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ADAPTIVE MANAGEMENT AS AN APPROACH TO IMPROVE THE PERFORMANCE OF RURAL DEVELOPMENT PROJECTS IN CAMEROON

LA GESTIÓN ADAPTATIVA COMO ENFOQUE QUE AYUDA A MEJORAR EL DESEMPEÑO DE LOS PROYECTOS DE DESARROLLO RURAL EN CAMERÚN

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ABSTRACT

The main objective of this article is to respond to the need for improvement of development projects performance, from there, contributing to the effectiveness of public development aid. This question is at the heart of the Cameroon Government concerns which faces the permanent challenge of improving the living conditions of its rural population. The study approach is explanatory focuses on identifying the causes of the problem in order to make proposals that take into account the uncertainty encountered by most development projects. Following the review of the literature, the state of the art and the diagnosis, the analysis of the data highlights the need to face risks in the management of development projects. The emphasis is therefore placed on adaptive management which offers a managerial framework whose performance depends on the ability of the project team to deal with risks and uncertainties throughout the project life cycle. Far from ignoring the technical aspects and the merits of the traditional standard approaches such as the Logical Framework used in most development projects in Cameroon, adaptive management is a managerial approach which adapts to complex projects such as rural development projects with an emphasis on learning and structured decision-making to solve problems in contexts of permanent uncertainty. By integrating performance-based management approaches, it is possible to improve the impact of interventions in order to effectively address specific Sustainable Development Goals (SDGs), such as eradicating poverty (SDG 1), providing access to quality education (SDG 4) and promoting gender equality (SDG 5).

Palabras clave:
Proyecto de desarrollo rural, gestión adaptativa, incertidumbre, riesgo, desempeño.

RESUMEN

El principal objetivo de este artículo es dar respuesta a la necesidad de mejorar el desempeño de los proyectos de desarrollo, contribuyendo desde allí a la eficacia de la ayuda pública al desarrollo. Esta cuestión está en el centro de las preocupaciones del Gobierno de Camerún, que se enfrenta al desafío permanente de mejorar las condiciones de vida de su población rural. El enfoque del estudio es explicativo y se centra en identificar las causas del problema para poder realizar propuestas que tengan en cuenta la incertidumbre que enfrentan la mayoría de los proyectos de desarrollo. Tras la revisión de la literatura, el estado del arte y el diagnóstico, el análisis de los datos pone de relieve la necesidad de afrontar los riesgos en la gestión de proyectos de desarrollo. Por lo tanto, se hace hincapié en la gestión

adaptativa, que ofrece un marco de gestión cuyo desempeño depende de la capacidad del equipo del proyecto para hacer frente a los riesgos e incertidumbres a lo largo del ciclo de vida del proyecto. Lejos de ignorar los aspectos técnicos y los méritos de los enfoques estándar tradicionales como el Marco Lógico utilizado en la mayoría de los proyectos de desarrollo en Camerún, la gestión adaptativa es un enfoque de gestión que se adapta a proyectos complejos como los proyectos de desarrollo rural con énfasis en el aprendizaje y la estructuración toma de decisiones para resolver problemas en contextos de incertidumbre permanente. Al integrar enfoques de gestión basados en el desempeño, es posible mejorar el impacto de las intervenciones para abordar eficazmente Objetivos de Desarrollo Sostenible (ODS) específicos, como erradicar la pobreza (ODS 1), brindar acceso a una educación de calidad (ODS 4) y promover la igualdad de género (ODS 5).

Introduction

It includes the presentation of the paper and the analysis of the literature on the subject, with special emphasis on previous research that justifies the study and that will be contrasted in the discussion of the results.

With a view to achieving its Vision 2035 which aims to make Cameroon an emerging country, democratic and united in its diversity, the country adopted in 2020 a new reference framework for its development action during the next decade. This is the National Development Strategy (NDS30) which is based on the lessons of the implementation of the Growth and Employment Strategy Document (GESD) 2010-2019. This strategy is based on four main pillars, including i) structural transformation of the national economy through the development of industries and services, agricultural productivity and production, productive infrastructure, regional integration and facilitation of exchanges, the revitalization of the private sector, the transformation of the financial system; (ii) development of human capital and well-being; iii) promotion of employment and economic integration; iv) governance, decentralization and strategic management of the State (MINEPAT, 2020). NDS 30 is a consolidation of sectoral strategies including the Rural Sector Development Strategy and the National Agricultural Investment Plan (RSDS/NAIP) 2020-2030.

To implement its various development strategies and respond to its innumerable challenges, Cameroon has always resorted to Public Development Assistance. The interventions of multilateral and bilateral technical and financial partners (TFPs) in the rural sector are respectively 17.37% and 5.35% of their aid (DAD-Cameroon Report on Development Assistance 2012-2013). According to the same report and during the period 2009 to 2018, 18 financing organizations made their commitment to the rural sector, for a total of 83 projects spread across the ten regions of the country. Notwithstanding the intervention of these multiple TFPs, most rural development projects do not achieve their objectives. Disparities between cities and rural areas are getting worse. The poverty rate in urban areas fell from 12.2% to 10.8%, a drop of 1.4 points, while that in rural areas increased sharply from 55.0% to 59.2% (FMI, 2014).

According to estimates from the International Finance Corporation (IFC), one in two projects fails. Furthermore, one of the phenomena that characterizes the management of rural development projects today in Cameroon is that of extension, proof of the inability of the project to achieve its results within the prescribed deadlines. The problems of managing development aid projects in developing countries are legion (Ika, 2011). Traditionally, the Logical Framework Approach (LCA) is the management methodology generally used by planners and implementers of these projects, who adopt the optimistic assumption that the project will evolve in a stable environment. However, in practice, the volatility and uncertainty of socio-economic conditions, even political, are potential events which appear at least once during the life cycle of a project requiring project teams to have a certain level of adaptation.

In response to the imperfections of traditional approaches which often reveal limits in difficult economic environments characterized by a high level of uncertainty, it would be important to adopt a management approach which takes into account all these hazards. In this article, we propose an agile approach to managing development projects that takes advantage and eliminates the disadvantages of traditional management approaches in order to effectively contribute to the achievement of the development objectives contained in NDS 30.

Method

The methodological approach of this study is based on literature review and participant observation. The literature review served as a basis for the various works to not only understand the context and challenges of the development of the Cameroonian rural sector, but also provide sufficient knowledge on adaptive project management and the main arguments of the authors who have experienced or studied it. Participatory observation, for its part, facilitated our immersion in the field of development project management in Cameroon in order to observe the behaviors, interactions and managerial practices in progress in this type of project. It also allowed us to take notes on attitudes, language, norms and values, conduct informal interviews with stakeholders to better understand their thoughts and lived experiences.

In doing so, by using these two qualitative methods as part of our study, we do not claim to manipulate the variables, we rather seek their connection. The aim is to contribute to improving the performance of rural development projects in Cameroon, by proposing a managerial approach which takes into account the uncertainties and the dynamic nature of the environment in which these projects evolve.

Results

Uncertainty: implicit characteristic of project management

A project is defined as a unique set of activities with more or less clearly defined objectives, carried out within a limited budget and duration. Generally, project management requires particular attention to two main areas of responsibility: (i) task management; and (ii) management of relationships with stakeholders. Development projects tend to present many uncertainties due to the lack of information or the provision of unreliable information, the emergence of new technologies, the complexity of the project, the multitude of stakeholders, divergence in the perception of satisfaction and expectations of stakeholders or even unpredictable factors. What makes it difficult for most Project Coordinators is the complexity and uncertainty of the project.

According to Simon (1965), complexity can be defined as "a system consisting of a large number of parts which interact in a non-simple manner… [such that] given the properties of the parts and the laws of their interactions, it is not trivial to deduce the properties of the whole." We commonly observe two main sources of complexity in projects: task complexity and relational complexity. In general, task complexity is defined as an objective characteristic of the task from a structuralism and resource requirements perspective, determined from the subjective experience of task performers from an interaction perspective. For example, it refers to the number of interacting components of the project. Regarding relational complexity, it is the result of the existence of multiple stakeholders with conflicting interests. These conflicting interests can lead to disagreements over project objectives and priorities between project tasks and outcome characteristics. This type of complexity can be managed using linear responsibility tables or force field analysis.

According to the ISO 31000V2018 standard "uncertainty is the state, even partial, of lack of information concerning the understanding or knowledge of an event, its consequences or its likelihood". Project risks originate from the uncertainty present in any project (PMI, 2017). Chapman and Ward (2003) explain that uncertainty is generated not only by variability, but also by ambiguity (ambiguity on project objectives, priorities

or the basis for estimating project parameters). Uncertainties are therefore considered potential risk triggers. Risk being the impact or possible outcome of an uncertain situation. Any uncertainty produces exposure to risk, which, in project management terms, can lead to failure in either meeting the budget, reaching the required completion date or meeting the required performance.

With the aim of coupling risks to organizational objectives, the ISO 31000 standard considers risk as the effect of uncertainty on an organization's objectives. Organizations perceive risks as the effect of uncertainty on project objectives resulting in a lack of information in any phase or activity of the process. This means that some relevant information about the outcome of a process or future decision is not known or knowable. Information is therefore an essential resource for decision-making, because it reduces the organization's uncertainty regarding a given situation or problem. Lack of available information or knowledge is one of the causes of uncertainty in a project. Indeed, the implementation of project activities is subject to numerous uncertainties of various origins: unavailability of certain resources, delay in delivery of components or materials, change in the scope of the project, failure in carrying out a study, new unplanned activities to be carried out, etc.

There are many ways to categorize different types of uncertainty. Meyer et al. categorize them based on their impact, expected uncertainty, unforeseen uncertainty and chaos. Some researchers categorize uncertainty based on their sources. This is the case, for example, of Perminova et al. (as cited Kreye & Balangalibun, 2015) which describe the following sources of uncertainty: technological, resource, competitive, supplier, consumer and political uncertainty. Ward & Chapman (as cited Kreye & Balangalibun, 2015) focused on uncertainties that have a great influence on project management such as design, logistics, objectives, priorities and relationships between project parties to define the different categories of uncertainties. Kreye & Balangalibun (2015) state that project uncertainty refers to the uncertainty surrounding the objectives set by the project. It is mainly related to project performance measures such as time, resources and quality and arises from the variability of estimates. This variability may arise from a lack of clarification of specifications or requirements due to inexperience in the project, the complexity of the project processes, the parties involved, unexpected events, or biases of designers and decision makers. Another source of uncertainty may reside within the organization. Organizational uncertainty is related to strategic issues, such as the future direction of the organization, and structural issues, such as organizational structure, functions of different departments, business processes, and changes in organizational structure or introduction of new technologies. Uncertainty can also arise from the project partners and the relationship between them, leading to relational uncertainty. Relational uncertainty includes understanding stakeholders, their influence and their interest in the project. It includes the quality and reliability of the work of the partners, their ability to align their objectives with the general objectives of the project. This is particularly important when the success of the project depends on the quality of the services provided by its partners.

Chapman and Ward (2003) explain that the uncertainty, inherent in any project, is considerable and most project management activities involve managing uncertainty early in the project life cycle, clarifying what can be done, to decide what needs to be done and to make sure it gets done. Uncertainty is partly linked to variability in performance measures such as cost, duration or quality. It is also an ambiguity associated with a lack of clarity due to the behavior of project stakeholders, lack of data, lack of detail, lack of

structure to take into account problems, working hypotheses and formulations used to take into account problems, known and unknown.

According to Chapman and Ward (2003), aspects of uncertainty may be present throughout the project life cycle, but they are particularly evident in the pre-execution stages. In reality, a project will generally exhibit a mixture of these different types of uncertainty. Uncertainty is therefore an intrinsic variable in the life of any project. The need to manage uncertainty is inherent to most projects that require formal project management. Table1 summarizes and describes the different categories of uncertainty in projects, proposing a management style adapted to each category of uncertainty.

Table 1

Different types of project uncertainties

Uncertainty category	Description	Management style	
Variation	Levels of cost, time, and/or performance vary uncertainly within a range.	- Scheduling with buffers; - Disciplined execution.	Planning
Expected uncertainty	Major influence on the project based on a few individually identifiable factors. The factor is known, but we do not know what value it will take.	- Identification of risks; - Prevention; - Emergency planning.	
Unforeseen uncertainty	Major influencing factor (or a few) is not at all anticipated by the project team, nor planned nor expected.	Learning: new problem solving, with modifications to targets and execution.	Learning
Turbulence, chaos.	The project objective, strategy and approach are completely invalidated by unforeseen events and the project must be redefined.	Repeated complete redefinition of the project	

Note. Adapted from Arnoud et al. (2002, p.27).

Thus, one of the main challenges for the project team lies in determining an acceptable degree of uncertainty in order to maximize the creation of value, an objective considered as the basic postulate in the concept of risk management. Uncertainty management in projects is an ongoing activity focused on identifying and managing all sources of uncertainty that constitute threats or opportunities.

Traditional project management approaches

Traditional project management is a methodology for managing projects that occurs in a sequential (or cascading) cycle of stages that generally includes: initiation, planning, execution, monitoring and control, and closeout (Szreder et al., 2019). Each of these steps is described in the management guidelines. Traditional project management is assimilated to push management in which the objectives and the way in which the project must be carried out are defined by senior management. This leads to a high level of planning and coordination effort, little room for maneuver and low adaptability of the project implementation team.

There are several standards in the field of traditional project management. This is the case of the Project Management Body of Knowledge (PMBOK), the best-known repository, the first publication of which was made in 1996 by the Project Management Institute (PMI). The PMBOK is organized into knowledge areas and provides guidelines, rules and specifications for managing projects, programs and portfolios. Alongside PMBOK, we have Projects In a Controlled Environment (PRINCE2), a traditional project management framework adopted by government institutions in Great Britain and other countries, but also by private organizations. PRINCE2 emphasizes dividing projects into

manageable and controllable stages. In addition to these two traditional management approaches, we have HERMES, which is the Swiss method of project management in the IT fields but which can be adapted to all types of projects for the development of services/products and the adaptation of the organization of the company. In the field of development cooperation, the most well-known traditional management approach is the Logical Framework Approach (LFA) used as the main tool of Project Cycle Management (PCM) applied since 1992 by the European Commission. Project Cycle Management is an expression used to define management activity and decision-making during the project cycle (European Commission, 2004).

The LFA is one of the methodologies most used by multilateral or bilateral aid agencies, international NGOs and by many institutions. The LFA and corresponding tools are used during the project cycle to facilitate analysis, decision-making and ensure the results of a development action. It defines the structure of the project, the indicators and the assumptions relating to the project, in the form of a matrix whose rows represent the results chain. Under PCM, the project is subdivided into phases such as programming, identification, development, financing, implementation and evaluation. The project, the main PCM instrument, is used in planning development cooperation activities. It includes interrelated and coordinated activities designed to achieve clearly defined outcomes ranging from policy change to practical direct action (ILO, 2015). It helps to solve a specific development problem within a given time frame and budget.

All of these traditional project management approaches use more or less similar tools and techniques to implement management processes. Once the formulation and planning phases have been completed and a business plan or financing proposal has been submitted for approval, interventions to make changes become limited. It is only after the control phase that necessary adjustments can be made. The project manager is responsible for coordinating the contributions of all project stakeholders to meet the various needs and expectations. However, this could be very complex in nature and involve intense negotiations and conflict resolution, as different stakeholders could have different expectations. Furthermore, for political and other reasons, project decision-makers may fail to adequately take into account (or take into account belatedly) environmental impact assessments or abrupt changes in the national or international context. This is the case, for example, with the advent of the COVID-19 pandemic, which caused a global health and socio-economic crisis whose consequences are unprecedented throughout the world.

PMBOK, PRINCE2 or LFA are predictive project management benchmarks. They focus on planning the project, executing the project according to the plan, checking for variances and taking action if necessary. According to Cooke-Davies (2002), these benchmarks work well, provided the requirements are very stable and the technology is familiar. Although these standards highlight the importance of soft skills, these project management models are particularly mechanistic. In other words, this implies that project management is based on the assumption that future outcomes can be accurately predicted based on current information and actions. Those approaches also assume that project events are predictable, tools and actions are understandable. The conclusion of a given phase means that it is no longer exposed to any new analysis or change.

In the traditional approach, the final product or result is only visible by the customer or beneficiary towards the end of the project (tunnel effect). In this case, the product is rigid because it is difficult for a customer to change his mind on a product functionality during execution. Traditional project management methodologies are effective for construction projects, where the entire project can be completed in a single

cycle, and success is determined by achieving expected results on time and within project budget (NEAGU 2013). However, it is implicitly recognized that human actions and interactions (and their consequences) can be objectively observed and then corrected or controlled Cooke-Davies et al. (as cited Szreder et al., 2019). One of the factors in the failure of development projects is the inability to identify all the needs of the beneficiaries, especially since these needs, which are identified and analyzed during the formulation phase, can change at a frequency which depends on several factors, among others, the dynamic context, the life cycle of the project, the time between the formulation phase and the effective implementation phase of the project... In addition, planning is continually influenced by political inputs from a wide variety of stakeholders and actors. Due to political dynamics, development complexities, resource constraints, and risks, project managers typically find themselves in a hostile environment where detailed advance planning and full implementation of pre-established plans are virtually impossible.

If for a long time the emphasis was on the technical aspects in the management of development projects, nowadays voices are being raised to draw attention to the importance of managerial and especially human factors through the adoption of managerial practices that aim to be agile. Managing projects under conditions of complexity and uncertainty requires the project team to be creative and adaptable. This requires a change in thinking about how development projects, including those in the rural sector, should be planned, programmed and executed.

Complexity and uncertainties: main characteristics of rural development projects

A development project can take the form of donations, loan at a preferential rate or debt cancellation and is generally implemented jointly by a donor and local actors in the beneficiary countries through a life cycle. The activities that make up this type of project are not simple repetitive tasks, such as painting the rooms of a home or washing a vehicle. Contrary, they are complex. Indeed, the project must sometimes cover more than one geographical area during the same period and the expected change must take place among beneficiaries whose socio-economic characteristics are different. In this context, the success of rural development projects are characterized by ambiguity given their distinct characteristics (Cooke-Davies, 2002).

The logical framework or results framework defines the sequence of activities to be carried out to achieve the desired change following the implementation of a development project. These different activities are interdependent because the result of one activity is an input data for another, necessary for the achievement of one or more results measured by objectively verifiable indicators. This interdependence adds a level of complexity and communication that must be managed to ensure the progress of the project, the effective and efficient use of financial resources, the satisfaction of the various stakeholders and sustainability before its completion date. . The implementation of any activity or batch of activities by the project team is subject to prior obtaining of a no objection notice from the donor.

Development projects are low maturity organizations (Khan & Zahid, 2013) because their organization, relatively new in formal management, generally do not implement a systematic project risk management process due to certain constraints or difficulties. This is the reason why “outsourcing” is used to implement certain components in most development interventions, because the project generally does not have enough human resources to implement all the activities within the allotted time frame. This involves entrusting the implementation of a certain number of project activities to private or public service providers. This principle of intervention aims not only to guarantee the institutional anchoring of providers, but also the sustainability of support by

strengthening the capacities of local actors in the provision of services in the field of socio-economic development at the grassroots level. However, the application of this principle is a source of uncertainty due to the quality of services provided sometimes as a result of the unavailability of local expertise.

According to the ISO 31000V2018 standard, "uncertainty is the state, even partial, of lack of information concerning the understanding or knowledge of an event, its consequences or its likelihood". It is generated not only by variability, but also by ambiguity (Chapman and Ward, 2003) and project risks originate from the uncertainty present in any project (PMI, 2017). For Wysocki (2014) these two terms are inseparable. Indeed, the higher a project's level of complexity, the more it is accompanied by a level of uncertainty. Due to numerous hazards and uncertainties which affect it, we note that the realization of the activities of a development project nowadays becomes more and more complex and uncertain in view of the appearance of unforeseen unfavorable events which influence the achievement of results. It is therefore up to the project team to adapt its project management methods to deal with uncertainty, so that the latter can not only adjust to change, but also accept it and consequently move towards greater performance.

Adaptive project management

Rural development projects generally operate in complex and dynamic environments that involve many unpredictable elements with various stakeholders and are characterized by a high degree of uncertainty. Most of these projects fail to achieve their expected objectives, largely because traditional or conventional project management approaches do not adequately adapt to a constantly dynamic environment. In such an environment, an adaptive approach to planning and managing complex projects is necessary to enable the project team to be creative in the execution of all their activities.

The term "adaptive management" is not new. Historically, it has its origins in adaptive management of natural resources which dates back to the work of Beverton and Holt (1957) in fisheries management (Williams, 2011). The concept became common when C.S. Holling, considered the "father" of adaptive management, published his work "Adaptive Environmental Assessment and Management" in 1978 (Holling, 1978). At this period, adaptive management was a method for probing the dynamics and resilience of systems while continuing management through management experiments developed to improve learning and reduce uncertainty (Allen et al., 2011). Following Holling, whose work aimed to bridge the divide between science and practice, Carl Walters (1986) treated management activities as experiments designed to reduce uncertainty. In the field of development cooperation, it was from 1983, faced with numerous problems linked to the uncertainty of development work, Dennis Rondinelli advocated the use of more iterative and adaptive approaches which favor progressive learning (Michael, 2020). Since then, the concept of adaptive management has been applied in several fields of activity, in different socio-political contexts and by several actors.

Also known as "agile" project management, adaptive project management is a structured, iterative process of making robust decisions in the face of uncertainty (Michael, 2020). It is a set of project life cycle models that can be used to manage complex projects whose objectives are clearly specified but whose solutions are not known at the start of the project (Wysocki, 2014). For Walters (as cited Allen et al., 2011) adaptive management is a resource management approach that emphasizes learning through management, based on the philosophy that knowledge is incomplete and that much of what we think we know is actually wrong, but despite the uncertainty, managers and

policymakers must act. It is a program cycle implementation approach that seeks to better achieve desired results and impacts through the systematic, iterative and planned use of emerging knowledge and learning throughout the implementation of strategies, programs and projects.

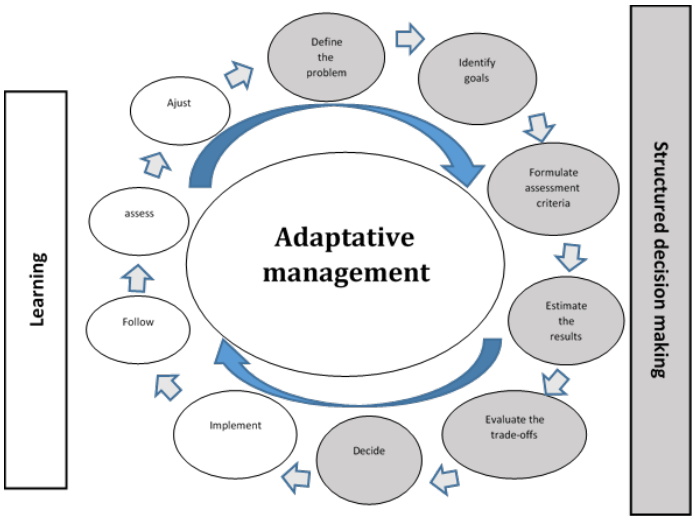
Referring to these different definitions, adaptive management is an approach which allow project teams to make decision in order to anticipate the advent of risks and make adjustments necessary to achieve results. According to Michael (2020), adaptive management is based on the following five principles:

- Acceptance of uncertainty about what works or not in order to meet challenges;
- Focus more on the why? And less on the how? the important thing is to achieve the goals with the available resources;
- Short cycles and iterative decision-making to be able to adapt quickly and make adjustments based on lessons learned;
- Continuous and rapid learning through trial and error and/or testing different approaches;
- Particular attention to relationships by putting people at the heart of the processes because, the more complex a situation, the more important are the skills, motivation and interpersonal skills of people.

These different principles summarize the elements of an interactive process of continuous improvement focused on structured decision-making and learning (see figure 1).

Figure 1

Adaptive project management process



Note. Adapted from Allen et al. (2011, p.1340)

As illustrated in Figure 1, the adaptive management process is composed of two main phases (structured decision-making and learning) which allows practitioners to learn by doing. Structured decision making is a problem-solving approach borrowed from sociological fields, used to identify and evaluate alternative resource management options by involving stakeholders, experts and decision makers in the decision process and addressing the inherent complexity and uncertainty to manage resources in a proactive and transparent manner. The structured decision-making framework provides an ideal model to facilitate the decision-making process inherent in adaptive management. The key objective of adaptive management is the identification and reduction of uncertainty wherever possible. This reduction is made possible through management experiences

that enhance learning. Thus, adaptive management is characterized by a flexible methodology that involves testing, monitoring, feedback and adjustments as necessary. This is what characterizes the adaptive approach from the traditional approach which is more linear and mechanical.

Differences between the adaptive approach and the traditional approach

Leau et al. (2012), Nerur et al. (2005) as well as Nerur & Balijepally (2007) identified characteristics adapted to each approach allowing a clear distinction to be made.

Table 2

Differences between traditional approach and adaptive approach

Criteria/aspects	Adaptive approach	Traditional approach
Requirements analysis	Iterative approach	Detailed requirements profile
Change in costs	Weak	Pupil
Management Development	Can be changed at any time	Fixed
Test	After each iteration	When the development phase is completed
Interaction with the customer or beneficiary	Strong	Weak
Project scaling	Small to medium sized project	Extended projects
Target	Adaptation, flexibility, responsiveness	Optimization
Environment	Turbulent, difficult to predict	Stable, predictable
Rationality	Substantial	Technical/Functional
Organizational structure	Organic (flexible, cooperative and participatory)	Mechanical (bureaucratic with high formalization)
Management	Leadership and collaboration	Command and control
Focus	Human-centered	Process-centric
Role of the customer	Critical	Important
Knowledge management	Tactical	Explicit
Type of learning	Double loop, generative	Single loop, adaptive
Project cycles	Guided by product functions	Guided by tasks and activities
Development models	Scalable delivery model	Life cycle model (cascade, spiral, etc.)
Distribution of roles	Self-organized teams	Individual, Preferred Specialization
Resolution of problem	Learn by experimenting and constantly reframing the problem and solution	Selection of the most appropriate means to carry out and carry out a given and largely planned and formalized activity.

As we mentioned in the previous paragraphs, the adaptive approach is suitable for complex projects and is unique to each project. However, the implementation of this management approach which continually adapts to the evolution of the situation and its environment requires the prior creation of an agile environment. The agile environment is based on a quality human resource with a team spirit within an adapted organizational culture.

Human resources. Taking into account the fact that the attitude towards uncertainties and changes differs from one individual to another, the project manager, in the process of establishing his team, must be able to respond effectively to the following main concerns: What are the skills fundamental to support an agile intervention? How to

develop global skills favorable to agility such as confidence, relationships and critical thinking? Michael (2020) identified the main personal skills and attitudes likely to facilitate the construction of agile management, in particular: the ability to anticipate to think about potential development scenarios; curiosity; strong communication and listening skills; the critical thinking essential in the process of fact-based decision-making; Being able to adapt in the face of uncertainty and change.

Team spirit is the second pillar that supports an agile environment. To the extent that the advent of uncertainties and changes have an impact on general organizations, and human resources in particular, the strengthening of human links between the members of a project team is a determining resilience factor for the continuity of the implementation of project activities. Collective awareness and a culture of risk in the face of issues and challenges must be built to be able to respond to the issues and adapt to complexity.

The organizational culture that guides the actions and behaviors of members of an agile team must be built around values such as: resilience, flexibility, self-confidence, innovation, transparency, social responsibility, performance, ethics and security. It allows cohesion in the project team which promotes improvement in the company's performance and adaptation to uncertainties and changes. To do this, the project coordinator must create an environment that facilitates interpersonal communications, transparency, encouragement with meaningful rewards, personal development and flexibility.

Within the framework of development projects, the implementation of adaptive project management does not depend only on the project teams. It is strongly influenced by the sources of financing, each of which has operating or financing methods or procedures which have a significant impact on the operational management of development projects. Apart from the beneficiaries, there are generally two main sources of financing for a rural development project: the government and the donor. In Cameroon, the counterpart funds which represent the share borne by the State as part of the implementation of a jointly financed project, in application of a loan or grant agreement, sometimes face delays in mobilization resulting in a low disbursement rate. Michael (2020) offers a series of proposals that donors can initiate to ensure the agility of financing, planning and performance management systems. These include:

- Accept uncertainty at the start of an intervention as to the results that could be obtained by allowing, for example, the refinement of objectives and indicators during a launch period;
- Adapt financing instruments to the complexity of a situation and/or strategic objectives;
- Integrate “crisis funds” into contracts, i.e. crisis adjustment provisions that allow the budget allocation to be modified or additional funds to be provided without modifying the grant agreement;
- Allow greater decision-making by donor staff closest to the implementation of the intervention;
- Include proposals verifying an organization's capabilities to adjust at different times of the intervention in the selection criteria;
- Simplify and streamline processes for validating requests for changes to budgets, activities and results frameworks (e.g. adding a start-up period after which more refined results can be specified);
- Appropriately finance monitoring and learning mechanisms in budgets;

- Adapt results monitoring frameworks to better recognize the success of complex interventions, looking for the contribution to changes as appropriate, rather than results that can only be attributed to a single intervention.

Discussion and conclusions

In recent years, discussions have increased on how development aid should effectively contribute to transformative change. This transformation aims to meet the major development challenges through sustainable change in management systems. It is not a question of absolutely renouncing the traditional approach standards or increasing new tools and techniques which could burden development projects management. Rather, it is a question of putting in place a system that facilitates the creation and implementation of an adaptive environment that contributes to the achievement development results while improving the capacity to cope with changes or uncertainties advent.

At the end of this study, we can conclude that the application of adaptive management in the rural sector in Cameroon requires certain changes in the project management cycle, in particular:

- The culture of agile thinking. To successfully implement adaptive approach, teams involved in the life cycle of a development project must adopt an agile mindset. Whether it concerns the staff of the steering committee, the upstream technical and financial partner or the downstream implementation team, the agile mindset which is a process of reflection involving understanding, collaboration, learning and flexibility to achieve successful results must be shared. It is only by combining this agile mindset with processes and tools that these teams can adapt to changes and produce relevant results. The agile mindset is therefore the perfect approach to dealing with turbulent and difficult environments because it teaches how to embrace change rather than avoid it;
- Fostering innovation within a project team. Instead of systematically referring to manuals and other execution procedures for the implementation of project activities, the adaptive approach promotes the establishment of organizational arrangements that promote innovation by allowing members of a team to provide collaborative and constructive feedback, to produce new ideas leading to experiments that could transform the team culture as a whole. This is made possible when sufficient time and space is allowed to experience creativity and the opportunity to think freely;
- Implementation of continuous improvement. Continuous improvement is the very essence of a sustainable learning process. Since every activity implemented in a project seems to be something new, and therefore a learning opportunity, teams must strive to find ways to optimize, solve problems, reflect and continually improve processes to claim to obtain a certain mastery over time:
- Continued satisfaction of beneficiaries. The objective of a development project is to satisfy the needs of the targeted population by delivering value to them as quickly as possible. Given that the needs analysis is carried out in the identification phase of the project and that sometimes a lot of time passes between the formulation phase and the implementation phase of the project,

it is important to carry out an update frequent update of needs in order to reassure that the solutions provided by the project remain relevant. This often involves systematizing feedback mechanisms, complaints and responses in the organization of development projects. This allows an agile team to anticipate a certain number of problems related to beneficiaries and provide frequent solutions adapted to their needs. A system of constant communication with beneficiaries thus helps to define their real needs, which may change over time, and challenges them to design a relevant offer.

- Continued capacity building. Being complex projects that evolve in difficult, dynamic environments and subject to risks of all kinds, rural development projects must equip themselves with human resources whose capacities must be continually strengthened to respond to the various challenges and issues. In addition to technical areas, capacity building of the members of an agile team must focus on themes related to risk and change management, communication management, technology and leadership. This fits with the principle of continuous improvement, essential to ensure the improvement of a project team's performance.

This article invites the global development assistance community to explore the role that agility can play in driving transformational change. To effectively address major challenges such as climate change, poverty, inequality, violence and conflict, we must revolutionize our practices, adopting new perspectives and methodologies. Faced with a constantly changing socio-economic environment, most researchers and practitioners in project management admit that, with the exception of the simplest projects or projects that are frequently repeated, It is difficult, if not impossible, to specify complete requirements at the beginning of a development project cycle and execute activities exactly according to established plans.

Given all these limitations and despite the existence of traditional approach standards which have so far proven their worth, the need for agility is essential to substantially improve the performance of development projects. Without being a miracle solution, adaptive project management is a management approach that we propose as part of our study to improve the results of development interventions in the rural sector. Without neglecting the technical aspects, this approach emphasizes to the attitude and ability of human resources to deal with uncertainties and changes throughout the life cycle of a project. Structured decision-making and learning support the effectiveness of the adaptive management process whose existence depends on the harmony of the three pillars of the agile environment.

Information unavailability on the formal practice of the adaptive approach in the implementation of development projects in Cameroon constitutes the main limitation of our article. Existence of such information would made it possible to better understand the approach, to bring out the lessons learned necessary for better capitalization of experiences for factual dissemination.

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