Cultural and Political Factors in the Design of ICT Projects in Developing Countries

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CONTENTS

ABSTRACT

In the quest for success and failure factors in ICT projects in developing countries, it has become clear that the search should focus on the environmental acceptance of such projects. In setting up an effective project organisation, management should not try to design a project as a self-sufficient unit that is isolated from its environment, but should try to develop it as a process of interaction with the environment. Only in this process of interaction can an optimum be reached between the technical quality and the environmental acceptance of an ICT project. This research report argues that the project environment should be divided into a political and a cultural dimension. Both dimensions are difficult to direct, but by analysing them it is possible to foresee problems between the project organisation and its environment. Instead of directing the political and cultural forces, the art of management lies in anticipating them in advance.

From a political point of view, project activities are often outsourced to an external organisation. It is important that project management acknowledge that, although there is a collective 'objective' or 'mission' in a project, this does not mean that the project in question has the same meaning for each external organisation. Instead of focussing on the collective matter, the political point of view emphasises that there are more visions on organisational reality and that every actor has a subjective view, which is highly related to their own interests. By making an analysis of these (hidden) interests, the sources of power and the strategic patterns of interaction in the execution of the project, management is able to get a grip on the project's political tug-of-war.

From a cultural point of view, the behaviour of a project team is conditioned by the culture from which its members originate. The way people organise themselves around their notion of time, the way they apply universal rules to their professional activities (universalism versus particularism), and the extent to which they accept that power is distributed unequally (power distance) are cultural factors that should be analysed in order to understand how a project develops. The fact that developing countries often accommodate an oral culture of communication is another factor that has to be taken into account. This factor has great influence on both the use of information technology and the communicating function of decision documents such as a project plan. Because a single organisation can also accommodate a culture, organisational factors such as centralisation, bureaucracy and task orientation, as well as whether an organisation operates in a private or a public environment are also factors that should be analysed in order to understand the development process of a project.

To set the focus on the interaction with the environment, project management needs to find a planning method that incorporates a repetitive evaluation of the environmental influence into the strategic decision-making process of the project. Adopting a developmental approach to project planning can do this. The approach acknowledges experimental, pilot, demonstration and production stages. Within the experimental stage of the developmental approach, the problem, the objectives and the possible methods of analysis and implementation are identified. These components are applied on a smaller part of the project (pilot). Within this pilot project, the project team evaluates all the methods on their usefulness, adaptability and acceptance. The degree to which this evaluation results in environmental acceptance will determine the strategy to be used in the next stage of the project. Instead of applying carefully thought-out plans for large-scale implementation, 'managing a project' is thereby transformed into a repetitive learning process on specific methods in order to adjust to the characteristics of the environment.

INTRODUCTION

In the quest for success and failure factors in ICT projects in developing countries, it has become clear that the search should focus on the environment of such projects (Heeks 1999). Not only the organisation of a project and its cultural, political and institutional dimensions determine whether an ICT project delivers a product that is both useful and effective, but wider environments with their particular features of societies and national cultures are relevant as well.

These environmental factors play an important role in the way an idea or concept becomes a project (project formulation) and the way these concepts or plans are executed in daily practice (project development). This materializes into a concrete solution (project result). In this report an analytical distinction is made between the cultural and political environment of an ICT project. By outlining these two dimensions, the report helps practitioners in the field to grasp the complex way plans are adopted by the organisational environment they are working in.

The first part of the report discusses the characteristics of an ICT project. Special attention is given to the project organisation, which is mostly a temporary cooperation between different organisations, the way a project can be planned, the role of the process of decision-making within the project, and the different stages through which a project can evolve (project life cycle).

In the second part, emphasis is laid on the political force field in which a project is executed. By specifying the different actors, their interests and sources of power, it is possible to gain insights into the political tug-of-war that will be played during project formulation and implementation.

The third part focuses on collective behaviour in a project. It takes into account that the cultural background of the project member largely determines how a project team functions. Not only the national culture from which the project members originate, but also the organisational culture in which they work will have a great impact on the way problems are perceived, decisions are made and solutions are implemented.

In both the political and cultural approach, special attention is given to the process of decision-making in the project and the function of project documents. The report also contains small case-study descriptions to help readers translate theoretical concepts into the more dynamic environment of daily practice.

In the last chapter, the various perspectives are summarised and assembled into a policy of spearheads that should be encouraged.

WORKING IN PROJECTS

By becoming a member of a project, you are placed in a special working environment. Just like in a normal organisation, you are working in cooperation with other people towards a common goal. This cooperation is also structured in terms of predefined tasks, responsibilities and authorisations of control. The difference with a normal organisation (institute) lies in the temporary nature of the cooperation. The organisation of a project is totally designed to produce specified results within a predefined time span using predefined resources.

The role or function you have in a project depends on your expertise and the interests you are representing. Most of the time, your contribution is highly related to the function you have in the organisation you originate from. Although your organisational function and project function are strongly related, it is important to realise that they can often be in conflict, especially when you consider that you have to split your time between them.

It is also important to realize that the tasks you are doing for the project have to fit into the working method and interests of the other organisations that are involved in the project. It is common for the organisation that has the main responsibility for the project (owner) to not possess all the capacity (knowledge or human labour) necessary to achieve the objectives of the project. In such cases, some project activities are outsourced to an external organisation, like a training centre or an external consultant. We can therefore approach an ICT project as an *inter-organisational cooperation*.

Project environments

Although a project has a unique organisation that is explicitly separated from its institutional environment, one should not see an ICT project as an isolated phenomenon.

Figure 1 – Project as a closed-system (A) and an open-system (B) according to Licht (1996)
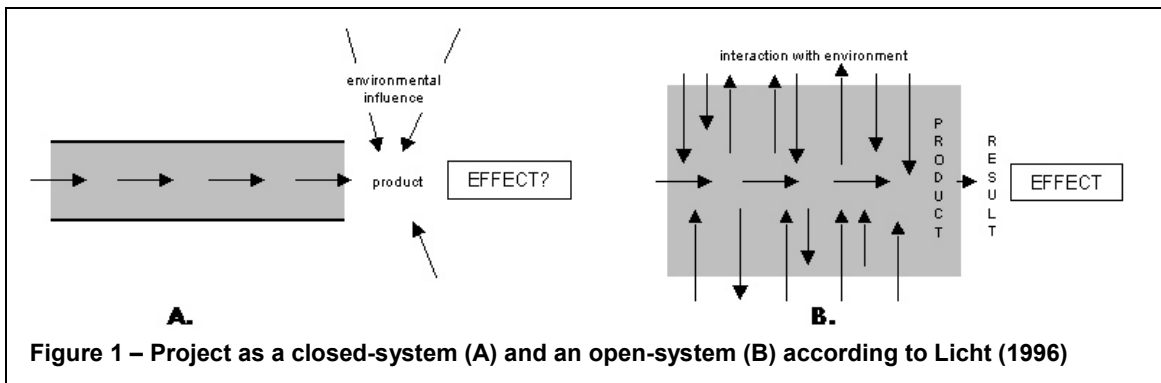
In the closed-system approach, the results of the project are a relatively simple product with a high technical quality. The commitment to adopt the result of this project has to be obtained after finishing the project. In an open-system approach, instead of considering a project as a self-sufficient unit, 'external forces' are recognised to have a large influence on the project.

The success of an ICT project is strongly related to the degree of acceptance of the environment. Therefore, instead of considering the project as closed and self-sufficient we should explore all the relationships with the environment that run through it. When the project is seen as an open system, we acknowledge the influence of external factors and understand that the development process should be seen as a highly complex process of interaction with this environment. In this interaction, an optimum is reached between the technical quality and environmental acceptance.

It is important to realise that this standpoint of an open system results in a perceived decline of control over the project. Managing the 'development process' means seeking new methods to adjust to somewhat autonomous forces from the external environment. Using the model of Cusworth (1993), external forces can be divided into cultural factors and political actors. Both are difficult to direct (especially the cultural factors), but by making an analysis of these two dimensions it is possible to foresee external forces and to adjust the project in such a way that it uses the power from these sources. Instead of directing these forces, the art of management lies in anticipating them in advance.

Political influences

Political actors are all the organisations that have the potential to influence the course of the project. Although project management has some capacity to direct (power) these organisations, it is not possible to control the complete power field around the project. From this political point of view, the art of project management lies in the capacity to create a project that arises out of the different interests of the stakeholders involved. Negotiating and finding a compromise between these interests should be seen as part of the project formulation stage.
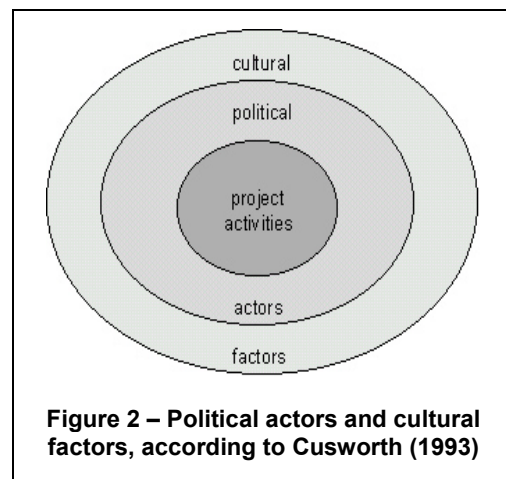

Figure 2 – Political actors and cultural factors, according to Cusworth (1993)

Cultural influences

Cultural factors are all patterns of collective behaviour that influence the project but which are impossible to control through project management. They are more or less preconditions for the various tasks that can be shaped to execute the project. From this cultural conditioning perspective, the art of management lies within the ability of the project organisation to be inventive in its adjustment to the local way of working.

In the next two chapters, theoretical insights are developed on how to analyse both cultural factors and political sectors. Before we go into this, it is important to reflect on some characteristics of an ICT project, such as planning methods, the process of decision-making and the different stages a project will pass through during its development process. In both chapters on the cultural and political environment, these aspects are discussed to explain how external factors will influence the project.

Project planning

Within ICT projects it is well known that future users accept a new ICT system more easily when they are involved in its design. It is also known that this way of working will slow down the design and the programming stages of the project. This choice is part of the dilemma between a design and a developmental approach. This dilemma is of great influence to the learning and decision-making process of the project.

The design approach

The design approach or blueprint approach assumes that a clearly defined problem and an organisational change require a result-orientated approach. For the design of the new organisation, project management has to use universal rules and methods. These methods start by determining a clear objective and the design of abstract models of the future situation. Emphasis is laid on the output of the changing process. The process is mostly coordinated from the top, using centralised and highly formalised decision-making procedures.
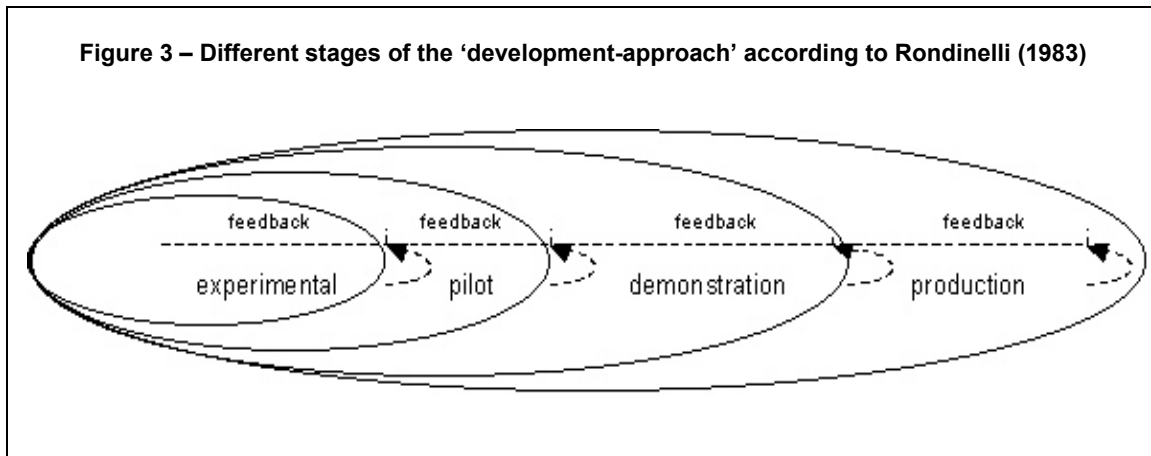
In this approach, a clear distinction is made between the design of the new organisation, which is done in an engineering room, and the operation of this new working method. Translated into the project life cycle, one may say that this is the distinction between the stages of visualisation up to the implementation, which is done in the engineering room, and the actual moment the system is put into operation. The process of operation focuses mainly on the subsequent acceptance of the provided system and the search for solutions to get rid of resistance.

Although this structured working process with highly detailed implementation procedures seemed successful for capital-intensive projects such as road construction or office building, it was not so successful with people-based projects (Cusworth 1993). The main reason lies in the fact that the design approach assumes the project environment to be static. As stated before, this assumption is a misconception if we consider that the success of an ICT project strongly depends on the acceptance of the political and cultural environment, which is continuously influencing the project.

In sum, we could conclude that the design approach is too rigid to handle the dynamic environment of people-based projects like ICT projects. It puts too much of an emphasis on pre-collected information about the characteristics of the problem and the possible solutions. Especially for developing countries, this kind of information is often rare. Furthermore, this design approach has difficulty incorporating the opinions of all the involved organisations, resulting in situations in which a project produces a solution that is carefully worked out but does not get accepted by the environment.

The developmental approach

As an alternative, Rondinelli (1983) described the adoption approach, or developmental approach. This approach comprises experimental, pilot, demonstration and production stages. Figure 3 shows these stages graphically. An important point is that every stage is characterised by a feedback loop (evaluation) that results in lessons learned that would be used during a future stage of the project.

Figure 3 – Different stages of the 'development-approach' according to Rondinelli (1983)

feedback   feedback   feedback   feedback

experimental   pilot   demonstration   production

Within the experimental stage of the developmental approach, the problem, the objectives and the possible ways of analysing and implementing are identified. These components are applied on a smaller part of the project (pilot). Within this pilot project, the project team evaluates all the methods on their usefulness, adaptability and acceptance. The degree to which this evaluation results in a mutual understanding of the most successful method will determine the strategy to be used in the next stage of the project.

Just as in the design approach, the developmental approach starts by analysing the problems and shortcomings in the existing organisation. But, contrary to the design approach, it assumes that the capability of organisational change increases when all the members of the organisation are involved in this analysis. Because explicit feedback loops are part of the process of development, the organisation's members learn gradually how to form the changing process autonomously.

Inherent to the developmental approach is that the process of decision-making on specific actions and solutions can change as part of the learning process within the project, while overall objectives and directions for intervention can be determined in advance. The decisions on specific actions and solutions will always focus on mutual objectives through consideration and negotiation. The change will take place gradually, and during the process of change – which starts with a pilot project – enough room is given for new ideas from the organisation's members. This process has a global planning and is highly flexible for interim adjustment. Analyses of a problem, formulation of objectives and organisational change smoothly blend together and follow a course that repeats itself.

Example from practice: Drawing a plan or developing solutions

A beautiful example of the dilemma between the approaches used occurred during a project meeting for an ICT project on office automation of a big municipality. Evaluating the different methods that were used to create databases for the educational and health sections, the project manager came to the conclusion that *'it's finding the balance between an approach which gains acceptance of the users but loses speed in designing of the system'*.

The database developer that was working on the health section started his assignment by visiting the Health Department twice. During these observational visits he asked the clinical officer questions about the different information flows that run through the department, and asked if he could borrow some administrative books. Back at his own desk he translated the observed information flows and the administrative books into highly abstract flowcharts that could be used to program the new system. The programmers used these flowcharts to develop a prototype of the complete system. A month later this prototype became mature enough to put into practice and the database developer took the system back to the Health Department. Although the programmers where able to read these flowcharts and quickly develop a prototype of the system, this method made it impossible to reflect the design of the new system on the future users. The result was that the users did not identify their current way of working with the high-tech system that was developed, and got the feeling that it only brought extra work instead of enlightening their current work processes. Because of this repeated resistance during the implementation process, the new system was not accepted.

The database developer that created the database for the Educational Department worked differently. He sat with the educational officer behind a computer and started out by explaining the features and advantages of a computerised database. Gradually he began to see the increased possibilities that this system gave him, and by applying the features immediately he learned to develop the system autonomously. Although this trial-and-error took quite a long time and the office had put some of his other duties on hold, they arrived at a system that was easy to use as well as accepted by the other members of the educational department through the efforts of the educational officer.

Using remarks such as *'This is still a pilot project so we are allowed to make faults'*, the database developer of the Educational Section did not stick too long to a theoretical discourse on how to best design a system. Instead, he and his colleagues were encouraged to start working on a solution in the concrete working place. The most important aspect of this trial-and-error aspect is that it brought the dialogue with future users into an earlier stage of the project. When they were evaluating the technological possibilities, the educational officer came up with the administrative knowledge that was necessary to arrive at a better solution.

Characteristic of the design approach	Characteristic of the developmental approach
The system design focuses on the formal design of an organisation.	Bottlenecks are analysed in the concrete working place, on attempts to formulate system requirements from the viewpoint of these bottlenecks.
Management will design abstract models of the organisation to get a grasp on it complexity.	The existing working organisation and compilation of tasks is seen as a system variable that has to be taken into account when the management is designing the new system.
Little value is given to the knowledge and experience of the end user. The objective is to present a complete new organisation.	A relatively high value is given to the knowledge and expertise of the end users that are involved in the system design.
Management is striving for a large-scale uniform implementation, and general and abstract rules will be used in the development of the automated system.	End users and technocrats work together on a system design, reaching an optimum between the working organisation, the technology and the organisational structure.
Technocrats will dominate the design process.	Great emphasis is laid on the organisational culture.
The new set-up for the work processes is seen as a derivative of the system design.	Quality of labour is a system requirement.
Less emphasis is laid on the (organisational) culture.	
Less emphasis is laid on the quality of labour.	
End users have difficulty influencing the designing process because of the abstract and technical methodology that is used for the automation process.	

Table 1 – Planning an ICT project using the design or developmental approach (Boonstra 1996: 251)

Table 1 provides several insights. Take, for instance, the role of a system design within a project on office automation. Within the design approach, this will be product of the technocrats in the project organisation. Functional requirements will derive from the formal organisation and most of the solutions will be formulated from the possibilities of the new technology. Within the developmental approach, the system design will be a product of a mutual cooperation between future user and technocrats. Technocrats will inform the future users about the possibilities of the new technology. In this way, future users can develop a vision on how the new technology can lighten up their own work. A meeting between technocrats and future users will therefore always precede the result of the system design. Together they will decide what the objective of the system is and from this objective the actual design can be derived.

The implementation of an ICT system requires a strategic vision in which the path to reach the objectives is crystallised. To develop this vision, the project team will have to dissociate itself from the current way of working and think of new ways to organise the work. Seen from this point of view, the implementation of an ICT project always requires a certain distant drawing-table approach.

There is nothing wrong with that, but it is important to realise that not only the technocrats are the ones who have to look from this strategic point of view. To arrive at a new way of working which possesses both technical advantage and organisational acceptance, future users as well as technocrats will have to get out of their daily working environment and start drawing plans for the future.

Creating a new organisation on a drawing table is only interesting when all the participants involved have a pen.

Bottom-up

Not exactly the same, but closely related to the developmental approach is the use of so-called bottom-up approaches. This guideline states that the solution of an ICT project should primarily serve people at the operational field. For the execution of a project, this means that bottlenecks in the existing organisation are analysed in the concrete working place and that project management tries to formulate system requirements from the viewpoint of these bottlenecks. Furthermore, the bottom-up approach lays a relatively high value on the knowledge and expertise of the end users, and tries to incorporate their opinions/requirement into the system design as much as possible. In short, this approach tries to shift enough power to the end users of a system that they become a mature discussion partner during the formulation phase of a project.

The choice between a design or a developmental approach is of great influence on the process of decision-making within the project. Within a design approach, decisions on the execution of a project are determined within a previously designed project plan (formulation phase of the project). Contrary to this drawing-table approach, the developmental approach incorporates the learning process of a project into the strategic decision-making on the project. The belief that the course of a project can be directed in a previous stage is abandoned in order to make more room for fruitful insights that will emerge throughout the execution of the project.

Figure 4 - Decision Making
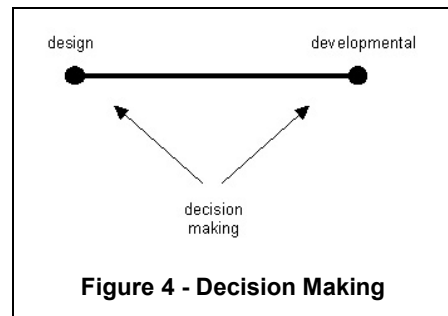
The process of decision-making

The process of decision-making can be defined as the path that is followed to make a choice between different alternatives in order to execute a project. These alternatives have to be compared on the degree to which they score on criteria that are formulated in an earlier stage of the project. Although this comparison of alternatives can take place during a meeting with all the actors of a project involved, it is important to realise that the process of decision-making does not start with this meeting. It quite possible that, during the process of discussion and bargaining, some of the alternatives will be excluded and therefore never make it to the negotiation table.

> ***Some of the alternatives never make it to the negotiation table.***

During the course of a project, all kinds of decisions are taken. The most important decision-making process in the project is the one that creates clarity about the overall project goal and the way to arrive at it. The different actors in a project will have to come to a mutual understanding of this goal before the assignment can be given to a project manager who executes the project.

Besides the decision-making on the primary goal of a project, the project management has to make all kinds of other decisions which seem to be less important – for instance, the decision on the physical location where project activities to take place or the sequence in which these activities should be executed. At first glance, these choices do not seem to be very important, but if we take a clearer view on the political and cultural background of the project these choices can be seen as part of a more structural feature in the configuration of a project. In the long term, these small choices cause the overall object to drift towards a different result than planned.

Project documents

Looking at the process of decision-making, special emphasis should be laid on the role of documents. It is possible to specify different kinds of 'decision documents', such as contracts, invoices, plans, proposals, plan of implementation, assignment descriptions, milestones and declarations of intent. Most of the time these documents are a sort of milestone between two stages of the project's lifecycle. An example is the stage of formulation, which results in a short and well-balanced plan that allows making a mature yes-or-no decision on starting the project implementation.

Besides this formal judgement function, decision documents have an important function as a means of communication. They fulfil an important function in the integration and establishment of both outcome and planning activities of the project. Making such documents requires all the actors to exchange thoughts about the project activities and its possible outcomes. The images of conceptualisation and the enclosed expectation about the future of the project converge here. In this way, it becomes possible to prevent the project from being only of concern to the project team. By consulting the commissioner and his supporters in the creation of this document, they will stay involved and feel responsible.

Project lifecycles

Before an idea or dream is embodied into an up-and-running project, a long road has to be followed. Due to its temporary character, a project has a defined life span. Although every project follows is own path of development, it is possible to divide this process into seven different stages.

Visualisation

This first stage starts with an image of a desired future that comes to mind. This could be the dream of an entrepreneur with a strong vision. Especially when the project involves different stakeholders, it is useful to apply the developmental approach and set up a project team whereby each member enriches the future images with knowledge from his own expertise. This stage results in a description of the project objectives, the specifications and a broad idea of the strategy towards realising the project.

Figure 5 – Project lifecycle
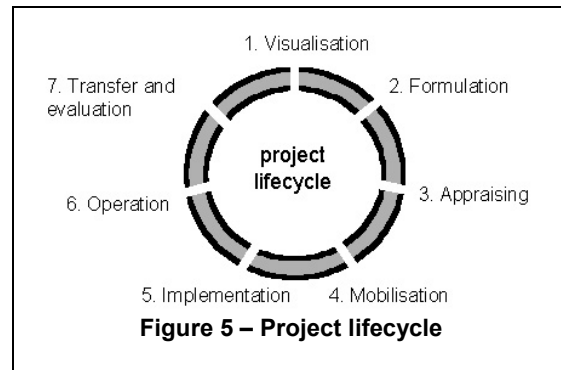
Formulation

The question explored in this stage is how to realise the project. This involves further refining of the desired results, including functional and performance requirements, and the needed time and resources. Later on, the emphasis shifts to the management and organisation of the project. This stage results in a well-balanced plan that allows making a mature yes-or-no decision on starting the project. Shifting from a design to a developmental approach at this stage also involves an analysis of the different interests that form the foundation of the project. The learning process of the project involves an explicit evaluation on how these interests interact, and lessons learned will be used on decision-making for the future steps to be taken.

Appraisal

After formulating, it is possible for the owner of the project and the financier to give the project a go or no-go. If it is a go, a project manager will be contracted to implement the project within the prescribed time and budget. The result of this stage is a formal document, such as a contract, that gives the mandate to realise the project according to the agreed time and budget.

Mobilisation

This stage starts with the preparation of a detailed operational plan. This guides the management on detailed steps that have to be taken immediately, and is more general for steps to be taken later. The result of this stage is an up-and-running project with all team members actively involved.

Implementation

The actual building of the project starts at this stage. This can be done by using two different methodologies. One could be implementation on the basis of a final design wherein all constituting parts of the project are constructed according to a pre-set plan (a kind of a blueprint). This methodology is used when it is possible to give exact specifications of the result of the project and how to get them. As stated before, people-based projects such as ICT projects often take place in such a dynamic environment that it is impossible to specify the exact results.

When the broad objective of a project is clear but the exact future specifications and how to reach them are not, the developmental approach can be used. Within a simplified version of the project, a pilot trial-and-error methodology can be used to evaluate different possible alternatives to follow in order to achieve the objective. The advantage of this method is that it can help the users to specify what they want. In this gradual development process, the learning capacity and creativity of the project management play an important role.

Operation

When one can speak of a concrete solution, the system can be put into operation within the existing organisational processes. An often-neglected aspect is that it can be quite a long and intense phase due to user coaching, writing user manuals and debugging the inevitable problems that come up at the last minute. In this stage, the support from the environment is essential.

Transfer and evaluation

After the project is successfully put into operation it is handed over to the principal and the end users. Now the project will be exploited and create benefits over the coming years. Looking back on the criteria that where prescribed during formulation, one can evaluate the project and document lessons learned for future projects. In the developmental approach, successful projects can lead to up scaling or replication elsewhere.

Conclusions

The organisation of a project is totally designed to produce specified results within a predefined time span using predefined resources. Although this project has a unique organisation, which is explicitly separated from its institutional environment, one should not look at an ICT project as an isolated phenomenon. It has become clear that the success of an ICT project depends heavily on adjusting to somewhat autonomous forces from the environment (Heeks 1999).

By looking at an ICT project as an open-system, the project management has to accept a perceived decline of control on the project. Using the model of Cusworth (1993), management can divide the external forces into cultural factors and political actors. By making an analysis of these two dimensions, it is possible to foresee external forces and to adjust the project in such a way that it uses the power from these sources. Instead of controlling or directing these forces, the art of management lies in anticipating them in advance.

The planning of an ICT project can be done using a design or a developmental approach. Seeing an ICT project as an open system, it becomes clear that the design approach is not very successful. This approach assumes the project environment to be static, and the opposite is true when we

consider that the success of an ICT project strongly depends on the political and cultural environment that continuously influences it.

The developmental approach is more successful. This approach acknowledges experimental, pilot, demonstration and production stages. Within the experimental stage of the developmental approach, the problem, the objectives and possible ways of analysing and implementing are identified. These components are applied on a smaller part of the project (pilot). Within this pilot project, the project team evaluates all the handled methods on their usefulness, adaptability and acceptance. The degree to which this evaluation results in a mutual understanding of the most successful method will determine the strategy to be used in the next stage of the project. In this way the learning process within the project is incorporated into the strategic decision-making on the future path towards executing the project.

POLITICAL ENVIRONMENT OF AN ICT PROJECT

Formal documents of an ICT project such as the project plan are often illustrated with complex drawings of the organisational structure and flow charts of the implementation phase. These drawings give the reader a neatly arranged overview of the connections between all the people and activities in the project, but anybody who has had some experience and worked in a project knows that these plans do not always materialise the way they where thought out on paper. There are several reasons for this, the main being that these rational concepts of planning are often too rigid to get a grip on the complex dynamics of the environment, especially in a developing country.

> *'Despite the development of behavioural and political models, many reform initiatives are still based on models of organisational rationality. This seems particularly true of information age initiatives. (…) The problem is that such rationality is more often an ideal that does not exists in reality'* **(Heeks 1999: 62-63)**

The classical perspective on a project is based on the idea that the objectivity and logic from pure scientific research can be used to define plans and execute a project. Within this approach, much value is given to rational concepts like formal planning, quantitative results and technical solutions. However, in the search for feasible business solutions it becomes clear that this formal way of working is often ideological (Heeks 1999), giving a viewpoint on how a project should develop instead of a proper insight on how daily practice is working out.

**Examples from practice: The fallacy of rationality**

One of the best examples of a rational concept that is often a facade is the idea that a project is centrally organised. Although this is an ideal situation in theory, in practice it is quite normal to find it difficult to point out a person that has complete control over the activities that are executed on behalf of the project. Instead of looking for a person who has the ability to delineate a clear and rationally constructed project plan, one should rather look for someone who is able to function as a negotiator and search for planning that incorporates most win-win situations.

Another example of a facade lies in the consistency the participating organisations have over the objective of a project. Following the rules of project management, one should not start a project when all the interest groups have not come to a clear and common understanding of the primary goal of a project. In practice, this rule is a condition that is important to get into the contract in order to get things rolling, but one should not be surprised when the 'common goal' is put into discussion again when the project is actually executed.

A good example of an abstract objective is 'ICT for Good Governance'. Both a hardware supplier and an external consultant will sign a contract that states that the ICT project has to contribute to Good Governance. But in practice they will have a complete different way of contributing to this abstract mission. Both will try to explain that ICT for Good Governance can be reached by using planning and working methods that are closely related to their own interests. Although the methods of one actor are useful to contribute to the more abstract collective mission, they may quite possibly conflict with methods that are also feasible but which focus more on the interests of another actor.

The reasons for these fallacies are complex. First of all, it is not always clear what the best solution is, given the unpredictability of the future. Especially in developing countries it is difficult to get an up-to-date picture of the situation in which the project will be executed. A feasibility study can naturally help in such a case, but it is quite normal for this to result in a situation that still does not show what the best solution is. This type of studies outline under what conditions the project organisation could start working on a solution (who should be involved and what is their contribution), not what the solution will be.

The problem of the rational, more idealistic viewpoint is that it often forms a stubborn facade for people who want to get a grasp on the complex way a project really develops. For that reason, the classical (formal) approach has been criticised and a more subjective viewpoint on organisations has been developed. Contrary to the assumption that there is one objective truth, this 'subjective approach' values the thought that there are more visions on the organisational reality.

Figure 6 – Subjective meaning of the concept project according to Licht and Nuiver (1996: 46)
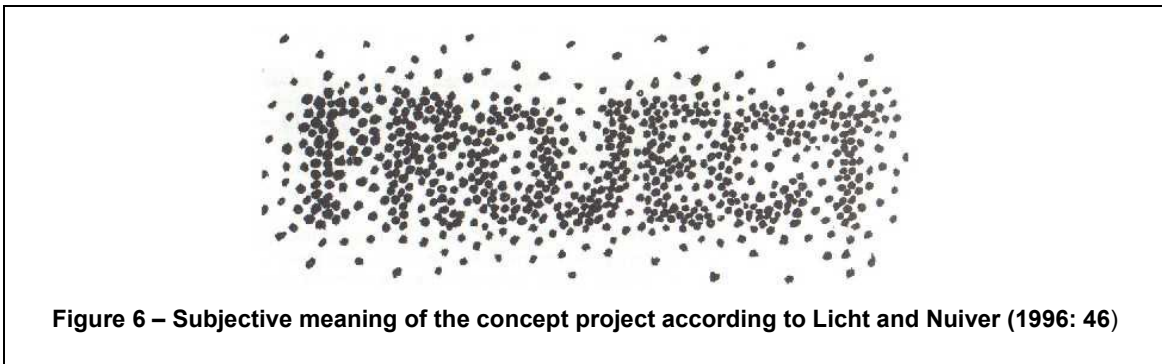
The above picture illustrates the subjective meaning of a project. Given this blurred picture, every actor will see a project in a different way and therefore explain the practical consequences of the project differently. In short, the subjective approach acknowledges the existence of a collective 'matter' or 'mission' (often stated in a formal document), but this does not mean that the project has the same meaning for every actor. With this subjective element of a project in mind, it is more difficult to distinguish project activities from other activities that are executed outside the project.

> *In defining a project one can – at the most – refer to the more or less accidental activities that are recognisable by the label of a project name. It is important to understand that this label is given by the members of a project and not grounded in a formal document such as a project plan.*

From this subjective point of view, one can reject the distinction between formal and informal organisations as a normative affair whereby just a part of the existing (more powerful) interests are made official. Instead of focussing on this objective (public, formal) viewpoint, one should accept that there are different visions on the organisational reality.

It is not true that a document like a project plan is worthless from this subjective point of view. This approach just emphasises that the project plan is a normative instrument that states the standing point of one or a coalition of parties. During the course of the project, the plan will be used differently by all the parties, but mostly as a tool to propagandise their own interests. Furthermore it is important to realise that the most important decisions are generally not handled in the project plan (were not foreseen during the formulation stage).

Intentions and motives

The fact that the actors are committed to a collective matter is not always the best starting point to explain their behaviour in a project. In practice, this behaviour is highly related to the interests the actor has in the project. And given the fact that ICT projects are mostly a form of cooperation between different organisations, one should keep in mind that these interests do not always meld fluently together.

> *'Those who gather in a collective action group (project) can have unequal, opposite and even incompatible interests'* **(Godfroij 1981: 48).**

The different interests of the actors are also important when it comes to evaluating an ICT project. Given the subjective character of the cooperation between them, the process of development should be understood as a highly politicised implementation process whereby the specified criteria are modified in several subjective ways. Instead of asking if the project was a success, one should rather ask whose goals were attained. The same applies when explaining the failure of an ICT project.

> *'Failure can be subjective phenomenon. For example, we can ask whose goals were not attained or for whom were the outcomes undesirable. It is quite likely in cases of information age reform failure to find different groups experiencing failure in different ways. We may also find some groups who see a reform initiative as a failure alongside others who see it as a success.'* **(Heeks 1999: 56,57)**

One should always look at the different actors and the way their interests are entangled in the project. A deeper insight into the interests and their means of power will help us understand how the political struggle-of-war can influence the development of a project.

Actors and their sources of power

An organisation is defined as an actor when it has the capacity to influence the policymaking of a project (Licht and Nuiver 1996: 30). This definition emphasises the existence of power, separating those having the capacity to influence the project from those who will never get a chance. Just like the influence of a political party varies according to the number of seats it has in parliament, the influence of an organisation varies according to the means of power it possesses. In analysing the different means of power, one should pay attention to various sources. Morgan (1986) summarises the different sources of power in the following five categories:

In practice, every actor uses a mixture of these forms of power. The total arsenal of an actor balanced against the arsenal of its counterpart determines the strategy the actor can use to influence the process of decision-making. Before we examine these strategies, it is important to look at the interests an actor can have in a project. An actor can be strong in terms of sources of power, but this knowledge is negligible if you don't know in which direction these forces will be used.

Interests fitting a project role

An organisation can become an actor of an ICT project for various reasons. A donor will contribute because it wants to stimulate the technological development of a country. A local public organisation can benefit from the project because the results will help to lighten its daily activities. And a commercial party can be mainly motivated by the financial rewards that are attached to a project. Licht and Nuiver (1996) specifies six different kinds of interests:

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Table 3 – Different interests in a project

1. *Business interests* - Business interests are direct or expected profits. These can be financial as well as natural. For instance, it is quite common for a training centre to dispose of a classroom when the visitors are also potential clients for future training programmes of the centre.

2. *Ideal interests* - Ideal interest are of a less calculating nature. These are 'the cases one stands for', such as education for younger people or help for the poor.

3. *Political interests* - Political interests are complex to unravel. They are related to the term in which the statement will make the actor the talk of the town, both in a negative and in a positive way. One can recognise a political interest when the meaning of the statement seems to be highly related to the time and the public environment in which it is stated.

4. *Administrative interests* - Administrative interests or government interests focus on the way the activities are in harmony with the overall continuity of government policy.

5. *Loyalty interests* - Loyalty interests concern activities that are done out of support with issues that are not of direct self-concern.

6. *Emotional interest* - Emotional interests are the most irrational of all. Without clear explanation, someone can have a direct affinity with or aversion to something.

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In practice, every actor searches for a balance between the different interests and will come forward with one clear standpoint. In the art of finding a compromise, it is just as important to consider the clear standpoints of each actor as well as the more hidden interests. A certain respect for the internal dilemmas of an actor can also create new opportunities to find this compromise.

Although interests will influence the project in every stage of its development, it is advisable to make a comprehensive analysis of all the interests during the formulation stage of a project. This way it is possible to compose an adequate and manageable project organisation that represents in a clear way how all the executive, design and advocacy agents are coordinated (Licht and Nuiver 1996: 9). Not only the (hidden) interests of actors should be part of the analysis, but also the personal interests of its organisational members.

Example from practice: Hitchhikers behind the steering wheel

A good example of power play occurred during an ICT project on office automation within a municipal office. An external consultant was hired to assist with the analysis of the information flow in the educational section of the municipal office. This was quite a complex part of the project because it focussed both on information flows in and between the regional and local levels of the municipality.

Project management explained to the external consultant that the information analysis should primarily serve the needs of people in the field. This 'bottom-up' approach was also stated in the formal contract that the consultant signed.

The consultant started the assignment with two observational visits at the regional and local levels. Both visits where unannounced, and although he spoke with the people who where working there he did not leave much room for dialogue. Whenever they tried to change the conversation, he referred to the fact that 'he had contact with the Ministry of Education and that he would consult them about it'.

The consultant visited the municipal office a couple more times and the people working in the office tried to please him by answering his questions, but in the end they did not really understand what was going on and why this man was going through their administration.

Although the formal contract of the assignment did not ask for a software solution, the consultant decided that the municipal office would be more pleased with a prototype of the new software instead of a thick document describing all the information flow.

One of the main reasons for the behaviour of the external consultant was the fact the he was also operating as a software developer for administrative systems. Because of this (hidden) interest, he was not able to make an objective analysis of the situation. Instead, he searched for the information flow that most ideally linked up with the software that was already developed.

The course of this assignment cannot be understood without knowledge of the different sources of power that where or where not used. Although the contract of the assignment gave the people in the field the formal power to direct the consultant they where never able to apply this power. They where not involved in hiring the consultant and never saw the contract. On the other hand the consultant increased his power by the use of status and the social network with the Ministry. Although he never actually used this network it gave him the room to do the assignment according to his own interests.

By combining the interests of actors and the different project roles, we will gain insight into the cast of a project organisation. This cast is represented in the organisational structure. It is important to look for the best fit of the interests of actors and the project role they will play. If a project role conflicts with the interests of an actor, the role will simply not be executed according to its terms.

Some of the project roles are difficult to reconcile because they represent conflicting interests. It is important to realise that the organisational structure of the project regulates these roles and thereby incorporates tension and conflicts in the working environment. Ambiguity or uncertainty occurring during the coordination of the development of a project are therefore nothing more than a natural phenomenon's arising from the rationally constructed organisational structure.

Strategic patterns in interdependent situations

To promote his or her own interests, every actor will develop a working strategy. This strategy is highly dependent on an actor's interests and sources of power. We also have to keep in mind that the actors in a project are always interacting in a situation of interdependence. Godfroij (1981: 93) specifies seven types of interactions that result from a situation of interdependence

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Table 4 – Strategic patterns in situations of interdependence

1. *Cooperation* - Actors are cooperating when they tune their actions to each other in such a way that it increases the mutual advantages in the project. This type of interaction is a guiding principle for the execution of all the activities in the project. Although the project can accommodate some conflicting interests, it cannot start if there are no mutual advantages at all.

2. *Coalition* - Coalition is an interaction pattern whereby actors work together in order to increase a common interest against a third party.

3. *Competition* - When actors are competing with each other, they will try to be more attractive as transaction partner than other actors.

4. *Competition limitations or cartelisation* - Actors may come to a common agreement on the way they will compete with each other in order to limit the mutual disadvantages of the competition. In such a case, the interaction pattern can be typed as cartelisation.

5. *Struggle of fight* - Actors struggle with each other if they try to hinder the achievement of mutual goals.

6. *Avoidance* - Avoidance is an interaction pattern that occurs when actors are wiling to interact with each other without really cooperating or evoking conflicts.

7. *Merge* - Actors can arrive at cooperation, leading to a fusion of the different organised groups.

A strategic way of handling is manifest most clearly in the behaviour of the early phases of the decision-making processes. In this stage, the choices being made seem of no importance but afterwards one can conclude that they have been of great influence to the outcome of the project.

Example from practice: Struggling for a say in the matter

A good example of strategic behaviour occurred during the planning of the information analysis that was also described in the former example. The project manager is discussing with the external consultant which path they should follow to execute the assignment.

The consultant suggested that: "to get a view on the data flows, we should go to the local level for at least two hours. After this, we plan a 4-to-5 hour visit to visit the district level and then go back to the office to put all this on paper". The project manager agreed with this, but asked, 'When will the report of the observational visits be discussed? There should be room for discussion".

'Not at this stage' the consultant replied. *'After making the observation we have to identify the problems. Afterwards we will go back to them to ask them what they think of it'.*

The project manager said nothing at first, but finally swept the tension from the table by saying, *'Well, we cannot predict how it will go anyhow.'*

The above dialogue illustrates how strongly the process of planning of an ICT project is related to the process of decision-making. Although not openly spoken, the dialogue is entangled with different interests. The project manager tries to support the interests of user groups (both at the local and district levels) by creating room to discuss the automation process (bottom-up approach). The consultant tries to keep this room for discussion as small as possible so he can support his hidden interest to analyse information flows suitable for the software he also sells.

Example out of practice

The tension between the two interests mentioned in the former example remained during the whole assignment. The most illustrative example was a remark the consultant made when they drove back from an observational visit: 'I don't want to talk with too many people now. From this point I want to start working on a concrete solution'.

The fact that these conflicting interests can lead to a political antagonism that can be really harmful for a project is illustrated by the consultant's refusal when the project manager asked him to look at a database that they developed on their own. The consultant looked quickly at the database but immediately stated that this program was nice but by far not as elaborated as the databases he worked with. The fact that the regional and local levels would probably be pleased with a relatively simple product (because their personnel was not so experienced with computers) can only be explained by seeing this in-house database development as a form of competition with the program the consultant was trying to sell.

To achieve the project objectives, management needs to make several decisions. A decision always concerns a choice between different alternatives. These alternatives can have an obvious influence on the project result, such as the choice between different types of hardware. Sometimes the choices are less strongly related to the overall objective. At first sight, a decision concerning the physical place where an activity is executed or the sequential planning of different activities can seem to be less significant. Nevertheless, by taking a closer look at the hidden interests, one will see that actors behave in a strategic way.

Political influences on the decision-making process

From the political point of view, the process of decision-making can be analysed on three different levels. First, it can be identified in the results of decisions that are made during formal project meetings. Second, one can look at alternatives that were discussed during these meetings but not chosen. The third level, which is often neglected when a project is failing because of lack of support by the environment, is that of powerless groups. These are groups that have interests in the project but are not able to bring them to the negotiation table.

As stated earlier, the support of the environment can be established by switching from a design approach to a developmental approach. Instead of trying to determine the complete implementation process during the project formulation stage (on a drawing table), the decision-making process has to be flexible enough to adapt to the dynamic environment in which the project is embedded. While overall objectives and directions for intervention can be determined in advance, the decision-making on specific actions and solutions should be guided by insights that arise out of the learning process during the project.

The result of the decision-making process should always be seen as a product emanating from a negotiation process between the different actors. Managing the decision-making process means managing the interaction among the actors. This can only be achieved by focusing the tools of control on the interaction with the stakeholders. This requires more than reacting to external forces. It demands a proactive strategy in which formal and informal contact moments are created. This way, the project management can get a grip on the main question: When talks to who about what?

> *Managing the decision-making process is not only about choosing the best alternative; it is also about giving alternatives the chance to be discussed.*

During the process of project formulation, it is important that enough space be created where the different stakeholders can promote their own interests. By converging different perspectives into a central concept, the plan reduces the chances of diverging interpretations on the steps to be taken, and describes how the project team has to handle reality, not what reality should be.

This space for interaction with stakeholders also determines the quality of the decision-making process in the project. A qualitatively good decision whereby the management's handling of the different ideas and interests of the stakeholders is not verifiable will create more resistance than a decision resulting from a transparent process whereby the stakeholders got a chance to quarrel about the criteria of that 'good decision'.

Decision documents

The most important aspect of starting a project is creating clarity about the overall project goal. Although this clarity also requires giving an idea of the scope of the activities that are part of the project, it is not advisable for an individual to start working these limitations out in a project plan that is handed out to the complete project team for discussion.

> *The project plan should not be seen as the basis for individual thinking, it is the result of collective thinking.*

Especially when the project involves different stakeholders, it is useful to apply the developmental approach, introducing a broad idea in a meeting and asking each member to enrich this idea with knowledge from his own expertise. Afterwards, the team can start writing a plan that is the result of collective thinking. It contains a collective formulation of the central goal and the strategic steps that have to be taken to arrive at it.

Conclusions

Accepting the influence of the political environment means accepting a perceived decline in control by the project management. Instead of directing or changing the behaviour of an actor, the focus of project management lies on analysing interests and sources of power and constructing the project in such a way that it develops in line with these interests and forces. In order to manage the political tug-of-war between the different actors in an ICT project, it is important that project management acknowledge that, although there is a collective 'matter' or 'mission', this does not mean that the project in question has the same meaning for every actor. Instead of focussing on the collective matter, the project management should understand that there are more visions on organisational reality and that every actor has a subjective view, which is highly related to their own interests.

Stakeholders are defined by the interests they have in the project. Although interests will influence the project at every stage of its development, it is advisable to make a comprehensive analysis of all the (hidden) interests during a project's formulation stage. In principle, these interests should be the guiding motive of the project, and the overall project goal has to emanate from the converging interests. Negotiation in and preparation for conflicts is also part of this stage of the project. Besides having knowledge about these interests, it is important to make an analysis of the different sources of power every actor can use to advocate his or her own interests. A stakeholder becomes an actor if he has the capacity to influence a project's decision-making process.

Ideally, the interests of the different actors will fluently meld into the overall objective of the project, but in practice it is quite normal for (some) of the interests to be conflicting. The project can run into difficulties if these conflicting interests lead to political strategies such as avoidance, competition or fights. To avoid these strategies, the technical skills of project management have to be complemented by those of change management and of communication, negotiation and advocacy. With the political skills, the project management is able to direct the process of decision-making in such a way that it ends up in a win-win situation. When the actors believe that the suggested compromise contributes at least partly to their interests, they will give a go-ahead.

Seen from this misty jungle of interests, sources of power and strategies, the management of an ICT project is not complicated as far as delivering a result is concerned (IT). The art of project management lies in constructing a project that mobilises enough commitment among the different stakeholders without walking into the pitfall of striving for objectives that are so vague that every actor can interpret it according his own interests.

CULTURAL ENVIRONMENT OF AN ICT PROJECT

When someone is confronted with members of another culture, for instance a Western consultant who is working on an ICT project in a developing country, a feeling of powerlessness may be present. This happens because, from the Westerner's cultural perspective, it sometimes seems impossible to get a grip on why the project is organised a certain way.

There are different strategies the person can follow in such situations. From her own cultural perspective, she can start to explain how the project should be organised. This strategy offers the Western consultant a tool to direct and evaluate the project in a way her home front would understand it, but development studies have made clear that this ethnocentric strategy is not very successful. It leads to situations where a solution is given to a problem that local people do not experience (Woherem 1993, Lind 1991 and Heeks 1999).

> *There is a major problem with the 'if it works for us, it'll work for you' mentality being peddled around the Third World by IT multinationals, international consultants and aid donor agencies.* (Heeks 1999: 70).

In order to avoid this situation, the notion of local ownership has been developed. This method acknowledges that sponsors from the West do not have the knowledge to direct a project and therefore should not be able or willing to control it.

Local ownership

The key for the success of a development project is local ownership. Although in the stage of visualisation the project concept might be based on inspiration from the outside, the process of development (formulation until operation) should be 100% locally owned. This idea of local ownership has great impact on the project's process of decision-making. Thus, an organisation like IICD can facilitate a project by seed sponsoring and by bringing inspiration during the stage of visualisation, it is not able to make decisions during stages of formulation (feasibility) and implementation (operationalisation).

A temporary organisation in a different culture

As mentioned before, a project is a temporary organisation. The members of this organisation, represented in a project team, are brought together to achieve a predefined goal using predefined resources. In order to understand the way the members of project work together, it is nessecary to look further than the coordination rules and procedures that are stated in the literature on project management. The ways a project team will define a problem, develop possible solutions and implement a new method of working are highly related to the cultural environment of the project.

> *The shared norms and values of a project team form the cultural environment of a project. They are reflected in the way decisions are taken and collective action is executed.*

Cultural differences cannot be explained by saying that '*Jumanne will meet you in the late afternoon because he is Tanzanian*' or '*Rutger will meet you at 4 o'clock because he is Dutch*'. These statements only tell us how people in Tanzania and the Netherlands use the concept of time when making appointments. They do not tell us why there are differences between the way these two people use the concept of time.

To explain these differences, we have to compare the Dutch and Tanzanian cultures and search for the aspect in which they are different. To this end, cultural anthropologists have developed categories by which cultures can be compared, variables on which cultures can be different or similar. We refer to these variables as 'dimensions of cultural variability' or 'cultural factors'.

Cultural factors at the societal and organisational levels

Althrough the norms and values of a project team can be traced down to behaviour that is conditioned by the culture of a complete society, studies have pointed out that a single organisation can also accomodate a culture with specific norms and values (Peters and Waterman 1990, Hall 1983). Because the behaviour of project members is also conditioned by the organisational culture from which they originate, it is useful to make a distinction between the influence of culture on a societal and on an organisational level.

The purpose of this chapter is to focus on behaviour that is conditioned by its cultural environment and illustrate how the dimensions of cultural variability can be used to explain the development of a project. This is done on both the societal and the organisational levels. For the purpose of explaining the influence of cultural behaviour on an ICT project, the following cultural factors are discussed:

Societal level	Organisational level
1. Time Orientation	1. Centralisation
2. Universalism versus Particularism	2. Bureaucratism
3. Power Distance	3. Task culture
4. Oral culture	4. Private or Public

Table 5 – Cultural dimensions on the societal and organisational levels

The cultural factors are not developed to judge people from a certain standpoint. They are tools that can help arrive at an understanding of why people in another culture execute a project differently. This understanding can lay the foundation for good communication and thereby improve project coordination. Just as in the previous chapters, special emphasis is laid on the way the cultural factors influence the process of decision-making and how the developmental approach can be adopted given the cultural conditions.

Dimensions of cultural variability on a societal level

Time orientation

In essence, time is just a concept. You cannot see, touch, hear or smell time. Yet all cultures are conscious of time and organise themselves around their concepts of time. In order to understand the differences in the way people can have a notion of time, we can distinguish a sequential versus a synchronous notion of time. In sequential time, increments hurry along an irreversible sequence of seconds, minutes, hours, days, months and years. According to Trompenaar (2000: 295), in a sequential viewpoint time waits for no man, and once it's gone it's gone forever.

In contrast, synchronous time is circular or cyclical. In synchronous time we can give time to events and opportunities that repeat themselves. What matters is not time itself but how it is used, e.g. for events. Following this line of thinking, events and not time as an abstract value give meaning to life. Seen from a synchronous viewpoint, someone cannot waste time but someone can be waiting for the event on which he is going to spend time (Ukpabi 1995: 21).

Examples from practice: Timing as tuning actions or as creating room for events

Two Western consultants working to implement a Management Information System at the Ministry of Education were talking with the head of the department. They asked when the project team could start.

'I will make sure you get access in time' said the head of department. *'What does that mean?,* one of the consultant responded. *'What we need to know is when'*. *'You will have enough time to complete the project, I promise that,'* said the head of department. *'Can't you give us a date and time?'* the consultant insisted. The head of department looked at him for a moment and then decided to leave the room.

In the above dialogue, the head of department promised an agreed and synchronised time, which would be sufficient for the project to be completed. What the consultants wanted was a specific, sequential time interval.

Promising time to someone without affixing it to a sequential time interval can lead to a situation in which a database developer starts complaining because she had an appointment with someone who did not show up. 'We agreed that I would visit him today, he would be around the office the whole day.'

Another clear – and for most Western people, irritating – aspect of synchronous culture is the misuse of one's own time to elevate the status of the superior in that culture. You are expected 'to give people time' not only when you meet them accidentally on your way to a scheduled meeting but also in way that prominent people expect to be waited upon. This last aspect of the synchronous culture is beautifully illustrated by the architecture of most governmental buildings in developing countries. All the high-ranking officials have a room that only can be entered by walking through a smaller waiting room.

Yet another example is the planning of a project meeting. In sequential culture it is quite normal to plan a regular meeting every Monday morning from 10 until noon. Although this is a bit extreme, one could say the meeting took place when the time indicator (clock) exceeds the planned time period. Whether people actually met or whether the important issues were discussed is not so important: the fact that the abstract time period was exceeded determines whether a meeting took place or not. Within the African concept of time, this way of looking at a meeting is impossible. An African will give time to a meeting whenever it happens. As long as it didn't happen, it falls into a 'no time' space.

The flexible attitude in synchronous cultures has an additional effect on organising or planning a project. Because people do not like to use a fixed time interval to adjust their work to each other, the working day becomes an accumulation of more or less accidental meetings. In a way, this method of planning has advantages compared to a more sequential way of organising your work. For one, it leaves enough space to anticipate unforeseen problems like heavy rainfall or power failures (both quite normal in developing countries).

A problem with the synchronous way of planning is that accidental meetings are a lot less likely to happen when they involve more than two persons. This aspect of the synchronous culture has great impact on the process of decision-making within a project. One can try to involve the stakeholders of a project as much as possible (the developmental approach), but when it is a lot of trouble to get people together, the efforts seem to go unrewarded.

Besides, it is not advisable to think that public meetings come together with the processes of decision-making. Following the line of 'giving time to someone', public meetings have more of a function of ritual sessions that enable the leader to consolidate his authority (Hofstede 1991). Although decisions are announced at these meetings, the process of making a choice between the interests of different stakeholders seems to follow an informal course.

Universalism versus particularism

Universalism searches for sameness and similarity, and tries to impose on all members of a class or universe the laws of their commonality. Particularism searches for differences, for unique and exceptional forms of distinction that render phenomena incomparable and of matchless quality. On the crossing between these two utopias one can ask whether one single rule applies to a situation, even if the fit is inexact, or do special circumstances justify adjusting the rules.

Research points out that developing countries have a more particularistic culture than industrialised cultures (Hofstede 1991: 270). Instead of working with a clearly defined procedure to handle a certain type of customer, they will always see the person behind this role and adjust their behaviour to her personal characteristics, such as sex or membership of a family or tribe.

It is easy to relate this dimension to backroom policies or corruption, but in doing this it is important to take the economic and social circumstances of developing countries into account. Because the government is often unable to guarantee every member of society a minimum of educational and medical rights, traditional forms of dependency such as family or tribal connections become more important. See the following examples from practice.

> **Examples from practice: Universal laws in particular dependencies**
>
> One particularism that emanates out of the social organisation in a developing country is the lack of a national social security system. This absence does not mean that an employee is bankrupt when he has to undergo an expensive hospital operation. Within the social culture of developing countries, chances are high that the employee will be willing to 'borrow' the amount of money needed. This does not mean that the employee has to return the exact amount. Helping an employer to move to another house or repairing his daughter's computer can also be seen as a partial repayment. The important thing is to realise that this situation results in completely different loyalty relationships with organisations than the ones common in more universalistic Western countries.
>
> Another example is the leader of the recipient country wanting to reward the people of his own village or tribe for the offers they made to finance his studies. These people made it possible for him to reach a position of power that allows him the chance to talk with donors. So why shouldn't the foreign aid be used to do something in return?
>
> A specific example for ICT projects happened with a western consultancy firm that was commissioned to implement a new computer-based clearance system at the customs authority. At the ceremony, as the system was officially handed over to the authority, it turned out that a very specific feature was missing, namely a key to reduce the customs duty by a predefined percentage each time the key was pressed. This function was required, for example, when the Officer received a gift from a client.

Because the last example is based on bribery it is easy to recognise this event as corruption. Even within the local frame of reference, such examples are justified as wrong. The other two examples are not so easy to uncover and might not even be seen as injustice because such behaviour is based on traditional values on which the entire society is founded.

The second example is a classical one. It stretches the importance of family relationships in developing countries. In a way, the family can be seen as an economic unit. Members of a family help one or two members in their education and with other social support. Once this person gets to the top, the persons and interests groups (family but also tribe) who helped him to get there must be remembered and subsequently rewarded with jobs, material benefits or positions as influential advisors. The leader talking with the donor wants to use the offered help in favour of certain in groups (particularist way of thinking) while the donor countries want to serve certain categories such as poor city people or small farmers (universalistic way of thinking).

Although the above examples discuss corruption as a phenomenon within developing countries, it is important to realise that the Western tradition also facilitates certain decision-making patterns that are dubious or at least difficult to explain from an angle of fair competition and transparency. See the next example from practice:

> **Example from practice: Queen's Day as a tradition that facilitates the Dutch business spirit**
>
> The celebration of Queen's Day is a Dutch tradition that seems to be even more popular among Dutch people living abroad. On Queen's Day the Dutch ambassador invites all the local Dutch to his house to eat some typical Dutch food and celebrate the birthday of their Queen. Although the food is often difficult to get overseas, it would be naive to think that people only come to this celebration for the Queen's birthday and the food that they miss. Anybody who has been to such a party will confirm that most of the conversations are about business interests and ways to set up cooperation to exploit mutual chances for business. Seen from this perspective of 'corruption', one could ask if this meeting point for setting up joint ventures is really fair or transparent when the potential partners are selected based on the fact that they can show a Dutch passport.

It goes without saying that a particularistic way of organising a project has great implications for the process of decision-making within the project. Seen from a universalistic point of view, the best advice is to be aware of the influence of personal links, not just between family members but covering much larger groups (Cusworth and Franks 1993: 52). For instance, the procedure of finding a database developer to complete the project team for a project on office automation. Seen from a particularistic point of view, it is quite normal for the project leader to look within his own family or tribe for the person to whom he can entrust the job, instead of putting an ad in the newspaper to look for the person with the best papers to do the job.

Besides the influence particularism has on the content of a decision, it is also important to realise that absence of universal rules has a more structural influence on the process of decision-making. For instance, the idea of an universalistic procedure that states that all the stakeholders of a project should have a say about important decisions (a formal contract that states that the project should be executed using a bottom-up approach) is likely to fail. Instead of thinking of people as stakeholders, a particularist will always look for the person behind the formal role and adjust his way of communication to her personal characteristics.

From a universalist point of view, the best advice is to stop reasoning with universalist management rules that look for the best functional solution, and to start looking at the project as an event that offers jobs for several friends and family. Seen from a particularistic point of view, helping relatives is not seen as a drain but as a duty to one's (extended) family. This practice is perceived as part of a person's success in society and regarded as normal and part of everyday life (Ukpabi 1995). Therefore the issue of the extended family should be incorporated into training programmes on project management in developing countries, and should be discussed as an integral part of life that is also entangled in temporary organisations such as ICT projects.

Power distance

Power distance is the extent to which less powerful members of institutions and organisations accept that power is distributed unequally. Individuals from high power distance cultures accept power as part of society. As a result, superiors consider their subordinates to be different from them, and vice versa. Members of high power distance cultures see power as part of society and stress coercive or referent power, while members of low power distance cultures believe power should be used only when it is legitimate and also have a preference for expert power.

Examples from practice: Power influences rules and agreements

In the Netherlands, it happened that a minister got a traffic penalty because she asked her driver to exceed the maximum speed limit in order not to be late for a parliamentary meeting. This is a good example of the way power is used in Dutch society. Of course, this example strongly concurs with a universalist culture whose rules are more powerful than the personal status of individuals.

An example of power play that is strongly related to the notion of time occurred during a project meeting that was set up by the IICD. In this meeting, the programme manager of the IICD wanted to evaluate the results of the pilot project with the project team and to incorporate the lessons into a feasibility study for a district-wide expansion project. First the programme manager came to the local organisation to verify the time and place for the meeting. With the local project manager he agreed that the whole project team would come to the communication room at 10 a.m. to discuss the results of the pilot project.

When the IICD programme manager arrived at the office the next morning, the local project manager was not there. He decided to wait a little bit, but since the rest of the project team was present they decided to start the meeting anyway. During the meeting, several problems and successes where evaluated, and in the end, the project team was able to come to a constructive dialogue on the success and failure factors of the pilot project. Afterwards, the team discussed how to incorporate these lessons into a project plan for district-wide expansion. At that moment the door of the communication room opened and the local project manager walked in.

One of the team's database developers stood up immediately for the project manager so he could take a seat at the head of the table. The local project manager started to explain why he was so late and then summarised the points that should be discussed during the meeting. The IICD programme manager interrupted him and apologised that he had to leave. He ended the conversation by asking the project team to put the agreed-upon points on paper and e-mail them together with the plan for a district-wide project.

The power distance of a culture has great influence on the way a project will be managed. In high power distance cultures, the contact between superiors and subordinates will only take place at the initiative of the superior. This has great influence on the way project management will be discussed or evaluated. For instance, if a Western development worker tries to introduce a project management technique that is based on negotiations between superiors and subordinates, the initiative will fail because the process makes both parties feel uncomfortable.

The first example illustrates that people in a low-power distance culture do not accept that power is distributed unequally. Although a minister is a prestigious post, this does not mean that a minister has the right to violate speeding regulations. The second example takes the power distance into the organisation of a project and illustrates nicely how much power is given to the superior in the project team. The seat at the head of the table is immediately freed for him, and he tries to start the meeting from the beginning as if the whole group had been waiting for him.

With regard to the adoption of a developmental or bottom-up approach, this seems to lead to some contradictions in, for example, the guidelines of IICD. Research indicates that developing countries usually accommodate a high power distance culture (Cusworth and Franks 1993: 41). In line with the guideline of Local Ownership, the IICD should respect this way of organisation but, paradoxically, this high power culture stands squarely against the bottom-up approach the IICD also advocates. Seen from both the point view of Western facilitator and local owner, this contradiction will end up in vague standpoints concerning the communication patterns in the project and therefore hinder coordination and implementation.

Oral culture

It is important to note that many of the lesser-developed countries have oral-based cultures. According to UNESCO (2000), the illiteracy rate in developing countries is 26.3% and 49.3% in the least developed countries (1.8 % in the developed world). This difference has great impact on communication patterns in a society and thereby the use and reach of information technology.

In developing countries, communication patterns often follow a face-to-face oral flow. In developed societies these communication patterns follow a more complex path of writing, print, radio, telephones, telegraph, photography, film, television, radio and computers.

Examples from practice: The use of media in an oral culture

In developing countries the most popular medium is the radio. Unlike newspapers, this medium also reaches illiterate people and is popular in rural areas. Radio and television are also appropriate for the expression of cultural traditions like music, act, live expression, storytelling and debate.

On the smaller scale of an organisation, the choice of technology also depends on the literacy rate of its members. For internal communication, an in-house telephone centre would probably be more effective than an elaborate intranet service.

If a society has no culture of reading, then using newspapers as the main vehicle of communication for development may not be the best idea. Radio bears a closer resemblance to traditional folklore-telling gatherings and may be the best medium.

Audio-visual technologies make it possible to combine a technology-based change with a long history of oral culture of developing countries. It is precisely this encounter between the very newest and the very oldest that make the audio-visual (mass) media a unique meeting point in the emerging information society (Madzingira 2001: 10).

We should also take the oral culture into account when we discuss suitable ways to manage an ICT project in a developing country. As stated before, the Western decision-making process uses 'decision documents' such as contracts, invoices, proposals and implementation plans. Besides the formal judgement function of these decision documents, Western project management theory emphasises the function they have as means of communication. These theories state that they fulfil an important function in the integration and establishment of both outcome and planning activities of the project. Making the document requires all the actors to exchange thoughts about the project activities and its possible outcomes. Hence the conceptualisation images and the enclosed expectation about the project's future converge in the process of writing a plan.

> **Example from practice: Communicating through documents?**
>
> During a survey, a Western researcher had some valuable insights on the way a project plan is used in practice. In the five months that the researcher was present, the formal document came into discussion on two occasions. The first time it was during a meeting, when the IICD programme manager held the implementation scheme with two fingers and stated 'this is a different project'. The second was during a public project meeting, when the local project manager used the document as inspiration during his 45-minute opening speech.
>
> Although this is speculative, one could state that the formal documented outline of a project is often affiliated with the Western perspective on the project and does not have much connection with the local way of experiencing the project.

Seen from the oral culture's angle, it seems reasonable to doubt the communication function that Western management theory ascribes to the decision documents. In the practice of development countries, such documents are hardly read, and when they are used it is mostly in a way that advocates an actor's own interests.

As an alternative to the communication function of a project document, it would be conceivable to experiment with the new multi-media possibilities to converge and distribute the 'project message' through a video presentation (CD-ROM or, in a more developed situation, through broadband internet access). Within this video presentation the project management records the existing situation, expresses the alternative ways of working (external examples or vocal explanation by a presenter) and gives a short introduction of every actor involved in the project. This could be a recording of the visualisation stage in a project.

Dimensions of cultural variability at an organisational level

Just like there are differences in the norms and values of national cultures, it is possible to distinguish differences in behavioural norms and values that derive from an organisational culture. Based on Hall (1983) (in Cusworth and Franks 1993), it is possible to distinguish three types of dimensions in organisational culture that are of importance for projects in developing countries. A distinction can also be made between the cultures of private and public organisations (Heeks 2000).

Centralisation

Centralisation describes to what extent central and higher levels take decisions concerning daily activities of an organisation. The more that behaviour of organisational members is determined by decisions at a higher level, or at least the need for approval from that level, the more an organisation is centralised.

In a really centralised culture, where individuals at the organisational centre exercise control and leadership, decisions are taken on the influence and personal choice of these individuals rather than on procedural grounds. These power cultures are commonly found in private commercial companies, both in industrialised and developing countries. They are strongly associated with individuals, often the founders of the organisation. Nonetheless, experience shows that power cultures are more common than might be expected in public organisations in developing countries (Franks, 1989), because members are often tied to their leaders through an intricate system of links and relationships that results in a measure of personal rather than procedural decision-making imperatives. This aspect of a power culture is strongly related to the effects of particularism that

were discussed on the societal level.

The top of the organisation has the best position to judge the consequence of strategic decisions in a project. Still, to fully utilise the knowledge and flexibility of the specialists and experts guiding the operational process, it is important for the organisational centre to offer a certain space for their own decisions regarding the steps to be taken. Rather than judging them on procedures followed, the management should focus their control mechanism on the results achieved by the experts. For that reason, an organisational culture that tends to be highly centralised, slows down the implementation process of the project.

Bureaucracy

Bureaucracy is the extent to which organisational activities are prescribed or bounded by formal procedures (Hall: 1983). In a highly bureaucratic culture, the organisation rests on functions or specialties defined by the organisational activities (operation, input supplies, research, administration, etc). The organisation works through an established system of rules and procedures, in which the function is more important than the personality of the person in the post.

It is quite common for ICT projects to be carried out by a bureaucratic organisation, whose constrains are not grounded in the technical challenges of the project. The actual bottleneck often lies in patiently sitting out or bypassing bureaucratic procedures. A highly bureaucratic organisation is therefore often unsuitable as a vehicle for project implementation. It is inflexible because its main concern is to discharge its duties and functions correctly rather than achieve goals and objectives (Cusworth 1993: 51).

It is important to note that bureaucratic culture often goes hand in hand with a centralised culture. Most of the bureaucratic procedures are designed in such way that increases the control of the top of the organisation.

Example from practice: A King ruling slaves through a net of procedures.

Good examples of centrally controlled bureaucratic organisations can be found in government institutions that are still based on administrative procedures from colonial times. In such organisations it is quite normal to need formal authorisation, by means of a formal document, to move a desk from one room to another. Furthermore, the members of these organisations have to write down every phone call they make, and before they can use a vehicle they need written permission from the direction of the organisation.

It is important to stress that most of these procedures are designed in such a way that they increase the power position of the centre of the organisation. Another tool to increase this power position is to create exclusive rights on the distribution of scare sources in the organisation. Members of the organisation having to go to the director's secretary to get paper for the printer or the only copying machine of the organisation being located in the director's room is a type of dependency that increases the power of the centre of the organisation.

It is interesting to notice that members of such as organisation explain this type of hierarchy by referring to the 'king versus slave' metaphor. Every time they have to wait for more than an hour when the director calls them, they say 'the king is very busy these days'.

Task culture

The third type of organisational culture distinguished by Hall (1983) is task culture. Task culture exists to achieve a specific goal or set of goals, of which successful implementation of a project is an example. In a task culture, expertise is the key factor in determining an individual's fit for a job. Task-orientated organisations therefore tend to work in flexible teams, which change with the demands of work. A task culture is particularly appropriate for project work; it is commonly found, for instance, in consultancy organisations, which operate mainly that way.

Public or private

Besides the three organisational cultures of Hall (1983), we can distinguish a difference in cultures between organisations in the public and in the private sectors. While organisations in the public sector have a political, social and economical focus, private organisations are primarily focussed on profits. For that reason, members of public organisations operate more often in a more politicised culture than members of the private sector (Heeks 1999).

This difference is also important with regard to the concept of Local Ownership. Although private organisations tend to have a clear and central ownership pattern, public organisations are less clearly owned. It is therefore interesting to ask whether it is possible to use the concept of (local) ownership when this concerns an E-Governance project.

Influences of the cultural environment on the decision-making process

Looking at the process of decision-making, one could say that the culture will determine the pattern by which alternatives will find their way to the negotiation table. But looking at the influence of both societal and organisational culture more closely, one can also see that it provides structural power to certain alternatives. The best examples are particularism and the high power distance that the cultures of developing countries often accommodate. These two cultural factors give structural power to the interests of higher-level coordinators to fit a project in such a way that it also becomes a source of jobs and influential positions for their extended family. In this way, culture changes not only the procedure of the decision-making process but also its results.

Furthermore, it became clear that it is not advisable to think that public meetings concur with the processes of decision-making. Cultural factors such as the notion of time and power distance seem to transform the meaning of a meeting into a ritual session that enables the leader to consolidate his authority. Although decisions are announced at these meetings, the actual process of making a choice between the interests of different stakeholders follows informal paths.

Public meetings should therefore be seen as a phenomenon with a real 'clash of cultures'. People from a Western culture expect quick solutions when attending a meeting, while for people from developing countries status plays a dominant role in meetings. They usually see meetings as a social and political occasion. For them, the meeting often takes place only to confirm decisions already made in private discussions and is not the place to make binding agreements. Therefore it is quite normal for a meeting to serve as an occasion for displaying eloquence, status and social standing (Ukpabi 1995).

Conclusions

To understand the way the members of a project work together, we need to take into account that their behaviour is conditioned by the culture from which they originate. The way a project team will define a problem, develop possible solutions and implement a new method of working is highly related to its cultural background. In this report an analytical distinction is made between the influence of culture on society and at an organisational level.

On a societal level, we found that the way people organise themselves around their notion of time, the way they apply universal rules to their working activities (universalism versus particularism), and the extent to which they accept that power is distributed unequally (power distance) are important cultural factors that influence the way the project develops. The fact that developing countries often accommodate an oral culture of communication has an influence on both the use of information technology and the communicating function of decision documents.

On an organisational level, centralisation, bureaucracy and a task orientation are cultural aspects that are greatly influential to the development process of the project. In addition, whether an organisation operates in a private or public environment determines the extent to which its members have to work in a politicised culture.

An important note in the discussion on the influence of the cultural environment is the fact that cultural factors tend to change the meaning of concepts in the everyday working environment. The best example is the concept of the meeting. The meaning of this concept can change to designate a ritual session that enables the leader to consolidate his authority. Although decisions are announced at these meetings, the actual process of making a choice between the interests of different stakeholders follows informal paths.

Taking the cultural environment of a project into account means that the project management agrees to focus on factors they cannot control. Managing the development process means looking for methods to adjust to the somehow autonomous forces. Instead of directing or changing the environment, project management should focus on analysing cultural patterns and trying to anticipate these patterns in such a way that, through the project activities, they converge into the overall goal.

POLICY SPEARHEADS FOR FUTURE DEVELOPMENT

No single best way

In the search for an effective organisation of an ICT project, we should not try to design a project as a self-sufficient unit that is isolated from its environment, but try to develop it as a process of interaction with the environment. Only in this process of interaction can an optimum be reached between the technical quality and environmental acceptance of an ICT project.

The focus on the interaction with this environment results in a perceived decline of control over the project. Instead of applying carefully thought-out plans, 'managing a project' is transformed into a search for specific methods in order to adjust to the characteristics of the environment.

> ***...There is no single best way in which to design the structure of an organisation. Rather, what is the best or most appropriate structure depends – is contingent – on what type of work is being performed and on what environmental demands or conditions confront the organisation* (Scott 1992: 227).**

As argued here, it is advisable to divide the project environment into a political and a cultural dimension. Both dimensions are difficult to direct, but by analysing them it is possible to foresee problems between the project organisation and its environment. Instead of directing the political and cultural forces, the art of management lies in anticipating them in advance.

To set the focus on the interaction with the environment, project management needs to find a planning method that incorporates a repetitive evaluation of the political and cultural influence into the strategic decision-making process of the project. Adopting a developmental approach to project planning can do this.

Build on convergent interests

It is quite common for the organisation that has the main responsibility for the project (owner) not to possess all the capacity (knowledge or human resources) necessary to achieve the objectives. In such cases, some project activities are outsourced. We should therefore try to approach an ICT project as an interorganisational cooperation.

It is important that project management acknowledge that, although there is a collective 'mission' in this interorganisational cooperation, this does not mean that the project in question has the same meaning for every actor. Instead of focussing on the collective matter, the project management should understand that there are more visions on organisational reality and that every actor has a subjective view, which is highly related to their own interests.

> *Ideally, the interests of the different organisations fluently meld together into the overall objective of the project. In practice, it is quite normal for the different organisations participating in a project to have equal, opposite or even incompatible interests.*

Although interests will influence the project at every stage of its development, it is advisable to make a comprehensive analysis of all the (hidden) interests during a project's formulation stage. In principle, these interests should be the guiding motive of the project, and the overall project goal has to emanate from the converging interests. Negotiation in and preparation for conflicts is also part of this stage of the project.

From this point of view, it is advisable to introduce a sort of kick-off meeting in which all actors state what they hope to gain and learn from the project, and describe how these things are incorporated into the overall goal off the project. Besides having knowledge about these interests, it is advisable to make an analysis of the more hidden interests and different sources of power every actor can use to advocate these interests.

Furthermore, it is advisable to compare the interaction of organisations in ICT projects in developing countries and to develop a project cast with different roles the organisations can play. The development of these roles is interesting because it allows judging whether the behaviour of an actor is in line with his role. Of course, the judgmental function of the roles is only relevant when the compared projects use the same type of technology and function in the cultural environment.

Synchronise with the cultural waves

In order to understand how the members of a project work together, it is advisable to keep in mind that the behaviour of a project team is conditioned by the culture from which its members originate. The way a team defines a problem, develops possible solutions and implements a new method of working is highly related to its cultural background. Because a single organisation can also accommodate a culture, it is advisable to make a distinction between the influence of cultural behaviour at the societal and organisational levels.

On a societal level, the way people organise themselves around their notion of time, the way they apply universal rules to their professional activities (universalism versus particularism), and the extent to which they accept that power is distributed unequally (power distance) are cultural factors that should be analysed in order to understand how a project develops. The fact that developing countries often accommodate an oral culture of communication is another cultural factor that has to be taken into account. This factor has great influence on both the use of information technology and the communicating function of decision documents such as a project plan.

On an organisational level, centralisation, bureaucracy and task orientation are aspects that are greatly influential to the development process of the project. Project management also has to consider whether an organisation operates in a private or a public environment. This determines the extent to which its members work in a politicised culture.

An important note in the discussion on the influence of the cultural environment is that cultural factors tend to change the meaning of concepts in the everyday working environment. The best example is the concept of the meeting. In developing countries, the meaning of this concept changes to designate a ritual session that enables the leader to consolidate his authority. Although decisions are announced at these meetings, it is advisable for Western practitioners to understand that the actual process of making a choice between the interests of different stakeholders follows an informal path.

Taking the cultural environment of a project into account means seeking for methods to adjust to relatively autonomous forces. Instead of directing or changing the cultural environment, it is advisable for the project management to try to search for a project organisation that is able to anticipate in such a way that project activities are synchronised with the culturally conditioned patterns of behaviour.

Apply the developmental approach

The implementation of an ICT system requires a strategic vision in which the path towards reaching the objectives is crystallised. To develop this vision, the project team will have to dissociate from the current way of working and think of new ways to organise the work. Seen from this point of view, the implementation of an ICT project requires a certain distant drawing-table approach. There is nothing wrong with that, but it is important to realise that the technocrats or top of the organisation are not the only ones who have to see things from this strategic point of view.

The advantage of the developmental approach is that a strategic point of view is confronted with the environmental influence at an early stage of the project (pilot). By evaluating the results of the pilot, future users as well as technocrats will understand that they have to get out of their daily working environment and start drawing plans for the future.

To increase the awareness of both environmental and technical knowledge, a tool should be developed that allows mapping out the different kinds of knowledge that are necessary for the project. For instance, in a small survey, one could ask all the members to give their opinion about their own capabilities. By making sure that this survey does not focus only on computers but also on knowledge of administrative procedures, who is specialised in which part of the project becomes clear and, more importantly, what kind of mutual learning moment one could develop to arrive at a mutual language in which a vision is build on the functionalities of the new system.

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IICD PROFILE

The International Institute for Communication and Development (IICD) assists developing countries to realise locally owned sustainable development by harnessing the potential of information and communication technologies (ICTs).

IICD realises its mission through two strategic approaches. First, Country Programmes bring local organisations together and help them to formulate and execute ICT-supported development policies and projects. The approach aims to strengthen local institutional capacities to develop and manage Country Programmes, which are currently being implemented in Bolivia, Burkina Faso, Ecuador, Ghana, Jamaica, Mali, Tanzania, Uganda and Zambia.

Second, Thematic Networks link local and international partners working in similar areas, connecting local knowledge with global knowledge and promoting South-South and South-North exchanges. Thematic Networks focus on sectors and themes like education, health, governance, the environment, livelihood opportunities – especially agriculture – and training.

These efforts are supported by various information and communication activities provided by IICD or its partners. IICD is an independent non-profit foundation, established by the Netherlands Ministry for Development Cooperation in 1997. Its core funders include the Directorate-General for Development Cooperation (DGIS), the UK Department for International Development (DFID) and the Swiss Agency for Development and Cooperation (SDC).