# OPERATIONS MANAGEMENT - PROJECT MANAGEMENT FRAMEWORK - SUPPLY CHAIN MANAGEMENT

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## INTRODUCTION

"Synced visualisation, attracts' awakened manifestations carrying enlightenment, with intellectual inclination, allowing the adherence of this journal, that will be consciously guided ones mental capacity", absorbing Ndzimende A. (2016)'s information.

Hence, our purpose is rooted on grasping and forming linkage about the definition, meaning, and clear understanding, of the assignment topic. Thus, Juran, J. M. (1992) guides us firstly, by defining Operations Management, which he sees as a process-system, with an intact corestrength regarding the management of operational processes, including the involvement of tasking' board members through administrative cycles, into seeing available projects, with the intentions of transforming those available resource inputs, to enable the manufacturing of marginal goods and services that are most sufficient for consumers (Ndzimende A. 2016).

As we get into depth with the assignment, we will be focusing on the project management concept, citing certain points that seek to broaden the direction of the task without losing the context – hypothesis (Ndzimende A. 2016). With our starting point focused on, indulging the notion linked with expressing the essence behind the idea of operations management to the non-expert board members, where we' will try to unpack what it really is and how it works (Fleisher, C. S., & Bensoussan, B. E. 2015).

After that, we move on into describing the role of an operations manager, with contrast and point of reference, being the operational environment of the student village - UFH student housing project. From there, we further proceed, and analyse the importance of Project Management considering the presence of project delay, where we will be insinuating and developing sense of understanding, on why projects suffer from time and cost overruns (Ndzimende A. 2016).

Moving forward into digging deep, we come across the focus perceived on the role of technology, with implications about the anticipations carried out on the possibilities of it shaping operations management in the midst of '4<sup>th</sup> industrial revolution' (Ndzimende A. 2016).

In closing, we broaden the concept of the evident, variation on influences and challenges affecting the supply chain management, whilst mirroring the UFH student housing project (Ndzimende A. 2016). Then finally, we focus more on elaborating and discussing in general

the nature of the type of project management framework that UFH student housing project followed, in order to realise success with the venture (Ndzimende A. 2016).

#### The Essence of Operations Management to Non-Expert Board Members

Operations management according to Reid, R. D., & Sanders, N. R. (2019) is one of the fields of business that involves managing the operations of a business to ensure efficiency in the execution of projects. Adding to the argument Jensen, M. C. (2017) believes it also illustrates the individuals in charge of the department will be required to perform various strategic functions.

Moreover, by referring to the views stipulated by Holweg, M., Davies, J., De Meyer, A., Lawson, B., & Schmenner, R. W. (2018) we come to learn that their general anticipation alluded to the view that, Essence of Production in Operations Management has been designed as a reference source for managers on short courses as reference material for manager's bookshelves and for aspiring managers wishing to improve their knowledge and skills.

Furthermore, we have the "Prentice Hall Essence of Management" defined by Fleisher, C. S., & Bensoussan, B. E. (2015) as a series of concise, analytical and uniform in its approach corning key topics of good business practice.

Operations management is a field of business concerned with the administration of business practices to maximize efficiency within an organization as stipulated by Sousa, R., & Voss, C. A. (2008). Bryson, J. M. (2018) further argues in support that, it involves planning, organizing, and overseeing the organization's processes to balance revenues and costs and achieve the highest possible operating profit. Bryson, J. M. (2018) alludes the concept by saying that an operations manager is tasked with ensuring that the organization successfully converts inputs such as materials, labour, and technology into outputs in an efficient manner.

Referring to Holweg, M., Davies, J., De Meyer, A., Lawson, B., & Schmenner, R. W. (2018) we learn that their argument alludes to a certain point that, Essence of Production/Operations Management" has been designed as a reference source for managers on short courses, for MBA and other students who want to get quickly to the heart of the subject, as reference material for manager's bookshelves and for aspiring managers wishing to improve their knowledge and skills.

# The Role of an Operations Manager

The operations manager, many might confuse the designated roles, to name a few, we would rather believe they include taking responsibilities to produce goods or services at a company and to oversee all the work performed in the production of those goods or services (Cascio, W. F. 1995). Operations managers carry the ability of developing strategies, whilst also making important decisions within the operational facet of the company.

In addition to the traits and attributes of an operations manager, thus according to Jenkins, H. (2009) it is believed to be certain individuals carrying a niche in companies that offer products and services and is responsible for the aspects of operations and production within a company. Jenkins, H. (2009) further alludes by postulating that, he or she eventually oversees the production of goods in a company and does whatever is possible to increase the efficiency of the production machine of the business.

However, a combination of thoughts and opinions raised by Lewis, J. A., Packard, T. R., & Lewis, M. D. (2011) are of the view that, when it comes to duties anticipated and expected from operations managers, might tend to vary, depending on that organization. With Fleisher, C. S., & Bensoussan, B. E. (2015) supporting the statement in such a way that they go on to name the most general qualities, which they believe includes part of managing quality assurance programs, supervising, hiring, and training other employees, monitoring existing processes and analysing their effectiveness; and creating strategies to improve productivity and efficiency (Cascio, W. F. 1995).

<u>Process Design</u> – Figuring out the exact steps needed to be carried out so that the organization meets its business goals. This can mean helping plan out a one-time project or creating procedures for repeatable work (Kerzner, H. 2017).

<u>Standard Management</u> – Here we are helping create and optimize budgets, scheduling equipment maintenance, ensuring that the employees are following standard procedures (Kerzner, H. 2017).

<u>Process Improvement and Optimization</u> – Most businesses have a "don't fix what's not broken" policy towards their processes. Often, though, you could potentially get a lot more from your business if you constantly check on your processes. The COO is supposed to make sure that all your processes are as efficient as they can be (Sosik, J. J., & Jung, D. 2018).

## **Project management**

Project management is the discipline of planning and executing projects, says Burke, R. (2013) and further points out more on Project Management, alluding that it seeks to achieve defined goals by using plans, schedules and resources to execute project activities within a set timeframe.

Moreover, Sosik, J. J., & Jung, D. (2018) enlighten us more on the issue, stipulating that great project management means much more than keeping project management's iron triangle in check, delivering on time, budget, and scope; it unites clients and teams, creates a vision for a successful project, and gets everyone on the same page of what is needed to stay on track for success (Cascio, W. F. 1995).

Therefore, we can calmly reach some form of understanding, referring on the basis laid by Kerzner, H. (2017) assuming, when projects are managed properly, there is a positive impact that reverberates beyond delivery of 'the stuff'. Furthermore, (Kerzner, H. 2017) continues to add information, saying, Project Management is important because it ensures what is being delivered, is right, and will deliver real value against the business opportunity.

#### Strategic Alignment

The saying goes' every client has strategic goals and the projects that we do for them advance those goals, based on Belalcázar Villamar, P. A., Díaz, J., & Molinari, L. (2016) Project management is important because part of a Project Management's duties is to ensure there's rigor in architecting projects properly so that they fit well within the broader context of our client's strategic frameworks.

Further agreeing to the above statement, Ravishankar, M. N., Pan, S. L., & Leidner, D. E. (2011) see this as good project management ensures that the goals of projects closely align with the strategic goals of the business. In identifying a solid business case, and being methodical about calculating ROI, project management is important because it can help to ensure the right thing is delivered, that is going to deliver real value Fleisher, C. S., & Bensoussan, B. E. (2015).

# Leadership

Project management according to Poister, T. H., & Streib, G. D. (2018) is important because it brings leadership and direction to projects. Without project management, a team can be like a ship without a rudder, moving but without direction, control, or purpose.

They Poister, T. H., & Streib, G. D. (2018) further express Leadership as an allowance that enables team members to do their best work. Also, Project management provides leadership and vision, motivation, removing roadblocks, coaching, and inspiring the team to do their best work.

# **Clear Focus & Objectives**

Sosik, J. J., & Jung, D. (2018) define Project management as being important, because it ensures there is a proper plan for executing on strategic goals. Where project management is left to the team to work out by themselves, you will find teams work without proper briefs and without a defined project management methodology.

In addition, Ravishankar, M. N., Pan, S. L., & Leidner, D. E. (2011) conclude with an opinion pointing out on Projects, and their lack of focus, which might enable vague or nebulous objectives, and leave the team not quite sure what they are supposed to be doing, or why. Therefore, as project managers, we position ourselves to prevent such a situation and drive the timely accomplishment of tasks, by breaking up a project into tasks for our teams.

## **Realistic Project Planning**

Project management is very important in the sense that, it ensures proper expectations are set around, with knowledge on what can be delivered, by when, and for how much. Therefore, as proposed on Holweg, M., Davies, J., De Meyer, A., Lawson, B., & Schmenner, R. W. (2018) 's methodologies, without proper project management, budget estimates and project delivery timelines can be set that are over-ambitious or lacking in analogous estimating insight from similar projects.

Ultimately, what Bryson, J. M. (2018) 's phrase aims to transpire is, nevertheless, without good project management, projects get delivered late, and over budget.

Meaning that effective project managers should be able to negotiate reasonable and achievable deadlines and milestones across stakeholders, teams, and management. Too often, the urgency placed on delivery compromises the necessary steps, and ultimately, the quality of the project's outcome (Deshmukh, S. S., & Menkudle, S. D. 2019).

## **Quality Control**

Project managements importance is based on the ability of it ensuring the quality of whatever is being delivered, consistently hits the mark. Projects are also usually under enormous pressure to be completed, hence Stary, C. (2014) believes the illusional disaster, entailing the limited edition of dedicated project manager, who has the support and buy-in of executive management, with tasks underestimated, schedules tightened, and processes rushed, resulting in bad quality as no evidence shows quality management in the first place (Frazelle, E. H. 2016).

Moreover, it is plain sighted how progressive dedicated project management can be, thus Jenkins, H. (2009) argues by postulating that, it can ensure not only does a project have the time and resources to deliver but also that the output is quality tested at every stage.

In closing, good project management demands gated phases where teams can assess the output for quality, applicability, and ROI. Meaning there is some truth from Deshmukh, S. S., & Menkudle, S. D. (2019) about project management, with its importance to quality, because it allows for a staggered and phased process, creating time for teams to examine and test their outputs at every step along the way.

# Why Projects Suffer from Time and Cost Overruns

According to Callegari, C., Szklo, A., & Schaeffer, R. (2018) it is believed to be more than the normally known and anticipated reasons regarding the issue of why most projects become late and as a result incur cost overruns.

Lack of Project Complexity Management is certainly one of the objectives of this blog alludes George, M. S. (2016), however, we may point out independence of political and psychological issues, seeing reality as linear while it is not, induces distortions with guaranteed adverse consequences on estimates of costs, schedules or probabilities of failure.

Subsequently, when dwelling on findings bought by Hwang, B. G., & Ng, W. J. (2013) as the case of extending gratitude for enhanced understanding on issues pertaining delays and cost overruns. A summarised interpretation from Callegari, C., Szklo, A., & Schaeffer, R. (2018) concerned with those inherent parts of most projects despite the much-acquired knowledge in project management.

Hwang, B. G., & Ng, W. J. (2013) vehemently pose an altercation, with opinions voicing out, although some may argue that this is negligible It is important to note that physical and economic scale of projects today exist when expansion of the scale of production capacity of a firm or industry causes total production costs to increase less than proportionately with output.

Deshmukh, S. S., & Menkudle, S. D. (2019) has concluded that such is driven under the platform of profit to the parent organization, and of national interest (for government projects) by the degree of success defined within the Iron triangle of cost, time, and scope. It is therefore much appreciated to look at some reasons of delays and cost overrun in project and their mitigation process, to increase the perception of project success.

# The Role of Technology in Operations Operations Management

Technology is acknowledged to be an important aspect of operations management. Not only is it an enabling mechanism, but it is also used to improve the performance of operations systems (Agrifoglio, R., Cannavale, C., Laurenza, E., & Metallo, C. 2017). The volume therefore contains various relevant aspects including strategic technology management, technology transfer, advanced manufacturing technology (AMT), responsive production and agile technologies (Oettmeier, K., & Hofmann, E. 2017).

According to Leonard, D. A. (2011) It is no secret that the usage of technology in operation management has ensured organizations are able to reduce the cost, whilst alternatively improving the delivery processes, which in turn standardize and improve quality and focus on customization, thereby creating value for customers. Hence Leonard, D. A. (2011) 's belief is directed on technology, to be viewed as a driver of efficiency in organizations, possibly increasing productivity of the organization.

Furthermore, knowledgeable scholars like, Tidd, J., & Bessant, J. R. (2020) further elaborates the issue of integrating new technologies into organizations, with the requirements

involved, sighing significant amount of training and support for both workers and customers to reap the full benefits.

Moreover, the lack of proper training and support is highly visible and evident in our environments. Hence Tidd, J., & Bessant, J. R. (2020), also gets bothered in several instances, believing that it might not only fail to yield the expected improvements in performance and/or productivity, but could also prove disastrous financially, as frustrated workers quit, and unhappy customers take their business elsewhere.

Over the last decade we have seen an unprecedented growth in technological capabilities. Lee, M., Yun, J. J., Pyka, A., Won, D., Kodama, F., Schiuma, G., ... & Zhao, X. (2018) intellectually and intelligently addresses this matter with an agreement, indeed, technology has enabled companies to share real-time information across the globe, to improve the speed and quality of their processes, and to design products in innovative ways.

However, an argument by Delipinar, G. E., & Kocaoglu, B. (2016) concerning companies and their ability to use technology, as means of guiding them in gaining advantage over their competitors. For this reason, technology has become a critical factor for companies in achieving a competitive advantage.

In fact, studies have shown that companies that invest in new technologies tend to improve their financial position over those that do not (Deng, P. (2009). However, Delipinar, G. E., & Kocaoglu, B. (2016) mesmerizes the argument, to applaud the technologies a company acquires should not be decided on randomly, such as following the latest fad or industry trend.

Rather, agree with Leonard, D. A. (2011) on the fact that selected technology needs to support the organization's competitive priorities, as we learned in the example of FedEx. Also, Delipinar, G. E., & Kocaoglu, B. (2016) agrees on technological needs to be selected to enhance the company's core competencies and add to its competitive advantage.

# **Supply Chain Management**

Supply chain management (SCM) is the active management of supply chain activities to maximize customer value and achieve a sustainable competitive advantage (Schuh, G., Lenders, M., & Hieber, S. 2011). It represents a conscious effort by the supply chain firms to

develop and run supply chains in the most effective & efficient ways possible (Stary, C. 2014).

The modern supply chain must evolve to meet new demands and supply chain challenges, and supply chain managers need to plan to keep everything flowing smoothly (Juran, J. M. 1992). A combination of consumer expectations, more routes to market, international complexities and other factors creates significant challenges throughout the supply chain network Fleisher, C. S., & Bensoussan, B. E. (2015). Supply chain activities cover everything from product development, sourcing, production, and logistics, as well as the information systems needed to coordinate these activities (Deng, P. 2009).

An adequate supply chain management is not only useful for the manufacturer, but it is also helpful for the suppliers (Chen, C. T., Lin, C. T., & Huang, S. F. 2006). The manufacturer can increase the profit margin by rightly knowing the demand for the product in the market. Whereas, based on De Treville, S., Shapiro, R. D., & Hameri, A. P. (2004), a supplier can manage his supply effectively to different manufacturers as he communicated the need for material on time.

# 'Implications' With Supply Chain Management

Supply chain management is the heart of every organization, in accordance with Jacobs, F. R., Chase, R. B., & Lummus, R. R. (2014) It consists of all the processes that are involved in the life cycle of material in the organization from raw material to the final product and delivery to the customer.

The effectiveness of supply chain management plays an essential role in the success of every business, moreover, Christopher, M. (2016) alludes the supply chain management in helping to minimize the costs of producing, shipping, storing, and ensuring the products that are not sold.

The role of supply chain management (SCM) has even increased more because of cut-throat competition in every market segment, Bala, K. (2014) suggests. Now several companies are providing similar products, which gives more options to the consumers to choose from. As a result of that, Arthur, W. B. (1996) postulates on the similarities of products, in the sense based on difficulties for certain companies to survive in the market and is required to continually think about innovative ideas to stay ahead in the competition.

# The Concept of Supply Chain Management (SCM) Based on Two Core Ideas:

The first introspection from Agrifoglio, R., Cannavale, C., Laurenza, E., & Metallo, C. (2017) suggests that, practically, every product that reaches an end user represents the cumulative effort of multiple organizations. Thus Arthur, W. B. (1996) plauds the incentives carried it, thus putting forward for these organizations that are collectively referred to as the supply chain.

The second idea is presented by Blanchard, D. (2021) carrying a pivotal concept in that of which, he believes supply chains have long existed from time, with most organizations only paying attention to what was happening within their "four walls." Blanchard, D. (2021) further educates us, pointing out on the few businesses that fortunately understood, much less managed, the entire chain of activities that ultimately delivered products to the final customer. The result was disjointed and often ineffective supply chains (Tidd, J., & Bessant, J. R. 2020).

Moving forward, we carefully attend to the organizations, more especially the ones making up the supply chain, giving them accreditation of being "linked" together through 'physical flows and information flows.

#### Physical Flows

According to Blanchard, D. (2021) physical flows involve the transformation, movement, and storage of goods and materials. They are the most visible piece of the supply chain. But just as important are information flows.

#### Information Flows

Information flows allow the various supply chain partners to coordinate their long-term plans, and to control the day-to-day flow of goods and materials up and down the supply chain (Frazelle, E. H. 2016).

### **Challenges To Supply Chain Management**

Efficient supply chain management is crucial for market success, It can also be a very challenging problem, but it's neither impossibly hard, nor something that experience, knowledge, and the right mindset can't handle Jacobs, F. R., Chase, R. B., & Lummus, R. R. (2014).

Ours is concerned with trying to select a few from the many influences and challenges faced by supply chain management, whilst bearing in mind that we are to express those that might be slightly compatible with those faced whilst constructing the student village - UFH student housing project.

# Cost Control

Cash-money cost control encompasses rising energy/fuel and freight costs, a greater number of global customers, new technology, increasing labor rates, new regulations, and rising commodity prices mean that operating costs are under extreme pressure.

# Planning & Risk Management

Changes in the market, in the likes of new product launches, global sourcing, political agendas, credit availability, and consumer demand, can give rise to major issues, and these changes can come from almost any direction.

# **Talent**

It's becoming increasingly difficult to find qualified, interested talent to spear-head such lucrative projects. Supply chain leaders need an extensive understanding of the key competencies and duties needed for supply chain management roles. They also need the ability to efficiently source specific skill sets and methods for developing future leaders.

#### Supplier/Partner Relationship Management

It is of vital importance to create, understand, and follow mutually agreed-upon standards. This allows you to better understand current performance, as well as opportunities for improvement.

Therefore, we can summarize our observations, and conclude based on the above statements, that the key to improving Supply Chain and its Management, is business intelligence, which is not necessarily about data analytics. It is more concerned with using information at your disposal to make the soundest possible judgments.

More than anything else, improving cost control is about having a plan and executing it properly. You carefully monitor your original plan and adjust as needed.

# Project Management Framework

Project Management (PM) framework is widely used in many methodologies and approaches as a general term to explain what key components are included in managing and governing a project (Kerzner, H. 2017). Posing it also a suite of structural elements or units that create a theoretical foundation for the project management process.

Blanchard, D. (2021) defines project management framework (PM framework) as a subset of tasks, processes, tools and templates used in combination by the management team to get insight into the major structural elements of the project in order to initiate, plan, execute, control, monitor, and terminate the project activities throughout the management life-cycle.

In short, the PM framework allows the use of various methodologies and approaches to plan and schedule the major phases of the life-cycle, with Santos, J., Ferreira, A., & Flintsch, G. (2015) stating that, this information is organized and systematized into a structure allowing managers and planners to control progress of their projects throughout the life-cycle.

Regardless of the type, size and nature of a project, Santos, J., Ferreira, A., & Flintsch, G. (2015) argue the basis of a typical PM framework, as one that includes micro & macro phases, templates and checklists, processes and activities, roles and responsibilities, training material and work guidelines.

The idea behind project framework is to create and share a clear understanding of the basis of a project among all stakeholders, including the team. The idea should be followed by all the stakeholders throughout the whole management life-cycle, thereby the project will be accomplished according to a chosen methodology and by deliverance of expected results (Tidd, J., & Bessant, J. R. 2020).

# Introduction to Traditional Project Management Methodology

Traditional project management (Waterfall Methodology) is a linear approach where processes occur in a predictable sequence. In this approach, the project follows a preplanned set of stages and assumes that the requirements remain fixed while the budget and project timeline can be changed. This approach is more suitable for projects where the possibility of changes in the scope is negligible.

The office of the Project Manager holds all the responsibility of the project and is accountable for the results. Apart from the project planning process, even the customers have no say during the project's implementation phase. Similarly, in case of any problems, team members are supposed to escalate the issue to their manager who has the final say.

Since traditional project management heavily relies on proper planning and analysis in the development phase, the resulting development process is quite streamlined. This allows the project manager to focus on different tasks since the project team works without minimum guidance unless an issue is raised.

Project managers use the techniques and tools defined by the Project Management Institute (PMI), a global body for project management professionals that develops standards and frameworks.

#### Benefits of Traditional Project Management Methodology

The development will proceed on a 2-phase approach, with 610 designed and completed student beds as part of Phase 1 of the project, following the construction of Phase 2, which will continue until October 2020. Using a sequential approach with pre-planned steps has several benefits for an organization.

#### Clear Direction

Since everything is pre-planned, every single member of the team knows their responsibilities and the project requirements. This allows them to work efficiently and with minimum supervision.

#### High level of Control

The office of the project manager holds almost all the power in a traditional setup and even the most trivial change has to be approved by the manager. This prevents deviations from the original project scope.

#### Single point of Accountability

Since the project managers hold all the power, they will naturally be accountable for the success or failure of the project. Instead of contacting several people, Stakeholders always know who to approach during the project in order to get all the necessary updates.

# Clear Documentation

Proper documentation is actually a cornerstone of the traditional project management methodology. The documents not only standardize the whole process but also can be used for guidance during other projects in the future.

#### **CONCLUSION**

The development at the University of Fort Hare also contributed towards the general upliftment of Alice, surrounding towns and local residents through job creation, as well as the need for accommodation, food and other necessities. Local SMMEs were brought on board to assist, and through learning and skills development, will be positively impacted in the long term.

One of our goals with this project will be, to train local employees in bricklaying, plastering, concrete works, shutter works, plumbing and scaffolding – to name a few. This type of skills development benefits our own workforce, as well as each individual who learns these skills.

Studies show that students who are not in on campus accommodation have a 50% chance of dropping out by the end of their first year. In contrast, a first-year student in good on-campus accommodation has an 80% chance of passing and is 50% less likely to drop out. For STAG and Dewing, good on-campus accommodation means providing more than just beds. Safety, internet connectivity, access to resources and social support, are all critical to a student's ability to succeed (Matthew Beard, 2020).

When a student is placed in temporary accommodation or is required to stay in accommodation that is unsafe, overcrowded and unhygienic, it's no surprise when they can't cope. Our goal with this development is to maximise student success through the provision of world-class accommodation, at an affordable price.

Due to the remote location of the development in Alice, the development team faced certain logistical challenges. "We had to be innovative in terms of finding solutions, since all of our materials were sourced from out of town. We brought in sand from the Great Fish River are, bricks from Bisho and Mount Coke, concrete, fill materials and aggregates from Fort Beaufort. Roughly 6,5-million bricks were transported from around 60 kilometres away," Matthew Beard, Contracts Manager at Dewing Construction, said.

In terms of the bigger picture, South Africa is experiencing a student housing crisis – government has acknowledged that an additional 300 000 beds are required to accommodate the nation's students. "A big part of this is not just a lack of beds, but also a lack of innovation. In South Africa, the construction of student accommodation cannot be purely profit-driven, we have to consider the impact on our students, who represent the nation's future," said Matthew Beard.

The student village at University of Fort Hare is not only a landmark achievement, but a positive step forward in terms of addressing the national student accommodation crisis. The challenge for universities and student housing providers is to prioritise the construction of affordable, world-class student housing that uplifts all parties involved.

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