

Improving the Management of Operations at the “Office des Ports et Rades du Gabon” (OPRAG). The road to achieve and sustain Quality Service delivery. Paper presented at the Industrial Engineering and Operations Management Conference (IEOM Detroit): *Achieving and Sustaining Excellence in Quality, Reliability, Service and Operations*, Lawrence Technological University campus, Southfield, Michigan, September 23 – 25, 2016.

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Abstract

The industrial engineering development in the spite of globalisation and fast technological advancement has set an unprecedented challenge for business around the world. Hence, new business models and concepts came to life in respect of golden principles of quality product development and/or quality service delivery. While the situation allegedly favour a number of businesses operating in the advanced economies, emerging and developing economies no matter the geographical location, the economic grading or the industry, are constantly facing changes which from times to times create a very turbulent business environment especially in Africa.

So, continuous business process evaluation and customised business model to face the challenges are nowadays the key determining factors for business success. Consequently, the operations of any given business must be managed in such a way to maximise the opportunities to stay competitive and sell more products or services both locally and globally.

Taken from above, this justifies the appointment of OPRAG (Office des Ports et Rades du Gabon) by the Government of Gabon with the mandate to oversee the operations of the country's ports, with the

main focus on their assets, staffs and daily activities in order to Achieve and Sustain Excellence in Quality, Reliability and Service delivery.

Though, this research evaluates the duties of operations managers within OPRAG in order to objectively address the gap for a smooth running and great competitive edge. The data for the study were quantitatively obtained from 126 operations managers employed at OPRAG and its companies-partners in Gabon, by means of questionnaire. The data were quantitatively analysed using descriptive and inferential statistical techniques.

Key words: Operations – Quality – Competitiveness – sustainability - Reform

1. Introduction

This study attempts to understand how decision makers and practitioners within OPRAG deal practically with the day-to-day operations management issues while trying to achieve and sustain the quality, Reliability and Service delivery and keep up this organisation standing and competing throughout today's ever challenging market. This goal takes into account the fact that businesses, markets and above all technologies in accelerated and constant evolution for many decades have designed an environment of which dynamics, challenges and opportunities are unprecedented in history (Corrêa, 2008).

Although, Edmondson (2012) pointed out that classic management theories tend to overvalue control and treat organizations as mechanical systems provided that the spontaneous reactions of managers in organizations often ambush the requirements of the new, interconnected, knowledge - intensive world of work. And yet, the same author contended that businesses and other organizations are complex adaptive systems. This means that they may self – regulate, but they require thoughtful leadership to optimize their potential (Edmondson, 2012).

2. Background

OPRAG is a juristic person and financially autonomous company created since 1974 by the Government of Gabon and entrusted a special purpose to act as the Gabonese Port Authority so as to carry out among other mission the control of the application of safety, operation and port management rules as provided for by national and international law in force but also to carry out all port operations not entrusted to any concessionaire. As a Port Authority, OPRAG has an extended scope of Activities and competences in regard on the new trends and challenges pertaining to the new multidimensional rules of the international trade (Law 022/2011).

Although, in conjunction with the Minister in charge of the Economy, OPRAG endeavors to set the maximum price lists applicable within its harbor ward and insures hence that the services listed below keep running at the highest level of performance than ever. The said services are (Law 022/2011):

- Amodiations Tax,
- Stay in Roads and Quays Tax
- Security Charges
- Merchandises fees
- Port maintenance fees



Figure 1: A picture of service delivery facilities
(Source: OPRAG's Web site)

3. Litterature Review

3.1.The Concept of Operations

Kumar and Suresh (2009), quoting Joseph G.Monks, define OM as the process whereby resources, flowing within a defined system, are combined and transformed by a controlled manner to add value in accordance with policies communicated by management. From this point of view, managing operations can be enclosed in a frame of general management. These authors see Objectives of Operations Management as categorized into Customer Service and Resource Utilisation, the first objective of operating systems being to utilize resources for the satisfaction of customer wants and the second being to utilize resources for the satisfaction of customer wants effectively.

As for Kumar and Suresh (2009), Operations management is concerned essentially with the utilisation of resources, i.e. obtaining maximum effect from resources or minimising their loss, under utilisation or waste. Hence, Operations Managers are concerned with planning, organising, and controlling the activities, which affect human behaviour through models.

Nagurney (2012) studies some systems and their operations and comes up with a classification of transformation processes into physical (manufacturing operations, healthcare operations), locational (transportation and distribution operations), exchange (retail operations), informational (communication and education) and psychological (entertainment). He narrows down that OM is concerned about Systems and how to make them operate better, whether more efficiently, more effectively, at a higher level of quality, at reduced cost, and/or at lower environmental emissions, using the appropriate criterion or criteria determined by the organization.

Ciptono (2006) considers Operations management in terms of innovation, which creates a resource, specifically intellectual human resources. Therefore, Ciptono (2006) contends that OM implies the broad managerial, human approach, and technical approaches used to manage repetitive (program) and/or non-repetitive work (project) within the constraint of time, cost, and performance targets.

For particular note, the nuance noticed in the perception of Operations management from this preliminary literature constitutes the core concern upon which the problematic supporting this ongoing study was based. This leads therefore the way for more reading in order to enrich the discussion about how operations manager within OPRAG carries out their work with respect to the perception in which they adhere. At this stage, a final literature review is organised in this regard and a classification of previous researches is taking place in order to ease the interpretation of the findings of this research project concerned with the "improving the management of operations at OPRAG".



Figure 3: A picture of OPRAG Port's infrastructures

3.2.Scope of Operations

According to Kumar and Suresh (2009), given that Operations Management concerns with the conversion of inputs into outputs, using physical resources so as to provide the desired utilities to the customer while meeting the other organizational objectives of effectiveness, efficiency and adoptability, a Production and Operations Management function entails the following activities, listed under:

1. Location of facilities.
2. Plant layouts and Material Handling.
3. Product Design.
4. Process Design.
5. Production and Planning Control.
6. Quality Control.
7. Materials Management.
8. Maintenance Management.

Nagurney (2012) proposes a level of operations ranging from operational (short term) to strategic (long term) as listed below:

- The Strategic (Long Term) Level of operation: which is consisting in “Decisions” about:
 - What to make (product development)?
 - How to make it (process and layout decisions) or should we buyit?
 - Where to make it (site location)?
 - How much capacity is needed (high level capacity decisions)?
- The Tactical (Intermediate Term) Level: which addresses the material and labor resources within the constraints, for example:
 - How many workers are needed and when (labour planning)?

- What level of stock is required and when should it be delivered (inventory and replenishment planning)?
 - How many shifts needed for work? Whether overtime or
 - subcontractors are required (detailed capacity planning)
- The Operational (Short Term (daily/weekly/monthly) Level): which is about Planning, execution and control decisions, such as, for example:
- What to process and when (scheduling)?
 - What is the order to process requirements (sequencing)?
 - How does the work utilize the resources (loading)?
 - Who does the work (assignments)

4. Research Objectives and Methodology

This study accounts for “An investigation of the operations managers’ toolkit at OPRAG with a view of sustainable growth, quality service delivery and long lasting competitiveness”. The research is performed by interviews and questionnaires responded to by 126 operations managers on duties or have been serving at OPRAG from 2004 to 2014. The researcher made use of the cross-sectional survey to collect quantitative data for this research. These quantitative data were analysed using the Statistical Package for Social Science (SPSS). The survey’s questionnaire has been developed based on clues provided during prior in-depth interviews used to collective qualitative data. Though, the author conducted a literature study regarding operations management in a complex competitive environment with the view of achieving and sustaining quality product development and/or service delivery.

The first aim of this study was to understand what entails operations manager actions and practices at OPRAG in seeking sustainable growth, quality service delivery and long lasting competitiveness. The study questioned secondly whether operations managers within OPRAG take into account the new trends of running business in the today’s complex competitive business environment which consider tangible assets in terms of physical and financial capital as well as intellectual capital. Finally, this study looked at how the knowledge is managed within OPRAG despite its various operational challenges.

5. Research Results

The findings of the study show that OPRAG stands in a midst of good opportunities to catch for implementing policies and practices more likely to increase the level of the company’s competitiveness. The following are some features which characterise OPRAG.

Taken from the occupational level, the company employs all levels of managers: Senior managers (33.3%); Middle managers (26.2%); Executive managers (20.6%) and junior managers who represent (19.8%). This presents a huge potential to derive significant benefits through the implementation of knowledge management initiatives (Narayansamy, 2010) within the company. Also, given that wherever promising junior managers are identified and developed, voids are not created when senior managers exit the organization (Van Dyk et al. 2001; Narayansamy, 2010).

Another feature is about the calls for the gender equality among other initiatives likely to be implemented in the name of new business models. This is clear that OPRAG is also moving forward with the results of the survey reflecting 50.8% of male managers against 49.2% female. Also, most of

operations managers within OPRAG hold a qualification: Licence (31.0%), Master's (28.6%), BTS (27.8%) and Doctorate(12.7%). This situation is favourably guaranteeing the basic management knowledge required for operations managers.

Speaking about learning managerial responsibilities on the job, it can be assumed accordingly provided that they possess the requisite technical knowledge to make informed decisions (Brewster & Larsen, 2000; Narayansamy, 2010). There is a balanced distribution about the Key functional areas of responsibilities of Operations Managers within OPRAG. Viewed on a daily basis, the activities of the operations managers comprise Assignment (37.8%), Scheduling and sequencing, (32.6%) and Loading (31.9%).

In the exploitation of the company, 36.5% agreed or strongly agreed that they quickly adapt to internal and external changes at OPRAG. They also agreed or strongly agreed that they make sure to stay flexible to the changes occurred. 30.2% agreed that they take risks when implementing new ideas since. But also, according to 42.8% of the respondents, there is a risk management system that has to be followed. 38.9% agreed or strongly agreed that they get new directives and technologies introduced in services/equipment handling whilst only 40.4% agreed that they make an effort to develop new handling practices and technologies.

The results overall reflected 34.8% agreed that Quality Management system is in place at OPRAG and 37.7% agreed that they make sure that the quality of service meets the customer needs and expectations. Ultimately, 37.8% from the results overall agreed that they control if the service provided are compliant.

Even though 31.1% agreed that they work with preventing quality issues, 36.5% agreed that they have clear approach to quality control and failure prevention and 43.7% agreed that they sometimes discover quality issues in the services they render. By the way, 27.8% agreed that they have been previously involved in a quality management improvement project within the company.

The research reflected that 36.3% agreed that OPRAG acquires its competitive advantage by the rapid creation of knowledge against 43.7% who disagreed. In addition, 34.0% agreed that the ability to explicate and share existing knowledge actually drives its competitive advantage. Though, 39.7% agreed to obtain knowledge from their professional closer network of contact against 42.0% who disagreed. In the other hand, 33.3% seek knowledge from a distant professional network of contact. In this spite, a little number of the operations managers (18.3%) prefer low search cost knowledge, no matter how less pertaining it is, to appropriate and precise knowledge that would require time and effort to obtain.

This explains why 36.5% of operations managers within OPRAG determine personally what knowledge they need and where to search for it instead of referring to the documented procedures of how to perform work. In this regard, 48.4% suggest that a new knowledge management system be built to foster active attempts to understand and modify as appropriate the existing knowledge.

The study reported that 76.3% of the operation managers have attended at least a seminar on operations management. In the same spite, 39.7% of them feel more satisfied when learning from others. This sustains that 35.7% agreed to have moved up the rank and therefore, their incentives increased as a result of having they team sharing best practices with them.

In the meantime, 27.7% agreed that their duties have increased with colleagues assisting them to become more efficient. Mentoring programmes and communities of practices, along with the organisation of brainstorming sessions, workshops to discuss key-learnings, social events and the use of email accounts for employees constitute a sort of platforms for increasing the effectiveness of OPRAG's employees.

Although, the knowledge retention is still problematic at OPRAG. According to the research, 35.7% of the operations managers agreed that there is knowledge continually reused in various ways with no records of the modifications. In addition, 34.9% only agreed or strongly agreed that they trust the knowledge that resides in the system. Consequently, the favourite way of retaining the modified and used knowledge from the KMS is done by transfer of experience, as agreed by 42.9% of operations managers.

Speaking of the distribution of knowledge, 32.5% of the operations managers agreed to easily find the documents they need for their work and 34.5% agreed to easily retrieve the knowledge they need for their work. For some of the operations managers, knowledge sharing and teamwork are formal measures in their performance contract, as agreed by 35.7%. Hence, on-the-job training is organised for fellow employees when they join OPRAG. It is also witnessed by 43.6% of operations managers who agreed to often impart their work knowledge to inexperienced employees. In addition, 34.1% operations managers agreed to feel comfortable to share their knowledge and experience to assist peers and 54.0% agreed furthermore that employees have a vast amount of knowledge which they are willing to share.

44.4% of operations managers agreed that procedures of how to perform work have been documented but there is still a problem with the amount of information required for them to perform the job, given that 30.1 agreed or strongly agreed that the current available amount is sufficient against 36.5% who disagree or strongly disagreed. In this regard, 46.1% of them agreed that they would like to get more information about the company, its objectives, its units or department. This can explain why 38.1% agreed that there are clear rules of managing the units but also OPRAG is a stable organisation where set plans are followed.

Though, communication between departments is not enough. Only 42.1% agreed to often communicate with other departments while 58.7% agreed that the information is shared both horizontally and vertically within OPRAG and its units

Based on their experience, 42.1% of operations managers suggest some improvements in order to meet the strategic goals. Nevertheless, the involvement of everyone in decisions and ongoing projects is on the good track, given that 31.7% agreed that everyone is involved in decisions and ongoing projects against 33.3% who disagreed.

Another opportunity for knowledge sharing is as agreed by 38.9% of the operations managers that the work environment encourages people to share their views about the world and life. People are as well encouraged to share ideas with the ones they report to, as agreed by 38.9% of the operations managers.

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