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Ineffective programme management on the delivery of health infrastructure projects: A case of the Northern Cape

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Abstract

Programme management remains a challenging management practice in the Northern Cape Department of Health (NCDoH), particularly when a health facility project has to integrate the components of construction management and operations management in order to attain the benefits of strategic importance. The Northern Cape Department of Health consists of various administrative programmes that are supposed to work together in order to attain the benefits of strategic importance. The inability to integrate construction management and operations management is attributed to poor programme management coordination within the Northern Cape Department of Health. This article reports the findings of a case study which determined how programme management coordination among the administrative programmes in the Provincial Office of the NCDoH, Z. F. Mqcawu District Office and the hospital that underwent revitalisation could be improved during the construction of a health-care facility. Data was obtained through interviews with personnel in the three sectors (provincial office of the NCDoH, district office of the Department of Health, and the hospital that underwent revitalisation) directly involved in the delivery of the infrastructure component of the project and preparations operationalisation of the health facility after completion and handover. The results of the study revealed the inability by the NCDoH to integrate both construction management and operations management, due the poor programme management coordination when a health facility project serves as a means for the delivery of health services after handover. Furthermore, the research revealed, among others, functional silos, lack of skills and knowledge for the identification of the critical success factors relevant for integration of

construction and operations management as the contributing factors to poor programme management.

Keywords: Programme management, critical success factors, functional silos, construction management, operations management, benefits management.

Abstrak

'n Allomvattende en integrerende betuursprogram bly 'n uitdaging in die Noord-Kaapse Departement van Gesondheid, veral wanneer 'n gesondheidsfasiliteitsprojek die komponente van konstruksie- en operasionele bestuur moet integreer om die voordele van strategiese belang te bereik. Die Noord-Kaapse Departement van Gesondheid bestaan uit verskeie administratiewe programme wat veronderstel is om saam te werk om die voordele van strategiese benadering te bereik. Die onvermoë om konstruksie- en operasionele bestuur te integreer, het tot gevolg dat daar gebrekkige programbestuurkoördinasie binne die Noord-Kaapse Departement van Gesondheid is. Die doel van hierdie aritkel is om die resultate weer te gee van 'n studie wat bepaal het hoe die koördinering tussen die administratiewe program in die provinsiale kantoor van die Noord-Kaapse Departement van Gesondheid, Z. F. Mqcawu distrikskantoor van die Departement van Gesondheid en die hospitaal wat vernuwe moes word, verbeter kan word tydens die oprigting van 'n gesondheidsfasiliteit. Data is verkry deur onderhoude te voer met die personeel in die drie sektore (provinsiale kantoor van die Noord-Kaapse Departement van Gesondheid, distrikskantoor van die Departement van Gesondheid en die hospitaal) wat betrokke was by die lewering van die infrastruktuur van die projek en die operasionalisering van die gesondheidsfasiliteit ná voltooiing en oorhandiging. Die resultate van die studie toon die onvermoë van die Noord-Kaapse Departement van Gesondheid om konstruksie- en operasionele bestuur te intergreer as gevolg van die swak programbestuurskoördinasie tydens die stadium wanneer gesondheidsdienste by sodanige gesondheidsfasiliteit verskaf moet word nadat dit oorhandig is. Verder het die navorsing aan die lig gebring, onder andere, dat funksionele silo's, 'n gebrek aan vaardighede en kennis om kritiese suksesgebreke relevant tot die integrasie van konstruksie- en operasionele bestuur te identifiseer, bydra tot swak programbestuur.

Sleutelwoorde: Programbestuur, kritiese suksesfaktore, funksionele silo's, konstruksie-bestuur, operasionele bestuur, voordele-bestuur

1. Introduction

Integration of construction management and operations management remains a challenge during the implementation of a health care facility project in the Northern Cape Department of Health. The inability to integrate the two concepts compromises the Department of Health to attain the programme management benefits aimed through the implementation of the Hospital Revitalisation Programme (HRP). The National Department of Health established the Hospital Revitalisation Programme (HRP) in 2003 to rationalise hospital health facilities, health technology, organisational development, and quality assurance in health services. The HRP serves as a response

to the policy directives of the Reconstruction and Development Programme. According to the RDP, the "key to this link is an infrastructural programme that will provide access to modern and effective services like health, water and education" (South Africa, 1994: 10). The rationalisation of health-care facilities through the HRP developed five components that can be allocated in two categories, i.e. construction management and operations management. The HRP's programme management approach aligns its components to the delivery objectives of the administrative programmes in the Department of Health. The inability to integrate the delivery objectives of the administrative programmes with the components of the HRP negatively affects the success of the programme.

The integration of infrastructure and services as required by the RDP cannot be achieved if an institution does not have an effective programme management plan. The attempts to integrate infrastructure and services in the Northern Cape Department of Health (NCDoH) do not yield the benefits. The components of the HRP are implemented separately from the delivery objectives of the other administrative programmes in the NCDoH. In order to attain an integrated and cross-functional approach, the HRP developed a Project Implementation Manual that outlines the implementation processes. The inability to align the delivery objectives of the administrative programmes in the NCDoH with the components of the HRP also delays the implementation of the project. With poor programme management coordination the department develops functional silos that are unable to synchronise the integrative methodological approaches from construction management and operations management and their critical success factors relevant in programme management. The functional silos are the different functional structures in an organisation that focuses primarily on their immediate delivery objectives rather than contributing to the objectives of the entire organisation (Parker & Byrne, 2000: 503). The functional silos build up internal competition and make administrative programmes lose focus on the entire organisational context and strategic objectives (Miller, Wroblewski & Villafuerte, 2014: 10). The research, therefore, contends that there is sub-optimal programme management coordination in the NCDoH. The aim of this research is to determine how programme management coordination among the administrative programmes in the Provincial Office of the NCDoH, Z. F. Mqcawu District Office and the hospital that underwent revitalisation could be improved during the construction of a health-care facility.

The following section presents a contextual background of the NCDoH, with special focus on the outsourcing of construction management, purpose of administrative programmes (in particular, Programme 8 [see Table 1]), the reporting and purposes of the administrative programmes on the organisational structure at executive management level, and the programme management structure of the HRP.

1.1 Contextual background on the NCDoH and HRP

The construction of health-care facilities in the Northern Cape is outsourced to the Department of Public Works and the Independent Development Trust. The delivery objectives of these institutions include, among others, provision of infrastructure. The construction of Dr Harry Surtie Hospital in the town of Upington was executed by the provincial Department of Public Works. The latter obtains its mandate from the National Department of Public Works whose objectives include the provision and management of infrastructure needs of the user departments, as outlined in the *Department of Public Works Strategic Plan: 2012-2016* (South Africa, 2012). Despite the fact that the Department of Health provides funding for the construction of health facilities upon completion and handover, the buildings as immovable asset is transferred back to the Department of Public Works as the custodian of government immovable assets. This makes the Department of Health a user within the health-care facilities. The Government Immovable Asset Management Act (2007) describes a user as a national or provincial department that uses an immovable asset in support of its service delivery objectives. The delivery objectives of the NCDoH include the provision of quality health-care services, as outlined in the *Annual Performance Plan, 2010/11-2012/13* (South Africa, 2010a). In order to attain the NCDoH delivery objectives, seven administrative programmes have been established. Table 1 presents the purpose of each programme which relates to the strategic objective of the Department.

Table 1: Administrative programmes in the NCDoH

Administrative programme	*Purpose*
Programme 1: Administration	To conduct the strategic management and the overall administration of the NCDoH
Programme 2: District Health Services	To render primary health-care services and district hospital services

Administrative programme	*Purpose*
Programme 3: Emergency Medical Services	To render emergency medical services
Programme 4: Regional Hospital Services	To deliver hospital services that are accessible, appropriate, effective and provide a specialised service
Programme 5: Tertiary Hospital Services	To deliver tertiary specialist services that are accessible, appropriate, effective and provide a platform for training
Programme 6: Health Science & Training	To render training and development opportunities for actual and potential employees
Programme 7: Health-Care Support Services	To render support services required by the department to realise its aims
Programme 8: Health Facilities Management	To render professional and technical services in respect of buildings and related structures, and to construct new facilities as well as to upgrade, rehabilitate and maintain existing facilities

Programme 8 is responsible for rendering professional and technical services in respect of buildings and related structures, and to construct new facilities. This includes ensuring compliance with the South African National Standards 10400 for the application of the National Building Regulations, Infrastructure Unit Systems Support (IUSS) guidelines and the Infrastructure Delivery Management System (IDMS) for the planning, design and construction of health-care facilities by the implementing agent. Provision of programme scope according to the components of the HRP remains the responsibility of all other administrative programmes of the NCDoH as the primary users of the buildings after completion and handover. The outsourcing of the construction of the health-care facilities emanates from insufficient personnel capacity in the NCDoH, taking into account the mandate of this Department.

Prioritisation of health-care facilities for construction is the joint responsibility of the administrative programmes of the NCDoH. The Service Transformation Plan (STP) of the NCDoH is used for the selection of the new health facility required in a particular district. The purpose of the STP in the NCDoH is to plan an optimal health service delivery package for the needed resources to achieve a sustainable service, as outlined in the *Service Transformation Plan, version 3c* (South Africa, 2009b). Hence, the HRP Project Implementation Manual requires that, through the STP, the Department of Health should select the most appropriate revitalisation project. The responsibility to develop a required management plan for all the

components of the HRP remains the joint responsibility of all the administrative programmes. The implementation of the components of the HRP require an integrative approach from the administrative programmes in the NCDoH, despite the fact that accountability in the organisational structure is in a vertical format, with no visible cross-functional reporting. This vertical accountability does not oblige the administrative programmes to ensure the successful delivery of a health-care facility project. Hence, some of the components of the HRP that share the same delivery objectives with the administrative programmes in the NCDoH remain neglected and lag behind during the implementation of the programme. Figure 1 shows the levels of authority in the NCDoH at executive management level. Programme managers on this structure report to the Head of Department who reports to the Member of the Executive Council. The directorates that exist below the administrative programme execute its objectives as stated in the purpose of that particular administrative programme. This organisational structure does not have a provision for administrative programmes to establish a cross-functional reporting among each other. Neither the strategic plan nor the annual performance plan of the NCDoH makes reference to shared objectives among the administrative programmes, irrespective of the intervention that the new strategic objective brings.

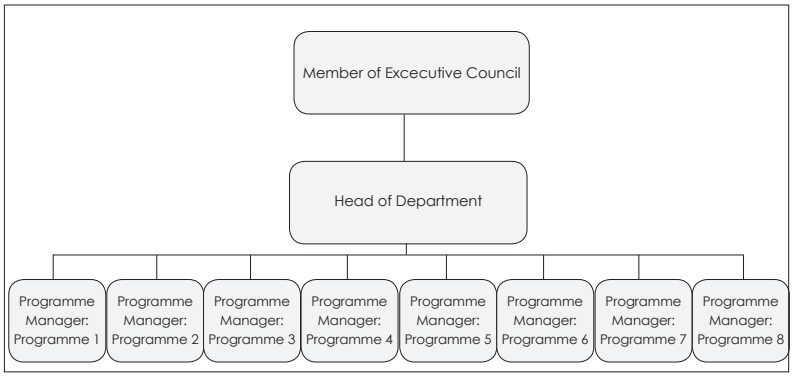

Figure 1: Executive management structure in the NCDoH

The HRP was developed on a programme management methodology and finds its relevance to the objectives of the administrative programmes of the NCDoH. The components of the HRP are infrastructure management, organisational development, quality assurance, health technology, monitoring, and evaluation. These

components are meant to be managed together in order to achieve the objective of the HRP. The implementation of the components of the hospital revitalisation programme in a health facility project enhances the strategic benefits from core delivery objectives of each administrative programme in a department through a programme management approach.

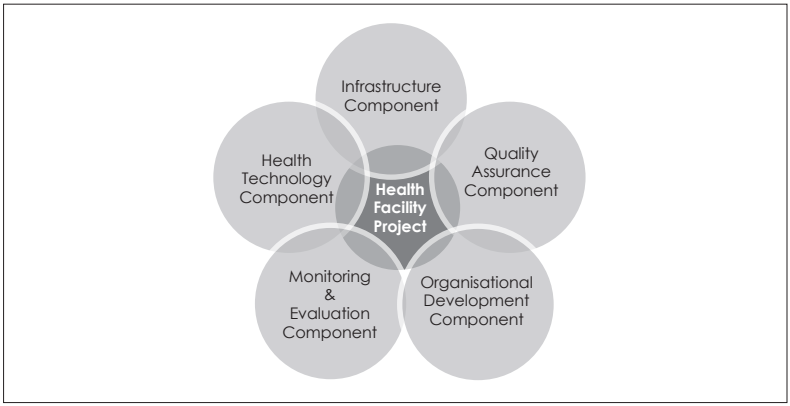

Figure 2: Components of the HRP

These components are implemented as projects, although they are meant to be managed together in order to achieve the objectives of HRP. The programme management approach enables the "process of managing multiple interdependent projects that lead towards an improvement in an organisation's performance" (Mittal, 2009: 1). Pinto & Kharbanda (1995: 73-74) point out that "projects serve as the conduit for implementing top management's plans, or goals, for the organization". The coordination of multiple projects through programme management enables the achievement of the benefits of strategic objectives. According to the Standard for Program Management (2013), components within a program are related through a common outcome or delivery of a collective set of benefits. The components of the HRP focus on achieving benefits of strategic objectives in the most appropriate revitalisation project, as outlined in the *Hospital Revitalisation: Project Implementation Manual, 2010-2011* (South Africa, 2010b: 27). The HRP is based on the principles of programme management, which confine it to the delivery of the "benefits and capabilities that an organisation can use to meet and enhance strategic objectives" (Sanghera, 2007: 93). In order for HRP to ensure that its intended goals are attained, it developed a Project Implementation Manual (PIM), which is revised annually by

the Project Management Forum. The HRP remains relevant to deliver the objectives of strategic importance in government, based on its programme management methodology. Morris & Pinto (2004: 266) contend that there are two characteristics that make programme management the most suitable methodology to ensure successful implementation of strategies, namely "the fact that it is a cyclic process, which enables regular assessment of benefits", and "the emphasis on the interdependencies of projects, which ensures strategic alignment and delivery of strategic benefits".

The research problem states that there is poor programme management coordination among the administrative programmes in the provincial office of the NCDoH, Z. F. Mqcawu District office, and Dr Harry Surtie Hospital during the construction of the Dr Harry Surtie Hospital. The construction of this hospital required that all the components of the HRP be implemented so that the NCDoH can attain programme benefits. The implementation of all the components of the HRP requires an integrated approach at all levels of administration and the administrative programmes in the NCDoH. The delivery of health-care facilities, in particular the hospitals, is based on the programme management methodology of the HRP.

In the following section, relevant literature relating to the research problem is explored in order to explain concepts in both construction management and operations management that are relevant to the programme management methodology. These concepts, i.e. integrated management, systems approach, benefits management and realisation, critical success factors, and continuous improvement, may not have been combined in order to discuss their interrelatedness in the construction of a health-care facility. Hence, there is the challenge to deliver a successful programme in the NCDoH.

2. Literature review

In this section, the researchers present the concepts that form the core discussion on the research problem. In order to understand the importance of programme management, the researchers explain what it is and its importance in an institution in attaining the benefits of strategic objectives. The systems approach in the programme management methodology is also explored wherein the concept of integrated management for construction management processes and operations management processes become relevant. Programme management is defined as the centralised coordinated management of a specific programme to achieve its strategic goals, objectives and benefits (Sanghera,

2008: 3). A component of programme management, i.e. benefits management and realisation, finds its relevance for the attainment of the benefits of an organisation's strategic objectives through the programme management methodology. Hence, the need to identify and synchronise the critical success factors from both construction management and operations management during the development of a programme management plan. Continuous improvement becomes important during the development of a programme management plan, as its absence might make the organisation loose the ability to support the long-term strategy and delivery mandate. The Infrastructure Delivery Management System (IDMS) of 2010 emanates from systems approach and finds its relevance in the perspective of construction management for the delivery of health-care facilities (South Africa, 2010c). The IDMS is limited to construction management processes, i.e. from planning to maintenance of the buildings.

2.1 Programme management

Programme management "is concerned with optimising project benefits in symbiotic fashion and with integrating project elements at the programme level" (Cloete, Wisssink & De Coning, 2006: 218-220). According to the Standard for Programme Management (2013), programme management harmonizes its projects and programme components and controls interdependencies in order to realise special benefits. This statement is supported by Levin & Green (2013: 486) who claim that "programmes take account of the benefit realisation as they are designed to last as long" as the benefits are satisfactorily realised. Williams & Parr (2004: 31) suggest that the enabling factor in programme management is its ability to carry out multiple elements that can be managed separately, "but sequencing of implementation and management of critical dependencies that require a level of management coordination over and above that at the individual project level".

Levin & Green (2013: 39) state that "programmes are established to achieve benefits that may not be realised if their components were managed individually". Hence, a programme serves as a means to achieve multi-level benefits that cannot be achieved if a single project is deployed. There is a difference between an administrative programme and a project-related programme. An administrative programme in the NCDoH consists of various directorates and units under the leadership of a functional manager. A project-focused programme consists of various components that are intended to achieve a common strategic or business goal. The coordinated

management processes of programme management require the application of knowledge, skills, tools, and techniques to meet the programme requirements and to obtain benefits and control not available by managing projects individually (Standard for Programme Management, 2013). Since programme management exists at strategy-formulation level, its coordination involves decision management, governance, stakeholder management, and benefits management (Thiry, 2010: 59). Therefore, programme management serves as "an implementation tool that delivers organisational benefits resulting from aligned corporate strategies, business-unit, and operational strategies. It facilitates coordinated and integrated management of cross-functional portfolios of projects and normal operations that bring about strategic transformation, innovative continuous improvement and customer service excellence in organisations, with the aim of achieving benefits of strategic importance" (Steyn & Schmikl, 2008: 4). Programme management "success is measured by the degree to which the program satisfies the needs and benefits for which it was undertaken" (PMBoK Guide, 2008: 9).

2.2 Construction management

The South African Council for the Project and Construction Management Professions (SACPCMP) (South Africa, 2000) defines construction management as "the management of the physical construction process within the built environment and includes the co-ordination, administration, and management of resources". Similarly, Dykstra (2011: 376) explains that construction management involves the processes of coordinating, monitoring, evaluating, and controlling of construction activities. These set out the construction management parameters. In addition, construction management embraces "activities from conception to physical realisation of a project" (Gahlot & Bhir, 2002: 1). In the Department of Health, the processes that lead to the physical realisation commence from the identification of a need incorporated as a strategic objective. The fact that provision of health-care services has to take place in a constructed structure requires the Health Facilities Management Programme to engage the end users in the development of requirements. The infrastructure component of the programme management plan incorporates the construction management processes in order to execute its objectives. As mentioned earlier, the construction management processes include the "effective planning, organising, application, coordination, monitoring, control, and reporting of the core business processes" (Harris, McCaffer & Edum-Fotwe, 2013: 1).

The successful delivery of the infrastructure component of the health-care facility does not signify the complete delivery or programme closure. The implementation of a health-care facility at project or component level aligns the processes of planning, organising, application, coordination, monitoring, control, and reporting found in construction management.

The project conceptualisation stage in construction management involves the end users and the design team. This stage requires immense stakeholder and communication management. The approach to building construction in the NCDoH follows the appointment of an implementing agent. The latter appoints a team of professional service providers to design and produce a bill of quantities for procurement purposes for the building infrastructure component. The programme manager responsible for HFM appoints a project manager who is responsible for construction management processes. It is the responsibility of the programme manager from the NCDoH to ensure that there is proper coordination of the construction requirements with the programme manager from the implementing agent.

According to Gahlot & Bhir (2002: 3), coordination in construction management involves integrating the work of various departments and sections. This requires proper integration of all project-related activities and disciplines such as architect, mechanical, electrical, civil and structural engineering together with quantity surveying. The implementation of the disciplines involves the construction project manager, the contractor, subcontractors and professionals in each discipline. Therefore, construction management enables the integration of project activities into the main project. Coordination in construction management is not only about the work produced from other disciplines for the built industry, but also about ensuring that the needs of the end user are incorporated and that, upon completion of the construction work, the buildings shall increase efficient delivery of the health-care services. In order for construction management to be coordinated with other components, a systems thinking approach needs to be applied. The IDMS has been established to address the systems thinking for the built environment, but there is still a gap to find the synergy with the operations management processes. The implementation of the infrastructure management components experiences variations to scope as a result of inadequate and late engagement of subject matter experts and incomplete requirements during the compilation of a requirements plan.

2.3 Operations management

The factors that relate to operations management in this research are categorised as outlined in the PMBoK Guide (2013) under enterprise environmental factors and organisational process assets such as organisational culture, stakeholder management, and performance management. According to Stevenson (2009), operations management involves management of systems or processes that create goods and provide services. The inputs in operations management are human resources, processes and information, whereas the outputs are in the form of goods and services (Reid & Sanders, 2010: 3). Operations management in the delivery of a health-care facility project enables planning, organising, coordinating, and controlling of the resources required to produce the goods and services. The evaluation of the implementation of the factors relating to operations management is linked to the programme implementation period.

2.4 Integrated management

The integration of construction management components and operations management components during the implementation of a health-care facility should still take into account programme management methodology. In order to achieve an integrated approach, this requires a "collaborative process, which emphasises constructive relationships" at programme management level (Thiry, 2010: 66). In an administration-focused organisation, programme management concentrates on activity monitoring, while in an integration-focused organisation, a project is a means to attain business strategy. In an integration-focused institution, the primary goal of programme management is "integration and synchronization of workflow, outcomes and deliverables of multiple projects to create an integrated solution" (Martinelli, Waddell & Rahsculte, 2014: 13). This makes coordination in programme management an essential aspect. Programme management acknowledges that components operate as a system. Grady (2007: 7) explains a system as "a collection of things that interact to achieve a specific purpose". Integration also "means completeness and closure, bringing components of the whole together in an operating system" (Barkely, 2006: 3). A system creates interdependence between various components; therefore, the greater the interdependence, the greater the need for cooperation (Castellano, Roehm & Hughe, 1995: 25). A "true integration ties all components of the organization into one coherent system where all activities, whether implemented together or individually, are focused on achievement of overall

goals and are ultimately the guiding mission of the organization" (Pardy & Andrews, 2010: 13). Integrated management approach cannot be achieved without cross-functional management. Integration is achieved through shared norms and values within an organisation (Burke, 2014: 58). The establishment of a cross-functional approach is determined by the culture existing in the organisation. A cross-functional management helps the organisation to "improve both the factual basis of the strategic planning process and the chances of successful implementation of the final plan" (Jackson & Jones, 1996: 12). Therefore, an organisation cannot succeed if it seeks to maintain what may be regarded as "functional silos" within its operations.

The building infrastructure is a main product in construction management in a health facility project. "Integration is essentially the major function of program management, running several projects simultaneously and using all the support systems of the organisation" (Barkely, 2006: 13).

In order to respond to the aim of the research, construction management and operations management were studied in detail, although in relation to other components that relate to programme management. Steyn & Schmikl (2008: 4) explain that programme management "coordinate[s] and integrate[s] management of cross-functional portfolios of projects and normal operations that bring about strategic transformation, innovative continuous improvement and customer service excellence in organisations, with the aim of achieving benefits of strategic importance". In the delivery of a health-care facility, three variables, namely critical success factors, continuous improvement, and construction management, have an ability to make an organisation succeed or fail in attaining a successful programme. These variables should be taken into account by an organisation, in this case the NCDoH, when a project requires the contribution of other programmes for the successful delivery of a health-care facility project. An institution's inability to find a logical relationship on the three variables disables administrative programmes from determining success in the delivery of health-care facilities project and leaves an organisation defining complete building infrastructure as the successful programme management while excluding all other components that are supposed to be implemented to finality. The *Project Implementation Manual (PIM)* states that, "in order to manage the integration process at provincial level, a Provincial Steering Committee must be formed for the overall coordination of provincial projects" (South Africa, 2009a: 22). The exit by the hospital revitalisation programme from a health-care facility

assumes that all the operational systems will continue through an integrated management system in order to deliver an improved quality and sustainable health service. Pardy & Andrews (2010: 4) argue that "an effectively implemented integrated management system aligns policy with strategic and management system objectives and provides the framework upon which to translate these objectives into functional and personal targets".

2.5 Systems approach

The Infrastructure Delivery Management System (IDMS) was introduced to provide a model for the delivery of public service infrastructure projects through management companions that include portfolios, projects and operations management that takes into account construction management processes (CIDB, 2012: 6). The Construction Industry Development Board (CIDB), upon which the IDMS (2010: 8) was established, mentions that government infrastructure delivery departments lost efficiency in integrating resources under portfolios and programmes of coordinated projects. Despite the systems approach of the IDMS through its management companions, the challenges of delivering a successful programme by the NCDoH still remains. The systems approach consists of three elements, namely inputs, processes, and outputs (Gardiner, 2005: 23). These elements collaborate to achieve the main goal of an institution. Cloete, Wisssink & De Coning (2006: 218-220) explain that the "institutionalization of a programme and project management approach in government in order to ensure integrated service delivery, has also proven problematic because of the lack of appropriate systems". The systems approach "defines the relationships between the various parts of the organisation with each other and with the outside environment, and establishes how these relationships work and lastly, it establishes the purpose of these relationships" (March, 2009: 25). The importance of systems approach in programme management helps create interdependence between various components; therefore, the greater the interdependence, the greater the need for cooperation, communication, and leadership (Castellano, Roehm & Hughes, 1995: 25). The "subsystems such as corporate mission, strategic objectives, organizational functions, organizational structure, critical processes, and the programme exist to effectively and efficiently convert the business inputs into the desired outputs" (Milosevic, Martinelli & Waddell, 2007: 57).

2.6 Benefits management and realisation

The Standard for Programme Management (2013) indicates that programme benefits may be realised incrementally throughout the duration of the programme, because they are a result of the executed organisational goals and objectives. The benefits "are the tangible business improvements that support the strategic objectives measured at operational level" (Thiry, 2004: 77). The benefits of strategic objectives are realised when the programme becomes aware of the advantage gained as a result of engaging in a particular programme. In order to realise the benefits of strategic objectives, the institution has to clean up any barriers that may arise as a result of a poorly coordinated programme management approach. In this way, an institution develops new capabilities of realising operational benefits. Benefits management is inextricably linked to critical success factors (CSFs), because the benefits management phase, i.e. benefit identification, in particular, requires the identification of the CSFs for a programme. Benefit realisation is defined as the process of realising actual outcomes by breaking down strategic objectives via programme components or projects, then monitoring the outputs to confirm that the intended benefits have, in fact, been achieved (Bradley, 2006: 20). The benefits realisation approach enables an organisation to understand and address the human aspects of the project, including resistance to change, training needs, and new ways of working. This requires the development of a benefits realisation plan that outlines the "details of the expected benefits to be realised and how these benefits will be achieved" (Thiry, 2010: 110).

2.7 Critical success factors

In order to realise the benefits of strategic objectives, the CSFs in both operations management and construction management should be identified. Some of the factors are common, while others vary according to management requirements. According to Mendoza, Perez and Griman (2006: 56), the CSFs represent a set of a "limited number of areas in which the results, if satisfactory, will guarantee successful competitive behaviour for organisational objectives". The simplicity with the identification of the CSFs is that they can be "expressed as a qualitative statement" and only quantified for assessment purposes in a form of key performance indicators (Thiry, 2010: 113). The quantification of the CFSs requires the involvement of all the stakeholders from other related programmes. The research, therefore, tends to raise a question: What methodology can be implemented to enhance process integration among the health

administrative programmes? This question contributes to responding to the following research question: How could coordination among the administrative programmes in the provincial office of the NCDoH, district office of the Department of Health and the hospital that undergoes revitalisation during the implementation of a health facility project be improved? Dobbins (2001: 48) mentions that "developing a process by which managers could identify their CSF… teaches managers how to think in terms of CSF" during the management of the project on site. The identification of critical success factors becomes irrelevant if there are no programme objectives. The benefits of programme management come from a "co-ordinated change management, governing the mutual dependencies between projects and activities, and a central focus on realizing the benefits" (Hedeman & Van Heemst, 2010: 16).

2.8 Continuous improvement

An organisation operating on a programme management approach needs to continuously improve and "without such improvement, the program management discipline will gradually deteriorate, losing the ability to support the business strategy of the organization" (Milosevic, Martinelli & Waddell, 2007: 455). Although continuous improvement puts more focus on commitment by senior management in an organisation, better results are achieved when an organisation gets commitment of all staff members within it. According to Turnbeaugh (2010: 42), the "management commitment aspect centers around a continuous improvement methodology of plan, do, check, act; a methodology that has transcended the use of TQM and has been integrated into other improvement-oriented procedures as well". This methodology emanates from the Edward Deming philosophy on continuous improvement. Continuous improvement cannot take place if an organisation lacks commitment by programme managers. In order for an organisation to effectively conduct continuous improvement processes, there should be a "culture in which individuals and groups take responsibility for continuous improvement based on common understanding of organisation's goals and priorities" (Sahu, 2007: iii).

3. Research methodology

In order to choose a relevant research method for this research, an inductive reasoning was applied. Collis & Hussey (2009: 8) note that the theory in inductive reasoning "is developed from the observation of empirical reality". Inductive reasoning is based on two premises,

i.e. the case and the characteristics of the case. Both these premises enable the researcher to develop conclusions through generalisation and to develop new thoughts. The "case study method allows investigations to focus on a case and retain a real-world perspective" (Yin, 2014: 4). A positivist and interpretivist approach was followed to examine the research subjects' understanding of the phenomena and their motivations (Porta & Keating, 2008: 13). This made the research relevant for the selection of the case study method due to its descriptive, inductive and heuristic approach (Somekh & Lewin, 2012: 54). Furthermore, due to the fact that the research problem focuses on a social reality, the case study method is able to ask the question as to what is going on with the phenomena to be able to generate intensive investigations for the development of subjective data (Burns, 2000: 460). As a result, a qualitative research method was applied and helped the researchers study the attitudes and behaviours of the research subjects within their natural settings (Babbie & Mouton, 2010: 270). Furthermore, the qualitative research is more concerned with the "greater depth with a relatively small number of participants in order to enhance the quality of the response through interpretative methods, unstructured and semi-structured interviews" (Garner, Wagner & Kawulich, 2009: 63).

This enables the researchers to evaluate the operational relations at programme management level in the NCDoH on construction management and operations management. Based on the research problem, i.e. sub-optimal programme management coordination within the NCDoH, this has prompted the researchers to apply the case study method in order to identify and investigate three components of the case. The case for the research study is the NCDoH. There are three components of the case, i.e. the Provincial Office made up of various administrative programmes, the Z. F. Mqcawu Health District Office and the Dr Harry Surtie revitalised hospital. The research subjects in these components are salient to the enquiry.

3.1 Sampling method

The research sample focused on the three levels of administration in the NCDoH, i.e the administrative programmes in the provincial office of the NCDoH, the health district office of the Department of Health at Z. F. Mcqawu, and Dr Surtie Hospital. The purposive or judgemental sampling method was utilised. Project commissioning team, project management team, end user staff in a health-care facility were sampled. The choice of this sampling method was influenced by the aim of the research and the line of enquiry pursued by the research study, the investigative question and literature reviewed.

Purposive sampling "enables diversity and ensures that units of analysis are selected as they hold a characteristic that is salient to the research study" (Ritchie, Lewis, Nicholls & Ormston, 2014: 143). Purposive sampling helped "access knowledgeable people, i.e. those who have in-depth knowledge about particular issues" (Cohen, Manion & Morrison, 2007: 115).

3.2. Sampling size

Through purposive sampling, the research targeted the "most visible leaders", i.e. the managers in the three units of analysis. The application of this purposive sampling included a snowball sampling approach whereby the people who were approached at the initial stage of data collection assisted the researchers to identify other managers relevant to the research study (Babbie & Mouton, 2010: 167). As a result of the purposive sampling method, data was collected from end user staff members in the three sectors of the NCDoH, project commissioning team and project management team. The data was collected from forty-five (45) respondents up to the stage where the level of saturation of the data was reached by the researcher (Maree, 2007: 82). Ritchie & Lewis (2003: 80) explain that the saturation in purposive sampling occurs when data collection does not yield any other new or relevant data. Thirty (30) managers responded to the interview from the provincial office, five (5) managers are from the Z. F. Mqcawu, and ten (10) managers are from Dr Harry Surtie Hospital.

3.3 Data collection

An interview guide was used to collect empirical data. The interviews were held with individuals in the Provincial Office of the Department of Health, the District Office of the Department of Health of Z. F. Mqcawu, and Dr Harry Surtie Hospital. The semi-structured interview guide assisted the researchers to maintain consistency and the logical flow of the questions. Nine (9) questions based on the objective of this research were generated. The interview guide was structured as follows:

Question	*Intent*
Questions 1-2 and 8-9	Test the respondents on the application programme management methodology
Question 3-4	Focus on the programme performance management
Question 5-7	Address the respondents on cross-functional approach

Probing questions were asked during discussion with the interviewees in order to obtain further information. An average of forty (40) minutes was spent in conducting each interview. Prior to utilising the research instrument, it was discussed with four people at different units in the NCDoH to determine whether interpretation of concepts would be obtained.

3.4 The research instrument

In order for the researchers to obtain respondents' perceptions with regard to the application of programme management methodology in the NCDoH, qualitative research questions were generated. The questions in the research instrument enabled the researchers to obtain substantial information on the research problem. The research instrument enabled the collection of data based on the perception of people in the three levels of administration in the NCDoH, i.e., Provincial Office, District Office of the Department of Health and a hospital with regard to programme management coordination on the delivery of a health-care facility project. The interview guide was meant to obtain qualitative data from the respondents for the research objective. The use of an interview guide enabled the researchers to be consistent with the questions posed to the respondents.

3.5 Response rate

All forty-five (45) respondents identified through a snowball approach in purposive sampling method responded to all the questions presented for discussion.

3.6 Data analysis

The application of the inductive analysis of data in qualitative research enabled the researchers to extensively condense raw data into brief and summary format, and to "establish clear links between the research objectives and the summary findings derived from raw data" (Dey, 2005: 55). The data analysis is categorised according to responses from the sectors (programmes in the provincial office, district office of the Department of Health, and the revitalised Dr Harry Surtie Hospital.

3.7 Limitation

The limitation to this research study was the uneasiness of some of the employees from Dr Harry Surtie Hospital and Z. F. Mqcawu District Office to provide information about the relationship between

the two levels of administration with the provincial office of the NCDoH. Although this limitation existed in certain cases during the interviews, it had minimal impact as the respondents' uncertainties were addressed by the inclusion of a confidentiality clause in the interview guide.

4. Findings from the case study

The findings from the case study are based on the responses obtained during the interview sessions with the research subjects outlined in the interview guide.

4.1 Programme performance management

There are disparities of opinions from the three sectors or levels of administration on whether the objectives of the various administrative programmes and the objectives of the hospital revitalisation programme are aligned.

4.1.1 Responses from the provincial office

Of the respondents, 20% agreed that there is an alignment between the objectives of the various administrative programmes and the objectives of the hospital revitalisation programme; 80% of the respondents disagreed with the above statement for the following reasons.

A decision concerning the prioritisation of a health-care facility is taken at the Provincial Offices of the Department of Health and does not take the inputs from the District Office of the Department of Health, i.e. Z. F. Mcqawu in this case.

The implementation of the hospital revitalisation programme does not take into account the Service Transformation Plan (STP) as the long-term plan of the NCDoH in terms of the health facilities' list of priorities. The choice as to which health-care facility should be constructed is made out of the STP. Any prioritisation that does not consider the priority list as recorded in the STP causes misalignment in terms of other services such as human resources plan, which ultimately affect budget allocation in the Department. A respondent mentions that "there is either no proper communication among (District Office of the Department of Health, revitalised hospital and administrative programmes in NCDoH) or absence or lack of co-ordination between their project managers". Furthermore, it was reported that there is "lack of commitment from programme managers and lack of knowledge" for aligning the existing delivery

objectives of the administrative programmes when a new strategic objective has been incorporated.

4.1.2 Responses from the District Office of the Department of Health

Of the respondents, 40% agreed that the District Office of the Department of Health, revitalised hospital and administrative programmes in NCDoH properly align with the objectives of the hospital revitalisation programme. The respondents mentioned that, once a health-care facility project has been prioritised, the District Office of the Department of Health is obliged to align with the objectives of the hospital revitalisation programme, as it must assist in ensuring the success of the project.

Only 60% of the respondents explained that this does not necessarily mean that there is no alignment with the objectives of the hospital revitalisation programme, although they found themselves participating in certain stages of the prioritised health-care facility project. In this instance, the respondents participated in the project commissioning meetings for the delivery of a health-care facility project, but without knowing how that particular activity fits into the objectives of the District Office of the Department of Health.

4.1.3 Responses from Dr Harry Surtie Hospital

The respondents from Dr Harry Surtie Hospital pointed out that they have hardly any knowledge about the objectives of the hospital revitalisation programme, but that they participate in the project-commissioning meeting to ensure successful delivery of the project, as they are the direct beneficiaries after completion. It was further explained that the staff members from the old hospital do not have much of a role to play at the beginning of the project, but that they get more involved during the preparations to move into the new premises, as they have to be ready to provide health services. Further, the respondents from Dr Harry Surtie Hospital view the alignment as ineffective, because the joint decisions arising from the alignment are not implemented.

4.2 Programme management practice in the NCDoH

The research on this input wanted to determine whether all other administrative programmes should incorporate and report on the new strategic objective of the construction of a new health-care facility on components that relate to their normal delivery objectives. It was found that some of the administrative programmes do not consider the new strategic objective, i.e. construction of a new

health-care facility, in their Annual Performance Plans and continue with the implementation of their normal programme objectives; hence, there is insufficient reporting relating to the objective.

At least 40% of the respondents suggested that reporting should be the responsibility of one administrative programme, i.e. Health Facilities Management. The reason for a single point of accountability is that it would help maintain consistency in reporting. This opinion leaves other administrative programmes without responsibility over the prioritised health-care facility project. Of the respondents, 40% mentioned that the administrative programmes that have core responsibilities on certain project parameters are omitted without taking part and that the project is denied an opportunity to engage experts to advise as to whether the project is still focused on attaining the intended goal/s.

Of the respondents, 60% agreed that there is a need for other administrative programmes to be involved in the reporting of progress on the delivery of a health-care facility project, thus enabling all the administrative programmes to monitor their performance against the set objectives. Furthermore, the administrative programmes would be able to determine whether factors that go into operations management and construction management are being addressed and what progress is being made in each. This becomes an added advantage, as administrative programmes would also be able to determine what lags behind in terms of project activities so that rescue measures can be established, if necessary. A joint reporting informs all the stakeholders about progress made and enables preparation of the operationalisation of the facility once the building project is completed. It was also indicated that the administrative programmes that have core responsibility of the components that build up the delivery of a health-care facility project such as organisational development and quality assurance should report on them. A joint reporting by the administrative programmes at strategy development level in the NCDoH would enable continuous development. A respondent indicated that joint reporting "eliminates silo approach, and enables monitoring of commitment at programme management level". Furthermore, reporting by other administrative programmes in the NCDoH "maximises project success", as it puts all administrative programmes on par with project progress and activities to be performed at each stage.

4.3 A cross-functional approach in the NCDoH

A total of 33% of the respondents in the three sectors indicated that there is a cross-functional approach at programme management level. At least 44% of the respondents mentioned that there is a cross-functional approach at the project-commissioning meetings, as they are the ones used by the Health Facilities Management programme to ensure that all the administrative programmes from the Provincial Office of the Department of Health collaborate for the delivery of a health-care facility project. Only 22% of the respondents explained that they have not experienced any cross-functional action at programme management level within the Department. The respondents reported that they have noted that "the department is working in a silo approach" wherein the administrative programmes operate on individual objectives that have no link to each other.

5. Conclusion

The results of this study show that an institution's inability to consider critical success factors and the existence of functional silos during the construction of a health-care facility has a negative effect on the attainment of the benefits of strategic objectives.

The research revealed that the administrative programmes in the NCDoH perceive construction management and operations management as separate entities during the construction of a health-care facility; hence, the inability to attain a cross-functional approach at programme management level. The administrative programmes do not perceive the construction of a health-care facility as part of the integrated objectives of the NCDoH intended to attain a strategic goal. This enables the development of functional silos within the NCDoH. With the existence of functional silos, the NCDoH would not be able to link an infrastructural programme to provide access to modern and effective health services, as pronounced by the Reconstruction and Development Programmes (South Africa, 1994: 10).

The impact of poor programme management coordination leaves the NCDoH with the challenge of how to describe a successful programme, as the complete building infrastructure alone cannot provide all the required health services as initially intended. This would also defeat the aim of programme management, which is the "coordinated management of a portfolio of projects that assist an organisation to achieve benefits that are of strategic importance" (Gardiner, 2005: 11).

Construction management and operations management separately consist of core elements that relate to the delivery objectives of the administrative programmes of the NCDoH. However, it requires senior management commitment at both strategy development and strategy implementation to integrate, synchronise and create common objectives that attain the programme management benefits. The strategy development stage requires that "portfolio management frameworks consider[s] the dynamism that occur[s] through portfolio balancing; dependent upon a rational, mechanistic and linear process to determine the organisation's strategy and priorities, which in turn allows the balancing function to take place" (Linger & Owen, 2012: 106). At the strategy implementation stage, the NDoH proposes that the "provincial strategic plans must include comprehensive hospital plans, which provide a framework in which business cases are subsequently developed" (South Africa, 2005).

Findings from the research show that the NCDoH has not yet established collaborative elements, in particular, critical success factors, that integrate construction management and operations management in the construction of health-care facilities. This affects the attainment of programme benefits, as the benefits management process requires the identification of the CSFs. This happens as a result of sub-optimal programme management coordination on the implementation of the components of the HRP.

6. Recommendations

The functional managers in the NCDoH should be afforded an opportunity to participate in the development of a programme charter so that they can also be at liberty to avail resources when project/component charters are developed and implemented.

Executive management in the NCDoH should consider the development of a policy framework on stakeholder management that addresses cross-functional interaction between administrative programmes and other sectors.

The executive management should consider that the CSFs are an integral part of the strategic planning of an institution and need to be included.

Executive management should make it compulsory to administrative programmes to develop a benefit management plan that integrates the objectives of the HRP.

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