THE EFFECT OF MIDDLE MANAGEMENT ENGAGEMENT ON VELOCITY OF CHANGE FOR HOSPITAL IMPROVEMENT PROCESSES: A LEANING PERSPECTIVE FOR ACADEMICIANS AND PRACTITIONERS

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ABSTRACT:

All organizations strive to have their improvement projects reach their desired outcomes using just the right resources and time needed. However, a lot of studies have shown that improvement processes need themselves improvement especially in the healthcare field. Also, there is a new concept related to the velocity of change that is needed to render the efficiency of these projects and how to affect this velocity. A case study was done at leading hospital in Beirut, Lebanon based on an intervention research. The intervention research used a new concept in the Middle East which is the Socio-Economic Approach to Management. Based on this intervention an improvement project related to communication channels improvement was chosen. The results showed that through involving middle management without the interference of top management the velocity of change was affected and more concrete results were achieved.

Keywords: Velocity, Change, Communication, SEAM, Hospitals

INTRODUCTION

Hospitals are not regarded as normal organizations; they are more of support system to life and quality of life. Patients and their families coming to the hospital do not know the complexity of operations; all they want is their right for the best possible care. However, this is not an easy given the emerging old and new challenges such as: aging populations, new diseases, cost, technological advancements, ethical dimensions, and community outreach. Also, there is continuous pursuit of performance improvement. Performance improvement of processes is not a one-stop project, it is a continuous endeavor to balance between proving the best care based on best practices and the risk of failure in the smallest that could lead to customer dissatisfaction. to most of the new and improvement projects in healthcare facilities require a lot of organization change in order to reach the desired outcomes. This change is often reflected in

commitment for the implementation steps the resources needs the time of implementation. Both improvement processes and change management has been tackled by a lot of research, whether positivist or applied. However, few researches have tackled a new topic which is velocity of change. Velocity of change is not only the speed of change that the organization has to go through, but it is the speed with a clear and set vector. In management this means that any improvement project needs to have clear and targeted objectives. Why this is important? Simply because having the right speed for the project steps coupled with right project objective mean that organization actors are fully engaged in the improvement project and are all working to achieve the desired outcomes. The problem is that important and big projects are assigned deadlines for everybody by the top management without involving the middle management in setting these deadlines. Therefore, the project velocity is jeopardized as throughout the implementation phase the steps might not be regarded as priorities for some middle managers. Also, some middle managers might lack the right skills and qualifications which might prolong the time needed in order for them to figure out how to implement the steps.

In the world of healthcare multiple improvements programs and methodology have been tried to ensure the best outcome; however, very few to none can guarantee sustainable performance and continuous improvement cycles. The problem in the improvement cycle, process or science itself. As Marshall et al. (2013), Berwick (2008), Chassin et al. (2013) all argued that improvement by itself needs to be looked upon in a new way, needs to be clarified and needs to be developed and ameliorated further. Through continuous improvement cycles, learning and acquired experiences can be gained and disseminated to others to be used as part of knowledge transfer (Marshall, 2013). Also, because knowledge creation and transfer should be based on evidence and replicable findings, the healthcare field presents a great field to test and assess various improvement theories and scientific approaches. Healthcare field by nature is based on case diagnosis, presenting treatment and then evaluating the case again. The clinical approach to improving patient care has its impact as well on the management and administrative services in healthcare organizations. Marshall et al., (2008) argues that improvement science is a profound cooperation between theorists and practitioners. This is very important as to come up with the best solutions for life threatening institutions such as hospitals. As a result of all of this the Quality of care concept was initiated. Since the inception of the notion of quality in health care by Avedis Donabedian. A lot of efforts have been done by hospital to increase customer satisfaction providing optimum services. Quality in healthcare means providing the right service, for the right person, in the right way every time (Brown, 2007). Quality of care has many dimensions including: availability, effectiveness, efficiency, respect, efficacy, customer focus, timeliness, appropriateness and safety (Brown, 2007). For hospitals, safety is one of the most important dimensions, after all patients come to the hospital to be cured and have better quality of life and not to be hurt or undergo adverse events. However, in Institute of Medicine in 1990 generated and alarming paper indicating that there are around 90000 medical adverse events that have occurred in the USA hospitals (Donaldson, 2000). This vigilant figure spread across the globe and consequently increased the awareness both for the public and the professional regarding undesirable events occurring in health organizations. A study done by

Chassin et al. (2010) states that "Our study also detected far more adverse events in hospitalized patients than have been found in prior studies […] Our detection levels were also higher than those of comparative studies of adverse events with other methods in hospitalized patients from England, Australia and Canada.". This means that the hospitals have been and will continue face a lot of challenges to decrease both the medical and non-medical accidents, near misses and sentinel events occurring in them.

Now no one disagrees that having bad quality of services not only will destroy the reputation of the hospital but it will incur major costs and financial challenges. A Study done by the Appleby et al. (2010) has shown having health adverse events such as: Pressure Ulcers, Nosocomial infections, medication errors can cost up to 2.7 billion Sterling Pounds in one year. Also, there are a lot of quality related indicators established by the AHRQ that show that the US hospitals are in continuous race to improve these indicators such as: Urinary Tract Infections, Hospital acquired pneumonia, Deep Venous Thrombosis, Patient falls, wrong patient identification.

Amid all of these trials and various improvement programs; stands the concept of change management and the role of middle management in this change. In the world of research there is an insufficient scope of coverage to the effect of midle management on change (Herzig, et al. 2006)). As it is customary known middle management consists of the layer of responsible staff that links the top level executives to the base of the pyramid staff and their supervisors. Throughout the history of management there was a great debate about this level, its roles, importance and impact on better productivity. According to Wai-Kwong, et al. (2001) the first layer that often is eliminated is the middle management when downsizing occurs. Which means that a lot of organization are lacking somekind of trust regarding the efficiency of such layers and perhaps because of the ternd of having falt organization concepts. However, studies have shown that middle managementcan improve the change process when involved in strategic level thinking (Wai-Kwong, et al., 2001) and be involved in the management of their subordinates on the personal level (Huy, 2002). Also, as per Peters (1988) middle managers can contribute to improving the communication patterns between top management and the rest of the organization staff. Therefore; when middle management is given a chance to play their role through liaising between top management and the base of pyramid staff, having a certain level of autonomy for improvement initiatives, engaging in strategic thinking and decision making, and allowing them to properly and completely manage their staff; then their effect on change managementand its velocity will be enhanced.

In this paper, the main is to try to show the effect involvement of middle management in improvement projects. This is translated through full participation, defined autonomy level, and positive accountability towards the middle managers. If these are done, they will affect and set the needed velocity for sustainable change and reaching the desired outcome.

The verlcoity term is reatled to movement from point A to point B, or from phase to another with clear vector, in our case objectives and goals. The velocity is a ratio of the distance crossed over the time spent to cross the distance; V=d/t. Also, the velocity depends on the acceleration dimension which is paramount to reach the desired desitination in the right speed. Although this concept, up to the level of this paper, has not be tackled to tackled minimally in the literature

review, there are related topics that show the speed of change, uncertaininty management in relation to change, and involving middle management for better change. From a management point of view the velocity of change is measured as per the following:

Resources needed for the improvement project Σ(staff, material, policies, trainings without time)
Time spent (mins or hrs)

Therefore, to assess this impact of middle management participation in improvement projects and their effect on velocity of change, an approach to sustainable change was searched. The result was the qualimterics approach and the socio-economic approach to management theory. The SEAM theory was established by ISEOR 40 years ago a new way for looking at the organization from a different conventional way. SEAM introduced a new methodology on how to diagnose, treat, and then evaluate the organization using specific tools and principles. The concept of action research as stated by Kemmis and McTaggart (1988) is a "self-reflective inquiry" implemented to understand the various practices and improve their situations as well as understand the proper reasoning behind them. Action research is investigating a theoretical and practical hypothesis in a real life situation that is proper for the purpose. It entails an interaction between the researcher and the organizations members (Altrichter, 2002).

Most healthcare leaders started and tended to add layers and layers of improvement on the core problem, without solving the problem itself. Management of hospitals has alienated itself and did not progress enough to find innovative solutions, instead the conventional management coiled by the turn of the century Fayol, Taylor and Weber remains a the classical way of doing the business in healthcare. However, this did not reduce cost, improvement physician administration relationship, improvement quality of care and reduce adverse events (Savall, 2015). Also, the conventional problems happening in most of the organizations such as strategic alignment, communication and human development are as well common if not more complexes in hospitals.

Socio-Economic approach is more or less based on social theory of reflexivity. In general terms reflexivity is when the observers' intervention affect the case being studied itself. Bourdieu argues that reflexivity is constituent of the solution rather the problematic itself (Soros, 2003). Also, Foucault (2002) as part of the knowledge quest states that "man is both knowing subject and the object of his own study". Being said so; this intervention case study is based on action research methodology with a reflexive point of view. Robertson (2000) states in his research that action research is based on 3 Rs: reflexivity, reciprocity, and reality reflection.

Therefore, why the Socio-economic approach to management. This approach for intervention research proves that change should not be separated from the organization actors. The SEAM theory assumes that all organizations should aid their actors develop and progress. SEAM assumes that most staff and employees desire and aspire to grow and change. When encountering increased dissatisfaction of employees this is mostly attributed to the viruses disseminated throughout the managerial system (Savall and Zardet, 2008). From a theoretical perspective a lot of researches have been done regarding organization

development; change management, strategic management and strategic control, most of them are theoretical or applied research. However, a new concept of qualimetrics which was positioned as new intervention research aside from the conventional ones has emerged. Under this new research methodology the socioeconomic theory (SEAM) was initiated in order to provide a new way to look at strategic and management control. Nevertheless, to position this new theory in the world of management theories and to provide an epistemological basis, three principals were established by the ISEOR researchers which are the: cognitive interactivity, contradictory inter-subjectivity, and generic contingency. Engaging multiple factors in terms of human potential and identification of hidden cost, the Socio-Economic Approach to Management is an additional tool to the realm of SMC. The SEAM methodology has created the Trihedron for internal management control, whereby it links the three axes together in order to have an efficient management and strategic controls.

The first of the axis is about the continuous and cyclical improvement process, another tackles the management tools and the third is about policy and strategy setting (Savall and Zardet, 2008). The new about SEAM is tried to find a link between these axis in harmony and synchronization. This link was the study of over 1300 researched organizations.

As for the velocity of change concept, change management is a widely discussed topic in the field of management. McKinely and Scherer (2008) argue that the "uncertainty" of the suitable plan of action to excute the top management goals and decisions make the middle management to be somehow lost or have as they call it "Cognitive Disorder". This concept of uncertainity has been argued by a lot of researchers and lead to multiple theories, with a consensus that uncertainty has negative effect on operations. The importance of intervention research is the relationship between the intervener and the organization. This relationship is highly in alignment with the SEAM methodology for continuous improvement. The cyclical improvement axis is about diagnosing, collecting information and providing them back to the organization actors. Although this seem obvious and done by many action researchers worldwide, the SEAM approach provides a different perspective which the alignment of the three axis together. An organization has to develop a momentum for improvement with right management tools and the right policies and strategies. No one axis can function alone.

Therefore, the purpose of this paper is to understand the relation between middle management involvements in velocity change setting to achieve better outcome for improvement projects based on an intervention research conducted as per the socio-economic approach to management.

Problem Statement: middle management should be engaged in setting the velocity of change in order for them to own the change process and apply the required steps for the welfare and benefit of the organization. The main problem is that in most of the organizations setting deadlines and identifying needed resources is either done automatically based on the conventional way or top bottom approach. In this paper, an intervention based on socio-economic approach, which is invented by the ISEOR institute, a research arm of Jena Moulin University Lyon 3, shows that the engagement of middle management in

identifying the required steps and the timelines needed can help have synchronized team work in order to achieve the desired outcome.

GENERAL HYPOTHESIS

Engaging middle management in the velocity of change is paramount for optimally achieving the required improvement objectives.

METHODOLOGY

The research is going to follow the case study approach based on both quantitative and qualitative data. The case study was conducted in a leading university hospital based in Beirut, Lebanon. The Hospital is around 380 beds with approximately 1500 employees and 220 Physicians. The Hospital was established in 1878 and has a long history of development and excellence which made her being regarded as one of the leading hospitals in Lebanon and the Middle East. Committing itself to having sound operations and performance improvement, the hospital started the process of establishing its Quality Management systems in 1994. The journey continued with the attainment of the ISO 9000 certification and later being accredited by the Ministry of Public Health as part of the National Accreditation Scheme. The hospital is aspiring to create its own set of healthcare standards in order to share them with all Lebanese hospitals because of its long history of healthcare provision. Because of this maturity in the quality and improvement philosophies, the hospital accepted to implement a new approach to improvement based on the socio-economic approach to management. The CEO of the hospital has declared multiple times that he needed a paradigm shift in how the managers look at operations. He has always emphasized on the importance of procedure simplification and cost reduction. When approached about a new intervention methodology based on the Socio-Economic Approach to Management, established in 1970 by ISEOR, he liked the idea of assessing the relationship between the organization structure and behaviors, and the ideas of hidden cost and the believe in the potential of our staff. The intervention took around 2 years whereby it was based on the qualitative approach through conducting single interviews with all the top management and key leaders of the hospitals to identify all potential dysfunctions and challenges as per their opinion.

The findings were many but focused with a primary convergence on the most important topics to be improved which is the communication channels across the hospital. The important thing is that these findings resemble all the findings that were presented to the top management for the past 10 years. The ISO certification report highlighted that the most important area that needs to be improved is the communication channel in 2002. All the annual internal audit reports issued by the quality department for healthcare stated that communication lines across various hospital levels remain to be an important area for improvement. A major qualitative study done by the top management through which all managers were interviews in 2008 declared that the primary focus for the hospital is to improve the communication channels. These declarations were not left unattended; the top management took the proper decisions to improve the communication channels. The executive team declared

an open day policy with the physicians, the CEO stressed multiple times on the important of communication, both top bottom and bottom top. The Directors for various sectors always tried to coach middle management how to communicate. Also, multiple trainings were done for all levels on the importance of communication. However, all of these attempts were futile and did not achieve the desired outcome. This was evidenced in the intervention to assess the most important areas for improvement in 2015 following the SEAM approach. This is because all the improvement projects and their management before the SEAM intervention lacked the structural tools and on how to involve all stakeholders in the improvement project.

This is exactly what the SEAM approach is about, how to engage the staff in the work, probe into his/her hidden potential and increase his/her satisfaction (Savall and Zardet, 2008). SEAM agrees as well that when the staff and the employees are satisfied then his/her productivity will increase. Consequently his/her untapped potential will drive the organization change, and in this case the hospital to grow and prosper. The hospital through following the SEAM approach will reduce the following dissatisfactory categories:

- Work attributed characteristics: whereby each staff should have a certain freedom and a feedback loop to give his/her pinion, participate in identifying the dysfunctions and providing the solutions.
- Accountabilities: Clarifying the roles and responsibilities and hold him/her positively accountable and reward him/her. Negative accountability is not the priority here.
- Work Environment: improve leadership style through more communication with subordinates, empower the staff, ensure proper career development and growth potential.

Also, it was customary that all improvement areas and projects needs to be directed and supervised by top management including setting the timelines and approving the necessary resources. This bureaucratic authority rendered a lot of major projects delayed, stopped or not achieving their desired and set objectives. Middle management involved is only in terms of providing his/her opinion regarding the causes and the solutions, and their opinions needs to be approved by their superiors.

After the declaration of the areas for improvement, and after undergoing the mirror effect and expert opinion, which are two essential tools to validate and agree on the specific areas for improvement, the CEO regarded that the communication lines development and amelioration should be the primary focus. As per the SEAM approach this area for improvement, also called as basket, needs to have a focus group or task force with a clear Priority Action Plan and in alignment with hospital strategy. Therefore, a taskforce was created from the middle management and physicians, without the interference of the top Management. Only the Nursing Director was nominated from the top Management in order to accompany and facilitate the task force if needed. Then the taskforce they set the Priority Action Plan with their suitable timelines. After conducting the root cause analysis they found out that the problem does not reside in the personality traits for managers but in the complexity and non-clarity of operations. That is why they decided to process map the procedures that were conflicting and lead to improper and non-streamlined communication. The Taskforce then met for 4 times in order to identify the related root causes and

issued a detailed report for the Senior Management in order for approval and consequent step. Believing that that all middle management needs to be involved, the report was distributed to all for information and in order to talk the same language. Then all managers were divided and met in groups in the presence of the Chairperson, in order to prioritize the needed areas to work on. The manager in charge of the communication taskforce set the Priority Action Plan (PAP) based on the first meeting with members. The necessary steps and needed timeline were set as per their points of views. There was no interference from top management; they were only informed about the PAP for support.

The chosen process was the purchases process of budgeted items regardless of the type whether medical or non-medical. This process is regarded as one of the most important hospital procedures which affect multiple departments. Also, most of the departments that regarded that there was a problem in communication channels linked it to the process complexity. Upon identifying that main cause of communication are processes, the taskforce identifying that the purchasing procedure is the best process to start with. That is why a sub-taskforce related to this process was created which included all the departments that are linked to this process: Medical Engineering, Materials Management, Information Technology, Budget, Medical Administration, Maintenance and the Nursing Departments. The sub taskforce then measured the average time taken to purchase a budgeted item regardless of its amount. The data was collected from the Budget Department and on average the purchasing process takes around 1 month. This huge time difference between requesting the budgeted item and the delivery date of it is creating a lot of miscommunication and mal-cooperation between the different parties mentioned above. The problem resides in the process itself, which is whether the purchasing department has to contact the supplier or the technical departments such as: the Medical Engineering, Information Technology or the Maintenance. Also, the requests send by Physicians are always regarded as priority by them; however, they have a long process to be channeled in for approval before securing their items. These challenges were always present in the past; however, through convening in taskforces and meeting together, the operations were improved and the time spent on the request process was reduced dramatically.

RESULTS:

The research showed that the concept of velocity of management and change is not widely known and used in the literature review or practical world. Even in the line of consultation there is no concrete evidenced that velocity for effective change are determined and calculated before initiating any improvement project. The velocity of change is a new concept in management, which needs further studies and development. However, this topic affects greatly the concepts of uncertainity management (Herzig et, al. 2006), and strategic implementation (Floyd, et, al 1992). However, as for the intent of this paper the velocity of change formula used was: all the resources needed to do the improvement project/time spent with a clear vector and objective.

The previous hospital experience when dealing with improvement projects and specifically communication improvement shows the following facts:

- Improvement projects usually need to be requested and imposed by top management. Rare are the cases whereby the department heads have some personal or internal motive or initiative.
- When top management descends to the level of operations the improvement projects tend to slow down. This is due to the fact of the bureaucratic layers addition that results in time wasting, objective disorientation, and ineffective communication channels.
- Change sometimes goes in circles and back up to the first step, without creating the desired impact or achieving the desired outcome. The PDCA cycle pushes the organization to evaluate the step and back to the planning phase in order to improve further. However, in the velocity of change circular movement is no appreciated, rather it is a straight line movement.
- There is lack of uniformity regarding priorities between top management and middle management.
- The communication project has been nominated as one of the urgent improvement areas in the hospital since 2000 and up till now all efforts have been futile.

The impact of the intervention and the involvement of middle management in improving the communication channels as one of the improvement processes increased the velocity of change to reach the desired outcome steadily and sustainably. This is measured through the following:

Qualitative measures:
1. Speaking the same language and understand the communication problem in the hospital across both the top and middle management.
2. Building trust among taskforce members as more information was being shared.
3. The meeting and communication among various departments that were not used to communication previously specifically physicians and the other departments such as: Medical Engineering, Maintenance and Purchasing existed and continued in a positive direction.
   The Purchasing process decreased from 1 month for budgeted offers to two weeks.

Quantitative findings:
Up to the writing of this research, the only quantitative measure that could have been calculated was the Purchasing process average time decreased from 1 month for budgeted offers to two weeks. Pending other indicators that will be measured:
- The average time taken to make the purchasing decision for budgeted items
- The impact of simplification project, in this case the purchasing process, on time and resources.

CONCLUSION

Through conducting an intervention research in one of the leading hospital in Lebanon, it was evident that change is not an easy task but its velocity could increase when middle management is engaged in proposing and acting on the solutions. The velocity of change of improvement projects remains a new a

concept in the world of research in management sciences. However, to provide a more focused perspective on such an important dimension, it is imperative that action research is proper dimension to study it. This is very important in the field of healthcare and hospitals, where multiple factors affect decision making whether on the clinical or administrative levels, rendering such organizations as bio-institutions; whereby structures and behaviors interact together constantly. This coincides with a new concept for change which is the SEAM approach. Although this concept is not new in France, where it was developed, but it is still making its way in the Anglo-Saxon world in the face of traditional approaches.

FURTHER STUDIES

The oncept of middle management effect on improvement projects needs profound coverage through various studies based on intervention and action research. Also, the velocity concept in management and choosing the right velocity for sustainable change needs to be assessed, tested and validated further. The formula herein needs to be modified to have the measures of the numerator to have the same weight. In addition, two topics can arise from this concept intervention research paper which are: positioning of socio-economic intervention as compared with other change management programs and the level of involvement of middle management vis-à-vis efficient change process.

Also, for future research and when assessing the importance of involving middle management in the pace and velocity of improvement projects in order to reach sustainable change the following needs to be clearly identified and defined:
- Who are the middle management and what are their roles?
- What are improvement projects?
- What is sustainable outcome?
- What is the velocity of change?
- Is there is a correlation between velocity setting and improving process?

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