and are concerned with profitability, building value, and regulatory compliance.

2. Facility Managers – They are responsible for daily operations, maintenance, and ensuring the facility meets safety standards and conducive for building occupants.

3. Employees/Occupants – Individuals who work or use the facility, concerned with safety, comfort, and functionality.

4. Tenants – Tenants are one of the critical stakeholders concerned with lease terms, profitability for commercial establishments, maintenance, and service quality.

5. Maintenance and Service Providers – These are one of the key stake holders the which are either external contractors or service providers responsible for maintenance tasks for equipment and facilities.

6. Suppliers – Those who provide equipment, materials, and supplies required for the facility's upkeep and operations.

7. Customers/Clients – For commercial facilities, customers directly influence facility design, access, and quality of services provided.

Each stakeholder plays a vital role in influencing the decision-making process within facilities management.

Decision making effectiveness evaluation

Decisions form if there are recurrent non compliances on the site managed by the company for a long period of time. This signals to the leaders and stake holders that there is something wrong with the people or the system and thus, it requires an immediate attention and decision making. The person handling the decision making depends on the weight and severity of the decision. But in a typical process in facilities management. The building owners will consult with the facility management company, and the company will give recommendations about the necessary steps and if there are any implications in terms of operations, legal, profit, environment, and political.

Upon getting the information from the different experts in different fields. A meeting will be conducted to come up with the best practices and solution approach to the problem being dealt with.

Potential major decision to be taken

The bigger challenge is always whether the organization will or will not pursue the decision given the uncertainties and risks associated with it. One of the major decisions that leaders had made is to increase the site staff due to an increase in facilities maintenance issues and the continuous feedback of unsatisfied clients and tenants. Although it reduces the company profitability, what's more important is to retain the current customers so that the organization will continue to thrive in the industry.

Change leadership

The change requires a lot of adjustments, and it will be highly impactful as it does not only focus on the technical aspect of the organization. The change is a combination of both adaptive and technical problems. Because aside from the technicalities, trainings, and new technology adoption. Employees might feel a culture shock and the resistance will likely be very high. The more complicated and impactful the change is the higher is the employee's resistance as it requires a lot of adjustments.

The organization should also anticipate for any resistance fatigue and provide an action plan on how to mitigate it.

In terms of an organizational structure, there will be a moderate change since some might have to change roles, and some might also leave. A reduction and an

optimization of process also mean lesser manpower which might impose a threat to the employees' job security.

This study is more on prescriptive approach on how the organization will deal with the change upon implementation which why it requires a combination of both qualitative and quantitative approaches. So that the amount of understanding that could be extracted in this study will be able to capture both the technical and human aspect that is causing a huge resistance to change by the employees.

The problem could be address by implementing a new technology which optimizes processes and reduces costs.

Leadership competencies

Some of the required leadership competencies to execute in times of change are being able to inspire and motivate employees, effective leadership by identifying each employees' strengths and weaknesses and giving them the appropriate role to maximize their potential, ability to build strong relationships, ability to make informed decisions, conflict management and problem-solving skills also play a vital role in leading the organization towards successful change effort.

Different tools and framework were used to yield the expected optimum results. These are combination of balance score card and Kotter 8 step model approach. But what stands out the most is the ability of the leaders to understand the frustration of the employees and their daily challenges. Being able to think strategically and stepping

back to look at the current system of the organization and provide a solution on how things could be managed is one of the skills that a leader should possess.

5. Expected Leadership Challenges, Results, and Conclusions

Currently the organization is using a simple system to operate and manage the building facilities and equipment. There is also a simple software where the tenants could raise their feedback for the facilities team needed action. Disrupting all these conventional systems from operations to distributing different roles with additional workload supplemented with technical challenges and training will drive a huge challenge to the organization and employees. Resistance of employees to embrace change is inevitable. Some of the anticipated reactions of the employees during the implementation of the change are disengagement and loss of connection with the team, lowered employee performance, high turnover rate, and inability to focus on work due to double roles that they need to fulfil.

This study provides guidance for future researchers that will do mixed methods in leading complex change. The qualitative approach serves as the basis for initial framework which will be used to test for generalizability using quantitative study. Facility management professionals often rely on intuition and experience in dealing with daily and long-term decision making. Because of that, this study provides a strong basis backed by scientific study to facility managers of which approach to be taken when implementing a software application product.

This study contributes theoretically by extending the application of Kotter's 8-Step Model into the context of facility management, which remains relatively underexplored in organizational change literature. Existing studies on Kotter's framework are commonly concentrated in corporate management, healthcare, education, and general organizational transformation, while limited attention has been given to facility management environments where operational continuity, technical complexity, stakeholder coordination, and maintenance driven workflows simultaneously interact. Unlike traditional office based

organizational settings, facility management organizations operate in highly dynamic environments involving technical operations, tenant expectations, safety compliance, maintenance response, and multi stakeholder coordination. As a result, employee resistance to technological change in facility management may manifest differently due to operational pressures, reactive maintenance culture, workload intensity, and dependence on legacy systems.

This paper therefore extends the theoretical applicability of Kotter's model by contextualizing it within facility management operations and integrating both technical and human dimensions of organizational transformation. The study also provides a prescriptive framework demonstrating how Kotter's 8-Step Model may be used not only as a leadership tool for change implementation, but also as a structured mechanism for identifying employee resistance factors during software adoption. Consequently, the study contributes to the growing literature on change management by bridging the gap between leadership theory, technological transformation, and operational realities in facility management organizations.

Furthermore, this study has its own limitations. The scope of the 1 to 1 interview with the key personnel limits the number of quality data that could be extracted due to time and cost constraints. Whereas a deeper reason and information could be gathered if the interview will also be conducted to employees handling the daily operations and interacting directly with stakeholders and tenants.

The second limitation is that no further investigation was conducted to other departments of the organization such as finance team, marketing team, tenant team, and quality team. Thus, implementing the change may result to unforeseen reaction of other departments which cause negative implications to the organization.

The solutions presented in this study may be insufficient since the qualitative and quantitative analysis results are not within the scope of the study and the results presented were purely hypothesized based on the current literature review.

Future studies may extend this prescriptive framework through qualitative pilot testing, quantitative validation, or mixed-method empirical investigations to assess its applicability and generalizability across different facility management contexts.

Finally, cost to benefit analysis was not included in this study and thus pursuing the methodologies does not clearly indicate whether the actions elaborated will yield to profitability or loss of revenue.

6. References

Ahmad, T., & Zhang, D. (2020). A critical review of comparative global historical energy consumption and future demand: The story told so far. *Energy Reports*, *6*, 1973-1991.

Alam, T. (2020). Cloud Computing and its role in the Information Technology. *IAIC Transactions on Sustainable Digital Innovation (ITSDI)*, *1*(2), 108-115.

bin Syed Mustapa, S. A. H., Adnan, H., & Jusoff, K. (2008). Facility management challenges and opportunities in the Malaysian property sector. Journal of Sustainable Development, 1(2), P79.

Chotipanich, S. (2004). Positioning facility management. Facilities, Vol. 22, Nos. 13/14, pp. 364-372.

Chou, S. W., & Chang, Y. C. (2008). The implementation factors that influence the ERP (enterprise resource planning) benefits. *Decision support systems*, *46*(1), 149-157.

Eastman, C. M. (2011). *BIM handbook: A guide to building information modeling for owners, managers, designers, engineers and contractors*. John Wiley & Sons.

Finney, S., & Corbett, M. (2007). ERP implementation: a compilation and analysis of critical success factors. *Business process management journal*, *13*(3), 329-347.

Forbes (2022). Most Change Initiatives Fail – Here's How to Beat The Odds. Retrieved from: https://www.forbes.com/sites/lisabodell/2022/03/28/most-change-initiatives-fail---heres-how-to-beat-the-odds/

Hiatt, J. (2006). *ADKAR: a model for change in business, government, and our community*. Prosci.

Hubbart, J. A. (2023). Organizational change: The challenge of change aversion. *Administrative Sciences*, *13*(7), 162.

Irizarry, J., Gheisari, M., & Walker, B. N. (2012). Usability assessment of drone technology as safety inspection tools. *Journal of Information Technology in Construction (ITcon)*, *17*(12), 194-212.

Khaw, K. W., Alnoor, A., Al-Abrrow, H., Tiberius, V., Ganesan, Y., & Atshan, N. A. (2023). Reactions towards organizational change: a systematic literature review. *Current Psychology*, *42*(22), 19137-19160.

Kotter, J. P. (2007). Leading change: Why transformation efforts fail. In *Museum management and marketing* (pp. 20-29). Routledge.

Lepkova, N. - Vilutiene, T. (2008). Pastatų ūkio valdymas: teorija ir praktika (Facilities management: theory and practice). Vilnius: Technika, 328 pp. ISBN 978-9955-28-309-6 (in Lithuanian).

Lepkova, N., & Žūkaitė-Jefimovienė, G. (2012). Study on customer satisfaction with facilities management services in Lithuania. Slovak Journal of Civil Engineering, 20(4), 1-16.

McKinsey & Company. (2020). "The need for speed in the post-COVID-19 economy." Retrieved from mckinsey.com

Mudrak, T. - Wagenberg, A. - Wubben, E. (2004). Assessing the innovative ability of FM teams: a review. Facilities, Vol. 22, Nos. 11/12, pp. 290-295.

Paramitha, T. A., Tobing, D. K., & Suroso, I. (2020). ADKAR Model to Manage Organizational Change. *International Journal of Research Science and Management*, *7*(1), 141-149.

Perera, C., Zaslavsky, A., Christen, P., & Georgakopoulos, D. (2013). Context aware computing for the internet of things: A survey. *IEEE communications surveys & tutorials*, *16*(1), 414-454.

Pitt, M. - Tucker, M. (2008). Performance measurement in facilities management: driving innovation? Property Management, Vol. 26, No. 4, pp. 241–254.

Piyush, R., Bhatt, R., & Pitroda, J. (2016). Study of factors affecting customer satisfaction for residential flats in Surat and Ahmedabad city in Gujarat region of India. International Research Journal of Engineering and Technology, 3(03), 1-8.

Rasila, H. M. - Gelsberg, N. F. (2007). Service quality in outsourced facility maintenance services. Journal of Corporate Real Estate, Vol. 9, No. 1, pp. 39-49.

Read, D. C., & Carswell, A. (2019). Is property management viewed as a value-added service? Property Management, 37(2), 262–274.

Sanderson, D. C., & Read, D. C. (2020). Recognizing and realizing the value of customer-focused property management. *Property Management*, *38*(5), 749-764.

Zhou, K., Fu, C., & Yang, S. (2016). Big data driven smart energy management: From big data to big insights. *Renewable and sustainable energy reviews*, *56*, 215-225.