IDENTIFYING/VERIFYING CUSTOMERS' NEEDS BEFORE SPECIFYING PRODUCT/SERVICE REQUIREMENTS IN THE PROGRAM/PROJECT CONTEXT

By Alan Stretton, PhD

ABSTRACT

In an earlier paper (Stretton 2009c), I pointed out that customers/clients do not feature nearly as prominently in the program/project literature as stakeholders at large. Indeed, they are often listed as just another set of stakeholders. I put a case for more attention to be given to the importance of customers in the program/project context, and proposed a customer/client classification to hopefully facilitate this.

Parallelling the above, there is little material in the mainstream program/project literature about processes for identifying/verifying the needs of customers in their broader business (or equivalent) contexts, before undertaking the work of specifying the requirements of the products or services (delivered via programs/projects) that will best contribute to satisfying those needs.

In my experience in providing program/project management services to external customers in the building, construction and allied industries, too little attention has generally been paid to what we used to call "Customer Needs Determination", before then undertaking the work of "Product Requirement Determination". As a result, we saw far too many cases of the wrong facility being provided, or a facility in the wrong location, or similar misadventures that failed to satisfy the real needs of the customer. I understand that this topic has been seriously addressed in service industries such as IT, finance and marketing, but little of this experience appears to have found its way into the mainstream program/project management literature.

This discussion paper synthesises processes for identifying customers' needs, based on the little relevant material I have found in the literature, supplemented by materials from the experience of an old employer of mine in this field. The resulting processes appear to be rather 'thin' in terms of content, but I am hoping that this paper may elicit responses from researchers and practitioners in relevant fields, including the service industries just mentioned, to help develop more grounded processes for identifying customers' needs in their broadest contexts.

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INTRODUCTION

The background to this paper is that there is little material in the mainstream project management literature which discusses identifying/verifying customers needs in their broader business (or equivalent) contexts, before attempting to specify the requirements for a product/service to best help satisfy those needs.

In an ideal world, customers would already have undertaken thorough organisational strategic analysis/planning to identify their needs before engaging specialist services to help specify the requirements of needs-satisfying specific products/services, to be delivered via programs/projects. In the real world, all too often this does not happen, so that someone has to help such customers establish and verify their real needs.

This is essentially a discussion paper, which synthesises, from somewhat meagre sources, processes for identifying customers' needs in the context of providing professional program/project management services to external customers. The context is biased towards the building and construction industry, with which I am very familiar, and which provides some of the materials in this synthesis.

I understand that the services industries (including IT, marketing, finance), with which I am not so familiar, place considerable emphasis on getting requirements right at the outset of projects. IT projects, for example, are driven by the Software Development Life Cycle (SDLC), whose first stage is "Requirements Analysis". Further, IT organisations have created the "business analyst" position, whose primary function is to identify business requirements, and then convert them into technical specifications (Frame 2009). I assume that this includes identifying customer needs in the broad sense indicated above, but I would like to have this confirmed, and hopefully to see relevant contributions appearing in the wider project management literature.

This paper is intended as a contribution towards developing basic processes for identifying customers' needs, Hopefully, it may also provide a stimulus to elicit responses from researchers and practitioners in other fields, including those just mentioned, to help amend, consolidate, and/or generally develop more grounded processes for identifying customers' needs.

A NOTE ON TERMINOLOGIES

The descriptors 'customer' and 'client' are generally used synonymously (e.g. Macquarie Concise Dictionary 1988). Further, in the program/project literature, distinctions between customers and stakeholders are seldom made, and indeed in some instances it is not all that easy to make such distinctions.

For the purpose of facilitating the ensuing discussions, I will use the following definitions/descriptors.

- ***Client organisation:*** The organisation which purchases the program/project, and is the broad end-user of its outputs.
- ***Internal customers:*** Those people or groups within the client organisation that are directly involved in furthering the program/project
- ***Stakeholders:*** Those people or groups who are not clients/customers, but who have an interest in, and/or whose interests may be affected by, the program/project

The following discussions will relate to a single client organisation. There are many situations where there are multiple client organisations, and this tends to complicate the needs identification process enormously. However, if we could generate well-grounded processes for identifying the needs of an individual client organisation, we would be in a better position to tackle the more complex task of multiple client organisations' needs identification.

IDENTIFYING CLIENT ORGANISATION'S NEEDS: OVERVIEW

Client organisation's strategic plans, or lack thereof

In an ideal world, the client organisation would already have determined its business (or equivalent) needs through its own strategic planning and allied processes. In cases where this actually happens, the project management services organisation still needs to go through processes to confirm that the organisation's needs have, indeed, been satisfactorily determined.

However, in practice it is not unusual, in my experience, to be dealing with customers who feel they have a need, but have not done the work of really identifying the nature of those needs in detail, for whatever reason. In this case, the provider organisation has the very substantial task of helping the customer organisation do a thorough job of identifying its fundamental needs.

The importance of accurately identifying client organisation's needs

> *The importance of doing a good job of identifying needs and specifying requirements cannot be overstated (Frame 1994:99)*

If the client organisation's needs are not properly established at the outset, there is little if any chance of delivering satisfaction to that organisation. Yet, apart from Frame 1994, the

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program/ project literature has very little guidance in how to go about this critically important task.

Regarding the process of identifying the client organisation's needs, it should be noted that

- The needs identification process is essentially one of
  - first, helping the client organisation determine its needs in the context of its business (or its equivalent); and
  - second, helping the client organisation specify the program/project that will best facilitate satisfaction of those needs.
- Clients seldom see their needs as being for a program/project per se. From the client organisation's perspective, a program/project is simply one component that contributes towards satisfying its broader business (or equivalent) needs..

The process of accurately identifying the client organisation's needs is not only critically important – it is a difficult task, calling for people with special skills in this area. Frame 1994 calls such people "needs analysts", and suggests that

> Perhaps the single most important step we can take to assure the proper identification of customers' needs is to hire competent needs analysts.

Frame goes on to discuss the traits of effective needs analysts, summarised as follows:

Traits of effective needs analysts

1. The analysts must have a strong ability to deal with customers and extract from them a sense of what they truly need
2. They must have good political skills. This means they must recognise that all customers are not equal in a political sense.
3. They must be technically competent. They should be able to match customers' ill-defined needs to possible solutions
4. They must be open-minded and possess a good imagination. Open-mindedness is necessary so that they do not close off possible solutions to problems because of a narrow outlook
5. They must have a high tolerance for ambiguity. Because customers do not generally know what they need or want, they will provide the needs analyst with mixed signals.
6. They must be articulate

Consequences of inadequate needs analysis

Frame 1994 goes on to discuss some common outcomes emerging from needs requirement analyses carried out by project staff lacking the basic skills necessary for doing a good job, summarised thus:

1. Gold-plating of needs. In part, gold-plating is rooted in professional pride

2. Selective filtering of needs: "To a four-year-old boy with a hammer, all the world is a nail"

3. Operating in a patronising fashion: "I am the expert"

The client organisation and its own customers

In the context of what they describe as 'business projects' – i.e. with a more business-oriented viewpoint of projects – Winter, Andersen et al 2006 quote the approach of Normann 2001 of "mentally framing oneself as part of the customer's business", and particularly looking at the client organisation's relationships with its own customers:

> a particularly useful way of re framing , in our experience, is to focus on the customer of the company as the major stakeholder, and to mentally frame oneself as part of the customer's business. Many pay lip service to this idea; few take it to their hearts. A major conceptual implication of doing so is to move away from the traditional industrial view of the customer offering as an output of one's production system to a view in which the customer offering is seen as an input in the customer's value-creating process. This requires the company to understand the customer's business and value-creating process and use that as the basic framework within which one defines one's business. Understanding the customer's business implies that one must look at the customer's major stakes – and they generally are in the customer's relationship to his or her customers.

A model presented by Winter, Andersen et al 2006, based on a model of value creation proposed by Normann, shows a first-level relationship of programs/projects provided to external client organisations with a product focus, and a second-level relationship with the client organisation's customers, which has a value focus, as follows [our descriptors in square brackets]

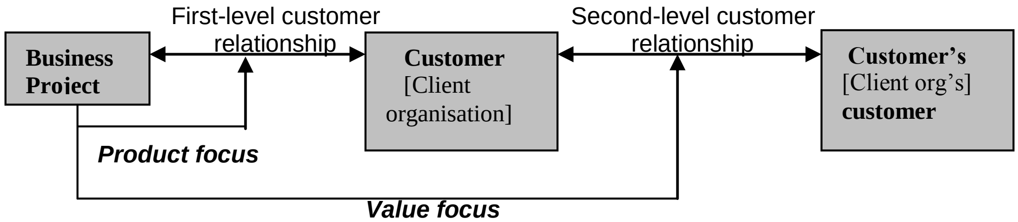

Figure 1: Business projects and external customers (from Winter, Andersen et al 2006)

The approach of "mentally framing oneself as part of the customer's business", including looking at the client organisation's relationships with its own customers, epitomises the type of customer orientation which is most appropriate for effective needs analysis.

We now examine processes involved in helping client organisations identify their needs. The following is a combination of materials from Frame 1994 and those from my old employer, Civil & Civic Pty. Limited.

PROCESSES FOR IDENTIFYING CLIENT ORGANISATION'S NEEDS

Needs identification as a partnership between needs analysts and the client organisation

Civil & Civic certainly saw the needs identification process as a partnership (although its description of the process – Client Needs Determination [CND] – might not have suggested it). A 1987 revision of its 1980 manual *"Project Management for the 80s"* (Civil & Civic 1980) said:

> It is important that clients be as deeply involved as possible in the needs determination process.

Frame 1994:106 points out that the role of the needs analyst is essentially a helping one, which is the way Civil & Civic also saw it. Frame put it this way:

> Customers generally do not know what they need with any degree of precision. A major function of needs analysis is to work closely with customers to help them develop a more precise sense of their needs.

Civil & Civic had substantial detailed guidelines for Client Needs Determination, some of which are outlined in the following. Additionally, three particular components of clients needs had to be addressed, namely physical needs, emotional needs, and financial needs.

Step 1: Understand the total context of the client organisation's situation

Frame 1994:105 makes the point that the first step in needs definition is to understand the present system in its total context. He goes on to say that this means going beyond purely technical investigations of problems, and addressing such questions as

- What is the organisational milieu in which the system functions?
- Who are the relevant actors?
- What is the political environment like?
- What is the hidden agenda?

In somewhat similar vein, Civil & Civic set out the following guidelines for understanding the customer's situation and its context. The written record of this that I possess is dated 1980 (Civil & Civic 1980), but I can attest to the fact that it was being developed and practiced from the mid-1960s (and may well have been documented from around that time, but I have no copies of these documents).

> To achieve complete client satisfaction we must obtain a deep understanding of such things as:
>
> - The nature of our client's business – what it does and how it operates – its objectives – its competition
> - The processes which are to be accommodated by the project in hand
> - The terminology and language used in the client's business
> - The client company's organisation structure – who are the key people and their personalities
> - The real reason for the client entering into the project

Steps 2 &3: Help the client organisation identify its business needs
Identify and reconcile needs of internal customers

> *A good statement of needs is the product of a partnership between the needs analysts and the customers*
> *(Frame 1994:106)*

These two steps, namely helping the client organisation identify its business needs, and identifying and reconciling needs of internal customers, will normally take place concurrently, but the sequencing and details, including revisiting and revising, can vary widely, depending on the particular situation.

Tools for facilitating client needs identification

Modelling

Modelling often played an important role in Civil & Civic's work in Client Needs Determination. I do not have a live C&C example, but there was a rather neat benefit outcome relationship diagram related to education in the project/program literature, in OGC 2003, which illustrates the modelling approach.

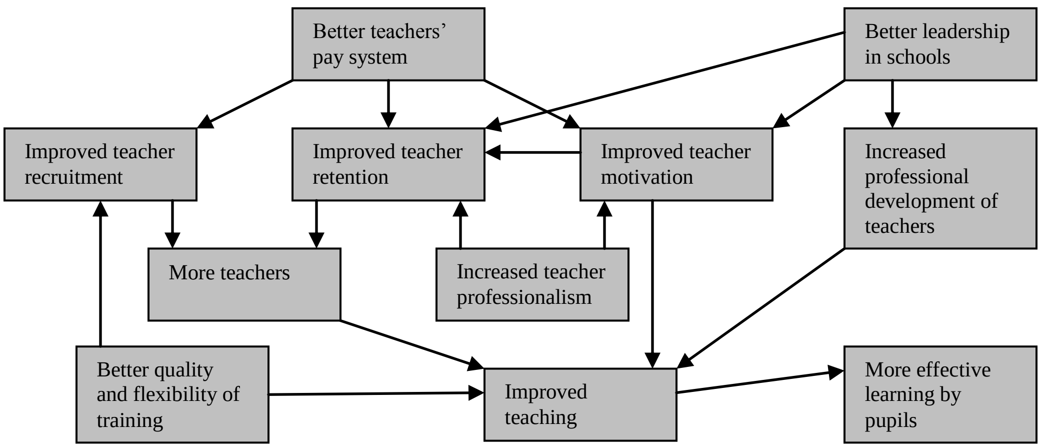

Figure 2: OGC 2003 - Figure 4.3 Outcome relationship model

A needs-defining task force is often appropriate, particularly for internal change programs/projects

Frame 1994 advocates the use of internal task forces to help undertake needs definition. This approach appears to be particularly appropriate for internal change programs/projects. Such task forces would certainly include all the internal customers, and often other internal stakeholders, particularly adversarial, or potentially adversarial, people or groups. Frame 1994 says

> The task force can strengthen the needs analysis in at least three ways.
>
> First, since it is made up of representatives of different constituencies, it allows for cross-fertilisation of ideas. The resulting suggestions as to what [internal] customer needs are will therefore be more robust than if needs were identified by only one or two people.
>
> Second, the task force allows the different [internal] customer groups to develop a consensus about their needs through give-and-take interaction. This shifts the burden of making some hard decisions for the needs analysts to the customers

> themselves. Furthermore, whatever priorities emerge through this process are likely to be less arbitrary than if determined by a single individual.
>
> Third, because relevant customer constituencies play an active role in defining their needs, they have, in effect, "bought into" the project. ….

Not only does this process contribute substantially to defining the organisation's needs at large, it also defines the needs of the internal customers in the most participative way, and reconciles many, if not most, of the inevitable conflicting needs.

A needs-defining task force may also be appropriate for some external client organisations

If it can be organised, a needs-defining task force should be equally effective for external client organisations, with similar benefits.

Identifying internal customer needs in the absence of participation in a needs-defining task force

Identifying internal customer needs becomes more difficult if a needs-defining task force cannot be organised. Internal customers typically have different sets of interests. As Frame 1994:97 says:

> The project team often faces the difficult task of sorting through the contending needs of different customers in order to define customer needs and requirements. Needless to say, this can be a challenging undertaking. Satisfaction of one set of needs may generate hostility from customers with opposing interests. The needs definition process must be filled with compromise and balance.

Speaking of internal customers within external client organisations, Powell 1980 said:

> The Client is usually not one individual but a collection of people or groups of people within an organisation. In the early stages of collecting data it is essential that the Project Manager must determine the number of people in the Client organisation who will be directly involved in the project. It is also essential that the Project Manager determines who is the decision maker. In most cases the decision maker is not the Client's representative at the interface with the Project Manager. Another aspect which must be covered is that each individual in the Client organisation may be expecting to get different things from the project as a result of his or her involvement.

In these circumstances the needs analyst needs to be very skilled indeed.

As a concluding note to this subsection, it is noted that an approach developed by Thiry 2006b for balancing stakeholder needs and benefits could well be useful with multiple internal customers.

Case Study: Identifying and satisfying a client organisation's needs, with no program/project required

It should be recognised that identifying and satisfying a customer organisation's needs may, or may not, involve a program/project. If it does involve a project/program, it should also be recognised that its delivery is only a part of the process of satisfying the broader client needs.

The following is an apparently trivial, but none-the-less important illustrative case study of helping a customer organisation identify and satisfy its real business needs, which did not involve a formal program/project.

Case Study: Identifying and satisfying a small organisation's needs

A quite small metal-working workshop in Sydney in the early 1960s secured a very large contract for many different metal products, with tight time limits. The owner's diagnosis of his needs was that his workshop had to be extended immediately to install extra machines needed to process this large order. Civil & Civic had a reputation for being a fast designer/builder, and was called in.

Civil & Civic soon perceived that the owner did not need a workshop extension at all. In fact, he would have ample room in his existing premises, if he reorganised and repositioned his existing and new machinery appropriately. This was a simple task, and Civil & Civic helped him do it.

Here was a case of the client needing help to analyse the nature of his real business needs. Civil & Civic provided such help (for which, incidentally, it did not charge), which led to a customer who was so satisfied that he became one of the best ever unpaid salesmen for Civil & Civic!

The discussions in this section have related to situations where the provider of the program/project has willing and unrestricted access to the client organisation and its internal customers. However, this is not always the situation in reality, as now discussed.

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WHEN THE CLIENT ALLOWS LITTLE OR NO PARTICIPATION IN IDENTIFYING NEEDS

When the client organisation simply hands down its requirements

This situation does not get a direct mention in the program/project literature, although it is implied in situations where the client organisation has done an effective organisational strategic plan and has specified the programs/projects to implement relevant sections of the plan. This situation happened quite often in Civil & Civic's work, but two different circumstances were confronted.

- When there was substantial confidence in the client's in-house capability to accurately identify its needs and to specify the details of the product/service to satisfy these needs. This was a win-win situation.
- When one had cause not to be confident that the client has such a capability. This was not an uncommon situation, and often placed C&C in an unenviable situation, which involved the following considerations.
    - If the provider (of the project/program) had accepted the client's brief unquestionably, but if the client had not evaluated and/or specified his needs properly, the fact that the provider had delivered a facility or service to his specification, and it turned out to be in the wrong place, or at the wrong time, or was inappropriate in some other way which was not the fault of the provider, creates a strongly negative perception of the capability of the provider, even though he was theoretically blameless. No provider company can afford to risk this type of negative publicity.
    - Therefore the onus is very much on the provider to probe the client brief with energy, scepticism, diligence and persistence.

When the client organisation allows partial participation in the needs identification process

A variation of the above situation is where the customer/client organisation allows partial participation by the program/project provider in helping identify needs.

Even limited participation helps the providing organisation to better assess the adequacy of the needs being developed by, and/or partly with, the client organisation. However, if some provider participation is being allowed, it can usually be assumed that the client organisation does not have a fully developed capability in establishing its own needs. In this case the provider needs to take a hard-headed approach to evaluating the adequacy of the developing or developed needs, and the last of the immediately preceding bullet points is very relevant to this situation.

FROM IDENTIFYING CLIENT ORGANISATION NEEDS, TO SPECIFYING REQUIREMENTS OF THE PROGRAMS/PROJECTS TO SATISFY THOSE NEEDS

> *Requirements, in turn, are developed from our understanding of needs (Frame 1994:103)*

Having identified and/or confirmed the client organisation's business (or equivalent) needs, the next step is to determine and specify the requirements of the programs/projects which will make the maximum contribution to satisfying these needs. Civil & Civic originally called this 'product requirement determination', but this terminology gradually disappeared, and the process came to be known by the end result required – an 'approved statement of requirements' (of the program/project).

This process is often as demanding as the needs identification process, but is obviously more technical, as it is now in the more specialised area of specifying the attributes of the relevant programs and/or projects. There is surprisingly little detailed information about how to go about this task in the program/project literature. It seems to be taken as a 'given' in the literature, rather than requiring the input of specialists in the relevant domain(s).

CONCLUDING

It is acknowledged that the proposed processes developed above to facilitate the identification of client organisations' needs in the context of the provision of professional program/project management services to those clients are rather 'thin', as they are essentially based on procedures from one literature source, and one practitioner source.

However, it is hoped that interested readers will find this useful, and that researchers and practitioners, particularly in the service industries such as IT, marketing and finance, may come across this article, and feel motivated to suggest additions, modifications, deletions etc which could help in developing a more grounded set of processes.

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Author's Post Script

After this paper was originally published, PM World Today reader Michael Davis strongly recommended a relevant book entitled "Exploring Requirements: Quality Before Design" by Gause and Weinberg (1989, Dorset House Publishing, New York).

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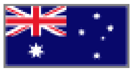

Alan Stretton is one of the pioneers of modern project management. He is currently a member of the Faculty Corps for the University of Management & Technology (UMT), USA. In 2006 he retired from a position as Adjunct Professor of Project Management in the Faculty of Design, Architecture and Building at the University of Technology, Sydney (UTS), Australia, which he joined in 1988 to develop and deliver a Master of Project Management program. Prior to joining UTS, Mr. Stretton worked in the building and construction industries in Australia, New Zealand and the USA for some 38 years, which included the project management of construction, R&D, introduction of information and control systems, internal management education programs and organizational change projects. He has degrees in Civil Engineering (BE, Tasmania) and Mathematics (MA, Oxford), and an honorary PhD in strategy, programme and project management (ESC, Lille, France). Alan was Chairman of the Standards (PMBOK) Committee of the Project Management Institute (PMI®) from late 1989 to early 1992. He held a similar position with the Australian Institute of Project Management (AIPM), and was elected a Life Fellow of AIPM in 1996. He was a member of the Core Working Group in the development of the Australian National Competency Standards for Project Management. He has published over 120 professional articles. Alan can be contacted at alanailene@bigpond.com.au.