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**DEVELOPER - CUSTOMER COMMUNICATION IN
SUCCESSFUL NEW SERVICE DEVELOPMENT**

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submitted for the degree of
Doctor of Philosophy

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DECLARATION

I grant powers of discretion to the University Librarian to allow this thesis to be copied in whole or in part without further reference to me. This permission only covers single copies made for study purposes, subject to normal considerations of acknowledgement.

ABSTRACT

In today's highly competitive, rapidly changing environment customer's role has become very important in fast service production and delivery. Customers' input is supplied through a communication effort between developer and customer and developer-customer communication is shown to be critical for successful new service development (NSD). Therefore, we need to determine how such communication might be managed best for NSD success. This thesis investigates the way new service developers communicate with their customers and identifies communication skills associated with outstanding success in NSD. We focus in particular on communication between developers and their "lead users" (or customers) as defined by von Hippel (1986, 1989).

The study draws on the Relationship Marketing and NSD literatures to develop a propositional framework concerning the skills developer companies possess in communicating with their lead customers. We use descriptive case research based on multiple case studies drawn from a purposive sample of 9 leasing companies of which 5 belong to a highly successful (HS) group and 4 to a less successful (LS) group. Higher and lower success is measured according to the three criteria advanced by Brown and Eisenhardt (1997) as being important in measuring NSD performance in highly competitive and rapidly changing markets: (i) on time to market; (ii) on target to market; and (iii) on schedule internally. Data collection was done in two phases. The first was based on a structured questionnaire mailed to pre-identified respondents and the second on a personal interview with the same respondents in order to clarify issues that emerged from the questionnaire data and for gaining additional qualitative insights. Data analysis used both quantitative and qualitative techniques.

Results showed that HS developers use more new technology communication methods, communicate more intensively and involve more of their functions and employees in the communication effort throughout the NSD process, whereas LS follow a less intensive, less new technology-based, and less integrative communication strategy and concentrate communication in the final phase of NSD. Also, results suggested that: (i) Companies with configurational characteristics that are associated with success in the literature are more likely to have the right communication skills, and (ii) HS developers follow a customer-driven NSD strategy whereas LS developers pursue a supplier-driven strategy. Also, two major differences between the two groups are: (i) the amount of communication with customers throughout the NSD process and the level of bureaucracy present in approval procedures, and (ii) that the HS practice proactive communication and use a cross-functional team that communicates directly with customers whereas the LS are passive to the market and customers are communicated indirectly through one department or salesperson. By drawing on the results we developed a revised propositional framework showing that there are three major types of skills in communication that can be associated with higher NSD success: (i) Skills in using information from communication; (ii) Skills in managing the communication process, and (iii) Skills in selecting and using actors in the communication process. Also, the configurational characteristics of developers as well as the type of NSD strategy adopted may influence the level of skills in communication. Results helped advance theory on developer-customer communication but also supported previous findings. This study is limited to a small, purposive sample and incremental NSD and data is collected from single respondents. However, results provide guidance for future research needed to validate our results in other contexts, identify further dimensions of communication relationships, develop a model for effective developer-customer communication, and determine the role of new technology in such communication.

CHAPTER 1

INTRODUCTION

1.1 Introduction

This chapter summarises the contents of the thesis. It presents the research problem as it emerges from the literature, the objectives of the study and the research question; describes the prepositional framework to be used for the study and the method of investigation followed; defines the key terms used in the thesis; provides an overview of the findings, and discusses managerial implications, theoretical contributions and the limitations of this study.

1.2 The business problem defined

New service development (NSD) has gained great importance in today's highly competitive environment that is characterised by rapid changes, deregulation, and short product life cycles. It is widely held in the literature that in order to compete effectively in such environments, companies have to develop new services fast to catch the window of opportunity in the market and in the meantime satisfy changing customer needs (Mintzberg 1973; Miles and Snow 1978; Miller and Friesen 1982; Karagozoglu and Brown 1993). The ability of businesses to develop new services fast is an important company and project performance measure in financial services markets (Dumaine 1989; Brown and Karagozoglu 1993; Kessler and Chakrabati 1996; Brown and Eisenhardt 1997).

Furthermore, due to the special characteristics of services, customer's role has become very important in service production and delivery. The role of customers is critical in NSD because it is a dual role, that of a customer and that of a co-producer of an offering (Martin, Horne and Schultz 1999; Normann 1984). Customers participate in NSD in many ways ranging from supplying new concept ideas to co-producing the product (e.g. von Hippel 1978, 1986, 1989; Foxall and Tierney 1984; Ennew and Binks 1996, 1997). Customer involvement in the new product development (NPD) process has been shown to improve the effectiveness of the

product concept in the rational plan stream (e.g., Cooper and Kleinschmidt 1987; Zirger & Maidique 1990). However, it is not clear exactly what roles are played by customers and how and when customers are appropriately involved in the development process (Brown and Eisenhardt 1997; Akamavi, Twaites and Burgess 1998a).

Customers' input is supplied through a communication effort between developer and customer and as a consequence, communication with customers and building long-term relationships are shown to be critical for successful NSD. Enhancing the process of communicating with customers emerges as an important issue for today's businesses. Effectiveness in communication between developers and customers has been shown to be a critical antecedent of new service success (Lievens and Moneart 1994; Brown and Eisenhardt 1997; Lievens et. al. 1999). However, while we know that effective communication is essential to new service success, at present we still lack a solid understanding of the role of effective communication in successful NSD and of the nature of communication between new service developers and their customers. Therefore, there is a need to understand the communication process better. Specifically, we need to determine how developer-customer communication might be managed best for NSD success (success meaning developing products fast) and how it can provide good quality information that will be used to enhance such success.

1.3 Objectives of the research & research question

Our study addresses the issue of developer-customer communication and the factors that underlie NSD success in corporate financial service development. We adopt the systems approach of communication as conceptualised by Rogers and Agarwala-Rogers (1976, p: 17-18) (see paragraph 4.2). The adoption of such a definition of communication means that communication is a two-way, transactional process where customers and developers can assume the role of the source or the receiver of information during the communication effort.

Our study aims to analyse in depth the nature of communication between new service developers and their customers and determine how firms might manage it more effectively for NSD success. In particular, its goal is to provide deeper understanding

of the way highly successful new service developers communicate with their corporate customers and also to develop a set of data points that can be used by other researchers to expand research into the subject of developer-customer communication. Our ultimate purpose is to build theory related to which communication skills are associated with a higher degree of new service success.

The study is designed to enhance both theory and practice. On one hand, it will increase academic understanding of a particular type of external communication (communication with customers for NSD purposes). On the other hand, it will provide financial services developers with the knowledge necessary to manage effectively their communication efforts and ensure that new products are quickly and efficiently delivered to the marketplace. The objectives of the field study are fourfold: (i) To identify the range of communication methods developers use in communicating with their corporate customers; (ii) To analyse how intensively particular methods are used and when in the course of the NSD process; (iii) To examine the quality of communication methods used; and (iv) To determine who participates in the communication effort throughout the NSD process.

This study is predicated on the assumption that there is such a thing as “lead users” (or customers). These customers face the need for new products long before the bulk of the marketplace, and stand to benefit significantly from finding a solution to this need (von Hippel 1986). Von Hippel (1986, 1989) has concluded that such customers are the best source of new product ideas. Lead customers are present in every industry and all active new service developers do have such customers, but the question is to what extent do they use them for NSD purposes? We expected highly successful developers to work very closely with a small number of carefully chosen lead customers and to concentrate on a quality exchange of information. In contrast, we expected less successful developers to work less closely with a wider range of lead customers (sometimes all their customers) and the quality of interaction to be inferior. This thesis aims to show that highly successful developers work more closely with lead customers than do less successful developers and have, therefore, achieved a continuous flow of quality information that helps them develop more successful new services.

Accordingly, the principal research question to be examined is:

“Do highly successful developers communicate differently with their lead customers during the NSD process than less successful developers?”

1.4 The propositional framework

We draw on: (i) the Relationship Marketing literature (e.g. Atuahene-Gima 1996; Ennew & Binks 1996, 1997; Frambach et al. 1998; Duncan & Moriatry 1998; Miller 1999), and (ii) the NSD literature (e.g. Donath 1992; Page 1993; Bacon et al. 1994; Drew 1995, 1995a; Johne & Storey 1998) in order to assess the communication skills of successful businesses and formulate an appropriate propositional framework on which this study will be based. The propositions formulated are concerned with the skills developer companies possess in communicating with their lead customers, in other words the skills in managing developer-customer communication.

1.5 The method of investigation

After designing the propositional framework, we decided on the method of investigation. The appropriate research strategy for this study had to meet the following goals:

- To examine propositions derived from the literature and from preliminary fieldwork.
- To provide insights into how and when leasing developer companies communicate with their lead corporate customers in the course of NSD.
- To deliver results that can be generalised across other types of financial services and similar industries.

Based on the extant literature and on the context investigated, the research strategy adopted in this study is descriptive research covering multiple case studies of leasing developer companies. The unit of study is the business, in the form of a leasing company that offers leasing products. Since we are interested in analysing communication practices in NSD, the unit of analysis is the strategic business unit (SBU), that is to say, the profit seeking part of an organisation involved on a full-time basis in the development and subsequent marketing of new leasing products.

The sample was selected based on peer evaluation in the corporate banking industry and extensive desk research. The aim was to select a group of active new service developers. A purposive sample of 12 UK-based active developers of new leasing services was selected of which 9 agreed to take part in this study.

For analysis purposes, sample businesses are divided into two groups – the highly successful and the less successful – based on their score in NSD success. NSD success was measured at the new service portfolio level (new services developed in the last 3 years) based on the 3 criteria advanced by Brown & Eisenhardt (1997) in respect of measuring speed of new service development in fast moving environments that are characterised by continuous change such as the area of corporate banking, and particularly the leasing market. The three criteria are: (i) on time to market; (ii) on target to market, and (iii) on schedule internally. Also, The NSD process is broken down in three stages – initiation, development and implementation – based on the definitions used by Lievens et. al. (1999) in order to observe differences in communication practices between stages.

Apart from skills in communication, the NSD literature identifies many other configurational characteristics of businesses that are related to highly successful NSD. Companies that share such characteristics are found to be more successful than others in NPD or NSD. Consequently, we thought it was useful to investigate some of these factors with an aim to find out whether the existence of skills in communication was indeed dependent on the overall success characteristics of businesses or they are self-standing skills that could be due to a number of unrelated factors. The analytical tool used for examining these configurational characteristics is the McKinsey 7S framework. The schema is built around seven main aspects under the control of management, each of which begins with the letter S: strategy, structure, staff, style, systems, shared values and skills. For the purpose of this study another S is included in the schema, status, denoting the differences in availability of resources among the sample companies. This schema is used because it encompasses all characteristics that could influence new service success and has been used previously in various NPD studies (e.g. Johne & Snelson 1988; Johne & Davies 1999).

Data collection is done in two phases. The first phase is based on a structured questionnaire mailed to pre-identified respondents responsible for NSD in each sample company. The questionnaire aims to identify the major issues regarding developer-customer communication on which personal interviews will be based. The second phase involves personal interviews with the same respondents in order to clarify issues that emerged from the questionnaire data and gain additional qualitative insights. Quantitative data is thus combined with qualitative in successive rounds of data collection following the suggestions of Miles and Huberman (1994).

Data analysis is structured based on the two groups of developers identified, the highly and the less successful and uses quantitative analysis techniques as well as thematic content analysis. Qualitative results are reinforced by quantitative. Cases are first analysed one by one and thereafter results are combined to arrive at overall cross-case results. We approach cross-case comparison by forming types of families as described by Gouldner (1958) and Lofland and Lofland (1984). We inspect cases in two groups according to the NSD success score of each company – highly and less successful developers – and we want to see whether the cases fall into clusters that share certain patterns or configurations.

1.6 Definition of key terms

For the purpose of this research the following terms have specific meanings:

Developers – Those companies that develop new products and/or services. The term is used interchangeably with suppliers, organisations, producers, institutions, companies, firms, providers, and businesses in order to provide variety of expression.

Success - In this study the highly successful and the less successful organisations are separated by one dividing characteristic. Highly successful companies introduce a set of highly successful products in the market in terms of: (i) on time to market, (ii) on target to market, and (iii) on schedule internally.

Functions – discrete parts of a large commercial organisation, providing specific and specialist services, e.g. marketing, finance.

Initiation – the part of the development process when the organisation becomes aware of an innovation, and decides to adopt it. It includes idea generation and screening, market assessment and business analysis, and concept development and evaluation.

Development – the part of the development process when the new product is developed and tested in house with customers and operations personnel.

Implementation – the part of the development process when the idea is converted from concept to reality and is introduced to the market. It includes testing for launch, personnel training, piloting and test marketing.

Communication – a system involving a two-way, reciprocal exchange process where information is shared between lead customers and new service developers. Both customers and developers can be the source or the receiver of information.

Product portfolio – the group of new products and/or services that a company has launched in the last three years.

Status – denotes the availability of resources to developer companies. Resources encompass people, fixed assets, non-fixed assets (e.g. patents, company reputation, technology) and any funding needed for new service development.

Lead users (or customers) – are those customers that face the need for a new product long before the bulk of the marketplace and are positioned to benefit significantly from finding a solution to this need. They foreshadow demand and provide useful information for NPD (von Hippel 1986). Users and customers will be used interchangeably in this thesis denoting the same concept.

Innovation – refers to product innovation, the development of new products or services, and not to market or process innovation.

Product & service - are used interchangeably in a general sense denoting either tangible products or intangible offers like financial services.

1.7 An overview of the findings

Results showed that there are indeed two distinct groups of developers in the sample. Of the 9 co-operating companies, five belong in a highly successful group and 4 in a less successful group. The two groups were formed based on their new service portfolio score (success score of all new services developed in the last 3 years). Although both groups were successful in their own right, the highly successful were much more so and consequently it is interesting to explore the reasons for this difference.

Cross-case analysis revealed that the two groups follow different communication practices and as a result have a different level of skills in communication. Highly successful developers use a wider range of new technology communication methods (e.g. email, video conferencing), communicate more intensively with their lead customers during NSD and maintain higher and more constant levels of communication throughout the NSD process. They also tend to involve more of their functions and of their employees in communication and communicate with a standard number of key functions of the customer organisation. On the other hand, less successful developers use less new technology communication methods, communicate less intensively with their lead customers during the NSD process, and involve fewer functions and fewer employees in the communication effort. Also, an important observation is that they begin the NSD process with low levels of communication and increase it as they move to further stages with most communication taking place in the implementation stage. This shows that, for this group of companies, communication with customers is far more important in the last phase of NSD than in earlier phases.

Statistical analysis done on the results showed that the use of new technology communication methods as well as the percentage of employees communicating with customers are the most significant differences between the two groups of companies and are correlated the most with NSD success.

In respect of the 7Ss analysed the major differences between highly and less successful developers were found to rest in: (i) the availability of people and

financial resources (status); (ii) the abundance and excellent deployment of highly experienced employees (staff); (iii) the emphasis on being first to market (style); (iv) the support of continuous innovation (shared values); (v) the existence of a formal NSD process based on high internal communication and cross-functional teams (systems); (vi) the extent of use of clear success measures and profit goals for new products (Strategy); and (vii) the existence of good knowledge management skills (skills). Therefore, companies that exhibit such success characteristics are more likely to have developer-customer communication skills. Skills in communication are actually related to having many other success characteristics as these are outlined in the literature.

Information regarding NSD practices and new service success revealed that although both groups of companies develop almost the same number of new products simultaneously and have problems in keeping the development schedule due to increased regulation and complex approval procedures, the highly successful develop products faster, have recognised the value of close communication with customers for new service success, use specific measures of success for new services and set specific profit and revenue goals from new services.

Furthermore, qualitative insights were provided regarding the new service development process of leasing companies showing that an important difference between highly and less successful developers is the amount of communication with lead customers throughout the NSD process and the level of bureaucracy present in approval procedures.

Finally, a time ordered meta-matrix was constructed that describes the communication process in each of the sample companies analysed with an aim to reveal who is doing what throughout the NSD process in terms of communication (Table 6.18). Consequently, the differences in communication behaviour between highly and less successful developers are revealed. The highly successful practice proactive communication and use a cross-functional team that communicates directly with customers whereas the less successful are passive to the market and customers are communicated indirectly through one department or salesperson that communicates the information to the specialists of different departments.

1.8 Managerial implications

The results of the study provide insights into the way developers of leasing services communicate with their lead customers during the NSD process and pose significant challenges for managers of leasing companies that want to compete successfully in the corporate financial services market.

While all the companies that co-operated in the study were active new service developers, the results achieved by them in terms of development success were significantly different. One would not normally expect pronounced differences between sample members since they were all successful companies in their own right. However, results show that outstanding success in NSD is associated with certain communication skills. Consequently, it is important to assess the managerial importance of having such skills.

By drawing on the results we reassessed our propositional framework and came up with new propositions concerning developer-customer communication skills, the configurational characteristics of successful new service developers and the NSD strategy they follow. Results suggested that higher success is associated with the following communication skills:

- Communicating intensively with lead customers throughout the NSD process emphasising communication in the development stage of NSD.
- Being able to identify and use lead customers for the provision of useful NSD information.
- Communicating directly with lead customers in the development stage of NSD using a formal, multi-functional team of specialists.
- Using a lot of new technology in communication.
- Having modern and highly interactive relationships with lead customers.
- Matching information processing requirements and capacity by using organismic structures and complex co-ordination and control mechanisms.
- Proactively communicating with customers in the initiation stage of NSD.
- Involving middle management in communication.

Also, results suggested that companies exhibiting the configurational characteristics of successful new service developers are more likely to possess the right developer-lead customer communication skills. Highly and less successful companies exhibit differences in their configurational characteristics relating to strategy, structure, skills, staff, style, shared values, systems and status that denotes differences in the availability of resources of sample companies. The most important challenges for developers as they emerge from the results are to embrace a market-oriented culture that supports continuous innovation, develop a highly skilled workforce, learn to acquire, share and exploit knowledge gained by customers, establish a formal NSD process, use cross-functional teams and secure enough funds for NSD.

Finally, although both groups of companies are active new service developers and quite successful in their own right, our results suggest that they adopt a different approach towards the exploitation of new product opportunities. The highly successful focus on building long-term relationships with selected customers in order to achieve a continuous and integrated NPD programme. On the other hand, less successful developers are more transaction-oriented, and tend not to go in for lead customers. Overall, our results indicate that highly successful developers follow a predominantly customer-driven NPD strategy as opposed to a more supplier-driven strategy followed by the less successful group. Therefore, communicating efficiently with customers becomes more critical for the highly successful group. However, as results suggest, NSD success might be associated with effective communication not with all customers but with a group of carefully selected “lead” customers, those that face the need for new products long before the bulk of the marketplace and stand to benefit significantly from fulfilling that need. Therefore, they are in a better position to provide useful new product ideas although companies should also be aware of the dangers of getting too close to customers and maintain relationships at a desired level of closeness.

The revised propositional framework that is developed based on the previous conclusions shows that there are three major types of skills in communication that can be associated with a higher level of NSD success: (i) Skills in using information from communication; (ii) Skills in managing the communication process, and (iii)

Skills in selecting and using actors in the communication process. Also, the configurational characteristics of developers as well as the type of NSD strategy adopted can influence the level of skills in communication.

1.9 Theoretical contributions

The study has contributed both to theory and practice. Some of the findings provide new knowledge and help us build a theory on how highly successful developers communicate with their lead customers during the NSD process. Some others mainly support or refute conclusions of other researchers.

New knowledge is gained by:

- Revealing the pattern of communication that is associated with higher NSD success.
- Presenting two very important dimensions of the communication relationship between developer and customer: (i) the level of interactivity of communication, and (ii) the level of use of new technology.
- Explicating the roles that customers play throughout the NSD process.
- Identifying three types of communication skills that are important in achieving a higher rate of NSD success in the context investigated.
- Showing the importance of direct contact between multi-functional teams and customers in the context investigated.
- Suggesting that the involvement of R&D, Production and Distribution in communication throughout the NSD process is important for NSD success.

In support of previous findings, we conclude that:

- Certain configurational characteristics of researchers are associated with highly successful companies in communication.
- Multi-functional teams and inter-firm collaboration, early communication with customers, a market-oriented and customer-driven NSD strategy, the use of a formal, structured NSD process, and the practice of proactive idea generation are associated with higher NSD success.
- Middle management is important in knowledge creation.
- Earlier involvement of customers in the NSD process can improve NSD success.

- The measurement of NSD success in the new service portfolio level is useful when measuring speed in rapidly changing, highly competitive environments with short product-life cycles.

1.10 Limitations of the study & suggestions for further research

The study reported here is descriptive in nature. The objective was to establish a number of data points that can be used in future research. The study is limited to one product market and of necessity to a small sample of responding companies. Also, the developments analysed are only incremental since radical NSD is very rare in the financial services industry. Data collected is based on single informants although triangulation was done wherever possible. The sample is a non-probability and purposive sample and therefore, statistical analysis is of very limited reliability. However, statistical results are useful in reinforcing our qualitative results. Overall, due to the paucity of studies on the subject of developer-customer communication a qualitative study was deemed as appropriate for developing initial data points that can be used in future large-scale studies.

Whilst the findings of this study are of obvious importance in the field investigated, they also provide guidance for further research in the same or other industry settings. Future research needs to provide a more holistic picture of new service developing organisations. Attention must be drawn to how all the configurational characteristics of developers (e.g. structure, strategy, systems) influence different types of NSD success. Also, continued attention is required in identifying further dimensions of communication relationships, in developing a full model for effective developer-customer communication, and in determining the role of new technology in such communication. Finally, the results of our study have to be validated in other research contexts.

1.11 Conclusion

This thesis analyses the nature of communication between new service developers and their lead customers and its association with NSD success, defined as developing new services on time, on target and on schedule. It examines a set of propositions but

also provides insights into a little researched area, insights that can be used for future research into the management of developer-customer communication. This chapter summarised the contents of this thesis including the research problem; the research objective and research question; the propositional framework used; the method of investigation followed; the definition of key terms used in the study; major managerial implications; the theoretical contributions and the limitations of the study, and suggestions for further research.

The remainder of this thesis will now expand on this short introduction and is structured to present the context of the study - successful NSD in corporate financial services (Chapter 2); to review the literature on managing NPD and NSD (Chapter 3); to examine the importance of communication in NSD and build a propositional framework (Chapter 4); to describe the research design selected (Chapter 5); to present and interpret results (Chapter 6); to discuss managerial implications (Chapter 7); and to identify contributions to theory made by the results and any areas of future research that can build upon the insights gained in this study (Chapter 8).

CHAPTER 2

THE CONTEXT OF THE STUDY: SUCCESSFUL NSD IN CORPORATE FINANCIAL SERVICES

2.1 Introduction

In the previous chapter we provided a summary of all following chapters and the definitions of key terms. In the present chapter we describe in detail the context of the study. The nature and importance of services as opposed to tangible products is analysed and the effect of services' characteristics on NSD practices is discussed. Particular attention is given to the characteristics of financial services, and differences between the retail and business-to-business sectors are discussed. Also, the importance of customers' role in service production and delivery is noted. This study focuses on corporate financial services and therefore analyses the corporate banking market. We first look at various market trends that influence the way companies do business, and then we review the practices associated with successful NSD. Finally, the leasing market (the one concentrated on in this study) is analysed. An overview of the market as well as certain market trends are provided.

2.2 Services versus products

Service is defined as "any act that is performed when one party can offer to another a product that is essentially intangible, perishable, inseparable, heterogeneous and does not result in the ownership of anything" (Rushton and Carson 1985; Easingwood and Mahajan 1989; Kotler 1991). Its production may or may not be tied to a physical product (Kotler 1988, 1991).

Services are generally viewed as different from products. Many scholars go out of their way to differentiate products from services (Shostack 1977; Gronroos 1978, 1979, 1982; Berry 1980; Eiglier and Langeard 1981; Langeard et al. 1981; Beckwith and Fitzgerald 1983; Booms, Davis and Guseman 1984; Zeithaml, Parasuraman and Berry 1985). The

debate over the differences that exist between goods and services is extensive and started when Reagan (1963) tried to classify services. Various typologies have been used to classify services along certain dimensions such as equipment-based versus people-based (Thomas 1978; Kotler 1980), the degree of contact they need (Chase 1978; Lovelock 1983; Parasuraman, Zeithaml, and Berry 1985), whether they need discrete versus continuous relationships (Lovelock 1980), and according to relationships between the service employee and the customer (Mills and Margulies 1980). Later, Martin and Horne (1992) went beyond products and services in their narrow definition and distinguished two types of offerings: offerings that are tangible and concrete as products, and offerings that are intangible and abstract as services. As Berry (1980) points out, most market offerings are a combination of tangible and intangible elements. He specifically notes that “it is whether the essence of what is being bought is tangible that determines its classification as a good or a service”. The debate over what differentiates products from services led to the development of four characteristics that are now commonly cited as the distinguishing characteristics of services: “intangibility”, “inseparability”, “heterogeneity” and “perishability”.

In addition to being different in some respects, services are becoming increasingly important in world economies. In recent years services have experienced a remarkable growth. Smith (1997) reveals that as economies mature, an increasing proportion of their GDP becomes devoted to service sector activities. He points out that in the UK, only 22% of the economy is accounted for by manufacturing, whereas about 64% is accounted for by the services sector, including banking, insurance and business services.

2.3 New service development: the effect of service characteristics

Due to the importance of services in the world economy, it is necessary to analyse the effects of services' characteristics on the way companies are developing new services. First, services are primarily intangible, “invisible” entities, which are not easily examined by customers prior to purchase. As a result, customers find it difficult to compare them with competitive services unless the offer is clearly differentiated

(Thomas 1978; Langeard and Eiglier 1983). Therefore, new services might be more successful if they provide something distinctively different from other services. However, since services create processes and experiences and not physical entities, they are often easy to develop and modify. As a result, companies tend to introduce various new or changed services relatively quickly, at times proliferating the market with many similar services (Easingwood 1986). Consequently, although intangibility makes services easy to develop, in reality it also makes them highly complex entities where differentiation may be difficult to achieve.

Second, in most cases, a service offering is not produced until the client makes the purchase. Services are simultaneously produced and consumed. This means that customer satisfaction in services is as much linked to the outcome of a service as to the process by which it is produced, delivered and consumed (Gronroos 1982, 1983). In this context, different functional specialties must become actively involved in conceptualising, designing and marketing a new service if it is to be operationally efficient and respond to customer needs and expectations (Booms and Bitner 1981; Langeard and Eiglier 1983; Lovelock 1983).

Third, services are heterogeneous because each time they are produced and consumed, the process and the customer experience are likely to vary. The degree of heterogeneity depends on whether the service is people or equipment-based (Berry 1980), on the extent to which the company controls for variations in the system (Levitt 1976), and on how active is customers' role in producing and/or consuming the service. Firms can direct their new service development efforts toward making services more or less heterogeneous by adjusting the service itself and its production / delivery system in terms of one or more of these factors. Especially in complex new services like financial professional services, the service is customised to meet specific client needs. In this context, a successful new service strategy should clearly emphasise the heterogeneity inherent in both the customer and the service provider (Berry 1980; Langeard and Eiglier 1983; Easingwood 1986; Shostack 1987).

Fourth, perishability means that services cannot be produced to stock and this often creates production inefficiencies such as overcapacity problems (Sasser 1976) due to variability of demand through the year. This leads to high costs of supporting unused capital and human resources, and to an opportunity cost associated with unmet demand. Levitt (1976, 1981) argues that companies can reduce costs by substituting capital for labour and by introducing technology and planned work systems to the service process. Also, service companies can respond to perishability by developing new services that use existing production / delivery systems during low demand periods, and by accommodating demand during peak periods, for example, through “essential-task” type of services (Berry 1980).

It has been claimed that the special characteristics of services are not exclusive to services and that “concentrating on the physical similarities and differences between products and services is likely to be limiting from an operational viewpoint because customers do not choose between alternative offerings on the basis of physical features alone” (Johne and Pavlidis 1991). However, these differences have a certain impact on the way services are developed and offered to customers and such differences need to be addressed by practitioners and researchers. It may be though that some of these differences are also valid for certain types of manufactured products.

2.4 Financial services

Financial services can be defined as “activities, benefits and satisfactions, connected with the sale of money, that offer to users and customers, financial related value” (Meidan 1988). Financial services are even more complicated than other types of services. Meidan (1996) has identified a few extra distinguishing characteristics for financial services. These include: (i) A highly individualised marketing system with a few traditional distribution channels. Due to the fact that in financial services there are usually close and personal relationships between provider and customers, direct distribution channels may be the only feasible choice; (ii) Lack of special identity. All financial services are very much alike to the public. So, providers should establish an

identity and implant it in the mind of the public; (iii) Geographical dispersion. A branch network is essential in financial services in order to provide benefits of convenience and to meet international, national and local customer needs; (iv) Growth must be balanced with risk. When selling financial products, institutions buy risk that should be balanced with growth; (v) Fluctuation in demand. Demand of financial products fluctuates according to the level of economic activity and puts pressure on the marketing function of financial organisations; (vi) Fiduciary responsibility. Every financial organisation has a responsibility to guard the interests of its customers; (vii) Labour intensiveness. The financial services sector is labour intensive and this increases the costs of production and affects the price of financial products. That is exactly why personalised service versus automation is an important issue in financial services.

Financial services is a very important industry in the UK. British Invisibles (BI), the organisation that has the task of promoting UK financial services throughout the world, in their report on International Financial Markets throughout the world show the importance of the sector to trade and employment in the UK. BI's recently published City table shows that net overseas earnings of the sector reached a record of £31.2bn in 1999 up from £30bn in 1998. Within the City of London, there were 138,000 employed in financial services in 1999, and in Greater London as a whole financial services employment totalled 311,200 (Blanden 2000). Also, Smith (1997) points out that the financial services industry employs 25% of the UK workforce and generates 21% of GDP. London's financial market is one of the biggest in the world and it provides a long list of financial products and instruments.

2.5 Consumer versus business-to-business markets

Marketing in the industrial world is a lot different than in consumer markets. Industrial marketing is different in that the culture or mindset of the organisation is different from that of consumer products firms (Webster 1978). Industrial marketing is a total business philosophy aimed at improving profit performance by identifying the needs of each key customer group and then designing and producing a product or service package that will

enable the company to serve selected customer groups or segments more effectively than its competition (Ames and Hlavacek 1984). Also, industrial products are different from consumer products since they are classified according to their application whereas consumer products are classified according to the manner in which they are purchased (Jackson and Cooper 1988).

In services, there are also major differences between the consumer and the business-to-business sectors. Gummesson (1978) defines industrial (or professional) services based on four criteria that do not exist for consumer services. These are: (i) They should be provided by qualified personnel known for their specific knowledge; (ii) They should be advisory and focused on problem solving; (iii) The professional must have an identity; and (iv) Services should be an assignment given from the buyer to the seller.

Services offered to organisations have been shown to have two special characteristics in addition to the four found for services in general (inseparability, simultaneity, perishability, and heterogeneity), specialisation and technology (Jackson and Cooper 1988). Specialisation means that while there is a trend toward standardisation in all aspects of production, industrial services can best be characterised by their customisation to customers' needs. On the other hand, technology is something that prevails in industrial marketing and makes purchasing more complex by being a crucial part of the service provided or by being a source of competitive advantage. Also, Morris and Fuller (1989) argue that there are two unique characteristics of business-to-business services: (i) They are people intensive with an emphasis on peoples' capabilities, and (ii) Organisations selling such services involve customers with more precise service level expectations; a fairly formal buying process, and longer-term on-going relationships with service providers.

In financial services there are also many differences between the retail and the corporate sectors. The corporate sector especially in banking is considered to be a lot more valuable, and more complex, especially in terms of frequency and value of transactions, and of frequency of multiple banking relationships, than the more frequently examined

retail banking market (Tyler and Stanley 1999). Stevenson (1989) identifies the differences between the two sectors. These are shown in detail in Table 2.1. From this table we can conclude that in the corporate market the complexity of demands is higher than in the personal market, and that medium-sized companies and large corporates have very detailed requirements.

What also becomes apparent from Table 2.1 is that there are more non-standard or bespoke elements in the product and services mix as one progresses away from retail banking applications through to corporates of different size. Larger companies have specific needs and therefore, require more complex products, that are highly tailored in order to solve the client's banking problem (this is consistent with the specialisation characteristic of business-to-business services identified by Jackson and Cooper 1988). The complexity of products generally has implications on the level and frequency of contact between the client and the account manager, as well as the number of accounts a corporate account manager can handle. As a result, corporate financial services require closer and more frequent contact with customers, than do retail financial services.

Table 2.1: Characteristics of corporate and personal sectors: a comparison

Element	Personal	Corporate
Needs	Broadly defined & straightforward (not necessarily simple)	Wide ranging - can be complex in larger companies
Nature of market	Mass market (except for very wealthy)	Not a mass market except for very small customer
Nature of products	Standard with variations	Bespoke except small customer segments
Service demands	Speed, efficiency, friendly	Speed, efficiency, personal attention, detailed understanding
Pricing	High price	High to low price
Risk / reward ratio	High risk, high rewards	Lower risks, lower rewards
Promotion	Mass media, press & TV	Selective media, personal selling
Distribution	Susceptible to electronics / technology	Susceptible to electronics / technology
Volumes	Individually low, high in total	Individually high, high in total

Source: Stevenson (1989)

Due to the special need for extensive contact with customers as well as to the level of customisation necessary in services and especially business-to-business financial services, customer's role becomes very important both in service production and delivery.

2.6 Customer's role in service production and delivery.

The importance of the customer's role in the development of a service has been highlighted in the literature (e.g. von Hippel 1986, 1989; Zirger and Maidique 1990). Such role has been shown to be different from the one played in the development of a tangible product (Johns and Storey 1998) and also more complex (Martin, Horne and Schultz 1999). Martin, Horne, and Schultz (1999) analyse the complexity of the customer's role in services and conclude that it is due to the dual role played by customers in service consumption. In product offerings, clients play a singular role - that of a customer. In contrast, in services, clients play a dual role - that of a customer and also that of a co-producer of the offering. In other words, clients not only receive and consume the service offering, but also serve as participants in its innovation, production, and delivery. This concept is best described by Normann (1984, p: 21):

...the client plays an interesting complex role in the service organisation, since he not only receives and consumes the service but also serves as a component in its production and delivery.

The complexity of customer's role and its management is further highlighted by the various ways a client can participate in the production function. These include: (i) take part only in the specification of the service, where the client participates at varying levels in specifying the nature and level of the service offering; (ii) pure co-production, where the client does some or all of the physical or intellectual production of the offering, including in some cases substituting for employees; (iii) quality control, where the client participates not only in the origination but also in the on-going production of the service offering and its quality level; and (iv) marketing, where the client participates in the selling of the service to other clients (Martin, Horne, and Schultz 1999).

Consequently, in NSD customers assume a very important role and such role needs to be investigated more in detail. This conclusion has been drawn by many researchers who suggest that future research in the management of service innovation activities should

have a holistic approach and include the roles of customers and service workers (e.g. Wirth, Liaw and Scheuing 1995; Drew 1995; Johnes and Storey 1998).

2.7 The corporate banking market

2.7.1 Market trends

The corporate banking market is changing rapidly to take into account the shifts in customer needs, buying behaviour and in the macroenvironment. In this section we will look at these changes in detail and describe how they affect NSD.

2.7.1.1 Regulatory changes

Prior to deregulation, new product development in banks was by dictum. The Depository Institution Deregulation Committee, essentially dictated to bankers what new depository products they could offer. So the risk of innovation was minimised and companies followed a copycat strategy of "follow the leader". Deregulation changed all that. It has reduced the barriers to competition in domestic markets and has opened national markets to foreign competition. It has also reduced prices, interest rates and profit margins, and has led to the globalisation of financial markets. The result was a change in the positioning of a number of financial firms and in mergers and acquisitions that were used as growth strategies. Bankers started venturing into non-traditional banking areas such as discount brokerage, insurance, and real estate. Also, commercial non-financial-services firms, local or foreign, are now able to engage in a limited amount of banking. These firms had a competitive advantage since they were specialised in certain areas and did not have to worry about carrying some of the less profitable product lines of the full-service banks. They concentrated on niche markets and customised products to customer needs. Deregulation has caused the boundaries between industries to collapse and as a result, financial service providers evolved into multi-faceted, multi-industry financial organisations.

The problem with deregulation is that it proceeded at an uneven pace across industry and geographic areas. This uneven spread has created temporary competitive advantages for some financial institutions, although in future these institutions may be forced to drop lines of business or abandon markets in which they do not have real competitive advantage once their privileged position is gone. In this environment, NSD emerged as a way to create a sustainable competitive advantage and many new products appeared in the market in a small time period. The challenge for banks now is to select new products that fit their capabilities relative to the competition they can expect to face. NSD has already become more flexible and is based on company / product fit, and on a high proliferation of products. However, many of the products developed are not so successful and further rationalisation of NSD practices is needed in the continuously and rapidly changing financial services landscape.

2.7.1.2 Technological innovation.

Rapid advances in technology led to the appearance of ATMs, home banking, telephone banking, mobile banks and other technological breakthroughs that changed the way financial services are delivered. Technology has helped banks to serve customers better in many ways: (i) Technology was used to develop new technologically oriented products and distribution systems that created an important opportunity for banks to increase the fee-based income necessary to replace declining net interest income; (ii) Technology was used to create a competitive advantage through superior technical skills and product superiority; (iii) New technology led to the creation of databases used to identify opportunities for cross-selling additional services to existing clients; (iv) The automation of back-office operation became possible, something that reduced operating costs; (v) Due to new forms of communication (e.g. fax, email, intranets, extranets, videoconferencing) communication with customers became more extensive and effective. All these changes made NSD more responsive to customer needs and opened the way to a more formal approach towards the NSD process.

2.7.1.3 Intensifying competition

Competition has increased dramatically in the UK corporate banking market due to two major developments. These will be analysed in turn.

- 1) The increasing saturation of the retail sector made it difficult for the market to grow anymore except through cross-selling or up-selling. So banks focused operations on the corporate market.
- 2) As a result of deregulation as well as due to the trends of globalisation (the movement towards the world-wide integration and wider accessibility of financial markets from anywhere in the world) and internationalisation (the increasing importance of banks doing business outside their domestic markets), new entrants (local and foreign, banks and non-banks) have entered the UK corporate banking market and posed a big threat for established financial organisations. In particular, the size of the threat is evident from the following three developments.
 - a) A considerable number of foreign banks are operating in the UK. From 1990 to 1993 there was a vast increase in the number of banks in the UK. Alexander (1994) reported that there was a vast increase of foreign banks operating in London from 1990 to 1993 (478 to 512 banks). In 1994 the number drops a bit but this is due to mergers and acquisitions and not to an actual drop in the number of banks. He also reported that international financial service providers have become able to provide a full product range to customers and were making serious inroads in specialised financial services like investment banking. More recently Blanden (2000) finds that the number of foreign banks in London has dropped to 333 but this is merely a result of the strong consolidation trend that is present in the financial services industry. British Invisibles (BI), the organisation that has the task of promoting UK financial services throughout the world, say that, in spite of the recent fall, the number of foreign banks in London remains far in excess of those located in other major international centres (Blanden 2000). Also, they point out that in addition to the 333 foreign banks counted in London,

there is an increasing number of banks from the European Economic Area that are authorised to provide cross-border services, but without being physically located in the UK (Blanden 2000). So, the actual number of banks operating in London is far higher than the one found by Blanden (2000).

- b) Many non-bank competitors entered the market as well. Deregulation has blurred the boundaries between different types of financial service providers and therefore, banks are looking at a new competition arena fiercer than ever. Non-banks are making considerable inroads in the key payment systems as well as the banks' customer franchise. In the UK, large supermarkets and retailers are launching their own financial services in joint ventures with big banks. This trend presents a major threat for banks since if payments are lost, further damage can occur. Banks can lose information about their customers, their brand value can erode, and ultimately they can lose the overall customer account and relationship. In order to combat such competition financial institutions strive to become multi-channelled, customer-focused and technology-enabled, multi-brand banks.

- c) Many small banks are moving up the evolutionary ladder, are diversifying from their particular bank type to become more mainstream corporate banks. That happens mainly because cost of entry into the corporate market can be relatively low, particularly in the middle-sized market, or where a non-bank, such as a building society has an existing network.

Overall, the radical increase of competition in financial markets over the last decade has reduced margins on corporate lending and has forced banks to seek alternative sources of remuneration. This led to the development of many new services such as OBS (off balance sheet) financing (swaps, futures, and options) and of specialised capital-market products (e.g. leasing) that have proved to be a valuable source of fee/commission income. Consequently, efficient and successful NSD has become critical for the profitability of financial service providers.

2.7.1.4 Universalisation.

Universalisation is increasing in today's markets since all-purpose financial groupings are formed that offer a wide range of financial products and services to cover different customer needs. In the corporate market, due to the growing liberalisation of financial markets and the trend towards financial conglomeration, big commercial banks are now able to offer corporates a vast array of in-house products and services. Especially Clearing Banks, as well as other full service banks, aim to provide the full range of products that the corporate customer needs. The range of facilities offered to corporate customers has increased partly due to the growth in financial product innovation and partly as a response to the direct demands of the corporates themselves. Also, the vast increase in international trade and the growth of global markets has made corporates aware that their bankers have to offer an ever-increasing product range.

However, many financial service providers do not have special skills in most products they offer (Doggett 1997) with consequences on the level of quality of the service provided. That is why specialised providers develop special skills in certain services that serve specific customer needs and target niche markets. These organisations mostly target the more profitable small and medium-sized corporate markets and develop long-term, mutually beneficial relationships with customers. Products are highly tailored to fit customer needs since the demand for such products is now increasing even in the small and medium-size corporate market.

2.7.1.5 Concentration

Market concentration is essentially the increasing dominance of a market segment by a smaller number of larger institutions. Concentration (or consolidation) is difficult to pinpoint nowadays when structural deregulation and other trends have eroded traditional market segment boundaries and brought new competitors into the market. However, looking at the broader financial services market, concentration is witnessed today in the continuing mega mergers and acquisitions as well as in the strategic partnerships that are

common lately in the financial services industry. Companies are trying to concentrate more power against new competitors, service as many segments as possible, and reduce their risk exposure in the market by being big. A study done by Lafferty Publications titled "Financial Europe '99" points out that nowadays, it is no longer necessary to prove that a merger will improve profitability if it has become a defensive necessity (European Banker 2000). British Invisibles say that the trend of consolidation in financial services is set to continue and will leave its mark on the London banking community (Blanden 2000). However, the continuing influx of specialist providers balances more or less the concentration trend and challenges big organisations to become more flexible, effective, and responsive to customer needs.

2.7.1.6 Changing customer behaviour.

Due to the trends of deregulation, increasing competition, higher costs of NPD, and the rapid pace of technological change and innovation, customers of financial service providers are becoming more sophisticated in their requirements (Akamavi, Twaites and Burgess 1998a). The wide availability of information makes customers more knowledgeable and with higher service quality expectations. Nowadays, customers are more financially educated and more cost and price conscious. Also, due to the unstable international market and the inherent risk, corporate customers seek financial advice more than before. For the same reason, they tend to buy more investment products that limit their risk exposure. Such changes in buying behavior present many opportunities for financial service providers in terms of cross-selling, up-selling and in developing new services to satisfy new customer needs.

2.7.1.7 Fluidity of the market.

Historically, stability has been a strong characteristic of the UK corporate banking market. Corporates have traditionally had a relationship with one bank. Research by PDA Consultants in the middle market (Doggett & Hepple 1991, 1992, 1994) showed that 90% of companies have effectively been with their bank for a period of 3 years or

more. Nowadays, due to the increasing competition, the market is becoming more fluid, and this is evidenced by two developments: (i) switching - corporates switch from one principal bank to another, and (ii) multibanking – companies using more than one bank. These will be analysed in turn.

2.7.1.7.1 Switching

The previously mentioned studies from PDA Consultants (Doggett and Hepple 1991, 1992, 1994) imparted a consistently strong message: that although the market appeared to be stable at the time, in reality 60% of middle market companies were prepared to change their principal bank. Another round of research in 1995 with an enlarged sample indicated that switching is a growing phenomenon, and is not confined to low quality corporates. Of the 6000 companies that switched banks between 1994 and 1995, over 90% had a medium or low credit-risk rating.

Doggett and Hepple (1994) explain that switching has been slow to gather pace owing to inertia, lack of credible alternatives, and the perceived need by 50% of companies for local contact with their bank. However, with the advent of technological change in customer-supplier communication, and the ability of non-Clearing banks to arrange easy cheque clearing and cash collection through a Clearing Bank, there is no longer as great a need for dealing with a local bank. Consequently, in 1994 64% of respondents to a survey saw no special barriers to changing bank and a surprising 80% of respondents were willing to bank with a European bank (Doggett and Hepple 1994). Also, switching has become even easier due to the information explosion we are witnessing today. There is an abundance of information available to customers on different providers and products so that they can choose the one offering the best value for money.

Switching, it has been claimed, mainly applies to small and medium-sized markets (Doggett and Hepple 1995). Large corporates use a number of banks for their business. They can switch by changing the emphasis of the business they place with different banks on a day-to-day basis. They can also add new banks to their portfolio relatively

easily, as there is sufficient business to warrant a number of banking relationships, particularly in the more specialised fields.

Doggett and Hepple (1993) looked at the main reasons for switching and found the most important ones to be in rank of importance: (i) Relationship concept; (ii) Understanding the company; (iii) Flexible approach; (iv) Pricing / costing of services; and (v) Quick decision-making. The study reveals that the quality of supplier-customer relationship as well as the ability of the supplier to understand the needs of the customer company are clearly more important reasons to stay with a bank than prices.

The increased tendency of corporate customers to switch banks presents a major challenge for financial service providers that are called to provide an ever customised and high quality service in order to retain customers. In this context, effective NSD can help in successfully satisfying different customer needs.

2.7.1.7.2 Multibanking.

Multibanking is mainly confined to the large and middle corporate markets (Doggett and Hepple 1994a). Most small and medium corporates have one principal bank and use other banks for specialised services like hire purchase or leasing services. This is to be expected, as the volume of business in these sectors is not sufficient for a company to justify having more than one principal bank. There is a significant penetration of multibanking in the middle market, with 61% of middle market corporates using two or more banks (Doggett & Hepple 1994a). As expected, large corporates use multibanking as a matter of course, with a very small minority (3%) using one bank, and the majority (73%) using between 6 and 15 banks. In contrast, small companies use one bank most of the time.

Multibanking offers opportunities for 'winning banks' to gain clients, and present risk for other banks of losing volume or some types of business, even if they do not lose a client completely. Consequently, in order to avoid multibanking as far as possible banks

need to continuously develop new products to suit changing customer needs, and thus, be able to keep the highest possible share of a customer's business.

2.7.1.8 Mass customisation and Relationship banking

Up to now we have established that customer focus is essential for tomorrow's financial service providers. The trend is towards building long-term relationships with profitable customers and developing customised products that match specific customer needs. On one hand, mass customisation is an increasing phenomenon because it can serve as a solution to easy imitation of financial products. When the product is customised, the provider has a ready-interested customer for the new product and by the time it is imitated, the new product will have already achieved recognition in the market, mainly through its customer base that is operating in a particular industry. On the other hand, relationships are becoming increasingly important in financial markets. Research by Doggett and Hepple (1994) has revealed that a long-term business relationship was ranked as third in importance as an element sought in a new banking relationship and that most other elements sought have to do with relationship quality and service quality (e.g. personal service, proactive help). Table 2.2 presents the nine most sought after elements in a new banking relationship.

Table 2.2: Ranked elements sought in a new banking relationship

Rank	Element	Average score
1	Promptness & reliability	4.35 *
2	High calibre management / staff	4.18
3	A long-term business relationship	4.17
4	Non-bureaucratic approach	4.05
5	Personal service	3.95
6	Tailored solutions for your company	3.95
7	Proactive help through difficult times	3.94
8	Strong & consistent lending policy	3.87
9	Wide range of banking products and services	3.61

* Each element was rated on a scale of 1= least important to 5= most important. So a score of 4.35 means that promptness & reliability is the most important element sought in a new banking relationship.

Source: Doggett & Hepple (1994)

Due to the importance of relationships, businesses are forming a growing number of relationships. Doggett and Hepple (1994) reveal that the average is 10 with smaller companies typically having 5 or less and the large businesses up to 15. This compares with the 10 or more active accounts that most banks allocate to each relationship manager. However, the majority of banks do not have a specific yield target or minimum earnings target from a relationship (Doggett & Hepple 1994).

Both corporates and banks want relationships for their own reasons. The client wants advice and information, and the ability to influence the credit or product submission. The bank is also seeking a relationship to obtain up-to-date information, verification of performance and the ability to 'cross-sell' other products and services. Developing relationships requires an investment in time and money by both parties, but such

investment provides a higher level of business understanding, and helps to move away from a transactional environment. In this context, relationship banking emerges as an important field of management.

The difference between companies in their focus on relationships becomes critical when we consider that transactional and relationship environments differ a lot and companies operating in such environments follow different practices. A wholly transaction-based bank will sell products effectively through a sales team, whereas the relationship-based bank will look to manage relationships with clients in order to obtain maximum benefits. This implies that a bank operating on a relationship philosophy must provide local management with both autonomy and responsibility. 'Relationship banking and either a lack of autonomy or remote decision making are incompatible' (Binks, Ennew, & Reed 1992).

There are considerable advantages in following a relationship-banking approach. On one hand, relationship banking is highly appropriate for today's competitive environment where there is a need for strategic development of bespoke products based on customer knowledge, and for meeting rising client expectations (as shown in Figure 2.1 that presents the characteristics of relationship banking). Therefore, relationship-based banking implies that there is a considerable amount of contact between suppliers and customers where crucial information is exchanged, and therefore, suppliers are able to develop new services that satisfy specific customer needs.

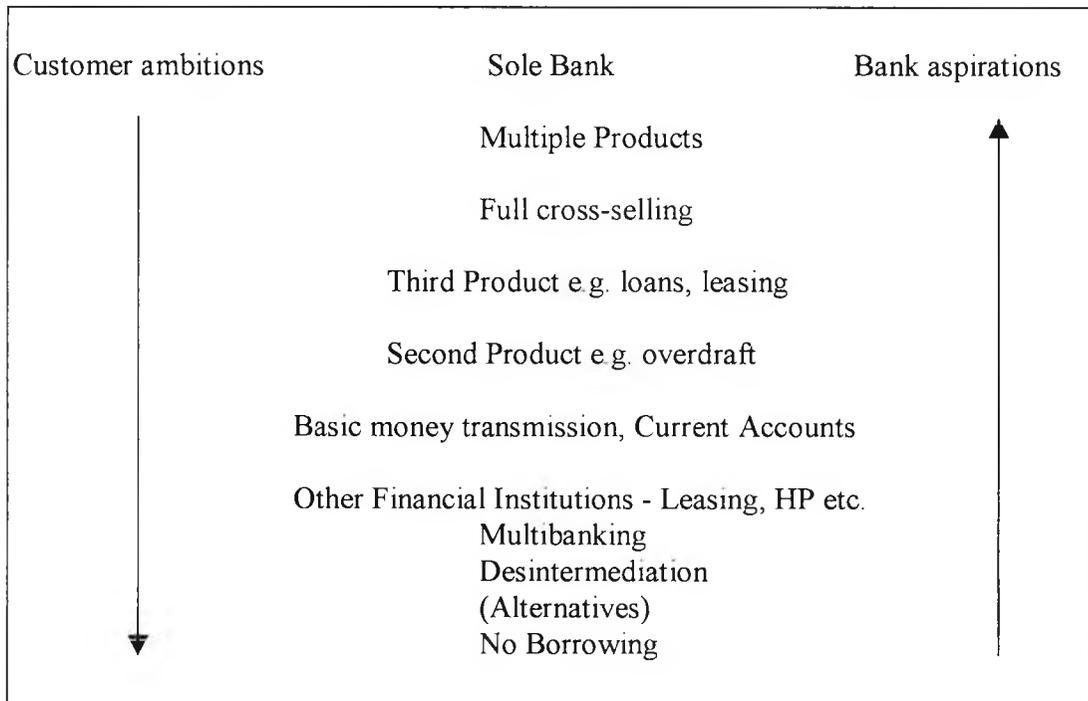
Figure 2.1: Elements in Transaction and Relationship Banking

Transactions	Relationships
Transaction Processing	Relationship emphasis
Low Differentiation	Higher differentiation
High volume commodity products	Bespoke products
Little knowledge of client	Personal knowledge of client needs
Price important	Price has less importance
Data on client less important	Data on client invaluable
Meets banks' expectations	Meets rising client expectations
Bank dictates future credit	Client has preferred access to credit
Low risk simple products	Less risk in use of complex products
Short-term horizon	Longer-term horizon
Tactical approach	Strategic approach

Source: After Moriarty, Kimball & Guy (1983), adopted by Doggett & Hepple (1995)

Furthermore, moving from transactions to relationships increases harmony between bank aspirations and customer ambitions. In Figure 2.2, we can see that often what the client wants differs substantially from what the banks would like to offer, particularly in a transactional environment. Whilst banks' aspirations are clear in attempting to establish a linkage that entails supplying as many services as possible to the client, with the objective of a sole banking relationship, the client's ambition is to seek a diversity of products and services from a variety of different sources. This tendency of customers may be exhibited by multibanking or the use of disintermediation (raising money directly from money markets without using a bank) that aims to eliminate banks altogether.

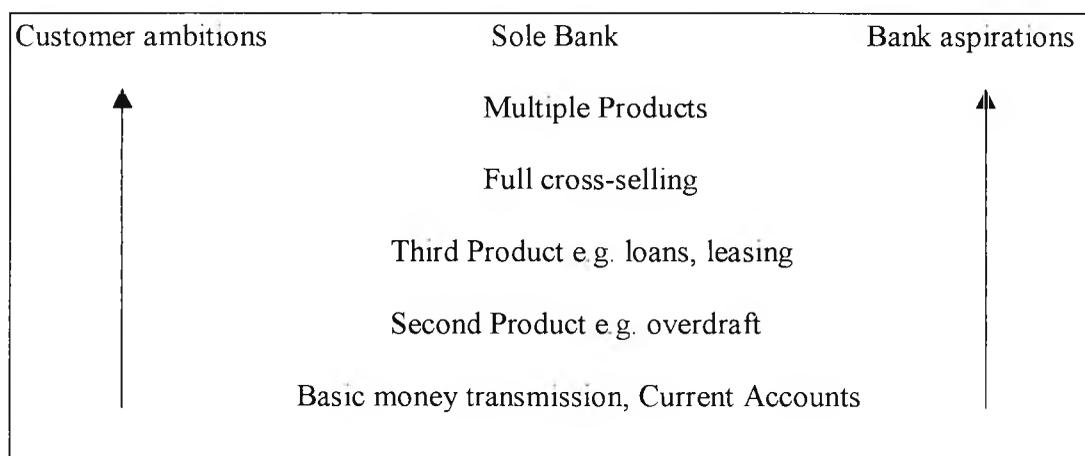
Figure 2.2: Hierarchy of Bank Aspirations versus Customer Ambitions in a Transactional Environment



Source: After Farrance (1993) & Blackshaw (1989)

In contrast, in successful relationship-based banking, client ambitions and bank aspirations can be much more in harmony, with bank and client effectively pulling in the same direction as shown in Figure 2.3.

Figure 2.3: Customer Ambitions and Bank Aspirations in a Relationship environment

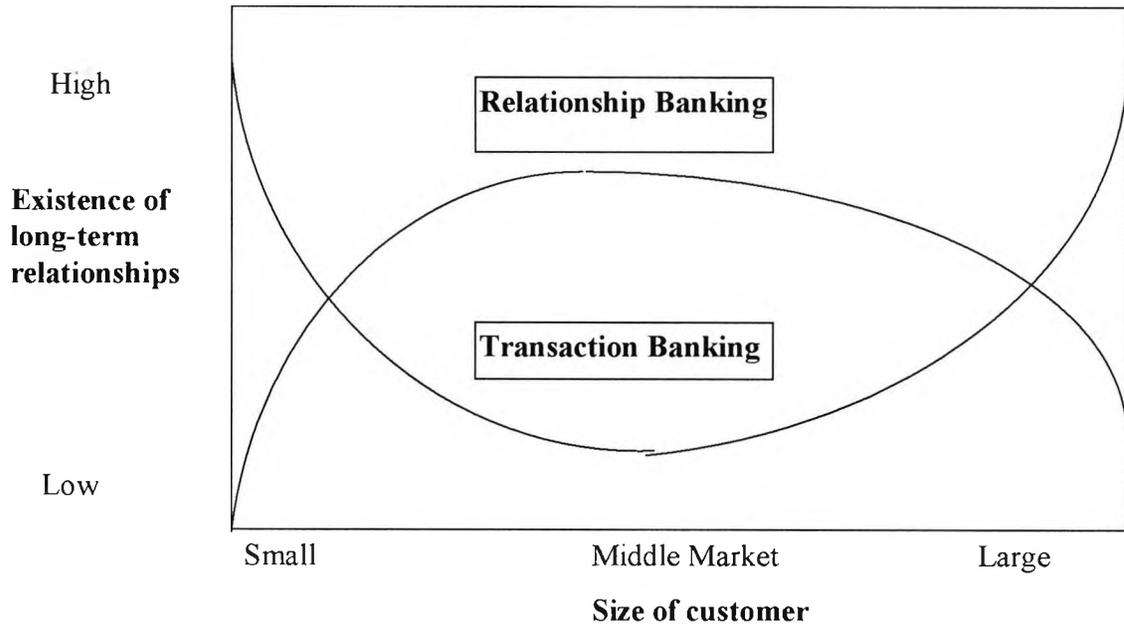


Source: Doggett & Hepple (1995)

Relationship banking has a strong 'partnership element' between bank and client, which implies commitment from both parties. In reality, however, most corporate banking relationships are a mixture of both transaction and relationship styles, but the emphasis is changing depending on the size of the client, as shown by the schematic representation in Figure 2.4. Relationship banking is shown to be particularly important in the middle corporate market (Figure 2.4). Small companies will use a number of standard retail banking services, while a very large company will use a number of standard but sophisticated transactions that are normal for large company treasury functions.

The fact remains, though, that a relationship banking approach brings suppliers closer to customers and makes communication easier and more extensive. Also, companies adopting relationship-based strategies are better able to collect information on changing customer needs and quickly develop new products that will satisfy such needs.

Figure 2.4: Schematic ‘Representation of Relationship and Transaction Banking in Small, Middle and Large Corporate sectors.



Source: Doggett & Hepple (1995)

2.7.1.9 Securitisation and disintermediation

Large companies have a lesser need for relationships due to the rise in disintermediation and securitisation. Securitisation is the replacement of institution-based finance (credit flows intermediated through financial institutions) by market-based finance (money raised directly from the market). Securitisation allows companies to scour the globe for the cheapest sources of finance and to raise debt through the issue of securities, as opposed to obtaining finance from banks. It provides an efficient way for banks to free up capital but equally, it is an alternative source of funding. Because of its dual role, securitisation is expected to continue to grow in importance in the future (Stewart 2000).

Disintermediation also enabled large companies to by-pass banks, and to raise new funds directly from the market in the form of commercial paper, bonds or private placings. The growth of securitisation and disintermediation led to the adoption of a more transactional

orientation towards financial products and services by companies, especially in the top end of the corporate market. Banks continue to encourage the development of relationships in the middle and lower corporate market segments. They have, however, started questioning the value of relationships in the highly competitive and customised large corporate segment.

Following these trends, many banks have changed their way of doing business in order to compete in the new environment. They have been centralising their corporate staff, thereby encouraging the development of specialised skills and focusing on corporate business. Most of the UK clearers have moved to corporate branches for medium-sized and large corporate customers, and have developed specialist small business centres in order to deal with the promising small business segment.

2.7.2 The future

The future of corporate banking is uncertain. Many significant changes are taking place in the corporate banking market and are reshaping it. Doggett (1997) in the CIB Directory of Corporate Banking in the UK predicts that the future for complex corporate banking services will centre on creating long-term relationships with customers and especially the profitable middle market, and on increasing customisation in order to fight foreign competition from specialist, niche providers.

2.8 NSD in corporate financial services: what do the winners do?

Developing successful financial services is very difficult for today's businesses since they operate in a rapidly changing, highly competitive market environment. Shostack (1977) best describes this phenomenon by asserting that:

“the successful development of new services ... is so difficult, it makes new product development look like child's play”

However, due to increased competition, introducing new services, either radically new or just improvements, has grown to be very important for banks in order to retain their market share and keep pace with competition. Thanks to this development there is a proliferation of new banking products in the market. Moutinho and Median (1989) illustrate a number of product innovations in corporate banking. These include: (i) Office/Home Banking; (ii) Electronic letter of credit; (iii) Provision of financial information; and (iv) Global Cash Management. Furthermore, just by looking at banks' annual reports, we can identify many new products directed to the corporate customer. These include new forms of loans, credit, electronic banking, investment opportunities, off-shore services and asset management.

Since NSD is a critical area for corporate bankers due to heightened competition and to other market trends that are reshaping the market, companies strive to develop successful new products and services. Various researchers have identified NSD practices that are associated with a higher level of new service success. In this section we will review the most important of these practices.

2.8.1 A formal, systematic NSD process

Evidence from the literature suggests that in NPD, as opposed to NSD, there is a more rigorous and formal process implemented (Booz et. al. 1982; Cooper 1993; Crawford 1997) and such process is associated with new product success (Takeuchi and Nonaka 1986; Moore 1987). However, even for manufactured products, there are researchers that argue that new product success is associated with an informal approach, at least in the early stages of the NPD process (Johne 1984; John and Snelson 1988; Edgett 1993).

In services, NSD is often characterised by an unsophisticated process. Sundpo (1997) finds that for the time being only some service firms have innovation departments and most of these don't have the character of R&D departments. Generally, the author stresses that service firms innovate on the basis of quick ideas, not scientific results, and they develop the innovations in ad hoc organisations, not in permanent R&D departments. Edgett (1996) has looked into the new product development process for commercial financial services and the disappointing result of his research was that many financial institutions are not developing new products via systematic development processes. The author observed three types of institutions, those that follow a fairly complete process (10 or more of the 13 activities), those that follow just over half of the activities on a regular basis (7 to 9), and the remaining that seem to have a very ad hoc approach to new product development. These results are in agreement with earlier studies that have shown that service suppliers do not, in general, use sophisticated and formal development procedures (Bowers 1989; Scheuing and Johnson 1989; Martin and Horne 1993). Reidenbach and Moak (1986) and Reidenbach and Grubs (1987) found that banks in particular are not aware of innovations as a development factor and therefore, they do not organise innovation activities in a systematic way.

The reliance by many service firms on a relatively haphazard NSD process usually leads to customers and staff from supportive activities being excluded from the NSD process (de Brentani 1993; Edgett and Parkinson 1994), although the iterative nature of the process recommended for NSD (Johne & Storey 1998) implies that customers and key

staff should be involved in key aspects of the process (de Brentani 1993; Edgett and Parkinson 1994). Also, companies that follow such an unsophisticated process in NPD by missing certain stages or carry them out haphazardly have the most new product failures (Reidenbach and Moak 1986). Consequently, although most services firms innovate unsystematically, there is an increasing tendency to systematise it and manage it (Sundpo 1997).

2.8.2 Focus on incremental NSD and continuous innovation

Financial service developers have tended to follow the easy way most of the time in NSD and to imitate their competitors in new products. Because patents and a sustained competitive advantage are usually impossible to attain in the financial services market, there has been little incentive for and many problems associated with true innovation. On the other hand, a strategy of incremental innovation is often faster and cheaper (Millson, Raj, and Wilemon 1992). Consequently, radical new financial products are few compared to incremental developments (product improvements or product line extensions) that are offered to different customer segments. In short, product newness and innovativeness have been generally low in financial services and therefore have little impact on new service success or failure (de Brentani and Cooper 1992).

There are many reasons why banks focus on incremental innovation (reformulated products as defined by Yoon and Lilien (1985) or sustaining innovations as defined by Martin (1998)). First, new financial products are easily copied and banks do not wish to invest a lot of money in something that will provide a competitive advantage for only a short period of time. Second, the rapid obsolescence of financial products means shorter windows of opportunity, hence there is a need for very rapid product innovation (Crawford 1992) which is not possible in the case of radical new product developments. Third, the very nature of the market, which is characterised by high competition and switching customers, also leads to a need for more rapid (incremental) product developments. Fourth, most bankers, due to their corporate culture, tend to focus on risk, or rather, on risk-avoidance and developing incremental products reduces risk (Hodgson

1984). Fifth, banks are reluctant to do radical new product development because it has been shown that when the product is very new to the firm (in terms of new capabilities needed, new competitive environments or different marketing approaches), it tends to have a lower success rate (De Brentani & Ragot 1996). Finally, newness of innovation influences customer choice more in services than in products. That happens because customers perceive greater risks in adopting new services than new products as a result of lacking information to evaluate service quality (Shostack 1984).

In addition to innovating incrementally, successful new service developers, and especially those operating in a rapidly changing and highly competitive environment like corporate banking, also innovate continuously. Continuous innovation has been considered very important in services since developing products fast is critical and since new services are imitated quickly. Brown and Eisenhardt (1997) highlight the problems caused by infrequent, large innovations in rapidly changing, highly competitive environments such as difficulties in adjusting mid-project to changing technologies, market and competition. In contrast, they find that continuous innovation in small steps allows low cost probes to investigate new possibilities and for the business to have an “up to date view of the future”.

2.8.3 Fast NSD

Due to the tendency of banks to develop incremental new products and to the fact that competition is becoming more time-based than ever (Willis 1998), development time has become very important in new product development in order to secure competitive advantage (Drew 1995a). In particular, Kessler & Chakrabati (1996) have found that innovation speed is most important in highly competitive and rapidly changing markets with short product life cycles, such as the market of corporate banking. The benefits for developer companies from fast new product development have been the subject of many studies and include greater new product revenues, enhanced profits, greater market share, reduced time-to-break-even, improved competitive advantage, a better corporate image and reputation, and quick response to rapidly changing markets and technologies

(Drew 1995; Drew 1995a; Kessler & Chakrabati 1996; Cooper & Kleinschmidt 1994; Takushi & Nonaka 1986).

2.8.4 Customisation and long-term customer-supplier relationships

As has been explained earlier, the trend in financial services, in the corporate end of the market, is towards customisation. Services are increasingly tailored to suit specific customer needs since all banks are trying to strengthen their relationships with corporate customers. Sundpo (1997) explains this trend further by concluding that the tendency of new product development in services is towards modularization. The author explains that companies develop modules rather than products. Modules are made by a combination of standard products and peripheral services. The outcome is a complex product (a module) that responds to specific customer needs.

Due to the high customisation of products in the area of financial services, companies tend to develop a variety of new products in order to meet different customer needs. In order to accomplish that, they work closely with their customers in long-term relationships. It has been argued in the literature that consideration of customers is the most important success factor for innovation activities (Scarborough and Lannon 1989; de Brentani 1989). Martin and Horne (1995) find that it is very important to involve customers in the development process and help them articulate their needs. They conclude that in general, the more customer involvement the better. However, in order to involve customers more efficiently, the service process should be customer-friendly, the role of the customer in service production must be made clear to him and if necessary, the customer must be trained (Edvardsson and Olson 1996). That way, customers can ultimately become partial employees (Schneider and Bowen 1984).

Although it is very important for NSD, at present customer involvement in the development of new financial products has been found to be relatively low (Martin and Horne 1993, 1995). According to Czepiel et. al. (1985), service firms are not efficient in

establishing and using external networks, or in involving customers in the innovation process, although close relation to customers characterises service firms.

2.9 The leasing market

Within the industry of corporate banking, the area of leasing services was selected to focus on in this study. In this section we will provide an overview of the leasing market; describe the leasing product and its suppliers; present a few market trends that influenced the industry, and explain the rationale for choosing it for this study.

2.9.1 An overview of the market

The slowdown in business at the start of the last decade (1990's), coupled with high credit losses, funding constraints and some notable failures, such as British & Commonwealth's Atlantic Computers, all served to undermine the leasing industry's credibility and, consequently, leasing companies have been forced to become more innovative. Dore (1997) has examined the leasing industry and emphasised that the UK market was among the hardest hit during the recession of the early 1990's and, as a result, has made some of the most striking changes. After the recession, a sleeker, more streamlined leasing industry has emerged and British companies are now more proactive and forthcoming about their activities and show a greater willingness to take risks.

Research from the Chartered Banker (1996, 1997) shows that suppliers of leasing services have not grown significantly over the past few years. Leasing has always been dominated by a few companies, mainly captive or bank-based and today there are few independents. For most, the struggle to find funding during the recession, especially at rates that allowed them to compete with the larger, better-financed companies, proved to be too much. Of the companies that remain in the market, the gap between the largest and smallest continues to widen. The Chartered Banker (1996, 1997) reveals which are the major players in leasing. Table 2.3 below shows the market shares of leading leasing suppliers (lessors) for the UK as a whole as well as for foreign suppliers only.

Table 2.3: Market shares of leading lessors in the UK in 1996, 1997.

1996		1997	
Rank of Banks	% (all banks)	Rank of Banks	% (all banks)
1. Natwest	27	1. Natwest	25
2. Barclays	20	2. Barclays	21
3. Royal Bank of Scotland	10	3. Dresdner	12
4. Babcock & Brown	7	4. HSBC	12
5. HSBC	7	5. Lloyds TSB	8
6. Lloyds TSB	7		
	% (foreign)		% (foreign)
1. Babcock & Brown	7	1. Dresdner	12
2. Chase Manhattan	3	2. ABN Amro	4
		3. Societe Generale	4

Source: UK Corporate Banking Surveys, Chartered Banker (August 1996; December 1997)

Despite the existence of large suppliers that dominate the market, new companies are entering the competitive landscape that are either non-banks (e.g. Halifax and Girobank) or foreign suppliers (e.g. Societe Generale). These companies are specialist providers and concentrate on particular segments of the market. However, as events show the net trend in the market is towards consolidation as evidenced from the growing number of mergers and acquisitions that are happening (e.g. First National Bank acquired Wagon Finance; SBC Warburg sold its leasing division to Kleinwort Benson; TSB's Hill Samuel Asset Finance merged with Lloyds).

Overall, some 42 banks offer leasing products in the UK and 19 claim to have unique skills in leasing as is shown in the CIB Directory of UK Corporate Banking (Doggett 1997). On the other hand, research by Doggett & Hepple (1994a) reveals that leasing has a penetration of 42.2% in the medium-sized corporate market (see bold entry in Table

2.4) although middle corporate customers are not generally very knowledgeable about financial products. This shows that companies are very much interested in leasing. On the other hand, the percentage of penetration shown is lower than 50% and the increasing education of customers is expected to boost the market even further.

Table 2.4: Financial products and services used by the middle market.

Ranking	Product	% of penetration
1	Overdraft	74.4 *
2	Foreign Exchange	71.2
3	Cash on deposit	64.6
4	Electronic Banking	51.9
5	Leasing / HP	42.2
6	Medium-term loan	29.8
7	Long-term loan	19.5
8	Commercial Mortgage	19.5
9	Export Trade Finance	16.8
10	Factoring / ID	10.9
11	Import Trade Finance	10.7
12	Mergers, Acquisitions, Disposals	7.1
13	Strategic Planning	5.1
14	New Equity, Ownership Succession	4.4

* To be read: Overdraft is used by 74.4% of middle market companies.

Source: Dodgett & Hepple (1994a)

Consequently, we can conclude that leasing is attractive to middle market corporate customers and that it has a high growth potential as a market.

2.9.2 The leasing product and its suppliers

Leasing is a form of financing for businesses or other professionals. Leasing companies (lessors) typically acquire assets and offer these to lessees for a certain period of time. The lessee (the customer) may have the option to buy the asset at the end of the leasing period, re-lease it with substantially lower payments, or give it back to the lessor. There are many types of leasing agreements depending on the type of asset being financed (e.g. plant and machinery, cars, hotel equipment, computers etc.); the time period of the lease and the expected residual value of the asset (e.g. finance leasing, operating leasing); and the type of debt with which the asset is financed (e.g. single-investor leasing, leveraged leasing). There are also three main types of lessors: independent leasing companies, captive finance organisations, and lease brokers or packagers. Most leasing suppliers are subsidiaries of big banks (e.g. Barclays – Barclays Mercantile Business Finance) or of powerful manufacturers (e.g. General Electric – GE Capital). Being a subsidiary of a big institution (captive finance organisations) creates many advantages such as a ready available customer base, a distribution network, and availability of ample financial resources. Therefore, such companies have a competitive advantage over other types of lessors.

2.9.3 Market trends

The leasing market can be described as a rapidly changing, highly competitive environment within the corporate banking market. Various trends have been reshaping the market for the last few years. Dore (1997) comments on these trends of which the most important are the following:

- (i) The temporal gap between USA and Europe is narrowing (it was down to 2 years in 1996). This means that Europe is catching up with the US in terms of differentiation and willingness to take risks (Dore 1997).
- (ii) Due to the trends of internationalisation and globalisation, cross-border leasing has grown, and the percentage of overseas clients with UK businesses has risen

to 25% in the big-ticket market. As domestic markets become more competitive, lessors are looking to exploit new markets in order to make money. The emerging markets (in South America, Asia, and Central Europe in particular) are where lessors see the next big opportunities.

- (iii) As the importance of strong manufacturer links becomes more widely accepted, there is greater competition among lessors to form alliances with manufacturers and offer vendor programmes. Vendors can provide a steady and profitable stream of business to leasing suppliers (lessors) by offering end-customers finance at the point of sale, by guaranteeing the economic situation of its customers and by rebuying any unpaid, leased assets.
- (iv) Operating leasing grew in popularity because companies spend more time managing their assets, and because the traditional tax advantages available to lessors are being looked at critically by the Inland Revenue. Operating leasing provides leasing buyers with the opportunity to finance their assets without burdening their balance sheet and lessens the payments that they have to make because they don't have to repay the whole value of the assets.
- (v) Apart from general market trends, there is also a change in the way of doing business in the leasing market. Whereas leasing deals were traditionally purely financial transactions, particularly as far as the bank-based lessors were concerned, leasing suppliers are now more aware of the importance of adding value, either in the level of service and maintenance offered, or in the amount of risk taken. More intense competition, and the concomitant pressure on margins, means that adding value is one of the few ways that companies can differentiate themselves. So, the UK leasing market is moving away from primarily tax-based financing to providing a much wider portfolio of value-added services. As Sam Geneen, managing director of New Court Finance says: "We know structure ourselves to bring together finance, client servicing, administration and asset specialisation into a single package". These developments imply that in the new context of competition ensuring effective communication and building long-term relationships with customers becomes critical for leasing suppliers.

2.10 The need for research

New product development has been gaining importance for organisations since new products are becoming the nexus of competition for many firms (e.g. Clark & Fujimoto 1991). A study by Mahajan and Wind (1992) found that new products contribute about 25% per year to the total sales of SBUs. In services, new service development is considered very important as well. Easingwood (1986) says that financial services companies will place increasing emphasis on the development of new products whereas Donnelly, Berry, and Thompson (1985) emphasise that new product development is important in services. Especially the ability of service organisations to innovate continuously is associated with a higher level of new service success (Brown and Eisenhardt 1997; Hargadon 1998). It is Jan Carendi, President of AFS (Scandia division) that said “Today, you need the ability and willpower to constantly develop and deploy new products that respond to changing customer needs”. Goshall and Bartlett (1998) stress that companies should seek to satisfy customers’ needs with new products because by seeking out solutions to customers’ needs, the company can create valuable innovations even on the basis of extremely limited core competencies.

Today’s financial marketplace can be characterised as an increasingly volatile external environment, characterised by shorter product life cycles, increasing competition from home and abroad, maturing industries and flat markets and the quickening pace of technological developments. These trends have reshaped the industry, have made financial services suppliers more responsive to customer needs, and as a result have placed increasing importance on a firms’ ability to innovate and introduce successful new products into the marketplace (Franco 1989). Especially, the technological revolution and the intense global competition present major challenges to a firm’s ability to maintain its competitiveness (Bettis and Hitt 1995; Hitt, Keats, and DeMarie 1998) and call for faster NSD, more involvement of customers in the NSD process, and increased focus on improving levels of new service success. Various researchers conclude that in order to compete effectively, in highly competitive and constantly changing environments – e.g. corporate leasing services – suppliers have to take an

aggressive new product markets position within markets by developing new services fast to catch the window of opportunity in the market and in the meantime satisfy rapidly changing customer needs (Karagozoglu and Brown 1988; Miles and Snow 1978; Miller and Friesen 1982; Mintzberg 1973).

Therefore, we conclude that in environments characterised by rapid changes and high competition such as the financial services market, new product development is essential for success, survival, and renewal of organisations (Brown and Eisenhardt 1995). In fact, Schoonhoven, Eisenhardt and Lyman (1990) argue that new product development provides a critical means by which firms diversify, adapt, and reinvent themselves to fit with changing technical and market conditions.

Consequently, nowadays there is greater demand for NPD and for new product winners. A successful product development programme is increasingly becoming the key weapon in an organisation's management strategy. On the other hand, quality and customer satisfaction are growing to be essential components of all services offered by most service providers. They are becoming standards for services offered. Consequently, competitive advantage has to come from elsewhere. One of the possible new sources is effective new product development.

The big question though for new service developers is whether more effective new service development does eventually lead to a sustainable competitive advantage. Research has indicated that there is a link between these two variables. De Brentani (1990) concludes that service innovativeness is of primary importance in gaining a competitive edge and Brown & Eisenhardt (1995) postulate that product development is a potential source of competitive advantage for many firms. Barney (1991) argues that resources that are valuable, rare, imperfectly imitable, and for which there are no strategically comparable substitutes can lead to a sustainable competitive advantage. He explains that valuable resources enable the firm to either exploit opportunities or avoid threats, rare resources enable firms to either develop unique strategies or implement strategies in unique ways, and complex resources created by unconventional means are

difficult to imitate. Although Barney concentrated on resources within a firm, it seems reasonable to extrapolate that if customer-supplied resources (such as information necessary for NSD) are valuable, rare and imperfectly imitable and have few comparable substitutes, they could make an important contribution to transformation quality and competitive results.

Whether effective NPD or NSD should be considered as a competitive advantage or not, the fact remains that the rate of successful new product developments is at the forefront of competition in today's banking market, since competition is becoming more and more knowledge-intensive and service-based (Goshall and Bartlett 1998). Especially the ability of businesses to develop new services fast is an important company and project performance measure in financial services development (e.g. Brown and Eisenhardt 1997; Kessler and Chakrabati 1996; Brown and Karagozolu 1993; Dumaine 1989). Therefore, there is a need to look deeper into the link between the NPD process and new service success (Reidenbach and Moak 1996).

Furthermore, due to the special characteristics of services, customer's role has become important in service production and delivery. As a result, companies increasingly focus on long-term relationships and mass customisation of offerings. Researchers emphasise the need to investigate customer's role in detail. Akamavi, Twaites, and Burgess (1998a) postulate that a new integrative model of NSD should be implemented that involves the customer in every aspect of NSD and not just idea generation. Such model will be about creating value with the customer and incorporating the customer's value creation into every stage of new product development.

The main customer role in NSD is the provision of information and such information can be considered as a valuable resource, rare and imperfectly imitable (Barney 1991). Customer information is provided through a communication effort between developers and customers. So there is a need to look closely at how developer-customer communication can be managed and how it can provide good quality information that will be used to enhance NSD success.

This study looks closely at the nature of developer-customer communication and determines how firms might manage it effectively for NSD success. This area of expertise can become a sustainable competitive advantage for companies since it requires a supportive network of corporate strategy, appropriate structure, management style, systems, and suitable staff and therefore, it is difficult for competitors to imitate.

2.11 Conclusion

This chapter has described the context of this study. We analysed the market of financial services by focusing on corporate banking and leasing in particular and we reviewed practices that are associated with successful NSD in this context. We concluded that since NSD success is very important in today's marketplace, there is a need to research further the link between the NPD process and new service success. Also, we emphasised that customer's role is very important in service production and delivery. Consequently, there is a need to analyse the roles that customers play in NSD and the way that developer-customer communication can be best managed for obtaining good quality information that might enhance new service success. In the next chapter we will review the literature on NPD and NSD and re-emphasise the need for research.

CHAPTER 3

MANAGING NEW PRODUCT & NEW SERVICE DEVELOPMENT: A REVIEW OF THE LITERATURE

3.1 Introduction

In the previous chapter we analysed the market of corporate financial services and especially the leasing market on which we focus in this study. We looked at the latest developments and practices in NSD in financial markets and highlighted the need and opportunity for the specific research. In this chapter we will review the literature on managing new product and service development and analyse the concept of customer participation. The chapter first highlights the findings that categorise the types of new products and new services developed by companies and then emphasises the importance of continuous innovation and incremental NSD in developing complex financial products in a highly competitive, rapidly changing market. Having outlined the potential types of new product / service developments, we then review the literature on NPD and NSD success. We first analyse the levels of measurement of success (i.e. project level, firm level, and product portfolio level), and then we review the success dimensions used in previous studies to measure NSD success.

After analysing success measures, we look at the factors that impact on new product or new service success. Also, practices of successful developers are reviewed in the context of complex, highly competitive, rapidly changing markets and refer to the quality of the NPD process followed, the type of new product pursued, the culture and structure of the company as well as NSD time considerations, the amount of functional integration present and the organisation of resources for NSD.

Furthermore, the concept of customer participation is analysed in terms of its value as highlighted in the literature, of its importance in financial NSD and new service success, and of its relation to effective developer-customer communication. Finally, the chapter re-examines the need and opportunity for research before stating the focus of this study

– developer-customer communication in the development of new complex corporate financial services.

3.2 Categorising new product and new service developments

Many researchers have tried to define what is a 'new' product in order to categorise new products. One of the earliest definitions of 'new' was provided by Ansoff (1957) in the matrix he developed showing the different growth vectors available to a company including diversification. He categorises new products according to the degree of market newness, and the degree of technological newness. This led to a classification of four types of new products: improved products, market extensions, product line extensions and innovative diversification. Later, Yoon and Lilien (1985) distinguished two main classes of new products, original and reformulated whereas Wheelright and Sasser (1989) followed a 'mapping' approach of generic product developments and separated new products in two categories: core and leveraged. Leveraged products include four groups of products: enhanced, hybrid, customised and cost-reduced. However, this concept is more useful for mature industries with long product life cycle cycles and consequently would not be applicable in rapidly changing markets with short product life cycles like the one investigated in this study.

In services, Lovelock (1984) drawing on the work of Heany (1983) posits different categories of service development, ranging from style changes right through to major innovations. De Brentani (1993a) uses the level of service customisation and customer contact to classify services. That is because services directed to the business market are usually more highly customised since industrial clients tend to be larger, service relationships more extensive and longer term, and services more complex and user specified (Jackson and Cooper 1988; Morris and Fuller 1989).

The new product or service categories identified by researchers overlap with the wide-ranging product development categories advocated by Booz, Allen and Hamilton (1982). According to Booz, Allen and Hamilton (1982) new product development can take six

forms depending on the newness of each product to the market and to the company: (i) New-to-the-world products; (ii) New product lines; (iii) Additions to existing product lines; (iv) Improvements and Revisions to Existing products; (v) Cost reductions; and (vi) Repositionings. These six categories encompass the earlier, firm-specific variations of new products put forth by Gerlack and Wainright (1968), Marvin (1972) and Kraushar (1977). New product lines or new-to-the-world products are technological breakthroughs, often relying on technologies never before used in the industry and refer to those products named as original by Yoon and Lilien (1985). In contrast, reformulated products represent all the other categories identified by Booz, Allen and Hamilton (1982) including product line extensions, improvements, cost reductions and repositionings. Table 3.1 presents the different types of new products identified by Booz, Allen and Hamilton (1982) and defines each type.

Table 3.1: Types of new products

NEW PRODUCT CATEGORIES	
New-to-the-World products	New products that create an entirely new market First of their kind
New product lines	New products that, for the first time, allow a company to enter an established market Not new to the market, new to the company
Additions to existing product lines	New products that supplement a company's established product lines Not new to the market, new to the company and fits into existing product lines
Improvements & revisions to existing products	New products that provide improved performance or greater perceived value, and replace existing products. New and improved type
Repositioning	Existing products targeted to new markets, or market segments. Retargeting of the product
Cost reductions	New products that provide similar performance at lower costs.

Source: Booz, Allen and Hamilton (1982) and Cooper (1987b)

Although Booz, Allen and Hamilton refer to all four types of products as "new", it is evident that some are newer to the supplying company than others. To address this problem, many analysts have divided product development simply into 'old new product development', representing product improvements, and 'new product development', representing products that pose greater development challenges to the supplying company. This distinction was made originally by Kraushar (1985), and has subsequently been built on in many studies of product development (e.g. Johne and

Snelson 1988). Furthermore, Johne (1995) finds that the first four categories of new products identified by Booz, Allen and Hamilton (1982) are typified by varying forms of newness in terms of their operational newness to the supplier, and also in terms of the newness of the customer base to the supplier. Based on those two dimensions of newness, he identifies four types of product development as shown in Figure 3.1 below.

Figure 3.1: Main types of product development

		Newness of the customer base (from the viewpoint of the supplier)	
		Low	High
Operational newness (from the viewpoint of the supplier)	High	Radical product development: aimed at the existing customer base ‘new product lines’	New style product development: aimed at a new customer base ‘new to the world products’
	Low	Routine product development: aimed at the existing customer base ‘Improvements and revisions’	Extended product development: aimed at a new customer base ‘Additions to existing lines’

Source: Johne (1995) based on Booz, Allen and Hamilton (1982) and Cardoza et al. (1993)

Also, Johne (1993, 1996) refines the Booz, Allen and Hamilton (1982) analysis by arguing that the other two types of new products; cost reductions and repositionings are possible for all the first four types of new product development and therefore they are not distinct types of product development. He refers to cost reductions as “process” development and to repositionings as “product augmentation development”.

Based on this categorisation of types of new product developments, Johne (1993) also looked at the business development components for services and suggested that they consist of four types of development (as shown in Figure 3.2). Within each of these four types, development may be as radical as “new to the world”, or simply incremental in the sense of “product improvements”, as defined in the Booz, Allen and Hamilton (1982) schema. Johne’s schema relates to the focus of new service development – product, market, service surround or process.

Figure 3.2: Johne’s (1993) schema of development typology for services.

Product Development	The development of core attributes of a product
Market Development	To more closely target specific market segments, e.g. by positioning the product to more closely meet segment needs.
Product Augmentation	To alter the product “surround” development, e.g. billing, pre and post sales support, delivery.
Process Development	In the case of goods this is usually to improve cost but process is so integral to services that process development can effectively produce a new service product.

Source: Johne (1993)

This categorisation is very important for corporate financial service development. Johne (1993) suggests that services are particularly open to product augmentation development and Easingwood and Storey (1996) highlight the importance of appropriate service support for success in consumer financial services. Things in this market become very complex due to customisation and therefore, product augmentation development is very common. Augmentation can take the form of a special mix of services that is added to a core product already on offer to another market segment. Alternatively, it can be translated into a few products put together to form a more sophisticated offer that is

appropriate for satisfying a complex need of corporate customers. Product augmentation development describes the support given by suppliers to customers, support that helps customers evaluate, buy and use a core product. Kotler (1994) quotes Levitt to explain the power of this form of development:

“The new competition is not between what companies produce... but between what they add... in the form of packaging, services, advertising, customer advice, financing, delivery arrangements, warehousing, and other things that people value”

In services, product augmentation is particularly important because it involves the process by which customers evaluate, purchase and consume the service. Various researchers have noted the importance of this type of development in enhancing the service experience in financial services (consumer or business) and in differentiating between successful and unsuccessful new services (Easingwood and Storey 1993; Storey and Easingwood 1994; Johne and Pavlidis 1996).

Product augmentation development complements core product development in services. The ‘basic service package’ as referred to by Gronroos (1990) is complemented by augmentation so that an appropriate ‘offer’ is placed on the market. Gronroos (1990) and Storey and Easingwood (1996) refer to this wider output as the ‘augmented service offer’. Therefore, product development and product augmentation development make up offer development. Offer innovation development is a relatively new expression and has been mainly used by Mathur (1992), Mathur and Kenyon (1997) and also Johne (1993), Johne and Pavlidis (1996), and Johne and Davies (1999) who have all examined offer innovation in the financial services industry.

As it is evident, offer development comprises a variety of actions taken by the developer to enhance the core product. So, it is appropriate to study such actions from the developer’s viewpoint. From this point of view two dimensions determine the newness of the offer: the newness of the product attributes and the newness of the augmentation

provided. These two dimensions and the four types of offer development that can be pursued are analysed by John and Storey (1998) and are presented in Figure 3.3. The underlying conclusion is that offer improvement poses less challenge and risk to a supplier than new-to-the-world offers. John and Storey (1998) note that in technology driven companies greatest emphasis is often placed on core product attributes, whereas marketing-driven companies emphasise product augmentation development. Especially, in business-to-business financial services (the type of services we concentrate on in this study), the augmented part of the offer plays a critical role in satisfying customer needs.

Figure 3.3: Growth vectors served by offer development variants

	Newness of the product attributes (to supplier)	
	Low	High
Low	<p>Aim: Market Penetration</p> <p>Via: Offer Improvement e.g. improved core attributes and/or improved augmentation</p>	<p>Aim: Product Development</p> <p>Via predominantly: Product Development e.g. new product variants such as new derivatives in banking</p>
High	<p>Aim: Market Development:</p> <p>Via predominantly: Product Augmentation Development e.g. First Direct, Direct Line</p>	<p>Aim: Diversification</p> <p>Via: New-to-the-World Offers e.g. a new business: - - overnight delivery (DHL) - distance education (O.U) - temporary managers</p>

Source: Based on Ansoff (1987), adopted from Johne and Storey (1998)

3.3 New product / service development success

The literature on NPD and NSD is very vast encompassing hundreds of articles. In particular, success / failure of new products and services has been the subject of extensive research over the last two decades. Researchers looked at levels and dimensions of measuring success as well as at internal and external factors that impact on company performance. Success was analysed in all contexts including different types of markets (consumer, business, non-profit), different countries and various industries. Some contexts have been researched more than others have but results are extensive.

The purpose of this section is to review the literature on successful NPD and NSD and identify the need and opportunity for research. Although this study is focusing on the development of new services, it is important to review NPD as well since many of the concepts connected to services are rooted in studies of new products and since there are many similarities between developing new products and new services.

3.3.1 Measuring success.

In this section we will review the levels of measurement used in measuring success of new products, the dimensions of success identified in the literature as well as the factors that impact on both project and program performance.

3.3.1.1 Levels of measurement

New product as well as new service development success can be measured at two levels – at the project level and at the program (or firm) level. At the program level, success is examined for a group of products in a company; at the project level success is examined for an individual product. Most success/failure studies have concentrated on project level success. Griffin and Page (1993) have concluded that most firms (98%) evaluate success/failure at the level of the individual project. There are many advantages and disadvantages documented for both the project and the program level of measurement and there is a lack of agreement on which one is the most appropriate for measuring new service development success. Maidique and Zirger (1985) in a study of industrial companies argued that using the project as the unit of analysis has two main advantages. First, it is a clearly identifiable entity and thus gathering data is easier. Second, companies are likely to have sales and ROI forecasts for each product and therefore managers are able to judge whether certain financial targets have been reached. On the other hand though, using certain types of financial measures means collecting financial data which is very sensitive and is not easily given to researchers plus there are considerable problems in accurately determining profits and costs for every new project. Furthermore, project success is more short-term without taking into account the long-

term growth of the company. As Benett and Cooper (1981) have argued “project success has myopic focus”.

Lately, Brown and Eisenhardt (1997) have proposed the use of a new level of measurement of new service success, the product portfolio level, that is useful when measuring speed of development in complex, highly competitive and rapidly changing markets. The product portfolio includes all new services developed by a company during a certain period of time. Each new service is scored based on success measures selected by the researcher and these scores are combined to obtain a composite success score for the portfolio. This level of measurement combines the advantages of project and program measurement levels. On one hand, projects are evaluated one by one based on the same success measures. On the other hand, their success scores are combined to provide an overall success score that is more representative of a company’s success in NPD than individual project success. This method is especially useful in rapidly changing markets with short product life cycles where many new products are developed in a short time frame.

All three levels of measurement have advantages and disadvantages. Ultimately, it is up to the researcher to decide which level of measurement is appropriate for each study. However, Montoya-Weiss and Calantone (1994) review success / failure studies and conclude that more program level studies are needed to increase the generalisability of findings. They argue that program based studies would inherently increase the generalisability of findings given that respondents are specifically asked to give general answers. In contrast, project-specific characteristics may be atypical and widely variable from firm to firm, thus limiting the validity of indiscriminately combining results across projects and across firms in a single study.

3.3.1.2 Breadth of success measures

Literature reports on a very wide spectrum of success measures used in different contexts by researchers and practitioners. Booz, Allen and Hamilton (1982) found that two-thirds of all companies measured new product performance and nearly two-thirds used more than one measure of success. Since companies develop products for different reasons, many studies have identified product development success as a multi-dimensional concept (Cooper 1988; Crawford 1979, 1980; Johne 1984, 1985; Johne and Snelson 1988, 1990; Maidique and Zirger 1985; Griffin and Page 1993, 1996; Page 1993; Hart 1993; Storey and Easingwood 1996; Johne and Storey 1998). Griffin and Page (1993) emphasise that measuring success based on one measure yields questionable results.

3.3.1.3 Dimensions of success

Since the literature on new product and new service success is extensive, and success measurement has been shown to be multidimensional, many dimensions of success have been identified by researchers. Griffin and Page (1993) have reviewed the success measures used by companies and researchers and have identified seventy-five different measures of new product performance and success/failure culled from the new product literature and a survey of a limited number of practitioners. Subsequent expert opinion by group consensus and factor analysis identified four dimensions of success measures: (i) customer acceptance measures; (ii) financial performance measures; (iii) product-level measures; and (iv) firm-level measures. Hart (1993) and Page (1993) conclude that there are two basic types of success measures, financial and non-financial. Each of these types is made up of different sub-types of measures. Montoya-Weiss and Calantone (1994) provide a summary of all the measures that have been used in assessing new product performance. The authors review 47 studies of success and failure both in products and services and come up with 18 different performance factors that are grouped under four basic categories: (i) market environment; (ii) new product strategy; (iii) development process execution; and (iv) the organisation.

Although companies concentrate heavily on financial performance or sales level measures when evaluating their new products, they are increasingly looking at other, non-financial methods of measuring performance (e.g. level of customer acceptance, product quality and on-time development). Companies combine measures in order to find out whether the new product has satisfied customer's needs while simultaneously producing financial results for the firm. Later research by Griffin and Page (1996) found that although not used much, these non-financial criteria are considered by managers to be the most useful.

Griffin and Page (1996) have analysed further success measures according to the type of new products developed and the project strategy followed by each developer organisation. They postulate that for incremental new product development (additions to existing lines and product improvements), the one investigated in this study, the most useful success measures are customer satisfaction and acceptance, meeting profit goals, revenue growth, market share and competitive advantage. In particular, customer satisfaction is a recommended project-level measure that appears under every project strategy type investigated and which 44% of the firms surveyed in Griffin and Page (1993) say they would like to use to measure success. However, only 10% of firms actually use customer satisfaction because it is costly to obtain customer data.

The inadequacy of financial measures in predicting success has been emphasised in research studies. Hart (1993) found that sales or profit do not accurately reflect success in cross-sectional studies and that the use of overall financial measures of success may not predict new product development success. She stresses that "not only is success multi-dimensional, even within dimensions, but also the dynamic interrelationships are far from properly understood". Although in studies of new products the most frequently used measures of performance are profit and sales-based measures (Craig and Hart 1992; Montoya-Weiss and Calantone 1994), other non-direct measures have also been used by researchers due to the inability of financial measures to predict NSD success by themselves. Such measures, which are called "non-direct" measures of success, indicate company benefits from new product development and have been identified in the new

service development literature (e.g. Easingwood and Percival 1990; Davison, Watkins and Wright 1989) and in research on new product success factors (e.g. Cooper and Kleinschmidt 1987; de Brentani 1989; Shipley, Edgett and Forbes 1991, Baker, Green and Bean 1986). These measures include: (i) opening a window of opportunity on a new category of products or on a new market; (ii) enhancing corporate reputation; (iii) attracting new customers to the firm; (iv) achieving cost efficiencies, increased sales and/or increased profitability of existing products; (v) producing a platform for future new products; (vi) improving the loyalty of existing customers, and (vii) impact on market position. Drew (1995) found that retaining customers and improving a company's reputation are two distinct benefits from NPD. Rothwell (1976, 1977), Hopkins (1981), and Souder (1981) used the extent of meeting or exceeding company's targets and expectations to measure success while Larson and Gobeli (1988) postulate that a successful product is the one that achieved market launch objectives.

With respect to NPD or NSD project success and failure, there have been several large-scale empirical investigations that identified many success dimensions that overlap more or less (Easingwood and Storey 1991; de Brentani 1989, 1991, 1993a, 1996; Edgett and Parkinson 1994; Cooper et al. 1994; Storey and Easingwood 1994; Atuahene-Gima 1996; de Brentani & Ragot 1996; Deal and Edgett 1997). De Brentani (1989) has identified seventeen factors contributing to project success in industrial services and has classified them into five areas: (i) product/market fit; (ii) quality of execution of the launch; (iii) product/company fit; (iv) service expertise; and (v) product advantage. Also, de Brentani (1993a) looks at four broad categories of factors impacting success in new industrial services: (i) nature of the service; (ii) market factors; (iii) project synergy factors; and (iv) new service development proficiency factors (pre-launch and launch activities and management of NSD). Cooper et. al. (1994) based on de Brentani (1989) identify three dimensions of project success in services: (i) Financial; (ii) Relationship enhancement; and (iii) Market development. Deal and Edgett (1997) use Cooper et al.'s (1994) framework and many previous studies to synthesise findings about new product success in the financial services sector (project level) into five general headings: (i) Product advantage; (ii) Marketing support; (iii) Nature of the marketplace; (iv) Nature of

the new product process; (v) The corporate environment; and (vi) A well defined and workable new product process.

Storey and Easingwood (1997) have researched the augmented service offering and its impact on new service success in consumer financial services, and identified three dimensions of new service performance (sales performance, profitability, and enhanced opportunities). The components of the augmented service offering include: (i) the service product itself (product quality, distinctiveness, perceived risk, physical evidence, and product adaptability), (ii) the service augmentation (distribution strength, effective communication, staff/customer interactions, customer experience, and reputation), and (iii) marketing support (market knowledge, staff training and skills, effective operations, launch effort, and investment in systems). The interesting results are that service augmentation factors impact on sales performance and profitability but not on enhanced opportunities. On the other hand, marketing support impacts on all three dimensions of new service performance, whereas the service product impacts most of all on enhanced opportunities. Profitability, which is the most important consideration for service companies, is mainly driven by service augmentation and marketing support.

In the program level, there have been several studies of success / failure in manufactured new product development (Cooper 1984, 1985; Crawford 1980, 1984; Johne 1984, 1985; Johne and Snelson 1988, 1988a, 1990; Voss 1985, 1992; Ruckert and Walker 1987; Griffin and Page 1993, 1996; Hart 1993; Cooper and Kleinschmidt 1995) as well as in new service development (Brown and Eisenhardt 1997; Johne and Pavlidis 1996; Johne and Davies 1999). The dimensions of success identified include: (i) technical success measures (Voss 1985); (ii) market success as perceived by customers or professional bodies (Ruckert and Walker 1987); (iii) sales revenue growth (Johne and Snelson 1988); (iv) percentage of sales or profits from new products (Griffin and Page 1993, 1996); and (v) speed to market (e.g. Dumaine 1989). Voss (1992) follows a different path of determining success dimensions and makes a distinction between measuring the success of the development and the performance of the development process. He identifies different types of measures for these two types of performance.

This distinction becomes important when we consider that a well-executed development process is identified as a critical success factor in NPD and NSD studies.

In addition to empirical investigations there have been a limited number of exploratory studies based on case studies that looked into successful and/or unsuccessful NPD or NSD (e.g. Hodgson 1984; Grden-Ellson et al. 1986; Edgett and Jones 1991; Lievens and Moneart 1994) and came up with similar dimensions of success.

Within the dimensions of success identified in the literature, the importance of speed to market is emphasised in many studies that use it to measure new product or new service success (Easingwood 1988; Dumaine 1989; McDonough and Barczak 1991; Bortree 1991; Tufano 1992; Smith and Reinertsen 1992, 1998; Brown and Karagozoglu 1993; Karagozoglu and Brown 1993; Cooper and Kleinschmidt 1994; Drew 1995a; Johne and Pavlidis 1996; Calabrese 1997; Brown & Eisenhardt 1997; Lynn et al. 1999). Montoya-Weiss and Calantone (1994) reviews the literature on new product/service success and concludes that speed of development is a very important success factor for new products or services.

Whichever measures of performance developer companies use, ultimately time must be a critical consideration in evaluating NPD or NSD success. Every project can be successful in the short run, but do harm in the long run. The reverse might also apply. Depending on the viewpoint adopted, the same development can be classified as a success or as a failure (Hultnik and Robben 1995). In order to get a full picture of dimensions of success used in different studies, Table 3.2 summarises the results of all major studies that identified success dimensions. These studies present overlapping dimensions in products and services, in the project and in the program level.

Table 3.2: Studies identifying dimensions of measuring NPD and NSD success and failure

Study	Products-services / measurement level	Dimensions of success identified
Nystrom & Edvardsson (1982)	Products Project level	Technological success (level of technological innovation) Market success (uniqueness of product as perceived by customers compared to competitors) Commercial success (estimated profit level of new project based on scores by executives)
Cooper (1984)	Products Program level	Relative track record (the proportion of successful developments as opposed to those killed before launch) Relative impact (the extent to which new product developments account for a certain proportion of current sales and profits) Relative performance (the strategic success of the product innovation program)
Cooper and Kleinschmidt (1987)	Products Project level	Market impact (market share domestic and foreign)- product benefit Financial performance (profitability, payback period, sales, profits)- product benefit Opportunity window (new categories of products, new markets) – company benefit
De Brentani (1989)	Industrial services Project level	Sales and market share performance Competitive performance Other “booster” Cost performance (all of them broken down in their constituents)

Cordero (1990)	Products Project level	Overall business performance (% of new product sales as a % of the industry average) Technical performance (quality of inputs & outputs) Commercial performance (sales and financial performance measures)
Voss (1992)	Products Project level	Success of the new development: Financial measures Competitiveness measures Quality measures Success of the NSD process: Criterion cost Effectiveness Speed of development
Hart (1993)	Products Program and firm level	Financial: profit, asset, sales, capital, or equity based. Non financial: design based, activity based (extent and proficiency of activities), market based, technologically based, commercially based, and strategically based.
De Brentani (1993a)	Business services Project level	Proficiency in NSD Project synergy Market characteristics Nature of the service offering

Griffin and Page (1993)	Products Project level & Firm level	<p>Customer acceptance measures: Customer acceptance, customer satisfaction, met revenue goals, revenue growth, met market share goals, met unit sales goals.</p> <p>Financial performance: Break even time, attain margin goals, attain profitability goals, IRR/ROI.</p> <p>Product level measures: development cost, launched on time, product performance level, met quality guidelines, speed to market.</p> <p>Firm level measures: % of sales by new products</p> <p>Measures at firm level (used or desired): NP % of all sales, strategic fit of NP, leads to future opportunities, NP % of total profits, success / failure rates, PR value of NP's.</p>
Page (1993)	Products Program level Project level	<p>The decay curve of new product ideas (% of ideas surviving through the NPD process)</p> <p>Number of new products introduced (BAH)</p> <p>The new products success rate</p> <p>The % of the new products budget spent on successful products</p> <p>The impact of new products on sales and profits</p> <p>Financial</p> <p>Return on investment, Various profit margin measures, Sales and sales growth, Various profit measures, Payback and payback period, Internal rate of return, ROA, ROE, and ROCE, Breakeven and breakeven point, Share and market share, Return on sales, Net present value.</p> <p>Non-financial</p> <p>Market share achieved, Sales performance of new products, Satisfy customer needs, Other marketing-related benefits, Strategic issues / fit / synergy, Technical aspects / performance, Uniqueness of the new products.</p>

Cooper et al. (1994)	Services Project level	Financial Relationship enhancement Market development
Griffin and Page (1996)	Products Project level & firm level	Important Success measures differ according to project strategy (types of new products developed according to product newness to the firm and to the market) and firm strategy (prospector, analyser, defender, reactor) Firm level success measures: development program ROI, new products fit business strategy, success / failure rate, % of profits or sales from new products, program hit 5-year objectives, products lead to future opportunities, overall program success, % sales or profits under patent protection
Storey and Easingwood (1997)	Consumer financial services Project level	Sales performance: total sales, market share, performance relative to sales objectives, growth in sales against objectives) Profitability: level of profits and profits against objectives, enhanced profitability of other products, improvement of customer loyalty) Enhanced opportunities: repositioning of company, opening new markets, platform for new products, impact on image)

3.3.1.4 Factors impacting new product/service success

A plethora of factors contributing to new product or service success have been identified in the literature showing how multi-faceted success is. Studies have looked into the different factors affecting new product performance at the project or at the firm (or program) level for industrial products or services (e.g. Cooper & Kleinschmidt 1987, 1995; Cooper et al. 1994; de Brentani & Ragot 1996; de Brentani 1989, 1991; Cooper & de Brentani 1991; John & Snelson 1988; Edgett 1994; Drew 1995, 1995a).

In general, company performance is shown to be affected by two sets of factors, internal and external. External factors are out of management's control and depend on the macroenvironment (natural, economic, social/cultural, political/legal, and technological). They include things like the rate of technological change, intensity of competition, and change in regulation. These factors become especially important in some service markets, such as financial services, that are characterised by a highly turbulent, rapidly changing environment and in high technology industries where technological change is critical. In such markets, new players are coming in all the time, technology in serving and communicating with customers is advancing continuously, and regulation is changing to take into account the new way of competition and to protect the players. All these market trends can adversely effect new product development success.

New regulation can limit the number or type of products a company can sell, and increased competition drives companies to spend more money on promoting their products and to look at other ways of increasing their competitive advantage. Effective new product development is one of the means used by companies to increase their competitiveness, although easy imitation of products in financial markets can be translated into very little radical development. Finally, advanced technology can rationalise processes and influence time to market as well as the quality of communication with customers.

The internal variables encompass anything internal to the company and are under the control of management. They include factors connected to the product, the process of development, and the characteristics of the company in terms of structure, quality of employees, systems, marketing and technical skills, management style, culture, availability of resources, and overall strategy.

Internal factors have been analysed extensively in the literature. Studies were done in various industries, in products and services, in the project and in the program level. The most well-documented factors impacting success are: a structured and well organised new product development process (e.g. Cooper 1983, 1994; Cooper and Kleinshmidt 1986; Reidenbach and Moak 1986; Crawford 1994; Lynn et. al. 1998); a market-driven and customer-focused NPD process (e.g. Cooper et. al. 1994; Edgett 1996); product superiority (e.g. Easingwood and Storey 1993; de Brentani and Ragot 1996); marketing and technical synergy (e.g. Montoya-Weiss and Calantone 1994; Atuahene-Gima 1996); efficiency of market launch (e.g. Edgett 1994; Atuahene-Gima 1996); high quality personnel (e.g. de Brentani 1991; Edgett 1994); effective internal and external communication (e.g. Iwamura and Jog 1991; Brown and Eisenhardt 1997); quality of execution of the development process and especially relating to pre-development work (e.g. de Brentani 1991; Edgett 1996); top management support of NPD (Atuahene-Gima 1996; Lynn et. al. 1998); adequate financial resources (e.g. Edgett 1994; Montoya-Weiss and Calantone 1994); good market research before the product is developed (Easingwood 1986; Hill 1988; De Brentani 1989, 1991 & 1993; Cooper and de Brentani 1991; Easingwood and Storey 1991; Edgett and Jones 1991; Storey and Easingwood 1993; Cooper et. al. 1994; Edgett 1994, 1996); and inter-functional co-operation and teamwork (e.g. Edgett 1994; Hart and Baker 1994). Also, the importance of a clear and shared vision of the project is emphasised in the literature (Argyris and Schon 1978; Lawson and Ventriss 1992; Imai et al. 1995).

In addition, various studies that studied factors impacting performance of new services identified some extra factors including: quality of the interaction (or of the relationship) with customers (Storey and Easingwood 1995; Atuahene-Gima 1996); focus on

customer needs (de Brentani 1993a); customer satisfaction (Dvir and Shenhar 1990); extent of customer participation in service production and delivery (Martin and Horne 1993; De Brentani and Ragot 1996); communication with customers (Eiglier and Langeard 1981; Lovelock 1984; Brown and Eisenhardt 1997; Lievens et. al. 1999) and the amount of contact and of information exchanged between company and customers (Martin and Horne 1995). Particularly in financial services, success is connected to having clear priorities for new projects, clear success measures, a goal of revenues and/or profits from new products and clear responsibility for the profitability and for the schedule of each new service developed (Brown and Eisenhardt 1997).

Apart from the empirical studies, there were also two major pieces of exploratory research based on case studies that looked into successful and/or unsuccessful new service development and identified a set of interesting factors impacting on new service performance that overlap with the ones found using other research methodologies. Hodgson (1984) has done a series of case studies on what constitutes innovation success in retail financial services and comes up with seven factors that impact on success: (i) a well defined corporate vision; (ii) better market knowledge; (iii) high quality and experienced staff; (iv) culture and systems to support the innovation process; (v) concentrating on existing strengths; (vi) accepting the limitations of available resources; and (vii) having a clear idea of the objectives of the project.

Also, Grden-Ellson N. et. al. (1986) have done case studies in US financial service institutions and identify 5 important considerations for successful new product development: (i) commitment to product development and a clear strategy for new products; (ii) a formal development process with an emphasis on the early stages to prevent mistakes later; (iii) promote teamwork to ensure co-ordination between all functions; (iv) use customers extensively for idea generation and evaluation; (v) use internal marketing and training to gain the support of front line staff and provide them with the necessary knowledge to sell the product.

Offer development is rather new as a concept. The few studies that have addressed new product/service success did not produce many additional success factors to those identified by other researchers. Only Johnes and Davies (1999) emphasised the importance of clear vision and strategy and Johnes and Pavlidis (1996) highlighted the importance of marketing skills.

Speed of development, which is a major dimension of success and is considered to be very important in turbulent, rapidly changing environments, with short product life cycles (Peters 1987; Dumaine 1989; Vesey 1991; Smith and Reinertsen 1992, 1998; Brown and Karagozoglu 1993; Page 1993; Kessler and Chakrabati 1996; Brown and Eisenhardt 1997; Datar et al. 1997), is shown to be influenced by a set of specific factors. These include: (i) leadership style (McDonough and Barczak 1991); (ii) a structured new product development process and long-term view of the project (Lynn et al. 1999); (iii) good internal and external communication (Brown and Eisenhardt 1997; Lievens et al. 1999); (iv) the focus on continuous innovation (Brown and Eisenhardt 1997); (v) integration of functions in NPD, cross-functional NPD teams, and good customer communications systems (Calabrese 1997); (vi) top management involvement (Smith and Reinertsen 1998); (vii) a distributed structure (Datar et al. 1997); and (viii) a flat structure, low formalisation of systems, teamwork and appropriate culture (Dumaine 1989).

Also, the importance of good quality communication and frequent contact with customers that results in useful customer input is particularly emphasised in the literature as a major factor impacting new product and especially new service success (e.g. Eiglier and Langeard 1981; Lovelock 1984; Rabon 1998; Bortree 1991; Martin and Horne 1995; Brown and Eisenhardt 1997; Lievens et al. 1999).

In addition to factors contributing to success, there are also some obstacles to successful NPD. Page (1993) analyses these obstacles and finds that the most important ones are: (i) Activities within the new product development process; (ii) Top management role/support in product development; (iii) Financial resources/support for product

development; (iv) Role of marketing in new product development; (v) Management / organisation for new product development; (vi) Risk in new product development / company risk attitude; (vii) Bureaucratic nature of the organisation; (viii) People resources / support for new product development; (ix) Other resources / support for new product development; (x) Short-term outlook / orientation; (xi) Communications in new product development; and (xii) Time available to do new product work.

A summary of the most important studies, that identified factors impacting new product and/or new service performance, at the project or program level are presented in Table 3.3.

Table 3.3: Studies identifying factors impacting project or program level success.

Study	Products / services Measurement level	Factors impacting success
Berry & Hensal (1973)	Banking services : Project level	View product from customer's point of view Products must be built on unfulfilled needs within segments Products incorporating new technology often require substantial behavioural change. Careful communication with consumers so that they will understand the product, its benefits and uses.
Cooper (1980)	Products : Project level	Product uniqueness/superiority Market knowledge and marketing proficiency Technical production synergy and proficiency
Cooper (1975, 1985)	Products : Project level	Market newness (inversely related to success) Product fit and focus (focus on 1 product familiar to the firm) Production and technological synergy.
Eiglier & Langeard (1981) & Lovelock (1984)	Services : Project level	Emphasis on the definition of the service concept Identification of segments with market potential Communication with customers Emphasis on the image of the new service in the specified market The need for new services to be designed with customer needs in mind
Kuczmariski and Silver (1982)	Products : Project level	Understanding of user need Effective development work Product superiority Top management support and product champion Direction of efforts and relevance of the organisation's objectives Organisation open for innovation

Link (1987)	Products : Project level	Market newness (most important) Production and technical synergy (2nd)
Cooper and Kleinshemidt (1987)	Products : Project level	Product advantage Product / firm technical synergy Good project definition Proficiency in the pre-development phase, marketing and technology
Hooley and Mann (1988)	Products : Project level	Superior product Effective sales force Competitive pricing Effective promotion No effective competition.
Pinto and Slevin (1988)	Products : Project level	Active client consultation Client commitment
de Brentani (1989)	Services : Project level	Formal NSD process, Service quality Innovativeness Good customer-client interface Involvement of all functions in the production and delivery of the service Continuous differentiation to retain competitive advantage Customer satisfaction
Johne and Snelson (1990)	Products : Program level	The existence of an explicit product development strategy as part of a proactive competitive strategy Use of formal systems in a "loose-tight" arrangement (loose in the beginning of NPD, tight during development and implementation) Wide range of development options supported by a wide range of specialist development staff. Technical and marketing skills Supportive top management involvement

Cooper and de Brentani (1991)	Industrial financial services : Project level	NPD uses skills and resources in synergy with those of the business (service expertise) Good product / market fit Unique, superior products Good quality execution of marketing activities Good quality execution of the product launch Market growth and size
Donnelly (1991)	Banking services : Project level	Six Ss for success: Superiority Sociability Satisfaction Simplicity Separability Speed
Edgett and Jones (1991)	Products : Project level	Adequate financial resources for market research Target market clearly identified Thorough and well organised NPD process High level of enthusiasm maintained by product development manager High personal contact between PD manager and people involved with the new product Product champion ready to push the new product through the system and to overcome delays and difficulties A strong launch campaign supported with sufficient funding Differentiated product in the marketplace Senior management commitment to the project.

<p>De Brentani (1991)</p>	<p>Business services :</p> <p>Project level</p>	<p>New service performance:</p> <p>Product / market fit attractiveness</p> <p>Products aimed at broad markets with volume and growth potential</p> <p>A detailed / formal NSD process</p> <p>Effective NSD management (manage effectively functional resources)</p> <p>Low service newness to the firm</p> <p>Product / company fit in production / delivery facilities, marketing skills and financial resources</p> <p>Expert personnel to interface with clients</p> <p>New services that provide for market segment adjustments</p> <p>Competitive performance:</p> <p>Service innovativeness</p> <p>Provision of tangible clues in new services</p> <p>Expert & trained personnel for service encounter</p> <p>Improved quality of service experience</p> <p>Product / market fit / attractiveness</p> <p>Aggressive competitive environment</p> <p>Product / company fit</p> <p>Proficient NSD function</p> <p>Cost performance:</p> <p>Effectively managed and formal NSD process</p> <p>Project synergy</p> <p>Services respond to demand cycle</p> <p>Other booster:</p> <p>Services aimed at small number of clients</p> <p>Product fit with company's skills, facilities and financial capabilities.</p>
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Easingwood and Storey (1991)	Consumer financial services : Project level	Overall quality Differentiated product Product fit and internal Marketing Use of technology
Iwamura and Jog (1991)	Products : Project level	A clear strategy and focus Good external and internal communication Good management of the idea generation stage of development The involvement of all design and delivery functions, including the customer Good communications between customer relations and product line departments Good and systematic monitoring of competitors and of all other sources of ideas Devolvement of budget authorisation on a case by case basis A reward system based on innovation Group decision making
Kleinschmidt and Cooper (1991)	Products : Project level	Product innovativeness Factors driving innovativeness: Product advantage Market potential Market competitiveness Marketing synergy Technological synergy Protocol Quality of execution of pre-development activities Quality of execution of market-related activities Quality of execution of technological activities.

de Brentani & Cooper (1992)	Business financial services : Project level	Product-market fit Quality of execution of launch / marketing activities Product synergy (product/company fit) Service expertise Product advantage
De Brentani (1993)	Financial services : Project level	Formal up-front design and evaluation Extensive launch program Supportive and high involvement NSD environment Marketing dominated NSD process Customer-driven and expert driven NSD process
de Brentani (1993a)	Industrial services : Project level	Focus on customer needs. Strong market need and customer potential for developed services Superior services offering improved benefits Synergy of services with company resources and facilities. Company expertise A well planned and formal launch strategy Formal NSD program
Easingwood and Storey (1993)	Consumer Financial services : Project level	Total quality of products (also for industrial services) Consistency of communications Direct mail strength Unique product (also for industrial services) Distinct company positioning, Effective segmentation Intermediary strength
Storey and Easingwood (1993)	New financial services : Project level	Internal marketing and synergy Technological advantage Market research Responsiveness Intermediary support Direct mail support

Cooper et al. (1994)	Products : Project level	Market synergy Managerial synergy Product advantage and product responsiveness A market-driven NPD process Innovative technology Good customer service Good marketing communications Good preparation for product launch
Edgett (1994)	Services : Project level	High levels of interfunctional co-operation; Highly qualified and talented development team Visible support by senior executives Sufficient resources including money, time, effort, and people Formalised processes Good pre-development work (including gaining good market information early in the development process) Market synergy Good business/financial analysis of projects and review at intervals Effective launch effort.
Edgett and Parkinson (1994)	Services : Project level	Organisational factors Market research Market synergy Business/financial analysis Launch effectiveness Formalisation Market potential Design testing
Hart and Baker (1994)	Products : No specified level	Quality customer and supplier inputs; Active collaboration between departments throughout the NPD process Fast NPD process in order to capitalise first on the new product opportunity

<p>Montoya-Weiss and Calantone (1994)</p>	<p>Products & services : Both levels</p>	<p>Strategic factors: product advantage, marketing synergy, technological synergy, strategy, company resources</p> <p>Market environment factors: market potential, market competitiveness</p> <p>Development process factors: Protocol, proficiency of pre-development activities, proficiency of market-related activities, proficiency of technological activities, top management support, control & skills, speed to market, costs, financial/business analysis.</p> <p>Organisational factors: Internal/external communication, other organisational factors (structure, climate, size, rewards, centralisation)</p>
<p>Cooper & Kleinschmidt 1995</p>	<p>Products : Program level</p>	<p>A high quality new product process</p> <p>A clear and well-communicated new product strategy</p> <p>Adequate resources for new products</p> <p>An entrepreneurial climate for product innovation</p> <p>Senior management commitment to new products</p> <p>Senior management accountability</p> <p>Strategic focus and synergy</p> <p>High quality development teams</p> <p>Cross-functional teams</p>
<p>De Brentani (1995)</p>	<p>Industrial services : Project level</p>	<p>Nature of service</p> <p>Product/market characteristics</p> <p>Project synergy</p> <p>Overcome barriers</p>

Atuahene-Gima (1996)	Services : Program level	Top management support and teamwork (functional interaction) Service innovation advantage/quality Importance accorded to innovation activity in human resource strategy Proficiency of market launch activity Marketing synergy Technological synergy Quality of the customer relationship.
de Brentani and Ragot (1996)	Business services : Project level	Customer participation in service production Fit with market needs Fit with marketing resources Focus on core competencies Superior service Market potential Staff expertise Effective development culture
Edgett (1996)	Financial services : Project level	Quality of execution of the activities of the development process (most importantly a more detailed market study / market research performed) Incorporating the voice of the customer in every facet of the project Market-driven new product process Frequency of new products activities Completeness of the new products process Quality execution of process activities Linking performance and the process
Storey and Easingwood (1996)	Services : Project level	Components of the augmented service offering: Service product Service augmentation Marketing support

Lynn, Valentine and Wright (1996)	Products : Project level	Structured NPD process On schedule development and launch Refining products after launch and have long-term view of NPD. Optimal team skills Understanding the market and its dynamics Top management support Applying lessons from past projects Good team chemistry Retaining team members with relevant experience Clear and shared vision of the project
Mishra, Kim and Lee (1996)	Mix of firms (products & services) Korea : Project level	Market intelligence Product-firm compatibility The nature of the new product idea (e.g. market derived or not?) Quality of launch effort Product innovativeness to the market Product's technical complexity
Brown & Eisenhardt (1997)	Financial services : Product portfolio level	Good external and internal communication Continuous innovation
Calabrese (1997)	Products : Project level	Integration of functions NPD teams Customer communication systems
Cooper (1997)	Products : Project level	Effective pre-development work Emphasis on the voice of customers and strong market orientation Tough go/kill decisions in the NPD process
Lynn, Abel, Valentine and Wright (1999)	Products & services : Project level	Having a long term view of NPD Stable project vision Rigorous NPD process

3.3.2 Organising for success: lessons from the successful innovators

After having reviewed the literature on factors that impact success, it is now important to see what constitutes successful NPD. Many studies have addressed the issue and have identified certain areas that value attention. Cooper (1988) finds that best NPD practices include a high quality NPD process, a clear new product strategy and resource commitment. John and Storey (1998) have reviewed the literature on NSD and identified three major characteristics of leading edge companies: (i) They invest equally into improving core service attributes and in providing support for buyer's evaluation, choice and usage needs; (ii) They follow a systematic approach to NSD, approach associated with superior performance at both the project and program levels; and (iii) They pay just as much attention to personal interaction inside their company as they do to personal interaction with customers. Also, the authors stress the danger of too much offer proliferation. They argue that "there is no point in satisfying customer's demands as precisely as possible if this cannot be achieved economically". In general, there are seven important areas to consider when organising for success as identified in the literature. Each of these is reviewed below.

3.3.2.1 Organisational structure

Successful innovators tend to have a decentralised structure (Mintzberg 1983; Sciulli 1998, Pettigrew 1999) with fewer levels of hierarchy (Pettigrew 1999) and empowerment of front-line employees (Frischer 1993; de Brentani & Ragot 1996). Decentralisation speeds up product adoption (Sciulli 1998) whereas employee empowerment in new product development units establishes an organisational climate that supports innovation (Frischer 1993). Furthermore, in successful companies that operate in highly competitive, rapidly changing environments with short product life cycles, the structure is found to be usually loose and does not follow a formal plan (Brown & Eisenhardt 1997).

3.3.2.2 Quality of the NPD process

The actual process of NPD is very important and has been the subject of extensive research. Whereas new product developers follow a structured process, in financial services research has shown that an ad hoc approach is preferred, where various phases of the process are omitted (Cooper 1994; Cooper and Edgett 1996).

In the idea generation stage of NPD, successful innovators tend to generate ideas from front line employees that are in contact with customers or customers themselves. Goshall and Bartlett (1998) argue that entrepreneurship is encouraged by those closest to the customers and that those closest to the customers (front-line employees) or the most knowledgeable about technology were usually far better placed to respond to fast-changing environmental demands or market opportunities. However, the best idea generators are found to be customers themselves (von Hippel 1978, 1986, 1988; Cooper and Kleinschmidt 1986; Grden-Ellson N. et. al., 1986; Yoon and Lilien 1988; Urban and von Hippel 1988; Calantone, Benedetto and Haagblom 1995). In particular, proactive idea generation (going to customers and asking them about new products) is associated with NPD success (Cooper 1986). It seems that it is better to go to customers and ask them about new products than wait for them to come to the company.

During the new product development process there are various areas that need attention when organising for success. Successful innovators have been found to operate a non-formalised process with very low bureaucracy levels (Sciulli 1998; Page 1993); to sustain good internal (interfunctional) as well as external communication (with customers and suppliers) within and across projects (Brown & Eisenhardt 1997; Pettigrew 1999), and to use cross-functional teams in order to decrease time to market (Cooper 1994) and help generate more creative, less problematic products faster (Donnellon 1993). Also, success in new service development has been associated with the existence of time-paced innovation (Brown and Eisenhardt 1997; Eisenhardt and Brown 1998). In this context, organisations develop new products based on set intervals, thereby keeping their competitive position in a rapidly changing environment like

financial services. Finally, successful innovators seem to have top management support and involvement throughout the NPD process (e.g. Montoya-Weiss & Calantone, 1994; Deal & Edgett, 1997; Cooper et. al., 1994; de Brentani & Cooper, 1992; de Brentani & Ragot, 1996). Innovativeness is unlikely without skilled leaders to guide the teams that develop new products (Barczak and Wilemon 1995).

3.3.2.3 Inter-functional integration

An area that has troubled researchers is the question of whether there should be an integration of the Marketing and the R&D functions. The integration of these two functions in the NPD process has been considered critical to new product success (Crawford 1984; Gupta, Raj and Wilemon 1986; Ruekert and Walker 1987; Song, Neeley and Zhao 1996). Olson et al. (1995) analyses the integration between Marketing and R&D in connection to the co-ordination mechanisms necessary to realise this integration (e.g. bureaucratic control, task forces, or more participative structures like matrix structures and design teams) described by Galbraith and Nathanson (1978) and Mintzberg (1979). The authors postulate that the mechanisms used depend on the extent of service newness. In corporate financial services, service newness is low and as a result it can be argued that it is difficult to have a high level of co-ordination among departments. However, they find that companies that do have effective co-ordination mechanisms are the more successful.

Collaboration between Marketing and other functional areas such as production, or design is also crucial for the creation of profitable and timely new products (Wind 1981; McCann and Galbraith 1981; Gupta, Raj and Wilemon 1986; Urban, Hauser, and Dholakia 1987; Souder 1987; House and Price 1991). Especially in services, various studies have emphasised that new service development is an interactive process, therefore it involves all departments of the firm (Booms et al. 1984; Shostack 1984; Easingwood 1986), because each has a specific part to play in the delivery of the service.

Gupta, Raj, and Wilemon (1986) postulate that a firm's innovation success (i.e. its track record in developing successful new products) is contingent on how well the degree of interfunctional integration actually achieved matches the ideally required level of integration. Also, Ruekert and Walker (1987), consistent with Gupta, Raj, and Wilemon (1986) suggest that in turbulent and complex environments (like financial services), the functional departments of a business are more dependent on each other for the expertise, information, and other resources needed to perform their jobs and as a result, the integration of functions is greater.

3.3.2.4 Organising resources

Organising resources (people and money) and guaranteeing their availability is one of the major tasks of new product developers. Availability of resources (both in people and money) has been shown to impact new product performance (Montoya-Weiss & Calantone, 1994).

In terms of employee quality, success in new product development has been associated with having a highly specialised and trained personnel at the front line and during operating assignments (De Brentani & Ragot, 1996; de Brentani & Cooper (1992); Cooper & Edgett (1996). Having a high number of specialists in the organisation indicates that a broad knowledge base exists that can lead to more innovative ideas (Mintzberg, 1979; 1983). This conclusion becomes even more important when we consider that it has been shown that within new product development teams, team members who have the necessary specialist and social skills are better able to select and exchange relevant information with customers (Helfert & Vith 1999). On the other hand it is also very important to scatter these specialists within the organisation so that their knowledge can be exploited in full (Mintzberg 1983). In addition, companies operating in knowledge-intensive industries like corporate banking should hire employees that have a variety of backgrounds and experiences so that they can combine their diverse knowledge in creating more successful new products (Hargadon 1998).

Trained employees of successful businesses are required to have advanced marketing skills (de Brentani & Cooper 1992, Montoya-Weiss & Calantone 1994; Cooper et al. 1994; De Brentani & Ragot 1996; John & Pavlidis 1996). Especially, in the business-to-business market, due to the high knowledgeability of the customer and the differences of customer needs, the most important marketing skills are customer contact and management skills. Apart from such skills, employees should also be able to learn from customers and from each other, share their knowledge and exploit it for the good of the organisation. Hargadon (1998) says that employees should be encouraged to seek others' knowledge and share their own (to have an "attitude of wisdom"). In other words, they have to be good knowledge brokers.

Financial resources are also an important consideration. Page (1993) found that lack of financial resources is a major obstacle to successful new product development. A failed product incurs very high costs for the developing company. New product development usually requires big budgets and availability of financial support is essential. That is why spending and budgets for new product development are positively linked to project or company performance (Drew 1995).

3.3.2.5 Speed of development and first to market

Speed of development is recognised as an important dimension of success (as shown in paragraph 3.3.1.3). Successful innovators bring products to market more quickly and produce more products (Parsons 1991). Frerichs (1998) analyse product development activity in the electronics industry and posits that "a holy grail" for electronics companies is to quickly develop products that are more on target to market needs. He identifies the practices followed by successful innovators in speedy development. Those are: (i) long pre-development work involving evaluation of product options and creating development plans; (ii) set development practices that make the development process predictable; (iii) flexibility in the development process, where functions and features are added later in the development cycle; (iv) Outsourcing that can save crucial development time, reduce capital expenditures and avoid unnecessary short-term staff

increases; and (v) use of intranets in new product design that enable communication between members of global development teams and allow a better management of the company's knowledge capital. In financial services development, being first to market is identified as important to new service development success (Easingwood and Storey 1991; John and Pavlidis 1996).

However, developing products fast and being first to market has been the subject of conflicting criticism. On one hand some researchers postulate that there are many competitive advantages (Rumelt 1982; Glaser 1985; Robinson and Fornell 1988; Kerin et al. 1992; Millson, Raj and Wilemon 1992; Vesey 1992; Brown and Karagozoglou 1993; Peterson 1993; Zahra and Ellor 1993) and economic advantages (Urban et al. 1986; Lambkin 1988; Robinson, Fornell and Sullivan 1992) in being first to market with new products. Lieberman and Montgomery (1988) argue that first movers gain advantage through technological leadership by moving up the experience curve before competitors, and by pre-empting competitors in acquiring market positions. Tufano (1992) looks at business banking and concludes that first movers can realise lower costs and larger quantities than imitators can. He also argues that first movers acquire a reputation and credibility that could not be achieved through advertising. Others have argued that by being first, companies have the best chance of creating customer awareness (Lawless and Fischer 1990; Brown 1991; Schnaars 1991). Calantone, Benedetto and Haggblom (1995) reveal that pioneering firms have an advantage over later entrants and will end up with a higher market share in the long run. Urban et al. (1986) and Day and Wensley (1988) posit that pioneers develop the rules for subsequent competition and as a result consolidate their position in the market and acquire market share advantages. In connection to financial benefits, researchers have concluded that first movers have a better financial performance (higher profits and sales) (Kerin et al. 1990; Green and Ryans 1990; Peterson 1993) because they have the opportunity to charge a premium price and therefore realise extensive sales and high profits (Rosenau 1988, 1988a).

However, on the other hand there is also criticism of the benefits of being first to market. Tufano (1992) questions whether innovators have a first-mover advantage because he found that they do not enjoy pricing advantages, but achieve quantity advantages by charging lower prices than imitators. The development of a new financial product requires an investment of about \$5mil and imitators typically invest 50% to 75% less than innovators to launch imitative products. Calantone, Benedetto and Haagblom (1995) argue that later entrants can do better than pioneers in the long run if they have advantages of either lower costs, superior manufacturing techniques, or improved product design. Followers enter the market with greater certainty, having learned from the experience of first movers (Mansfield et al. 1981) and therefore, pioneering firms may not necessarily retain their dominant position (Schnaars 1986).

In banking, high costs related to new service development have forced some banks to resort to a follower strategy (copying pioneers) (Mansfield et. al. 1981; Assael 1985; Urban, Hauser and Dholakia 1987; Quinn et. al. 1988; Johne and Snelson 1990). However, in commercial banking, products are highly complex and require specialised skills and therefore, it is difficult for competitors to copy them (MacMillan, McCaffery and Wijk 1985). Therefore, in business-to-business markets, there could be a bigger first-mover advantage for the innovative organisation.

In summary, we can safely conclude that being first can at times be an important advantage for organisations. The advantage can come from economies of scale and scope, increased innovative reputation, or closer relationships with customers. However, companies should be conscious of other considerations as well when developing new products because being a pioneer is only part of being successful.

3.3.2.6 Incremental vs. radical NPD

Literature suggests that being successful in NPD requires different approaches according to the type of innovation developed (Souder 1978; Duncan 1979; Booz, Allen and Hamilton 1982; Crawford 1983). Radical and incremental development success would appear to call for different development structures, and innovation strategy. Johne (1985) has identified the different structures that are appropriate for radical and for incremental new product development. Table 3.4 lists the types of structures identified. Radical NPD requires more formal structures (venture groups or teams) that are dedicated to NPD. In contrast, incremental development can be realised with less formal structures because it is a smaller challenge for the developing company.

Table 3.4: Types of organisational structures for NPD

TYPES OF ORGANISATIONAL STRUCTURES FOR NPD	
Radical Product Innovation	Incremental Product Innovation
New venture group or department	Standing new product Committee
New venture team	Temporary new product Committee
	New product department (staff)
	New product department
	Marketing department
	- New product group
	- New product managers
	Technical department
	Marketing department led project team
	Technical department led project team
	Inter-departmental project team
	Modular matrix

Source: Johne (1985)

Fox et al. (1998) analyse NPD at the project level and posit that the innovation strategy that an organisation adopts depends on the level of innovation required by the project and that no single NPD strategy will work for all projects. The authors find that development of incremental products (the ones mostly developed in financial services) requires a mix of market-driven and speed to market strategies because of their low technical and marketing uncertainty. In other words, companies that aim to be successful in their incremental developments should focus on satisfying customer needs and use external customers for idea generation, as well as conduct extensive analysis of the market including customers and competitors (market-driven strategy). Also, a speed to market strategy will be beneficial because it involves simplifying the development process by eliminating steps, do parallel processing, eliminate delays and speed up operations.

The adoption of radical or incremental NPD depends on the industry developers operate in. In manufacturing, radical innovation can provide competitive advantages related to patents, and increased sales or profits. However, in rapidly changing, highly competitive environments, infrequent, large innovations create many problems (Brown and Eisenhardt 1997). Hargadon (1998) agrees that for some organisations continuous innovation (in incremental steps) is the only way ahead. In such cases, although new products are not radical, the innovators achieve a competitive advantage by being able to rapidly and continuously innovate and stay ahead of competition.

Finally, the categorisation of a new product as radical or incremental can influence the type of factors that impact on the success of these products. Different success factors will be uncovered for radically innovative new products than will be seen for product modifications or improvements. Hultnik and Robben (1995) hypothesise that using financial measures of success such as revenue growth and unit sales goals may be more important for new products with slight improvements than for new-to-the-world products. That could be explained by the fact that radically new products take time to realise sales and profits. In general, the degree to which a product can be considered as

“new” or “innovative” may have significant impact on its success and on the antecedents of its success (Craig and Hart 1992; Montoya-Weiss and Calantone 1994).

3.3.2.7 Corporate culture

A corporate culture that emphasises customer satisfaction, supports continuous innovation and is based on strong market orientation and on building long-term relationships with customers has been associated with success in NPD and NSD. The importance of market orientation in successful development of new products is emphasised in many studies (Myers and Marquis 1969; Rothwell 1972; Rubinstein 1976; Cooper 1979, 1980; Cooper and Kleinschmidt 1987; Maidique and Zirger 1984; De Brentani 1989; De Brentani and Cooper 1992; Edgett, Shipley and Forbes 1992; Edgett 1994; Atuahene-Gima 1996a). Market orientation emphasises the need for firms to focus on customers and on satisfying their needs, to have a market-oriented strategy in NPD.

Market orientation is related to relationship orientation. Establishing long-term relationships is one major issue that is of great interest to researchers. Companies that do have effective relationships with their customers, especially in business-to-business markets, tend to be more successful in NPD. Relationship orientation encompasses two things: a mutual willingness of the two partners to enter a relationship and a mutual placing of a high value on this relationship. Heide & John (1992) found that solidarity (mutual expectation that a high value is placed on the relationship) leads to a longer and eventually a more trusting relationship. Biong, Parvatiyar, and Wathne (1996) find that a lack of relationalism in company policy is inhibiting relationships and that when the culture of the organisation is open and reinforces the forming of close long-term relationships, then the possibility of forming effective relationships is higher. When a relationship is present, exchange of information is easier, and more extensive, between supplier and customer and this affects new product success. That is why big banks have strived to become market-oriented by developing corporate business centres with experienced relationship managers (e.g. Barclays, Midland, and Natwest).

Finally, corporate banking is a highly competitive, rapidly changing market with short product life cycles and therefore, it is an ideal market for continuous innovation. As a result, a culture that supports such innovation increases new product success (Parsons 1991; McCrimmon 1995; Brown & Eisenhardt 1997; Hargadon 1998).

3.3.3 Conclusions

The review of the literature on NPD and NSD provides a set of useful conclusions. First, success/failure studies that focus on program level success in services, analyse the strategic business unit and are based on case studies are limited. Second, the major success factors identified are related to four areas of NPD: (i) the product itself; (ii) the process of its development; (iii) the quality of employees taking part in the development process; and (iv) the quality of communication with customers and the amount of customer participation in NSD. Third, speed of development or speed to market emerges as an important dimension of success for both new products and services. In particular, it has been shown to be very useful in measuring success in turbulent, rapidly changing markets with short product life cycles like corporate banking. Fourth, communication with customers and building long-term relationships are seen to be critical for successful NSD. Ideally, many company functions work together, in an integrated fashion and customers are contacted extensively throughout the development process. Therefore, enhancing the process of communicating with customers emerges as an important problem for today's businesses.

3.4 Customer participation in new product/service development

Financial services in general and corporate financial services in particular constitute an industry in which customers' involvement in service production and delivery is of particular importance. This is due to the fact that the ability of a financial service provider to meet the needs of its customers is heavily dependent on the information provided by those customers (Ennew and Binks 1996).

Whereas goods are first produced, then sold and then consumed, services are first sold, then produced and consumed simultaneously. This inseparability of production and consumption is commonly cited as one of the distinctive characteristics of services. An important consequence of inseparability is that service provision requires the participation of both customers and service providers.

3.4.1 The concept of customer participation

Customer participation is a concept well developed by researchers (Lovelock and Young 1979; Bowen 1986; Mills and Morris 1986; Kelly, Donnelly, and Skinner 1990) and is used to describe the degree to which customers and service providers involve themselves in the service relationship. The importance of customer participation in new product development has been widely recognised in the literature (e.g. Lovelock & Young 1979; Bowen 1986; Mills & Morris 1986; Kelly, Donnelly & Skinner 1990). Von Hippel (1977) claims that a significant percentage of innovative new products are identified and developed by customers. Customer participation has been identified as especially important in the development of many types of new financial services (Akamavi, Thwaites & Burgess 1998) and in rapidly changing markets where it helps to decrease the uncertainty and mitigate the risk associated with the new product, resulting in more successful new products (Atuahene-Gima 1996; Drew 1995; Frambach et al. 1998; Mullins and Sutherland 1998). Also, the importance of customer participation is further emphasised by the Marketing Paradigm of the 1990's (the way companies might best

exercise marketing in the end of this century) that calls for extensive customer involvement in new product development (Akamavi, Thwaites, and Burgess 1998).

Effective customer participation can increase the likelihood that needs are met and that the benefits the customer is seeking are actually attained (Bitner, Faranda, Hubert, and Zeithaml 1997). Edvardsson and Olson (1996) argue that it is very important to involve customers in the service development process and to help them articulate their needs. Customer involvement is an important method used to decrease development time, is especially useful in incremental innovation, and could complement the efforts of a multifunctional team toward enhancing the generation of fruitful new product concepts (Karagozoglu and Brown 1993). Customer participation (or involvement) can also improve the effectiveness of the product development process (Cooper & Kleinschmidt 1986; Zirger & Maidique 1990). Including customers in the development process helps ensure success of the commercialisation efforts since gaining customer input early in the product design process improves the chances that the new product will satisfy customer needs (Lengnick-Hall 1996). Service organisations benefit from customer participation in a number of ways. Bitran and Pedrosa (1998) provide a list of benefits including cost reductions, and acceptance of responsibility for new products by customers.

It has been claimed that customer participation is especially important in the case of new services that are either relatively complex (such as consultancy) or relatively long-lasting (such as certain types of banking) or both (such as life insurance) (Ennew & Binks 1996, 1997). Especially, business-to-business markets have been identified as requiring extensive customer participation (de Brentani 1991, 1995; Bitner, Faranda, Hubert & Zeithaml 1997). The underlying reason for this is that in business-to-business markets clients often form an integral part of the service offering. As a result, they provide key information required to determine the nature of the service and often take active part in its actual design and production (Lynn 1987; Gummesson 1993; Bostrom 1995).

Customers participate in new product development in different ways. Participation ranges from supplying new concept ideas (von Hippel 1978, 1986, 1989; Mills et al. 1983; Akamavi, Thwaites & Burgess 1998) to co-producing the product (von Hippel 1978; Foxall & Tierney 1984; Akamavi, Thwaites & Burgess 1998). The customer assumes many roles during NPD and is described as a productive resource, and a contributor to quality, satisfaction and value (Bitner, Faranda, Hubbert, and Zeithaml 1997; Akamavi, Thwaites and Burgess 1998b), as a supplier of information (von Hippel 1978; Mills et al 1983; Akamavi, Thwaites and Burgess 1998), as an ultimate judge of new products (Akamavi, Thwaites and Burgess 1998), and finally as a co-producer in developing new products (von Hippel 1978; Foxall and Tierney 1984; Akamavi, Thwaites and Burgess 1998, 1998b). Understanding customer's roles could be the key to improving the success of new product development (Akamavi, Thwaites, and Burgess 1998).

3.4.2 The nature of customer participation

As the work of many researchers demonstrates, customers are the main source of innovative ideas (von Hippel 1978, 1986, 1988; Cooper and Kleinschmidt 1986; Grden-Ellson N. et. al. 1986; Urban and von Hippel 1988; Yoon and Lilien 1988; Calantone, Benedetto and Haagblom 1995) especially when companies seek information for business planning or new ventures (Smeltzer et al. 1988; Brush 1992). Therefore, they should be used extensively for idea generation and evaluation (Grden-Ellson N. et. al. 1986). Calantone, Benedetto and Haggblom (1995) have tested the conclusion of other researchers (Urban and von Hippel 1988; von Hippel 1978, 1988) that together, product users and the marketplace form the most important source of new product ideas and results showed agreement of around 70% of respondents. However, Edgett, Shipley and Forbes (1992) found that only a small percentage of new product ideas originate from either customers or distributors for both Japanese and British firms (In Japan 15.5% of ideas originate from customers and 3.4% from distributors whereas in Britain the percentages are 24.4% and 4.7% respectively).

Von Hippel (1978) has studied in detail the role customers play in initiating innovation and has developed two different paradigms. The first one developed was the Manufacturer Active Paradigm (MAP) used mainly in manufacturing industries. The manufacturer/marketer takes responsibility for the location and appraisal of buyers' needs (by means of market surveys, idea generation techniques and concept screening), for analysing the data, developing a responsive product idea, and for testing the idea against customer perceptions and purchase decisions. Customer's role is essentially that of respondent, 'speaking when spoken to'. The MAP is mostly used in cases where customers can be easily and economically identified through survey techniques and where the marketer's opportunity to sell is of relatively long duration. When customers' needs are latent and require external arousal before a purchase is likely to occur, MAP represents the only means of initiating an innovative process.

Sometimes, though, MAP is not an accurate description of new product development. Von Hippel (1978) says that, sometimes, it is the role of the would-be customer to develop the idea for a new product, select a supplier capable of making the product, and take the initiative to send a request to the selected supplier. In this situation, the role of the manufacturer is to wait for a potential customer to submit a request, to screen ideas for new products, and to select those for development which seem to offer the most promise from the manufacturer's point of view. This description of industrial innovation in practice has been termed the Customer-Active Paradigm (CAP) by von Hippel (1978). CAP can be applied to situations where the would-be customer is overtly aware of his new product need and under circumstances in which the new product opportunity is 'accessible to manufacturer-managed action'.

Foxall and Tierney (1984) go beyond the notion of CAP 1. CAP 1 describes the role of a customer who is active in idea generation but passive in the commercial exploitation of the resulting innovation. Although this is the case in many industries and companies, there is a need for another paradigm of customer activity, CAP 2, in which the initiative for commercialisation also comes from the user-innovator. The user-innovator takes an active, entrepreneurial role in the successful commercialisation of the new product. This

can be called customer-initiated entrepreneurship. Table 3.5 shows the loci for the three different paradigms.

Table 3.5: Loci of Invention, Innovation and Entrepreneurship in MAP, CAP 1 and CAP 2

	MAP	CAP 1	CAP 2
Locus of invention	Manufacturer	Customer	Customer
Locus of innovation	Manufacturer	Customer/Manufacturer	Customer
Locus of Entrepreneurship	Manufacturer	Manufacturer	Customer/Manufacturer

Source: Foxall and Tierney (1984)

Foxall and Tierney (1984) have reviewed von Hippel's work and conclude that although it centres on manufacturing products, the ideas can be easily used in financial services. On one hand, services are developed a lot faster than industrial products but on the other hand, customers have to deal with much more abstract and strange concepts when they try to come up with a new financial service that would be of particular use to them.

The message from the literature is clear that customers play two important roles in NPD, that of an initiator of innovation as well as that of a co-producer of new products. Seeing customers as co-producers (or co-developers) of new products has far reaching implications for NPD. The creation of new products may originate from a direct interaction between the customer and the employee and therefore, the customer should not just be the person who receives and assesses the outcomes, but he or she should create and produce them (Akamavi, Twaites and Burgess 1998b). The authors argue that when the customer is conceived as a co-producer, the interaction between the parties should generate more value than a traditional transaction process, during which the buyer and the firm meet briefly, exchange new finished products, and then go their

separate ways. They also postulate that due to co-production, there is a deeper interaction between firm and buyer that can improve the level of creativity on both sides and this in turn may give birth to or bring forth new ideas and novel ways of developing new products.

However, on the other hand, as has been pointed out by Hayes and Abernathy (1980), most customers will couch their needs in terms of the products they know, which can lead suppliers into a spiral of imitative me-too products. Also, Tauber (1979) has shown that basic market research techniques may actually inhibit product innovation because customers find it particularly difficult to articulate future demands and needs. As has been stressed by Cooper (1979), Brockhoff (1981), Tushman and Moore (1982), and Schmitt (1985) truly successful product innovators ensure the interplay and balance between highly skilled marketing inputs and highly skilled technical inputs.

Nevertheless, the extent of customer participation is critical in many NSD situations. Akamavi, Twaites and Burgess (1998b) argue that the degree of customer participation in financial products should be one of the most fundamental characteristics of a new financial product. The extent and nature of participative behaviour is thought to be influenced by specific characteristics of the individuals concerned as well as by the institutional atmosphere surrounding the relationship between supplier and customer (Ennew and Binks 1997). Individual characteristics might encompass specific aspects of personality as well as more general socio-economic characteristics. For example in banking, it seems plausible that firms which are dependent on bank finance for growth, firms which are larger and firms which are more profitable may be much more aware of the benefits of sharing information with their bank managers. Equally, the supplier's willingness to participate may also be influenced by the relative attractiveness of different customers. Thus, it might be expected that bank managers might make more of an effort to participate with those firms that are more likely to benefit from the managers' involvement because they are growing or profitable.

Participation may also be influenced by the institutional atmosphere of the relationship. This construct was developed in the IMP work on relationships and describes the general features of the relationship between companies including the nature of any power-dependence links and the degree of conflict and co-operation present. It can be used to describe the way in which the customer perceives that he interacts with the organisation as a whole. This would be expected to impact on his willingness to participate in a relationship with the individuals who represent that organisation. Finally, the extent of participation can be influenced by the way companies treat their employees. Bowen (1986) argues that if customers are treated as "partial employees" and are provided with the direction, ability and motivation to contribute to NPD, they would feel free to participate more.

3.4.3 Customer participation and new service success

Many studies have demonstrated a link between customer participation and new service development success (e.g. de Brentani 1991 1995; Karagozolu & Brown 1993; Martin & Horne 1993, 1995; Cooper & Kleinschmidt 1994; Drew 1995a; Filiatrault & Lapeirre 1997). De Brentani and Ragot (1996) found that a unique success factor for professional services is customer participation in the production of the service. They emphasise that this is due to the fact that clients provide key information for new services and are often an integral part of the service offering. Martin & Horne (1995) investigated success at the project level and found that direct input from customers themselves or indirect input through contact staff, as well as the amount of information used from those customers at three major stages of the development process were differentiators of new service success. Dahl, Chattopadhyay, and Gorn, (1999) argue that customer participation in product design leads to more appealing products. Customer participation favours better understanding of customers' needs on the part of the firm and greater understanding of the advantages to be gained, and creates a stronger feeling of being part of the decisions being taken on the customer's part (Kelly, Donnelly and Skinner 1990). Maidique and Hayes (1984) report that continual, informal, in-depth contact with customers throughout the development process is a factor impacting success and Pinto and Slevin

(1988) identify “active client consultation” and “client commitment” as two major factors critical to new product success.

A few of the studies on success and failure of new products have also concluded that proficiency in pre-development activities (detailed market study of customer needs, market research), where the customer is most likely to get involved, is a major indicator of success or failure of new products (e.g. Cooper and Kleinschmidt 1987; Deal and Edgett 1997). De Brentani (1993a) notes that these activities are even more important for highly customised, high-contact industrial services (like corporate banking services).

Apart from being important generally in new service success, customer input has been shown to be critical in speedy new service development (Karagozoglu & Brown 1993; Cooper & Kleinschmidt 1994; Drew 1995; Datar et. al. 1996). Cooper and Kleinschmidt (1994) argue that building the voice of the customer in new product development is critical to on-time, fast-paced product development projects. Projects that are market-oriented and customer-focused, which build the customer into the process from beginning to end will move more quickly. The authors characteristically say:

“The customer and market focus sharpens product definition and gets the product requirements and specifications right. It also validates and confirms the product design as development and testing proceed, thus minimising last minute changes in product specifications, which prove costly both in terms of lost time and extra expenditure.”

Drew (1995) postulates that the use of employee and customer suggestions can result in faster new product development whereas Karagozoglu & Brown (1993) as well as Datar et. al. (1996) argue that customer involvement is one of the most important strategies used to decrease development times.

Researchers such as von Hippel (1978, 1986, 1989), Ennew & Binks (1996, 1997), Foxall & Tierney (1984), and Herstatt & von Hippel (1992) have identified inputs from

so-called “lead users” as being particularly important in successful new product development. Von Hippel, (1986, 1988, 1989) finds that getting information for new product development from “lead users” is associated with more successful new product development. The whole idea centres on the fact that the richest understanding of needed new products is held by just a few users. Lead users are the rare members of the population (or businesses) who have a strong need for new products or services. Because few people share this need, lead users lead the market and foreshadow demand (von Hippel 1989). Lead users (or customers) have two major characteristics: (i) They face needs that will be general in the marketplace, but face them long before the bulk of the marketplace encounters them; and (ii) They are positioned to benefit significantly by obtaining a solution to those needs (Urban & von Hippel 1988). Based on these criteria, it is possible to identify those users and then draw them into a process of joint development of new product concepts with manufacturing personnel. Lead users have also been termed “prosumers” by Alvin Toffler in his renowned *Future Shock* (adopted by Wah 1999), a term used to describe customers who also play the role of the producer. Toffler says that by seeking out prosumers a company can identify future market needs and accelerate its rate of innovation.

The use of “lead customers” has been proven to be very beneficial for companies since Herstatt & von Hippel (1992) found that the lead user method was much faster (twice as fast) than traditional ways of identifying promising new product concepts as well as less costly (half the cost of other methods). Magrath (1997) argues that mining ideas from lead users can decrease the risks associated with launching new products. Von Hippel (1986) has proposed that analysis of need and solution data from lead users can improve the productivity of new product development in fields characterised by rapid change. Also, Urban & von Hippel (1988) have found that lead users have unique and useful data regarding both new product needs and solutions responsive to those needs. New product concepts generated on the basis of lead user data were found to be strongly preferred by a representative sample of the users of the products developed. User-initiated innovations tend to enjoy greater commercial success than products from other sources (Haeffner 1979). Due to its advantages for companies, lead user research is one

successful methodology that has been implemented in a number of companies that value input from their top echelon of customers (Wah 1999a).

Nevertheless, although the value of lead customers' input in NPD has been accepted in the literature, there is a debate as to when it should be used during the new product development process. On one hand, Von Hippel (1989) argues that the users who have the most to gain from innovation (lead users) can turn out to be the best sources of developmental ideas. On the other hand, other researchers (e.g. Quinn 1985) have noted that the involvement of lead users in NPD may not be restricted to the idea-generation stage but may extend to all stages of the NPD process.

3.5 The need and opportunity for research

Customers participate in NPD assuming different roles that range from generating new product ideas to co-producing the product. The extent of customer participation in service production and delivery has been identified as particularly important in successful NSD. Customer involvement in the NPD process has been shown to improve the effectiveness of the product concept in the rational plan stream (e.g., Cooper and Kleinschmidt 1987; Zirger & Maidique 1990). However, it is not clear exactly what roles are played by customers and how and when customers are appropriately involved in the development process (Brown and Eisenhardt 1997; Akamavi, Twaites and Burgess 1998a).

Analysing customer's roles throughout the development process, finding out what is the best amount of customer participation in NPD and what is the best way, and the best time to communicate with customers are issues that companies face today. Also, in view of the importance of customer-supplied information in new service development, ensuring excellent communication with customers becomes a key element in the new product success equation. The quality of communication with customers as well as the amount of information exchanged are shown to be major factors impacting new service success. This becomes even more important when we consider that some companies

(mostly small and medium-sized) have the potential to provide their suppliers with a range of useful and relevant management information and yet fail to do so due to communication and planning problems (Edwards and Turnbull 1994).

Based on the conclusions of the literature review, we re-emphasise the need to research customer's role in NSD and the management of developer-customer communication with an aim towards obtaining better quality of customer-supplied information that may help increase new service success.

3.6 Conclusion

This chapter has reviewed the literature on successful NPD and NSD and has shown that customer participation is critical in successful NSD. Also, it has re-emphasised the need to research customer's role in NSD and the management of effective developer-customer communication in the course of NSD. The next chapter will look into the importance of such communication and present the propositional framework we will use to analyse it.

CHAPTER 4

DEVELOPER-CUSTOMER COMMUNICATION: THE PROPOSITIONAL FRAMEWORK

4.1 Introduction

In the previous chapter we have reviewed the literature on managing new product and new service development and we have explained how developer companies organise for success. We have also established that customer participation is critical for successful new service development. However, customer participation becomes possible through a communication effort. Consequently, ensuring effective communication between developer and customer is very important for new service success. In this chapter we will analyse the concept and nature of communication; show why communication between developers and customers is important; describe the research opportunity; present the research question, and develop the propositional framework that will be used in this study to analyse developer-customer communication.

4.2 The concept and nature of communication

Communication is an essential ingredient in the internal functioning of an organisation and is also vital in the organisation's exchanges with its environment. It is the lifeblood of the organisation (Rogers & Agarwala Rogers 1976). It helps in making and executing decisions, obtaining feedback, and correcting organisational objectives as the situation demands. The first full definition of communication developed states that "Communication is the process by which an idea is transferred from a source to a receiver with the intention of changing his or her behaviour". Thus, effective communication results in changes intended by the information source, changes in knowledge, attitude or overt behaviour (Rogers and Agarwala-Rogers 1976; Rogers and Shoemaker 1971).

According to Berlo (1960) the four main components of the communication model are the source, the message, the channel, and the receiver. This model is referred to

as the S-M-C-R model. The source is the originator of the message, the message is the stimulus that the source transmits to the receiver, channel is the means by which a message travels from a source to a receiver, and the receiver is the one who gets the message. Communication has certain effects on the receiver, changes in his behaviour that occur as a result of the transmission of the message. Finally, the concept of feedback is very important in the communication model. Feedback is a response by the receiver to the source's message and makes communication a dynamic, two-way process. Communication is not a one-way flow of a message from a source to a receiver. The receiver also generates information and messages for the source, and, in fact, such interaction is necessary for communication to thrive. The more feedback-oriented is a communication process, the more effective it is (Rogers and Agarwala-Rogers 1976), especially when the organisation is also implementing some feed-forward (gains information about the receivers prior to initiating communication with them, and uses it to design communication messages for maximum effectiveness).

Most past communication research was based on studying the effects of altering one of the components of the S-M-C-R model on the receivers. Effects-oriented research treated communication as something that one person does to another and this goes against the theoretical conception of communication as a process. It implies a linear, left-to-right, one-way aspect to the communication event, which is incompatible with our conception of communication as a two-way, reciprocal exchange process (Rogers and Agarwala-Rogers 1976). These problems led to the conceptualisation of communication as a system instead of a linear process around the 1960's. Such a systems model of communication assumes a great degree of equality between the participants in the communication effort. Communication is conceived of as a dialogue, in which source manipulation of the receiver may be counterbalanced by receiver influence on the source. The purpose of communication is to commune with, rather than just to persuade or command (Rogers and Agarwala-Rogers 1976). Thus, communication is the sharing of information. To communicate means to engage in communication and become part of a communication system. So, in that sense, communication is a transactional exchange between two or more individuals (Watzlawick et al. 1967). Communication occurs as a series of exchanges, with each

subsequent message building on the previous one. The roles of source and receiver are reversed with each sequential exchange. Thus, communication assumes a multidirectional, transactional nature that was overlooked in earlier linear models. Some researchers have even looked at communication with the notion that it can be analysed using networks, not groups of people. The network is distinct from group in that it refers to a number of individuals (or other units) who persistently interact with one another in accordance with established patterns. Communication flows occur among "tranceivers", in the network, who are both transmitters and receivers (Pool 1973, p. 751) and no sharp distinction is made between the two. In this context, communication becomes a truly mutual interchange.

4.3 The importance of communication in NPD

Studies in non-service environments show that NPD performance is heavily influenced by the quality of internal and external communication during the innovation process (Allen 1985; Clark and Fujimoto 1991). The importance of communication has been substantiated in many NPD studies where scholars have argued that innovation processes are essentially communication and information processing (Tushman 1979a, 1979b; Tushman and Nadler 1980; Fidler and Johnson 1984; Allen 1985; Brown & Utterback 1985; Souder and Moenaert 1992). The ability to process information has a considerable effect on the effectiveness of communication. Especially in the type of context investigated in this study, which is characterised by a rapidly changing environment with short product life cycles and by the development of complex products, information processing is very important. Tushman and Nadler (1978) point out that when the task is complex, the environment is dynamic and there is a need for intra-department co-operation and dependence in order to accomplish the task, information processing requirements are higher because uncertainty regarding the task at hand is greater. Developing a new product that is complex creates a lot of uncertainty and needs the input of many different departments of the organisation as well as of customers in order to be successful. As a result, there is a need for increased communication and information processing. These two concepts are closely linked. It is not enough to communicate but there is also a need to process the information appropriately if it is going to be

useful for NPD. So, effectiveness in information processing has an effect on the effectiveness of communication.

Although the issue of effective communication has been emphasised in the service management literature (e.g. George 1986; Gummesson 1987; Gronroos 1990), the more recent literature on financial new service development has given little attention to the subject. The studies that did indeed address this subject indicated that the effectiveness of communication (external or internal) is a critical antecedent of new service success (Lievens and Monaert 1994; Brown and Eisenhardt 1997; Lievens et al. 1999). However, while we now know that effective communication is essential to new service success, at present we still lack a solid understanding of the role of effective communication during NSD and in particular of the nature of communication between new service developers and their customers.

4.4 Importance of developer-customer communication.

Developer-customer communication has been identified as a very important activity for NSD. Various studies have concluded that extensive communication with customers about new products leads to more successful new products (e.g. Drew 1995; Atuahene-Gima 1996; Frambach et al. 1998). Gobeli and Brown (1993) emphasise that it is very important to communicate with customers throughout the NPD process and that such communication results in products that serve the market better and is critical for new product success. Accordingly, not knowing customer preferences is a source of new product failure. Gobeli and Brown (1993) explain how communication with customers helps NPD by saying that:

Talking to customers was again frequently mentioned as the way to improve product development; this is an indirect way of improving the use of resources through better focus and improved development processes. Firms accomplished this by having project members visit customers, having customers evaluate the design at various steps, and by generally making sure those doing the development have direct communication with potential users.

Effective development appears to require a project team that talks to the customers (as oppose to talking to itself). In one respondent's words, "communication with the customer results in a product that serves the market."

Especially in rapidly changing, highly competitive environments (like corporate banking) customer needs change fast. As a result developer companies need to communicate with customers throughout the NPD process in order to develop successful new products fast. So, in such an environment, intense customer contact even before production takes place can be a valuable resource for a firm (Bowen et al. 1989). Especially when the new product is complex communication with customers helps to identify key customer needs, translate them into attractive product concepts, and realise them in detailed product designs. Also, Clark and Fujimoto (1991) emphasise that when developing complex products, developers should not only listen to current customers, but also interpret and articulate the latent needs of potential customers, and propose new product concepts that address those needs.

In services, Brown and Eisenhardt (1997) find that successful new service developers have frequent and direct contact with their customers and Gupta, Wilemon and Atuahene-Gima (2000) conclude that frequent and early communication between the functions of R&D and Marketing and customers is important for successful NSD. On the other hand, Martin and Horne (1995) postulate that the amount of contact and the amount of information from customers that is used by developers impact on new service success. Therefore, when companies encourage their employees to talk to customers and train them to communicate effectively, they increase their chances of success (Dumont 1999). In the banking market, research has shown that there is a need for banks to communicate with customers or else they will lose market share (Stowe 1998). As Edward R. Furash, chairman of the like-named consulting company in Washington, D.C, says "*If banks don't communicate they'll lose market share. The worst thing to do is hide*". Stowe (1998) emphasises the importance of communication with customers and lists the different communication methods banks use such as newsletters, semi-annual mailings, a Web-site, recorded telephone commentaries and educational brochures.

Maintaining extensive contact with customers involves opening a two-way communication channel that creates a relationship. Research has shown that a relational exchange between developers and customers can provide a competitive advantage for the developer as long as it contributes to product differentiation and creates barriers to switching (Day and Wensley 1983). Berry (1995) posits that by opening new forthright, frequent, two-way communication with customers, a relationship is developed based on trust. Trust between developer and customer is built through communication and requires formal and informal sharing of information. Greater sharing of information can improve product quality (Emshwiler 1991) and facilitate new product development (Magnet 1994). Sharing of information may include involving the other party in the early stages of product design, opening books and sharing cost information, discussing future product development plans, or jointly providing supply and demand forecasts (Cannon and Perreault 1999). The ideas underlying information exchange (or sharing) are related closely to the concept of communication, which is central to channel performance in Mohr and Nevin's (1990) work and is a prerequisite for building trust according to Morgan and Hunt (1994).

Therefore, we conclude that establishing effective communication between developers and customers in financial service development is critical for new service success. However, it is also important to know what effective communication means and how companies might manage communication better for new service success. The next section will discuss the research opportunity and present the research question.

4.5 The need and opportunity for research

Research has shown that effective developer-customer communication is a critical antecedent of new service success and therefore it needs careful management. Also, recent articles have demonstrated how new communication technology can enhance communication with customers with an aim to a speedier new product/service development (Leibs 1998; anonymous article in Chemical Week 1999; Dannenberg and Kellner 1998) and have reported how more and more companies are embracing

new methods of communication as a means for better communication with customers and more successful NSD (Korzeniowski 1999; Calabrese 1997). However, research has not revealed yet what is the best breadth of communication methods for successful new service development, when they should be used more intensively during NSD, and which and how many functions of both supplier and buyer organisations should be involved in the communication effort.

Our study addresses the issue of developer-customer communication and the factors that underlie NSD success in corporate financial service development. We adopt the systems approach of communication as conceptualised by Rogers and Agarwala-Rogers (1976, p: 17-18) (see paragraph 4.2). The adoption of such a definition of communication means that communication is a two-way, transactional process where customers and developers can assume the role of the source or the receiver during the communication effort.

Our study aims to analyse in depth the nature of communication between new service developers and their customers and expand knowledge in the field of marketing of business-to-business, sophisticated financial services. Our study fills a clear gap in the literature on developer-customer communication, and focuses on the corporate banking market, following the assertion of Tyler and Stanley (1999) that the marketing of sophisticated financial services requires attention. It is a supplier-side research that is based on case studies following the suggestions of Tyler and Stanley (1999) on what type of studies are needed and what research methods are appropriate for the type of market investigated.

4.6 Research question

This thesis is about how and when new service developers communicate with their corporate customers for new service success. Its aim is to provide deeper understanding of the way highly successful new service developers communicate with their customers as opposed to less successful developers and to develop a set of data points that can be used by other researchers to expand research into the subject

of developer-customer communication. Our purpose is to identify communication practices that are associated with outstanding success in NSD.

This study is predicated on the assumption that there is such a thing as “lead users” (or customers). These customers face the need for new products long before the bulk of the marketplace, and stand to benefit significantly from finding a solution to this need (von Hippel 1986). Von Hippel (1986, 1989) has concluded that such customers are the best source of new product ideas. Lead customers are present in every industry and all active new service developers do have such customers, but the question is to what extent do they use them for NSD purposes? We expected highly successful developers to work very closely with a small number of carefully chosen lead customers and to concentrate on a quality exchange of information. In contrast, we expected less successful developers to work less closely with a wider range of lead customers (sometimes all their customers) and the quality of interaction to be inferior. This thesis aims to show that highly successful developers work more closely with lead customers than do less successful developers and have, therefore, achieved a continuous flow of quality information that helps them develop more successful new services.

Accordingly, the principal research question is:

“Do highly successful developers communicate differently with their lead customers during the NSD process than less successful developers?”

4.7 Effective developer-customer communication: theory and practice.

Studies on developer-customer communication are very limited. The issue of effective communication has been dealt with in some studies. The major themes they centre on concern communication practices of successful businesses. We will look in turn at these practices and try to formulate a propositional framework. The propositions put forward in this study are concerned with the skills developer companies possess in communicating with their lead customers, in other words the skills in managing developer-customer communication, and are drawn from: (i) the Relationship Marketing literature (e.g. Atuahene-Gima 1996; Ennew & Binks 1996, 1997; Frambach et al. 1998; Duncan & Moriarty 1998; Miller 1999), and (ii) the NSD literature (e.g. Donath 1992; Page 1993; Bacon et al. 1994; Drew 1995, 1995a; John & Storey 1998).

4.7.1 Relationships based on extensive and frequent contact.

Relationships are based on communication and information exchange. Especially in business-to-business financial services where the market is dynamic and the product complex, long-term, close relationships where customers are quite important are very common (Cannon and Perreault 1999). The issue of relationship quality and its effect on NSD success has troubled researchers. The quality of interaction between developers and customers, and consequently the quality of the relationship that is developed, has been shown to impact new service success (Storey and Easingwood 1995; Atuahene-Gima 1996). Researchers found that relationships increased the effectiveness of NSD because they increased the frequency of contact and the amount of information exchanged between developer and customer. That is why other researchers have shown that extensive communication with customers in NPD leads to more successful new products (Drew 1995; Atuahene-Gima 1996; Frambach et al. 1998). In agreement with those assertions of researchers we formulated two propositions that are related to establishing extensive and frequent contact with customers and refer to the range of communication methods used and to the intensity of their use during the NSD process.

These two first propositions are posited as follows:

Proposition 1: Highly successful new service developers use a wider range of communication methods to communicate with lead customers than less successful new service developers during the NSD process.

Proposition 2: Highly successful new service developers use communication methods more intensively when communicating with lead customers than less successful new service developers during the NSD process.

4.7.2 Integrated communication with customers.

Another important consideration in managing developer-customer communication is who should communicate with customers during NSD. How many functions of the developer organisation should communicate with customers? How many functions of the buyer organisation should communicate with developers? In general, how integrated should the communication effort be?

Cooper (1987) supports the notion that there is a need to include more than one department in the NPD process and emphasises the need for involvement of more than one person in the new product project. Duncan and Moriarty (1998) have stressed that “the value of feedback is realised when distributed”, that is to say, information from customers has to be passed comprehensively to the whole developer organisation in order to be really useful. The success of new product development is enhanced by the ability to create, store and retrieve learning across several NPD teams (Meyers & Wilemon 1989; Nonaka 1990). Successful innovators spread information and ideas throughout the organisation (Hargadon and Sutton 2000) and have an organisation-wide information collection and transfer process designed to reduce sources of uncertainty in meeting customer needs (Moenaert and Souder 1990). Akamavi, Twaites, and Burgess (1998a) postulate that effective NPD requires the input and active participation of players from many different functions in the organisation. Success literature consistently shows that where different functions within a company actively collaborate throughout the NPD process, the outcome is

more successful (e.g. Maidique and Zirger 1984; Cooper and Kleinschmidt 1990; Pinto and Pinto 1990).

In services, Booms and Bitner (1981); Langeard and Eiglier (1983), and Lovelock (1983) emphasise the importance of involving different functional specialties in conceptualising, designing and marketing a new service and the effect of this involvement on new service success. Many researchers agree that the different functions of the organisation must work together and communicate with customers during NSD. Integration between R&D and Marketing, as well as between Marketing and other functions, is considered to be a critical factor in developing profitable and timely new products and services (e.g. Gupta, Raj and Wilemon 1986; Souder 1987). Even in financial services where most developments are incremental, effective co-ordination between R&D and Marketing influences new service success (Olson et. al. 1995). The underlying assumption of this research finding is that NSD and communication with customers is not the work of the R&D or the NPD department but it is an organisation-wide consideration. When many functions of the developer organisation are involved in NSD and communicate with customers, the success of new products and services is shown to be higher (Bacon et. al. 1994; Cooper 1994; Page 1993).

The successful collection of information from customers and their spread throughout the organisation can be achieved by the use of multi-functional teams that interact with customers during NPD and that have been associated with new product/service success (e.g. Bacon et al. 1994; Cooper 1994; Page 1993). A greater number of different functions represented on a new product development team has been shown to contribute to higher external communication and more NPD success (Ancona & Calwell 1992a 1992b; Hitt et al. 1999). For several stages of the new product process, obtaining information from more functional areas and sharing information among more functional areas has a positive impact on new product performance (Rochford and Rudelius 1992). Especially in the case of complex innovations, like financial services, cross-functional teams should be utilised throughout the development process (Adler 1995). Brown and Eisenhardt (1995) argue that cross-functional teams permit the overlap of development phases that, in turn, increase the

pace of product development whereas Nonaka (1994) concludes that cross-functional teams is the building block of knowledge creation.

This evidence suggests that if customers come in contact with different members of the development teams who represent different functions, information is disseminated easily and more knowledge is stored, faster. As a consequence development time drops and new product success increases. Cross-functional new product development teams should be composed of members representing multiple and diverse functions since this can help achieve greater new product success (Allen 1971, 1977, Brown & Eisenhardt 1995; Keller 1986).

The usefulness of cross-functional teams is also evident in the use of Quality Function Deployment (QFD) (as described in Griffin and Hauser 1993) which is a process based on inter-functional teams (marketing, manufacturing, engineering and R&D) who use a series of matrices to deploy customer input throughout design, manufacturing and service delivery. It promises decreased product development costs and time and improved customer satisfaction. It has been adopted widely by US and Japanese product development teams. Also, another example of successful use of cross-functional teams is Chrysler. The company uses platform teams for NPD, consisting of specialists from different departments of the organisation. Specialists come together and work more efficiently by being more directly involved in the production process (Lutz 1994).

Another issue that emerges as important in communication during NPD is whether direct contact between the NPD team and customers is better than indirect contact. Bacon et. al. (1994) as well as Tushman & Katz (1980) conclude that the most successful projects relied upon a direct contact between customers and the product development team. Therefore, we can argue that the use of communication methods that allow many functions of the organisation, or many people within the organisation to communicate directly with customers, helps the fast dissemination of information and decreases NPD time. Consequently, the third and fourth propositions are concerned with the level of participation of the developer organisation in the communication effort. Proposition three concerns the level of functional involvement

of the developer organisation in communication and proposition four deals with the extent of employee involvement of the developer in communication. Propositions three and four are posited as follows:

Proposition 3: Highly successful new service developers involve a higher number of functions of the organisation in communication with lead customers than less successful developers during the NSD process.

Proposition 4: Highly successful new service developers involve a higher percentage of employees in communication with lead customers than less successful new service developers during the NSD process.

Moreover, Miller (1999) with his “mutually dependent learning” concept emphasises the need for an integrated communication effort on the customer’s part as well. In his book *Fourth Generation R&D (John Wiley & Sons, 1999)*, he explains that the approach of “mutually dependent learning” goes beyond asking customers what they want to determine what their values are. He argues that:

“The concept of the customer is no longer restricted to the end user, but also extends to the customer’s management, support group, distribution channels and so on. All of these people are invited to engage at a high level in a company’s innovation process, during which the company gathers invaluable tacit knowledge from them”.

This process demands that marketing work closely with R&D and customers with an aim to develop the products that customers will need in the future. Therefore, the seventh proposition is concerned with the level of participation of the buyer organisation in communication and is posited as follows:

Proposition 5: Highly successful new service developers communicate with a higher number of functions of the lead customer organisation than less successful new service developers during the NSD process.

4.7.3 The use of new technology.

Nowadays, many methods of communication are available to suppliers. In particular, new communication technology has transformed the way suppliers contact customers in terms of quality, extent and frequency of communication, speed of information exchange, variety of communication media used, and geographic coverage. The advantages of cost and time connected to the use of new communication technology can create a competitive advantage for pioneer users and can reshape a company's image into an innovative and technologically leading institution (Dannenberg and Kellner 1998). Furthermore, new technology may affect the degree of customer involvement in NPD. Campbell and Cooper (1999) emphasise that it is likely that possibilities for co-development of products with customers will increase further as new information technologies enable an integration of structures, systems and processes.

By smoothing communication, new technology also helps inter-organisational learning, which is critical for NPD. With the aid of such learning companies can complement their knowledge and skills in order to reduce cycle times, especially in the development of complex products and in capital intensive industries (Scott 2000) like corporate banking, the one investigated in this thesis. As Scott (2000) characteristically puts it "...IT revolutionizes communication between firms by establishing more linkages based on contextual value-laden shared knowledge".

Examples of new communication technology products that smooth communication and increase information flows between customers and suppliers are numerous. Conn (1999) reveals that things like broadcast fax, informational CD-ROMs provided on the web, interactive web sites, webcasting, streaming audio, and virtual chats are used to communicate with customers. Cordiant Software has introduced the Customer Communications Solution, a call centre application that allows businesses to provide real-time, personalised, one-to-one customer service (Bucholtz 1998). The utilities industry is using the Internet to come closer to customers (Korzeniowski 1999). Genesys Telecommunications laboratories Inc. has developed the Genesys Customer Interaction Solution (Genesys Suite 5.1) that integrates all customer communication methods into one customer interaction network and allows for the

whole of an organisation to exploit interactions with customers (Anonymous 1998). Also, other companies have launched new products for handling customer interactions: Saratoga Systems launched Anevue Service which is used with Avenue Customer Relationship Management System and Avenue CTI for telephony capabilities; Computer Communications Specialists designed FirstLine Encore, an interactive voice and information response server; and Novazen Inc introduced its Interactive Customer Care software product (Anonymous 1998a). (New technology communication products and their uses are presented in Table 4.1).

Table 4.1 Examples of new communication technology products and their uses

Product	Use
Interactive web sites, Broadcast fax, Informational CD-Roms on web, Webcasting, Streaming audio, Virtual chats	Communication with customers
Customer Communication Solution by Cordiant Software	Real-time, personalised one-to-one customer service
Genesys Customer Interaction Solution by Genesys Telecommunications Laboratories	Enhance customer interaction network
Anevue Service & Avenue Customer Relationship Management System by Saratoga Systems First Line Encore by Computer Communications Specialists Interactive Customer Care by Novazen	Handling customer interactions

Source: as indicated in the text

Due to the importance of new technology for developer-customer communication and new service success the sixth proposition is concerned with the use of such technology by new service developers and is posited as follows:

Proposition 6: Highly successful new service developers use a wider range of new technology communication methods and use them more intensively when communicating with lead customers than less successful new service developers during the NSD process.

4.7.4 Communication throughout the NSD process

Having established that customer-supplied information is critical in NSD success, the next important question is when should suppliers communicate with customers during the NSD process. Although, companies know that it is important to communicate with customers, there is a debate as to when this should happen in the course of new product/service development. There are a number of studies showing a different timing of customer participation as essential for successful NSD. The important role of customers as a source of new product ideas, in the first stage of new product/service development (idea generation) is recognised by many researchers (e.g. von Hippel 1978, 1986, 1988; Cooper & Kleinschmidt 1986; Grden-Ellson N. et. al. 1986; Urban and von Hippel 1988; Yoon & Lilien 1988; Calantone, Benedetto and Haggblom 1995).

However, a group of other researchers acknowledge customer's role in the other stages of the NPD process. Cooper and Kleinschmidt (1986) connects customer involvement with the second stage of the NSD process, that of detailed marketing study / market research. Also, Moore's (1987) new product process talks about informal contact with customers in the second stage of the process. Other studies highlight the importance of customer involvement in the whole NPD process (e.g. Cooper 1994; Cooper and Edgett 1996; Donath 1992; Pinto and Slevin 1988) on the assumption that customer needs change throughout the product design and purchase phases of NSD.

Edgett (1996) argues that incorporating the voice of the customer into every facet of the project (throughout the product development effort) is a driver of performance of new products. He stresses that management must maintain a market orientation throughout the entire NPD process. During concept development, they should research customers to get winning new product ideas. During product design, they should use market research and competitive analysis to shape the product specifications and the product should be tested before development via concept or prototype tests with users. During development itself, the customer must be made an integral part of the process via rapid-prototyping and tests with customers. After

development, rigorous field trials and preference tests must be conducted with users, and perhaps even a test market or trial sell may be needed in some cases.

Communicating with customers during the whole new product or service development process is even more critical for success in rapidly changing, and highly competitive environments like financial services and especially in business-to-business financial services where continuous innovation is the norm (Brown and Eisenhardt 1997; Lievens et. al. 1999). This is due to the fact that in such markets products have to be developed fast in order to satisfy rapidly changing customer needs. Therefore, it is important for developers to apply their communication skills throughout the NSD process in order to develop successful new products. Baring this in mind the last proposition formulated emphasises the need for a continuous, skilful communication effort.

Consequently, **proposition 7** posits that highly successful developers communicate skilfully with their lead customers during the whole new service development process whereas less successful developers communicate skilfully only in some stages of the process (the communication skills we refer to in this proposition are the ones analysed in the other 6 propositions formulated).

Accordingly, this last proposition emphasises the fact that highly successful developers keep the range of methods used and the intensity of use of communication methods high throughout the NSD process, constantly updating their information on changing customer needs, and therefore avoiding the danger of their products being obsolete when launched. They also tend to involve more functions and people in the communication effort and use many new technology communication methods intensively throughout the NSD process.

4.8 A propositional framework

According to the 7 propositions formulated, and based on the propositional framework developed by Lievens et al. (1999), a new propositional framework is developed in which the skills in communication during NSD can be associated with

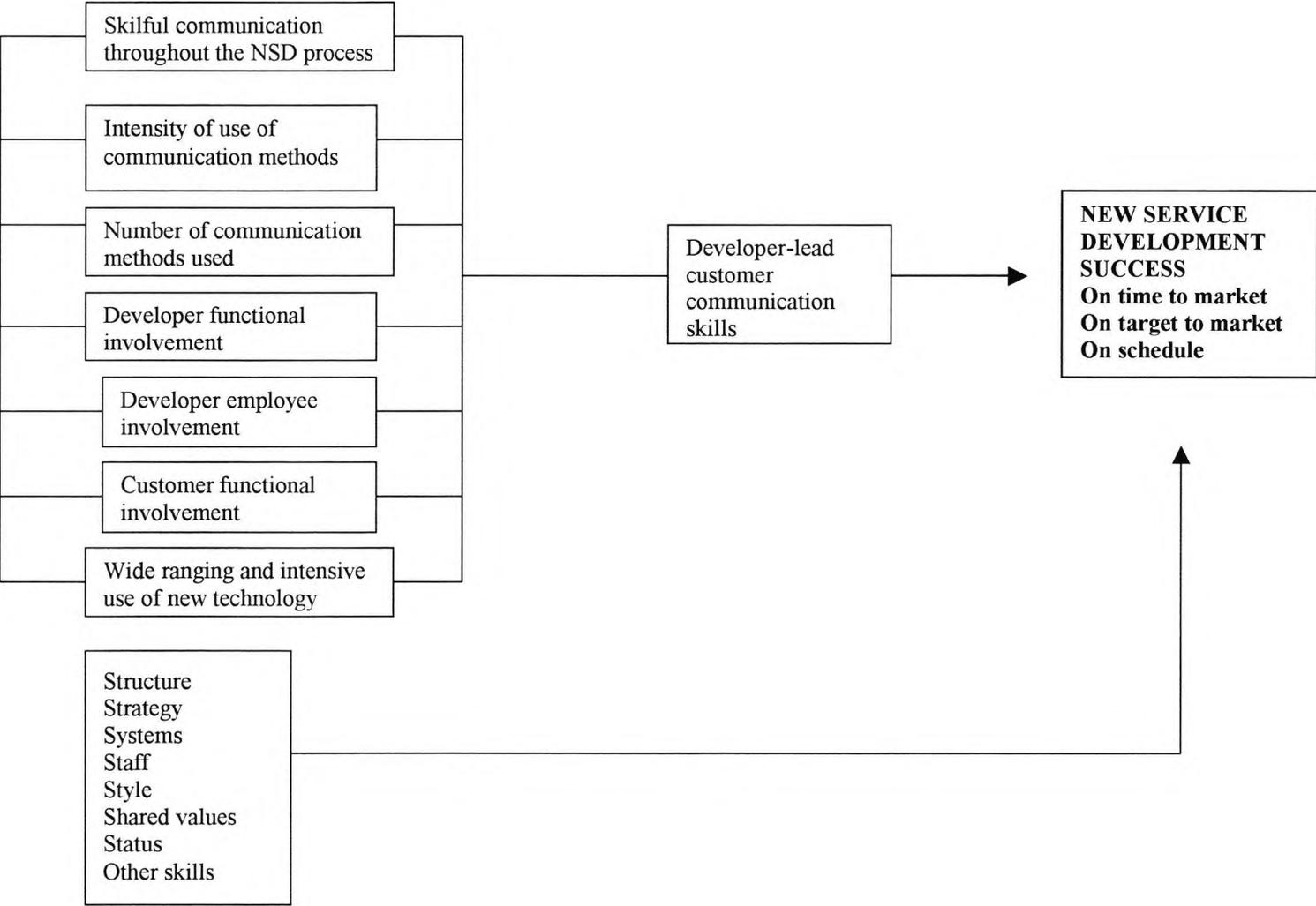
NSD success. The framework used for this study is graphically presented in Figure 4.1. The skills in communication used include using a wide range of communication methods, using them intensively, involving many functions and employees in the communication effort, communicating with many functions of the lead customer organisation, using intensively a wide range of new technology communication methods, and communicating skillfully throughout the NSD process.

The propositional framework developed takes into account previous work in the area of developer-customer communication and tries to tie together all communication skills that might help new service developers develop successful new services. Up to now there is no full model that incorporates such skills so a new one needed to be developed for the purpose of this study.

Also, the framework includes an analysis of the configurational characteristics of highly successful new service developers. The aim was to find out whether the existence of skills in communication was indeed dependent on the overall success characteristics of businesses or they are self-standing skills that could be due to a number of unrelated factors. The configurational characteristics that are related to new service success were drawn from the NSD literature (Cooper & Kleinschmidt 1987; John & Snelson 1988; de Brentani 1989; Cooper & de Brentani 1991; Iwamura & Jog 1991; Cooper et al. 1994) and were ordered using the McKinsey 7Ss schema popularised by Peters & Waterman (1982) as explained in paragraph 5.6. This schema has been used in previous NPD studies by John & Snelson (1988), Barclay and Benson (1990), Dwyer & Mellor (1991), John & Pavlidis (1996), and John and Davies (1999), and has enjoyed popularity because of its parsimony, and because it is readily understood by managers.

In order to measure the extent to which each sample company had the configurational characteristics of highly successful new service developers specific scales were used that were developed based on the literature consulted. The scales used for each S as well as the literature we based ourselves on for developing each scale appear on tables 5.2 and 5.3.

Figure 4.1: Developer-lead customer communication skills associated with NSD success: a propositional framework



4.9 Conclusion

This chapter has analysed the concept and nature of communication; emphasised the importance of developer-customer communication for businesses and especially its critical role in NSD and has reviewed the practices associated with effective communication and new service success. Furthermore, the research question and the value of the research opportunity were presented, and the propositional framework to be used in the field investigation developed. The next chapter will look closely at the design of the study.

CHAPTER 5

THE DESIGN OF THE FIELD STUDY

5.1 Introduction

This chapter explains in detail the research methodology we followed and provides the rationale for choosing to use descriptive research based on multiple case studies. Also, the nature and the results of preliminary fieldwork are presented; the selection of the sample is analysed; and the data collection and data analysis tools and techniques are explained and their value for this type of research presented. Finally, we discuss the limitations of the adopted design and the steps taken to overcome them.

5.2 Research objectives

This study focuses on a specific issue: how and when financial services developers communicate with their lead corporate customers in the course of new service development (NSD). The ultimate goal of this study is to find out whether there are considerable differences between highly and less successful new service developers in the way they communicate with their lead corporate customers. The field study is designed to enhance both theory and practice. On one hand, it will increase academic understanding of a particular type of external communication (communication with customers for NSD purposes). On the other hand, it will provide financial services developers with the knowledge necessary to manage effectively their communication efforts and ensure that new products are quickly and efficiently delivered to the marketplace.

The objectives of the field study are fourfold: (i) To identify the range of communication methods developers use in communicating with their lead corporate customers; (ii) To analyse how intensively particular methods are used and when in the course of the NSD process; (iii) To examine the quality of communication methods used; and (iv) To determine who participates in the communication effort throughout the NSD process.

Our main intention is to build theory related to which communication skills are associated with a higher degree of NSD success.

5.3 Setting the study's background.

In order to have a clear picture of what this investigation is about, it is very important to provide details regarding the environment of the market investigated, the type of innovation we focus on, and the type of new product developments we will analyse.

5.3.1 The market environment

Leasing is a market with complex financial products, highly competitive, with quite low margins, and short product life cycles. In this context, constant communication with customers is very important even for incremental NSD, especially considering that there is a lot of customisation going on in this market. In addition, due to the highly regulated environment, communication with customers throughout the NSD process seems to be critical if new services are to be successful at the time of launch. Therefore, analysing the skills in developer-customer communication and their relation to NSD success is particularly important in such a market.

5.3.2 Type of innovation

Focusing on a particular type of innovation is important since the determinants of company performance may vary according to the type of innovation the firm is developing. As a result, research should be designed carefully paying special attention to the type of innovation studied (Montoya-Weiss and Calantone 1994).

In this study, we will look at product innovation as opposed to process or market innovation. Damanpour (1991) defines product innovation to mean new products or services introduced to meet an external user or market need and process innovation as new elements introduced into the organisation's production or service operations used to

produce products or services. Therefore, product innovations are new products or services whereas process innovations are changes in the systems used to produce those products or services. Clearly, the management of communication with corporate customers is aimed at getting closer to customers and developing successful new products or services. Product-innovation oriented organisations typically strive to maintain close associations with their customers and constantly monitor changes in customers' needs and preferences (Sciulli 1998). Such organisations are interested in offering competitive and innovative products and services that are beneficial to customers (Sciulli 1998). On the other hand, changes in systems do happen often in leasing and in corporate banking in general, but it is the employees that realise those changes and the customer can not help directly in the application of such changes. However, in other industries, mostly industrial, where customers' knowledge is critical in the development of the appropriate systems that will satisfy their needs, process innovation may be analysed in the context of this study. However, at present, consideration of process innovation is out of the scope of this project.

Market innovation is concerned with defining and maximising the product markets upon which a new product innovation is targeted (Baker 1983; Cooper and Kleinschmidt 1993). Appealing to new markets is a critical issue for companies. However, this study is focusing on developing new products with the help of present customers, directed to present customers, and consequently the issue of market innovation is out of this study's scope. An investigation into whether market innovation can be helped by customer information is a future issue of research.

5.3.3 Type of services developed

Since financial services companies are shown to focus on incremental innovation, this study examined incremental service developments including new product line extensions and product improvements (referred to as routine and extended product development by Johne (1995)). Respondents were asked to score all the incremental new products that they have developed during the last three years, on the three success criteria presented in

paragraph 5.4. Preliminary fieldwork revealed that communication with customers during NSD is very important irrespective of how radical the product is in contrast to industrial NPD where customer information is far more important in the development of radical new products. The underlying reason is that leasing products are always complex, and partly customised. Consequently, knowing what the customer needs and whether he will adopt the new service proposed is a critical issue for leasing developers. Radical NSD in the area of leasing, and corporate banking in general, is very rare and new services are quickly copied by competitors. So, it is not the intent of this study to analyse this type of new service developments.

5.4 Measuring new service development success

The first major decision in measuring NSD success was to select a level of measurement appropriate for the industry we are analysing. Industry experts and practitioners in the leasing market could only differentiate between more and less successful developer organisations and not specific services. Also, success of individual services varies significantly in the financial services market and analysing one new service at random would not be representative of a company's success in NSD. Therefore, we decided to measure NSD success at the new service portfolio level (new services developed in the last 3 years) based on the 3 criteria advanced by Brown & Eisenhardt (1997) in respect of measuring speed of NSD in fast moving environments that are characterised by continuous change such as the area of corporate banking, and particularly the leasing market. The three criteria are: (i) The degree to which the new product was developed on time to catch the window of opportunity in the market (on time to market); (ii) The degree to which the new product met market needs at the time of launch (on target to market), and (iii) The degree to which the new product met development time schedule (on schedule). The respondent companies are divided into two groups - the highly and the less successful developers - according to the score of their new service portfolio in the three success criteria.

We elected to focus on this type of success, because due to the tendency of banks to develop incremental products (Hodgson 1984; Dun & Bradstreet 1990; de Brentani & Ragot 1996), and to the fact that competition is becoming more time-based than ever (Stalk 1988; Willis 1998), development time speed has become very important in new product development in order to secure competitive advantage (Drew 1995a; Datar et al. 1997). Research has shown that to enhance chances of success, companies must decrease development time (Wind and Mahajan 1988; Lynn et al. 1999).

An increasing number of organisations have recognised the importance of speeding up operations in order to build a competitive advantage (Peters 1987; Dumaine 1989; Vesey 1991; Brown and Karagozoglu 1993; Page 1993; Smith and Reinertsen 1992, 1998). As Dumaine (1989) puts it, "speed kills the competition". This emphasis on speed represents a paradigm shift from more traditional sources of competitive advantage, such as experience-curve strategies in the 1960's, portfolio management in the 1970's, and restructuring in the 1980's, toward a strategic orientation specifically suited to today's rapidly changing business environments (Stalk and Hout 1990; Stalk 1993). Time-based competition, which permeates all facets of an organisation, has thus emerged as a way of increasing profits and market share while simultaneously containing costs and market risk (Page 1993).

The value of fast new product development has been highlighted in the literature. The benefits from fast new product development are numerous and include enhanced new product revenues and profits; greater market share; reduced time-to-break-even; improved competitive advantage; a better corporate image and reputation; and quick response to rapidly changing markets and technologies and market demands (Takeuchi & Nonaka 1986; Gupta and Wilemon 1990; Cooper & Kleinschmidt 1994; Drew 1995; Drew 1995a; Kessler & Chakrabati 1996).

Innovation speed has been shown to be the most appropriate measure of success in highly competitive, and rapidly changing markets with short product life cycles (Kessler & Chakrabati 1996) such as the market of corporate banking and leasing in particular.

As Takeuchi and Nonaka (1986) posit, in fast-paced, fiercely competitive environments, speed and flexibility are essential to innovation success. In such markets, the overall impact of NPD speed on profitability is compelling. A model developed by McKinsey and company showed that the timely introduction of a product in this specific product-market context, even when 50% over budget, faced only a 4% loss of its profit potential. In contrast, 6 months delay in product introduction, even though the product is on budget, cuts profit by 33% (Dumaine 1989). Earlier product introduction improves profitability by extending a product's sales life, creating an opportunity to charge a premium price, and allowing development and manufacturing cost advantages (Rosenau 1990; Smith and Reinertsen 1991). In addition, development speed has been found to be very important as a measure of success in the short term (Hultnik and Robben 1995) and therefore it is suitable for markets with short product life cycles like financial services. Consequently, development time speed is a valid measure of new service success in the particular context investigated in this study (NSD in corporate financial services).

As posited by Griffin and Page (1993) the measurement of new product / service success is more objective when it is multi-dimensional. Speed to market (or on schedule development) has been characterised as multidimensional and therefore can be treated as a dependent variable by itself (Lynn et al. 1999). Overall, the three measures of success used in this study relate to two out of the three dimensions of measures described by Griffin and Page (1993): product related measures (on time launch, and speed to market) and customer acceptance measures (meeting market needs at time of launch).

Product related measures of success are very important for companies operating in a turbulent, fast changing environment like financial services because they are linked to profitability and sales of new products. In such environments, fast imitation gives a competitive advantage to companies that can quickly, effectively and continuously develop new products. On the other hand, customer acceptance measures are also critical in business-to-business environments where knowing customer needs helps in making customisation more effective and delighting customers as well as in developing successful new products. Many researchers have argued that to be successful a new

product must meet some important customer needs (Barclay and Benson 1990; Baxter 1995; Pugh 1996).

The three criteria we use to measure new service success encompass all the necessary prerequisites for the success of a new service in terms of speed and are readily understood by NSD managers, although not used by all new service developers. Consequently, they are relevant to our unit of analysis as measures of the developer's success in delivering successful new services.

We acknowledge the fact that the measurement of NSD success does not include any financial measures of performance. However, although financial performance is widely used by companies in evaluating new products, it is not an accurate predictor of success by itself. Financial measures have intuitive appeal but they are also open to serious misinterpretation. Revenue growth can give biased results as a consequence of having been achieved at the expense of profitability. Similarly, profitability is an imperfect measure of NSD performance because of the difficulties in identifying the precise contribution made by new products. Also, due to the confidential nature of such data, sample companies are reluctant to disclose it to researchers. Finally, the very nature of the leasing product (long-term finance) means that it takes long for profits to show. Therefore, using financial measures of success at the time of launch (the point in time we measure success in this study) will not provide reliable results.

5.5 The skills in developer-customer communication

In this study, we analyse the extent to which sample companies possess certain skills in communicating with their lead corporate customers. The skills involved include:

- Using a wide range of communication methods throughout NSD.
- Using communication methods intensively throughout NSD.
- Embracing new technology in communicating with customers.
- Involving more functions and employees of the organisation in the communication effort.
- Communicating with many functions of the customer organisation.
- Communicating skilfully throughout the NSD process

The reasons for choosing to focus on such skills were explained in Chapter 4. However, it is important to note here that our choice relates to the lack of research into how or when customers are involved in the new product / service development process as highlighted by Brown & Eisenhardt (1995) and to the fact that we lack a solid understanding of the role of effective communication during the service innovation process (Lievens et al. 1999). Although external communication has been shown to be a critical antecedent of new service success (Easingwood and Storey 1991; Cooper et al 1994), its nature during the NSD process is underexplored. Our study aims to analyse one facet of external communication in detail - communication between developers of leasing services and their lead corporate customers - and determine which communication skills are important in the NSD process and which are the differences in skills between highly and less successful developers.

5.6 Configurational characteristics of successful new service developers

According to the NSD literature analysed in Chapter 3 there are certain configurational characteristics that are related to highly successful NSD. Companies that share such characteristics are found to be more successful than others in NPD or NSD. Consequently, it is useful to investigate some of these factors with an aim to find out whether the existence of skills in communication is indeed dependent on the overall success characteristics of businesses or they are self-standing skills that could be due to a number of unrelated factors.

The configurational characteristics of businesses analysed in the literature and associated with NSD success include:

- A flat, decentralised structure with clear responsibilities for the profitability and schedule of new products.
- Formalised systems based on high internal communication and cross-functional teamworking.
- The existence of highly skilled and properly deployed specialists with a variety of backgrounds and experience.
- Top management support and involvement in NPD.
- A strategy based on clear success measures for new products, incremental innovation, revenue and profit goals for new products, a formal NSD process and time-paced innovation.
- Market and relationship orientation as well as focus on continuous innovation
- Resource availability, both in people and money.
- Skills in contacting and managing customers as well as in handling knowledge.

The analytical tool used for examining company configurational characteristics is the McKinsey 7S framework. The schema is built around seven main aspects under the control of management, each of which begins with the letter S. Strategy embraces the new service development game plan. Style refers to the type of leadership practiced by top management. Shared values refer to the relationship between organisational

objectives and personal objectives. Structure refers to the formal organisational hierarchy. Systems reflect the way tasks are undertaken in terms of formalisation, centralisation and standardisation. Staff refers to the range of functional specialists available. Skills – the S concentrated on in this investigation – refers to the level of expertise present in NSD. For the purpose of this study another S is included in the schema, status, denoting the differences in availability of resources among the sample companies. The definitions of the 7Ss in the context of NPD appear in table 5.1.

Table 5.1: The McKinsey 7S Framework - The definitions of the 7Ss as applied to NPD.

Strategy	The product innovation strategy and its relation to corporate strategy
Structure	The organisational framework of product innovation management
Skills	The specialist knowledge and methods applied to innovation tasks.
Staff	Type, quantity and quality of functional specialists required for the innovation tasks.
Systems	Co-ordination and control mechanisms for product innovation
Shared Values	NSD project members' beliefs about corporate objectives; the role of product innovation in achieving them; and the objectives of specific innovation projects.
Style	Leadership support for, and approach to product innovation

Source: based on Peters & Waterman (1982); John & Snelson (1990); John & Pavlidis (1996)

The McKinsey 7S framework was developed originally to appraise the workings of a total organisation. However, it can be applied with equal effectiveness to analysing and enhancing understanding at the business unit level, the level in the organisation at which particular activities are actually carried out. Indeed, Crawford (1983) has emphasised that product innovation is second only to corporate strategy in the way it involves all aspects and all functions of management. Table 5.2 shows how the 7Ss framework has

been adapted for the purpose of analysing product development procedures at the business unit level. The framework enjoys parsimony since all efficiency factors are embraced under only seven headings, all of which are readily understood by and meaningful to practitioners. Although, we can not claim that it captures the full complexity of what underlies the operation of a business, it can be used to make sense of complexity.

Table 5.2: Principal managerial factors underlying efficient product development in the form of relevant questions.

Factor	Relevant question
Skills	What specialist knowledge and techniques are applied for executing product development tasks?
Strategy	Is there a product development strategy that defines the sort of new products to be developed and the resources to be released for this purpose?
Structure	What type of formal organisation structure is used to implement product development activities?
Shared values	Is there a shared belief in the need to pursue product development for the purpose of growing the business?
Style	Does top management provide active support for those involved in key product development tasks, or is a divide and rule management style practiced in which individual functions are left to slug it out between themselves?
Staff	What types of functional specialists are there for executing product development tasks?
Systems	What types of control and co-ordination mechanisms are used for executing product development tasks?

Source: Adapted from Pascale and Athos (1982) and Peters and Waterman (1982).

For the purpose of this study each S was analysed based on certain scales that were drawn from the literature. Tables 5.3 and 5.4 present the scales used to measure each S and the literature on which each scale was based.

Table 5.3: Scales used for measuring company configurational characteristics

S	Scales
Structure	Scale 1: The degree of decentralisation of decision making in NPD Scale 2: Clarity of responsibility for the profitability of new products Scale 3: Clarity of responsibility for the development schedule of new products. Scale 4: No of formal levels in organisational hierarchy
Systems	Scale 1: The degree of formalisation Scale 2: The degree of internal communication Scale 3: The degree of cross-functional teamworking in NPD
Staff	Scale 1: The number of highly skilled Marketing and NPD specialists in the organisation Scale 2: The extent of functional deployment of highly skilled specialists in the organisation Scale 3: The extent of variety in staff's backgrounds and experience
Style	Scale 1: The degree of top management support of innovation Scale 2: The degree of top management involvement in NPD
Strategy	Scale 1: The degree of incremental innovation pursued Scale 2: The level of clarity of success measures used in newly launched products Scale 3: The level of revenues/profits to be derived from new products Scale 4: The degree of formality of the NPD process Scale 5: The degree of existence of time-paced innovation
Shared values	Scale 1: The degree of market orientation Scale 2: The degree of relationship orientation Scale 3: Presence of focus on continuous innovation
Status	Scale 1: The level of availability of people skills for NPD Scale 2: The degree of availability of financial resources for NPD
Skills	Scale 1: Quality of customer contact and management skills Scale 2: Quality of skills in knowledge brokering

Source: Based on the McKinsey's 7S framework operationalised by Peters & Waterman (1982)

Shared Values Market orientation Relationship orientation Focus on continuous innovation	Myers and Marquis (1969); Rothwell (1972); Rubinstein (1976); Cooper (1979, 1980); Maidique and Zirger (1984); Cooper and Kleinschmidt (1987, 1993); de Brentani (1989, 1991); Deshpande, Farley, & Webster (1989); Narver & Slater (1990); Kohli & Jaworski (1990); Ruckert (1992); Edgett, Shipley, and Forbes (1992); de Brentani & Cooper (1992); Jaworski & Kohli (1993); Gobeli & Brown (1993); Edgett (1994); Slater & Narver (1994); Atuahene-Gima (1995, 1996a); Han, Kim & Srivastava (1998); Cooper (1998); Cooper & Kleinschmidt (1995); Brent, Souder & Berkowitz (2000) Heide & John (1992); Biong, Parvatiyar, and Wathne (1996); Gronroos (1997) McCrimmon (1995); Brown & Eisenhardt (1997); Hargadon (1998); Parsons (1991)
Status People & financial resources	Montoya-Weiss & Calantone (1994); Page (1993); Lievens et al. (1997); Rinholm (1990); Drew (1995); Montoya-Weiss & Calantone (1994); Page (1993); Cooper (1998); Cooper & de Brentani (1991); Gobeli & Brown (1993); Norling (1998); Cooper & Kleinschmidt (1995, 1996); Brentani (1995); Dwyer (1990)
Skills Customer contact and Management Knowledge brokering	de Brentani & Cooper (1992); de Brentani & Ragot (1996); Cooper et al. (1994); Montoya-Weiss & Calantone (1994); Gobeli & Brown (1993) Stivers et al. (1997); Hiebeler (1997); Adler & Zirger (1998); Hargadon (1998); Liyanage, Greenfield & Don (1999); Hargadon & Sutton (2000)

Source: As mentioned and ordered according to the McKinsey's 7S framework of Peters & Waterman (1982)

Especially regarding the S connected with skills, we must point out that not all company skills were explored in relation to new service success. Various researchers have tried to develop a list of skills needed for an excellent R&D effort. Song, Souder and Dyer (1997) identified three major types of skills that affect new product performance: team skills, project management skills and process skills. Also, Gupta, Wilemon and Atuahene-Gima (2000) found that the most important skills for effective R&D are: (i) accelerating NPD; (ii) forming strategic R&D and Marketing alliances; (iii) having commercialising technology capabilities; (iv) managing multiple R&D projects; (v) monitoring market developments; (vi) using cross-functional teams; and (vii) be able to learn quickly from past NPD experiences.

However, most of the skills outlined by researchers are dependent on the quality of people that work in an organisation. For example, the ability to manage multiple R&D projects or to monitor market developments and the skill to learn from the past are all

dependent on the quality of a company's staff. Similarly, the skill to manage a team, a project or the process of NPD depends on people's abilities. Therefore, all these skills are covered by the quality and deployment of the company's employees and are dealt with under the "staff" heading of the McKinsey 7S framework. Under the "skills" heading we examine the two most important skills that are critical for new service success in the context investigated (incremental NSD in highly competitive, rapidly changing markets): customer contact and management skills as well as the ability to gather, share and exploit knowledge gained from customers for successful NSD (skill in knowledge brokering). The existence of such skills can influence considerably the effectiveness of communication, the amount and quality of information gained by customers and the speed and effectiveness in exploiting such information for successful NSD.

5.7 The research methodology

Here we will review the research strategy followed in this study as well as the research methods selected. Also, the issues of reliability and validity are discussed; the unit of study and unit of analysis defined; the procedure followed to select the sample reviewed; and the methods for data collection and data analysis presented.

5.7.1 The research strategy adopted

In order to determine the most suitable research approach, we must first consider the objectives of the study. The approach selected must allow us to meet the following goals:

- To examine the validity of a propositional framework derived from the literature and from preliminary fieldwork.
- To provide insights into how and when leasing developer companies communicate with their lead corporate customers in the course of NSD.
- To deliver results that can be generalised across other types of financial services and similar industries.

Bearing in mind the objectives of the study, we evaluated all three research approaches, namely exploratory, descriptive and causal research. Causal research is not appropriate because there is not sufficient evidence from the literature to claim that there is a causal relationship between skills in communication and NSD success. On the other hand, exploratory research is conducted to clarify the nature of ambiguous problems. As Zikmund (2000) explains, exploratory research provides greater understanding of a concept or crystallizes a problem but it is not intended to provide conclusive evidence. Subsequent research is needed to provide that evidence and past research on the concept or problem analysed is very limited. Also, exploratory research is characterised by an absence of structure in research hypotheses. These are either vague or ill defined, or they do not exist at all (Aaker et. al. 1998). Consequently, since our study is structured around a propositional framework and is based on previous research that has analysed the concept of communication and has emphasised the need for research into its nature, exploratory research is not appropriate.

Finally, descriptive research seeks to describe a population or phenomenon. In other words, it is used to determine the answers to who, what, when, and how questions (Zikmund 2000a). Descriptive studies are based on some previous understanding of the nature of the research problem (although the problem is not yet defined clearly) and can be used to determine the extent of differences in the needs, perceptions, attitudes and characteristics of subgroups (Zikmund 2000a). Also, in descriptive studies hypotheses or propositions often exist although they may be tentative and speculative (Aaker et. al. 1998).

Our study aims to analyse the nature of developer-lead customer communication in NSD and determine how firms might manage it more effectively for NSD success. We are aiming to provide a deeper understanding of how and when successful new service developers communicate with their lead corporate customers throughout the NSD process and develop set of data points that will be used by other researchers to expand research into the subject of developer – customer communication. A propositional framework has been formulated based on previous research and on our preliminary

fieldwork. Our field study is based on the division of the sample into two groups, the highly and the less successful developers and we aim to determine the nature and extent of differences between these two groups in managing developer-customer communication for NSD success. Consequently, based on the characteristics of our study, descriptive research is the most appropriate approach.

Having selected the research approach, we will now explain how the research method was selected. As postulated by Yin (1994) there are five major research strategies available to researchers: experiment, survey, archival analysis, history, and case study. Yin (1994) states that the choice of research strategy is dependent upon: (i) The type of research question(s) posed; (ii) The extent of control an investigator has over actual behavioural events; and (iii) The degree of focus on contemporary as opposed to historical events. Yin (1994) identifies the conditions under which case studies should be used as a research method. These are when how and why questions are posed, when the focus is on contemporary events, and when it is not possible to control behavioural events. In addition, by definition case studies are empirical enquiries that investigate a contemporary phenomenon within its real-life context, especially when the boundaries between phenomenon and context are not evident (Yin 1994).

Our research focuses on analysing in depth the nature of developer – lead customer communication. In particular it aims to find out how and when developers should communicate with their lead customers for new service success. Also, the study focuses on quite contemporary events since only new product developments of the last 3 three years are considered. Finally, the effect of the context on the phenomenon of communication is not clear and it is essential to cover contextual conditions in our study. Therefore, based on Yin's (1994) guidelines, case studies are appropriate for this study.

The use of case studies was also selected because due to the paucity of studies on the subject of developer-customer communication, conducting a large-scale survey of hundreds of companies was considered premature. Although such a survey would permit

statistical analysis and provide more generalisable results, a more in depth study of a smaller number of cases was necessary at this point in time.

Having selected the research method – case studies - the next critical question is whether we will use single or multiple cases. Due to the lack of prior data on developer-customer communication, analysis of a single case will not deliver reliable and generalisable results and will not permit us to determine best practices through comparisons between developers. As Miles & Huberman (1994) posit, multiple case designs add confidence to findings, and help the researcher to find negative cases to strengthen a theory, built through examination of similarities and differences across cases. Also, Glaser and Strauss (1967, 1970) argue that cross-case analysis is necessary to deepen understanding and explanation. Therefore, multiple cases are better than a single case in the context investigated. However, although multiple cases are appropriate for this study, there is no precise guide in the literature on how many cases to include. The accepted range, according to the suggestions of various researchers (Miles and Huberman 1994; Eisenhardt 1989; Hedges 1985), is between two to four as the minimum and 10, 12 or 15 as the maximum. For this study a total of 12 cases is selected, of which 9 are ultimately analysed. So the number of cases analysed is within the boundaries set by researchers.

To sum up, based on the extant literature and on the context investigated, the research strategy adopted in this study is descriptive research covering multiple case studies of leasing developer companies. The research strategy is particularly appropriate for the specific study. The research problem addressed is more descriptive than prescriptive as in most case studies research (Perry 1998) and the study is concerned with describing real world phenomena rather than developing normative decision models. No experiments or cause-and-effect paths are required to solve the research problem. The objective of the study is to expand understanding of the way leasing developers communicate with their lead customers during NSD, and provide practitioners with guidance on which communication skills are related to successful NSD.

5.7.2 The argument for prior instrumentation in the design

Although case study research involves primarily inductive theory building, in practice it includes some deduction based on prior theory. It is unlikely that any researcher could genuinely separate the two processes of induction and deduction. Richards (1993, p. 40) suggests that “both (prior theory and theory emerging from data) are always involved, often simultaneously”, and that “it is impossible to go theory-free into any study”. Also, Miles and Huberman (1994, p.17) conclude that induction and deduction are linked research approaches. Their own empirical experiences have led them to emphasise the importance of “prestructured research” for new qualitative researchers working in areas where some understanding has already been achieved but where more theory building is required before theory testing can be done (like the area we are concentrating on in this study). Prior theory can be critical in the design of the case study and the analysis of data and can be used to triangulate evidence (Perry 1998). Pure induction might prevent the researcher from benefiting from existing theory, just as pure deduction might prevent the development of new and useful theory (Perry 1998). Both extremes are untenable and unnecessary and the process of ongoing theory advancement requires continuous interplay between the two (Parkhe 1993, pp. 252, 256). Although it is established that the use of both deduction and induction can be beneficial for qualitative studies, a set of specific reasons for this mixed strategy had to be determined. According to the suggestions of Miles and Huberman (1994) this study uses a lot of prior instrumentation for the following reasons:

1. The concepts to be analysed are defined from the beginning of the study.
2. The study is mainly theory driven.
3. Comparability is very important in cross-case analysis and is not possible in studies with little instrumentation.
4. Generalisability and representativeness of findings are important considerations in this study.
5. It is a multimethod study including quantitative techniques.
6. The study is based on multiple case studies.

Consequently, although this study is mainly qualitative and descriptive in nature, we did a considerable amount of prior instrumentation. A propositional framework is constructed prior to the field study.

5.7.3 Preliminary fieldwork

The preliminary fieldwork took place from September 1998 to June 1999 and had three objectives:

- (i) To examine the importance of the research subject for developers of financial services.
- (ii) To define the appropriate context for the field investigation.
- (iii) To provide the information necessary to select the right sample and to develop a propositional framework.

Preliminary fieldwork used three of the four exploratory research techniques described by Zikmund (2000): secondary data analysis, pilot studies and experience survey. These techniques can be used prior to selecting the major research strategy in order to define the problem that needs to be researched and to gather information necessary to form some initial propositions. In our study, this was deemed necessary since prior studies on the subject of developer-customer communication are limited and more information was needed in order to form realistic propositions. Specifically, preliminary fieldwork included a thorough desk research (review of trade journals, newspapers, market reports, and company reports), interviews with practitioners and industry experts, and two pilot studies in order to test the usefulness of the data collection instrument. The literature review as well as practitioners' interviews helped in generating some prior theory to be used in the study whereas pilot studies allowed us to confirm any prior theory that was developed.

From the review of secondary data sources, it was evident that communication with customers is something that concerned both academics and practitioners in the area of financial services. Also, there was an indication that effective management of external

communication could provide the means for more successful new product/service development. Finally, we found evidence that many new technology systems are being developed and are increasingly used in communication with customers within the financial services market, with an aim to enhance developer – customer interaction.

Furthermore, personal or telephone interviews were arranged with corporate banking managers, new product development managers and other experts in the field of corporate banking (a consultant in corporate banking and an expert from the Finance and Leasing Association). The results showed that the issue of communication with customers was of great concern in corporate banking, especially due to the exploding technology that is used in the area and the increasing competition. Interviews showed that: (i) indeed most innovations in corporate banking are incremental, and (ii) that there are a few companies that are considered to be more innovative in the ways they communicate with customers and in the communication systems they use and that are perceived to be more successful in developing new services.

Both secondary data collected and the results of these initial interviews helped us in identifying the appropriate context for the field investigation. Preliminary fieldwork revealed that within the area of corporate banking, communication with customers is more important in products that are complex, partly customised and that need the constant input of customers during their development. These are complex business-to-business financial services. From these services a smaller segment had to be selected for the purpose of this study.

We decided to focus on leasing services and the reasons for this decision are the following:

- (i) There are many new products (mostly incremental) of medium customisation (made for one customer originally but that can be also offered to similar customers) developed in the market.
- (ii) The development of leasing products requires high contact with customers in order to find out customer needs and assure product acceptance. The developer

works with the customer to develop something that will satisfy his needs and therefore, customer's role is important even for incremental innovations.

- (iii) The market has good future prospects since penetration in the middle market, which is the most profitable segment, is lower than 50% and since the increasing education of customers is expected to boost the market.
- (iv) Leasing is offered by both full service and specialist banks and differences can be observed.
- (v) There are some developers that are considered more innovative and more successful in new product development than others in this market, so it will be possible to select a suitable sample.
- (vi) Due to more intense competition, and the concomitant pressure on margins, certain leasing developers have realised that adding value is one effective way to create a competitive advantage. These developers have become leaner and more responsive to customers' needs. They have moved away from doing business on a transactional basis towards a relationship marketing mode. In this new mode of doing business, managing communication with selected customers becomes very important.
- (vii) It is easy to pinpoint the responsible people for NPD of leasing products within big financial organisations.
- (viii) Lending is the hard core business of banks. Leasing can be the best way of matching borrowing to the life and value of fixed assets and constitutes a sophisticated way of lending (Winter 1995). Therefore, results will be interesting for suppliers.

After selecting an appropriate market to focus on, a data collection instrument (structured questionnaire) was developed based on information gathered from preliminary fieldwork and was tested for efficiency in two pilot studies. A personal interview was conducted with the Head of New Product Development in two insurance companies (insurance being a related industry to leasing). Two companies were selected. One had a more innovative reputation than the other. The more innovative company averaged higher scores than the less innovative one based on the questionnaire

constructed. Certain differences were clear in the nature of developer-customer communication between the two companies and the data produced was quite satisfactory showing that the data collection instrument and the design of the study are appropriate for gathering the desired data. However, some changes needed to be made in the questionnaire in order to make it easier and faster for respondents to complete it. The revised questionnaire was used in the main study.

5.7.4 Validity and Reliability

Particular attention is given to the issues of validity and reliability in all research methodologies. Validity is one of the most important issues connected to a research design. There are three types of validity, construct, external and internal. Construct validity is concerned with ensuring that the correct operational measures are used for the concepts being studied. Yin (1994) suggested that by using multiple sources of evidence, establishing a chain of evidence, and having key informants review draft case study reports, we can improve construct validity. In our study, new service success is measured based on previous research in similar markets. The measures used have been proven as very useful in new service success studies in fast paced, rapidly changing, and highly competitive environments like the one investigated in this study. Also, the value of the measures used was tested during the preliminary fieldwork (expert opinion, pilot interviews) and found to be readily understood by respondents and used in many companies. The data collection instrument was tested for efficiency in the pilot interviews, which provided feedback from key informants. Therefore, the measures adopted in this study fulfil the requirements put forward by Yin (1994) concerning construct validity.

Zikmund (2000) argues that internal validity refers to the question of whether the independent variable was the sole cause of observed changes in the dependent variable. According to Zikmund (2000) there are six major types of extraneous variables that may affect internal validity: history; maturation; testing; instrumentation; selection; and mortality. However, internal validity is very important when sound evidence of a causal

relationship between independent and dependent variable needs to be proven. Since the intent of this study is to show association and advance theory and not to prove a causal linkage between variables, internal validity is not particularly important.

External validity is the ability to generalise results to other subjects or groups in the population under study (Zikmund 2000). In this particular study, external validity concerns generalising results into other areas of financial services. The selection of a multiple case design increases external validity (Miles & Huberman 1994). The evidence from multiple case studies is often considered more compelling, and the overall study is therefore regarded as being more robust (Herriott & Firestone 1983). Yin (1994) argues that in some cases multiple case studies are more generalisable than single, in depth, case studies. So, we can safely assume that our results are generalisable at least in NSD in the UK leasing services sector.

Naturally, the use of a purposive sample reduces the external validity of this study. However, the sample cases cover a broad range of businesses including incumbents, new entrants, big and small companies, UK and foreign, and therefore the sample can be considered as more representative of the population under study. As a result, the generalisability of results is higher. At this point, it is important to take into account the fact that generalisation, in case studies, is analytical (theory-connected) and not statistical like in survey research (Yin 1994; Firestone 1993). So in that context, our study aims to generalise a set of results to a broader theory rather than select a representative sample that generalises to a larger universe. According to Yin's (1994) suggestions we use replication logic in order to increase external validity. The results are replicated across a number of case studies that had similar outcomes (literal replication) or contrasting outcomes (theoretical replication) – highly successful and less successful companies.

Reliability is concerned with whether the study can be replicated by other researchers and provide the same results. This depends on the skills in case study research and especially on the selection of appropriate research, data collection and analysis tools and

on their effective application during the study. We have carefully selected the most appropriate research strategy, developed a propositional framework based on information gathered from the literature and from preliminary fieldwork, and decided which data collection and analysis tools to use before the field study began. Preliminary fieldwork helped us revise the questionnaire for increased efficiency and reduced problems connected to inappropriate phrasing or wording of questions, difficult to understand concepts, and leading questions.

The same research tools were used in all case studies, including a structured mailed questionnaire followed by a personal interview based on an unstructured questionnaire. The mailed questionnaire was built taking into consideration the work of other researchers in similar fields and the information received by preliminary fieldwork. Interviews were based on the results of the mailed questionnaire, and were done by the author who has experience in interviewing business professionals in various settings.

Finally, the same researcher used certain data analysis tools (non-parametric statistical methods to analyse the results of the mailed questionnaire, and thematic content analysis for interpreting the further qualitative insights provided by personal interviews) for all cases and then reported the findings based on the division of the sample into two groups, the highly and the less successful developers. Each case was individually analysed and then the results were aggregated in tables for the two groups of companies in order to permit comparisons and build theory through our propositional framework. The analytical tools used provided a structured analysis of results and a frame of reference for other researchers that may want to replicate this study.

In summary, the careful planning and execution of this study allows us to claim that our results can be replicated by other researchers and consequently, reliability is high.

5.7.5 Unit of study & unit of analysis

For the purpose of this study, the unit of study is the business, in the form of a leasing company that offers leasing products. Since we are interested in analysing communication skills in NSD, the unit of analysis is the strategic business unit (SBU), that is to say, the profit seeking part of an organisation involved on a full-time basis in the development and subsequent marketing of new leasing products.

To adopt a different unit of analysis would compromise the results of the study. For example, we could use single NSD projects as the unit of analysis. However, this would be inappropriate since the success of individual projects does not guarantee program success (Cooper 1984, 1984a; John and Snelson 1988, 1990). Also, communication practices are not expected to vary significantly between projects since they are considered to be organisation-wide policies that are governed by the company's culture, strategy, and systems and are not connected with individual products. Another unit of analysis that could be adopted is the organisation as a whole. However, leasing is usually only one part of corporate operations and most of the companies analysed in our study are subsidiaries or divisions of bigger organisations. Communication practices differ between various parts of each organisation, since they serve different markets with different customer needs. Therefore, it would not be appropriate to examine the whole organisation.

Consequently, the SBU - the group of people in an organisation involved on a full time basis in NSD - was judged to be the appropriate unit of analysis for the purpose of this study.

5.7.6 The sample

In order to select an appropriate sample, we first have to define the universe and the population to be used. The universe of this study consists of all foreign and British owned developers of leasing products with established leasing operations in the UK.

Since, it is our aim to analyse NSD success, the appropriate population to be used is the number of active new service developers in the field of leasing.

In order to identify this population, peer evaluation was used. During preliminary fieldwork a number of experts were asked to identify active new service developers in the leasing market. By active, is meant that they are known by these experts to engage in NSD on a regular, on-going basis. In addition, we consulted two directories: (i) the CIB Directory of Corporate Banking (Doggett 1997) that contains a list of all the developers with unique skills in leasing; and (ii) the World Leasing Yearbook (1999) that lists all the leasing developers in the UK with reference to their activities and their parent organisation. Finally, a search was made for secondary sources of information like newspaper and journal articles that point out which developers are most active in innovation and in communicating with customers.

From the population of active new service developers identified we had to select an appropriate sample. The ultimate goal was that the sample consisted of a good mix of companies. Accordingly, the sample drawn consisted of 12 developers of leasing services including a mix of UK and foreign, small and big companies as well as incumbents and new entrants. However, of the 12 companies selected, only 9 agreed to take part in this investigation, providing us with a 75% response rate. The basic reasons of non-response were time constraints and unwillingness to participate.

Evidently, the sample selected was purposive and the aim was to select a group of active new service developers. Purposive sampling has been judged to be the most appropriate method for this study although it has advantages and disadvantages. Criticism of purposive sampling centres on the fact that it involves a non-probability sample, and as a result, the probability of any particular member of the population being chosen is unknown. The sample units are selected based on the researcher's judgement about some appropriate characteristic required of the sample companies. The researcher selects a sample to serve a specific purpose, even if it makes a sample less than fully representative (Zikmund 2000a). Also, due to the non-probability character of these

samples there are no appropriate statistical techniques for measuring random sampling error. Thus, projecting the data beyond the sample is statistically inappropriate.

Nevertheless, there are occasions where non-probability samples are best suited for the researcher's purpose. Purposive sampling is widely used in qualitative research because specific characteristics of the sample members need to be explored. Qualitative samples tend to be purposive, rather than random (Kuzel 1992; Morse 1989). Miles and Huberman (1994) stress that this is partly because the initial definition of the universe is more limited, and partly because social processes have a certain logic and coherence that random sampling can reduce to uninterpretable sawdust. They argue that with a small number of cases, random sampling can deal a decidedly biased hand. Eisenhardt (1989) also highlights the inappropriateness of random sampling for case study selection. However, the main sampling issue in qualitative studies does not have to do so much with sample size but with the information richness of the cases. This richness along with the analytical/observational capabilities of the researcher determines the validity, meaningfulness and insights generated from the qualitative inquiry (Patton 1990). Therefore, we conclude that purposive sampling is appropriate for this study.

5.7.7 Data collection

Data collection took place between July 1999 and March 2000 and was done in 2 phases. In the first phase, a structured questionnaire was mailed to pre-identified respondents responsible for NSD in each sample company. In the second phase, a personal interview based on an unstructured questionnaire was conducted with the same respondents in order to clarify issues that have emerged from the questionnaire data, and for the purpose of gaining additional qualitative insights. Face-to-face contact at this point was necessary since the subject of analysis was complex and the results from the mailed questionnaire would probably be inadequate by themselves.

The selection of two methods of data collection follows the suggestions of Miles & Huberman (1994), Yin (1984) and Eisenhardt (1989) on combining qualitative and

quantitative data in qualitative research. Yin (1984) postulates that case study research can involve qualitative data only, quantitative only, or both. Eisenhardt (1989) argues that quantitative evidence can indicate relationships that may not be salient to the researcher, it can keep researchers from being carried away by vivid, but false, impressions in qualitative data, and it can bolster findings when it corroborates those findings from qualitative evidence. Jick (1979) explains that qualitative data are useful for understanding the rationale or theory underlying relationships revealed in the quantitative data or may suggest directly theory, which can then be strengthened by quantitative support.

Miles and Huberman (1994) suggest that both sets of data help each other during the design of the field study, in data collection, and in data analysis. They also describe 3 illustrative designs of linking these two types of data. This study follows the third type of design that alternates collection of quantitative and qualitative data. It starts off by collecting qualitative data from preliminary fieldwork, continues with gathering quantitative data from the mailed questionnaire and ends with another round of qualitative data collection from personal interviews where quantitative data is deepened and tested systematically. As Miles & Huberman (1994) postulate, linkage between qualitative and quantitative data happens at three levels. This study uses the second level to link data. At this level qualitative information (from personal interviews) is compared to numerical data (from mailed questionnaires) obtained by the same respondent. The use of two methods of data collection helps in triangulating results and therefore provides stronger substantiation of constructs and propositions as suggested by Eisenhardt (1989).

Questionnaires for both phases of data collection were constructed based on the division of the NSD process in 3 stages: (i) initiation stage, (ii) development stage, and (iii) implementation stage. Initiation has been defined as “the process by which an organisation becomes aware of an innovation and decides to adopt it” and implementation as the “process by which an organisation puts the innovation into practice and eventually institutionalises it into its ongoing operations (Rogers and

Agarwala-Rogers 1976, p.156). The primary reason for dividing the new service development process into three stages was to observe how developer – customer communication practices differ from one stage to the other. Past research on communication in the financial services industry (Lievens et al. 1999) as well as the results of our pilot studies led us to follow this breakdown of the NSD process.

The initiation stage includes all pre-development activities like idea generation, product screening, preliminary market assessment and market research, financial and business analysis, and concept development and evaluation (Cooper 1979; Murphy and Robinson 1981; Bowen and Bowers 1986; McQuarrie and McIntyre 1986; Cooper and Kleinschmidt 1986; Cowell 1988; Moutinho and Brownlie 1989; Ciccantelli and Magidson 1993; de Brentani 1993, 1993a). The development stage includes activities such as service design and process development, and in-house service testing with customers and operations personnel (Cooper and Kleinschmidt 1986; Scheuing and Johnson 1989). The implementation stage includes activities like product testing before launch, test marketing, piloting, employee training, in-house selling and communication of the new service to frontline personnel (de Brentani and Cooper, 1992; de Brentani 1993, 1993a) as well as the actual launch, and post-launch review.

In the next section we will describe how the data collection instruments were constructed.

5.7.7.1 Structured, mailed questionnaire

The mailed questionnaire consists of four parts. The first part gathers information for measuring NSD success. The second part is used for analysing whether each of the sample companies exhibits the configurational characteristics of successful new service developers. The third part gathers information for examining to what extent our propositional framework was useful for building theory, and the last part provides company classification data necessary for data analysis.

Questionnaire design followed the suggestions of Zikmund (2000a). We, therefore, took care not to make any assumptions, to avoid complex, ambiguous, double-barreled or loaded questions, to have clear-cut and straightforward instructions, and to order questions in an appropriate sequence. Also, since lengthy, demanding questionnaires have very poor response rates, we tried to make it as short and as little time consuming as possible for respondents.

The questionnaire was pre-tested for efficiency, relevance and accuracy in the pilot studies and the appropriate changes were made prior to the field study. A cover letter was included in the mailing explaining the objectives of the research, what was expected of the respondent companies, and what was offered by the researcher, and emphasising the merit of the study (Appendix I includes the cover letter sent to all the respondent companies and the structured mailed questionnaire that was used in the first phase of the field study). Each respondent was pre-identified by phone as the person responsible for NSD in each of the 12 sample companies. The researcher briefly explained the objectives of the study over the phone and asked whether they would be willing to receive further information. Nine of the 12 sample companies agreed to take part in the investigation.

Structured mailed questionnaires were judged to be the best initial data collection instrument since the first objective of the study was to develop some initial data points and then probe into each case in order to get some further qualitative insights. The information obtained by the first round of data collection provided us with the main areas of interest on which the interviews should focus. Although the questionnaire was structured, it was not designed for a survey but for providing some initial theoretical points that can be further analysed in the subsequent interviews. This type of questionnaire allowed the respondent to think about issues raised at his own time, to remember details about new service development and to gather relevant information that may be needed for the subsequent interview. As a result, provision of relevant information during personal interviews was more than adequate since respondents were ready to probe into the issues raised in the mailed questionnaire.

Due to the specific design of data collection most disadvantages of mailed questionnaires - length, low response rates, interviewer's absence - were dealt with. However, the advantages of mailed questionnaires - geographical flexibility, low cost, respondent convenience (Zikmund 2000a) - were exploited.

The questionnaire used 5 point Likert scales and checklist questions. These scales were chosen because they are easy to construct, they can measure the variables necessary for the study, they can be easily understood by respondents, and questions formed with these scales can be answered quickly. A disadvantage of the Likert scales is that it is difficult to know what a single summated score means because many patterns of response can produce the same total score. However, in our study scales are used consistently so that higher scores are related to highly successful new service development and lower scores to less successful NSD. Also, exact meanings of each point are sought in the personal interviews by probing into the respondent's answers from the mailed questionnaire.

5.7.7.2 Personal interviews

The use of personal interviews in the second stage of data collection gave us the opportunity to gain further qualitative insights in the area of developer – lead customer communication. The same respondent in each sample company was interviewed. Ambiguous or unclear responses from the mailed questionnaire were clarified. The nine respondents of the mailed questionnaire expanded on and explained their answers. Having established which issues are the most important through the mailed questionnaire, we could focus more on these during the personal interviews.

An unstructured questionnaire was used for personal interviews, comprising open-ended questions that were formed based on the results of the mailed questionnaire (Appendix II presents the interview schedule used for personal interviews). This type of questions was necessary since the study had a descriptive nature and qualitative insights were sought. Therefore, respondents were encouraged to talk freely. The presence of the researcher

guaranteed that all questions were answered and increased trust between respondent and interviewer. As a result, reluctance to participate in the study and fear of confidentiality issues decreased. Interviews were also audio taped in order to check notes afterwards, providing a method of triangulation of results during the analysis of the data as suggested by Perry (1998).

Personal interviews lasted between one and two hours depending on the complexity of the answers and the willingness of the respondent to talk. Interview data was backed up with reference to operational memos and confidential strategic material whenever possible following the suggestions of Eisenhardt (1989) that internal documents corroborate findings.

5.7.8 Data Analysis

Since we have done two rounds of data collection, field study results were analysed in two stages. First, we analysed quantitative data from mailed questionnaires and then qualitative data from personal interviews. In this section, we will describe the methods used for analysing the data from each stage of data collection.

5.7.8.1 Quantitative data from mailed questionnaires.

In order to analyse the data derived from the mailed questionnaire we used carefully constructed tables that present average scores for each group of companies – highly and less successful - in order to see whether quantitative results indicated that our propositional framework was useful in building theory and to what extent (see Tables 6.3 to 6.9). The scores for each sample company were first calculated and then they were combined to obtain an average score for each sample group (the highly and the less successful). The groups were selected based on each company's score on NSD success (see Table 6.1).

The questionnaire used ordinal scaling (Likert scales, numerical scales) as well as checklist questions in order to record the practices of each sample company regarding developer-customer communication. Ordinal scales are widely used in qualitative research, but there is a limited variety of statistical methods that can be used to analyse ordinal data. The statistical tests used to analyse the results of this study were selected following the suggestions of Zikmund (2000). He postulates that data analysis of studies with small samples, a non-normally distributed population, and using nominal or ordinal data, typically uses non-parametric statistical tests. Since we are using non-parametric statistics, the appropriate statistical tests to be used are: (i) the Spearman Rank-order Correlation Coefficient used to measure correlation between the different variables used in the propositional framework and NSD success, and (ii) the Mann-Whitney test that is used to test the significance of any differences observed between the two groups of sample companies – highly and less successful developers.

The Spearman Rank-order Correlation Coefficient measures correlation between variables in small samples and is used as a substitute of the Pearson correlation coefficient when the data analysed is ordinal or nominal. The objective is to calculate the coefficient (R_s) that takes values ranging from +1 to -1. If $R_s = -1$ there is a perfect negative correlation between the two variables (when one variable increases the other decreases by the same amount). If $R_s = +1$ there is a perfect positive correlation (when one variable increases then the other also increases by the same amount). If $R_s = 0$ there is no correlation between the two variables. After having determined whether there is any correlation between variables, we calculate the d value which derives from the following formula: $D = \sum (X_i - Y_i)^2$ where X_i are the values of the X variable and Y_i are the values of the Y variable. Then the D value is compared to the critical value (D_c) for a particular level of significance. If $D < D_c$ then the correlation is significant at the specific level of significance. If the correlation is negative and $D > D_c$ then we look at another critical value (D_n) that is derived from the formula: $D_n = (1/3) * n(n^2 - 1) - D_c$, where n = the number of observations. If $D > D_n$, then the negative correlation observed is significant at the specified level of significance.

The Mann-Whitney test allows for testing group differences when the populations are not normally distributed or when it cannot be assumed that the samples are from populations that are equal in variability (Zikmund 2000). It is a non-parametric test used for the analysis of small samples.

5.7.8.2 Qualitative data from personal interviews

Here we will discuss the methods used for analysis of the qualitative results provided by personal interviews. The rationale for choosing this methodology and the techniques used are presented.

After completing all the personal interviews, the first decision to be made was whether we should use a variable-oriented or a case-oriented data analysis methodology. The basic question was do we aim to look at variables and their connections or are we interested in each case by itself and we follow strict replication logic? According to Miles and Huberman (1994) variable-oriented approaches are conceptual and theory-centered from the start of the study, casting a wide net over a number of cases. The building blocks are variables and their intercorrelations, rather than cases. So the details of any specific cases recede behind the broad patterns found across a wide variety of cases, and little explicit case-to-case comparison is done. On the other hand, case-oriented strategies advocate a replication strategy (Yin 1994). A theoretical framework is used to study one case in depth, and then successive cases are examined to see whether the pattern found matches that in previous cases. As Ragin (1987) notes, variable-oriented analysis is good for finding probabilistic relationships among variables in a large population and case oriented analysis is good at finding specific, concrete, historically-grounded patterns common to small sets of cases, but its findings often remain particularistic.

Often, as described by Miles and Huberman (1994) and Ragin (1987), researchers combine variable and case oriented strategies to analyse qualitative data. Since in our study the design links quantitative with qualitative data and a set of propositions

concerning certain communication skills are formulated from the beginning, a mixed strategy was deemed more appropriate.

We approach cross-case comparison by forming types of families as described by Gouldner (1958) and Lofland and Lofland (1984). We inspect cases in two groups according to the NSD success score of each company – highly and less successful developers – and we want to see whether the cases fall into clusters that share certain patterns or configurations. The techniques used for data analysis follow the recommendations of Miles and Huberman (1994). The steps followed are presented here:

Step 1. Analysis of single cases: Using content analysis on the data provided by personal interviews and mailed questionnaires, we analysed each case individually constructing a content analytic summary table for each case.

Step 2. Forming types of families: Two families are formed based on the score of each sample company in NSD success, the highly and the less successful developers.

Step 3. Stacking comparable cases: Cases of the two families were stacked in two content analytic summary tables that permit us to recognise patterns and compare the two case families. These tables note how many cases in each family share the same characteristic and determine whether the theory suggested by our propositional framework holds for all or some sample companies.

Step 4. Analysing content analytic summary tables. We use tactics such as noting patterns, counting cases, making contrasts and comparisons to interpret data.

Step 5. Report results in summary tables, process maps, and matrices. Results for each group of sample cases are presented in tables, a process map is constructed to illustrate differences in the NSD process between highly and less successful developers and a time-ordered meta matrix is used to show differences in the nature of developer-customer communication during the NSD process.

5.8 Limitations of the research design

Although the research design selected was deemed the most appropriate for this study, a set of limitations are apparent and include the following:

1. The use of a non-probability sample and ordinal data decreases the variety of statistical tests that can be used for data analysis. However, in studies like ours selecting a purposive sample is necessary because random sampling with a small number of cases can be very biased.
2. The small size of the sample, and the ties that exist in the data decrease the reliability of statistical analysis. Statistical analysis is only used to reinforce our qualitative findings and not to provide definite results based on causative relationships. Without the existence of qualitative data, statistical results would lack credibility in the context of our study. However, it can be argued that it is useful to combine qualitative and quantitative analysis in order to prove our points, reinforce the validity of our results, and satisfy the number-oriented readers of this thesis.
3. We focus the study on a very specific market. However, many other complex financial services share the characteristics of leasing products in respect to communication with customers. So we can argue that our results may be generalised to similar services.
4. We depend on single informants from each sample company. However, the fact that cases are examined in groups with an aim to recognise patterns decreases single informant bias. Also, the informants used can be described as key informants since they are the people mainly responsible for NSD in each sample company. Finally, data is triangulated with taped interviews, two methods of data collection, and internal documents from each company as suggested by Perry (1998) and Eisenhardt (1989). Regrettably interviewing more than one person in each company was not possible due to constraints set by sample companies. Their time is very restricted and the help they can give is very limited.

5. We do not use any financial measures of performance in measuring NSD success. However, we use both product-related and customer acceptance measures. Financial data is difficult to obtain, it is not kept by all companies in relation to new services and can lead to serious misinterpretations.
6. Finally, we must point out that the case study method is not a panacea and can lead sometimes to overly complex theories sacrificing parsimony (Parkhe 1993). Eisenhardt (1989) comments on this by saying that faced with vivid, voluminous data, researchers are tempted to build theory which tries to capture everything. However, in this study, the research methodology mixes induction with deduction and is guided by a tentative, propositional framework. This framework attempts parsimoniously to tie core variables into an integrated theoretical system and is subject to modification to fit the empirical reality following the suggestions of Parkhe (1993).

5.9 Conclusion

This chapter has presented the research objectives; analysed the study's background and the key concepts and variables used in constructing our propositional framework; described the research design and methodology followed, and provided the rationale for selecting such research methodology. The next chapter will analyse the field study results.

CHAPTER 6

ANALYSIS OF THE FINDINGS

6.1 Introduction

The propositional framework developed in Chapter 4 was used for undertaking a field study that was done in two phases between July 1999 and March 2000. Chapter 5 described the design of the field study and the methods that were used for data collection and analysis. Quantitative techniques (mailed questionnaire) were combined with qualitative methods (personal interviews) in order to provide further qualitative insights into the differences in communication skills between highly and less successful developers of leasing services. The questionnaire was designed and its results analysed by the author. Also, this researcher conducted all the personal interviews and interpreted the data collected.

This chapter summarises the results of the field study. It first describes the leasing market and presents the profile of the sample. Then it provides an overview of the results. Furthermore, cases are examined closely in order to understand how highly successful sample companies differ from the less successful in their communication behaviour and in what ways they are similar. Quantitative results are used to reinforce qualitative findings. Cases are analysed in order to find out whether they fit the propositional framework developed in Chapter 4. For the purposes of comparing results for the two groups of companies analysed, content analytic summary tables are constructed for highly and less successful developers on three different areas: (i) Developer-lead customer communication skills; (ii) The configurational characteristics of companies that are thought to influence new service success and are analysed based on the McKinsey 7S framework; and (iii) Other NSD and new service success issues. Also, a process map is constructed for each group of sample companies illustrating differences between the two groups in the management of communication through the NSD process. Finally the nature of communication behaviour during NSD is analysed and a time-ordered matrix of developer-customer communication is constructed in order to find out who is involved in communication and what actions are taken in each stage of the NSD process.

6.2 The leasing market

The leasing market is very fragmented as it came out from our investigation. There are many companies operating in the British market that are mainly subsidiaries of big financial institutions or manufacturers. Some of them are full-service leasing providers (they offer all products to all customer sizes) and others are niche players that concentrate on a particular type of products or on a certain size of customer. Full service companies are called traditional lessors and operate with very low margins. They focus on the big-ticket market. On the other hand, niche players focus more on structured finance solutions that solve specific customer needs, operate with significantly higher margins and service mainly the medium and small business markets. These companies are usually foreign companies that entered the UK market and had to create a differential advantage over the subsidiaries of established big banks. Their advantage is that they are small and flexible and this helps in meeting rapidly changing customer needs.

There are two main types of leasing, finance and operating. Finance leasing is used for long-life assets that are usually very expensive. On the other hand, operating leasing takes assets off balance sheet and therefore increases company liquidity. It is used when the assets have a short useful life (e.g. car fleet).

In this market, the rapid changing of regulation and customer needs means that NPD is about redefining products to meet such needs. As one of the sample companies say “innovation must be at the centre of our philosophy because the needs of our clients are changing, just as the needs of their clients are changing”. Companies search for new ways to help their customers save money from taxes, free their balance sheet, manage their risk, or expand to other countries. These new products can be offered to existing or new customers. Techniques such as bundling of two or three different products, repackaging of old ones, and product line extensions are very common in this market. For example, one new product gives businesses the opportunity to buy many different types of assets under one agreement providing flexibility and convenience. Companies don't have to arrange for funding for each asset separately and they can deal directly with the supplier of the asset without him knowing that the asset is financed. So, companies can negotiate like cash buyers. Another example is

the development of operating leasing. The need for businesses to have available capital and a light balance sheet led to the development of a new product that allowed businesses to lease assets for a short period of time. This meant that the leasing period was less than the useful life of the asset and thus the customer will only have to pay for the years he used it. Also, since assets leased do not appear in the balance sheet, the company's liquidity was enhanced while on the other hand lease payments were deducted from taxable income. Consequently, the new product covered the new customer need.

6.3 The profile of the sample

In order to have a clear picture of the sample used in this study, a sample profile was developed based on the results of the last part of the mailed questionnaire that collected company classification data. The criteria used for developing the profile are:

- (i) The size of each organisation in terms of turnover and number of employees
- (ii) The ownership status of each sample company.
- (iii) The departments that the respondents work in.
- (iv) The type of leasing business sample companies focus on (traditional leasing as opposed to structured finance).

Figures 6.1-6.5 in Appendix III present the profile of the sample and reveal that big companies in turnover were slightly more than small, although companies with a low number of employees were the dominant group. There was a good mix of UK and foreign companies, and of traditional leasing and structured finance developers. The respondents belong to four different departments depending on the structure of each organisation. However, the marketing department is responsible for new service development in the majority of cases.

6.4 An overview of the results of the field investigation

In order to find out which are the differences between highly and less successful developers in the way they manage communication with their lead customers, sample companies were divided into two groups based on their NSD success score (see paragraph 6.5.1).

Based on the above division of the sample in highly and less successful developers, and the division of the NSD in three stages – initiation, development and implementation (see paragraph 5.7.7) - we examined each case closely and then grouped them into the highly and the less successful in order to observe differences.

Information was provided regarding the developer-customer communication skills of each group of companies, their configurational characteristics analysed with the McKinsey 7S framework, and other details connected to NSD practices and new service success. Analysis of data showed a difference of doing business between the highly and less successful groups.

First, cross-case analysis revealed that the highly successful developers are much more skillful in communication than the less successful. The differences between the two groups refer to the communication methods used; the intensity of their use in each stage of the NSD process; the amount of functional and employee involvement in the communication process; the use of new technology in communication, and the pattern of communication followed during the NSD process. Qualitative results were reinforced by quantitative findings from the first stage of data collection. Results showed that the major differences in practices are related to the number of new technology communication methods used, the intensity of use of communication methods, the number of functions as well as the percentage of employees communicating with customers. Also, a major difference between the two groups is that the highly successful keep communication levels high and constant through the NSD process whereas the less successful increase it as they move through the process and focus communication on the implementation stage.

Statistical analysis was done on the results that included the calculation of the Spearman Rank Correlation Coefficient useful for observing correlation between variables used in each proposition and NSD success, and the use of the Mann-Whitney test for testing the significance of differences between highly and less successful developers. Results revealed that the use of new technology communication methods as well as the percentage of employees communicating with customers are the most significant differences between the two groups of companies and are correlated the most with NSD success.

Second, in respect of the 7Ss analysed the major differences between highly and less successful developers rest in: (i) the availability of people and financial resources (status); (ii) the abundance and excellent deployment of highly experienced employees (staff); (iii) the emphasis on being first to market (style); (iv) the support of continuous innovation and of close relationships with customers (shared values); (v) the existence of a formal NSD process based on high internal communication and cross-functional teams (systems); (vi) the extent of use of clear success measures and profit goals for new products (Strategy); and (vii) the existence of good knowledge management skills (skills). Therefore, companies that exhibit such success characteristics are more likely to possess the right developer-lead customer communication skills. In other words, skills in communication are actually related to having many other success characteristics as these are outlined in the literature.

Third, information regarding NSD practices and New service success revealed that although both groups of companies develop almost the same number of new products simultaneously and have problems in keeping the development schedule due to increased regulation and complex approval procedures, the highly successful develop products faster, have recognised the value of close communication with customers for new service success, use specific measures of success for new services and set specific profit and revenue goals from new services.

Fourth, qualitative insights were provided regarding the NSD process of leasing companies showing that an important difference between highly and less successful developers is the amount of communication with lead customers throughout the NSD process and the level of bureaucracy in approval procedures present.

Finally, a time ordered meta-matrix is constructed that analyses the communication behaviour of each of the sample companies with an aim to reveal who is doing what throughout the NSD process in terms of communication (Table 6.18). Consequently, the differences in communication behaviour between highly and less successful developers are revealed. The highly successful practice proactive communication and use a cross-functional team that communicates directly with customers whereas the less successful are passive to the market and customers are communicated indirectly through one department or salesperson that communicates the information to the specialists of different departments.

6.5 Results

The purpose of this study was to combine variable and case oriented analysis in order to gain qualitative insights into the way leasing developers communicate with their lead corporate customers. To that end, companies were separated into two groups based on their NSD success score. Then each case was individually analysed using content analysis and based on the questionnaire answers and the insights provided by personal interviews. Then, cases were combined for the two groups of analysis, the highly and the less successful developers in order to arrive at cross-case results. The results of this analysis will be presented in this section.

6.5.1 Grouping the sample

The results of our study are analysed based on the division of the sample of 9 companies into two distinct groups depending on their NSD success score. Five belong to a highly successful group and four to a less successful group. In each cooperating company we were provided with performance data for all major new services developed over the last 3 years (1996, 1997 and 1998) on the three measures of success used (on time to market, on target to market and on schedule). A Likert scale of 1=least successful to 5= most successful was used for scoring new services. An average score for each success measure was calculated and these average scores were aggregated to calculate an overall company performance score. The companies that had an average success score of higher than 3.5 (out of five) were put in the highly successful group whereas the rest formed the less successful group.

In order to ascertain that such selection was valid we calculated the average of the scores of all the companies in each group for all three measures of success and tested them for significance of differences (see Table 6.1). Results showed that differences between the two groups were significant for two out of the three success measures used. Finally, we combined the average scores of each measure for each group and came up with an overall NSD success score of 3.68 for highly successful developers and 3.01 for less successful developers (on a scale of 1=low to 5=high) as shown in Table 6.1. This difference also proved to be significant at the 95% level of significance using the Wilcoxon-Mann Whitney test. The scores attained prove that both groups of sample companies were quite successful in NSD (above the middle = 3) in their own right but the highly successful were much more so and consequently it is interesting to explore the reasons for this difference.

Table 6.1: New Service Development Success Scores

Measure	Success scores achieved:	
	Highly successful developers (n=5)	Less Successful developers (n=4)
On time to market	4.00 ¹ *	3.05
On target to market	3.77 ²	3.34
On schedule	3.28 ³ *	2.63
Combined Average	3.68 *	3.01

¹ Scale used: 5= first to market; 4= early follower; 3= just in time; 2= late follower; 1= very late.

² Scale used: 5= perfectly matched market needs; 4= mostly matched market needs; 3= just matched market needs; 2= partly matched market needs; 1= not matched market needs at all.

³ Scale used: 5= exceeded development time targets; 4= easily met development time targets; 3= just met development time targets; 2= fell behind development time targets; 1= very late compared to development time targets.

* Indicates a difference that is statistically significant at the 0.05 level of significance applying the Mann-Whitney test (Siegel & Castellan 1988).

Source: Field study

The importance of the differences between the two sample groups was further reinforced by the results of the two filtering questions that were used in the mailed questionnaire where companies indicated how intensively they communicate with lead customers during NSD and to what extent they want to be first in the market with new products. The aim of these two questions was to reinforce the assignment of each company in the highly or the less successful group since a high score in both these questions is associated with new service success. Table 6.2 shows the results for the two groups of companies and reveals an even greater difference than in the new service success scores. These differences were also found to be significant at the 95% level of significance using the Wilcoxon-Mann Whitney test for small samples.

Table 6.2: Results from filtering questions.

Company	Highly successful developers (n=5)	Less Successful Developers (n=4)
i. Intensity of communication with customers	3.6 ¹ *	2.25
ii. First to market intent	3.8 *	2.5
Combined Average	3.7 *	2.375

¹To be read: On a scale of 1=low to 5=high, highly successful developers averaged a score of 3.6 in the extent to which they communicate with customers during NSD.

* Indicates a difference that is statistically significant at the 0.05 level of significance applying the Mann-Whitney test (Siegel & Castellan 1988).

Source: Field study

6.5.2 Cross-case analysis results

After dividing the sample into two groups, each case was individually analysed based on the data collected from the two phases of the field investigation and then results for each one were grouped for highly and for less successful developers. Content analytic summary tables are used to present results of cross case analysis for both groups of companies on developer-customer communication skills; company configurational characteristics (analysed with the McKinsey 7S framework); and on other issues related to new service success and NSD practices in the area of leasing. The tables also provide a summary of similarities and differences observed between the two groups of developers in each of the three previously mentioned subject areas.

The results obtained from the cases connected to communication skills are also reinforced by quantitative data. Quantitative data revealed issues that were deepened and understood by qualitative results, strengthened theory suggested by qualitative analysis, and helped us to focus on salient issues. Data was analysed based on the

division of the sample companies in two groups, the highly and the less successful developers and on the breakdown of the New Service Development Process in 3 stages (initiation, development and implementation) as explained in paragraph 5.7.7.

Quantitative results are analysed statistically in order to show which of the variables used in formulating propositions are correlated more with NSD success and to test for the significance of differences between the scores of the two groups of developers. The statistical tools used include the Spearman Rank Correlation Coefficient and the Wilcoxon-Mann Whitney test as described in paragraph 5.7.8.1. The variables used in correlation analysis are presented in Table 6.12 and correlation results appear in Table 6.13. The significance of differences between the two groups was tested at the 95% or 90% level of significance. So, the possibility of the results being a chance event is less than 5% or less than 10% respectively. Detailed results of the significance of each difference, overall and in each of the three stages of the NSD process appear in Tables 6.3 – 6.9.

Moreover, the data obtained by cross-case analysis is used to develop:

- a) a blueprint of the NSD process for each group of sample companies that reveals the major differences between highly and less successful developers in managing NSD, and
- b) a time ordered meta-matrix that describes which actors were involved in developer-lead customer communication in each stage of the NSD process and which were the actions taken. Also, the overall level of communication is assessed for each stage of the process. This type of analysis helped us to come to conclusions about the differences in communication behaviour between highly and less successful developers.

Figures 6.6 and 6.7 describe the NSD process for highly and for less successful developers respectively whereas Table 6.18 presents the time ordered meta-matrix developed. This section will look at each part of cross case analysis in turn.

6.5.2.1 Developer – lead customer communication skills

Case study analysis provided insights concerning developer - customer communication skills during the NSD process. Results from the two stages of data collection were combined in order to arrive at overall conclusions. The results of cross-case analysis for both highly and less successful developers appear in Table 6.10. The numbers in Table 6.10 denote the number of sample companies that gave each answer. Also, a summary of the differences and similarities of highly and less successful developers in developer-customer communication skills appears in Table 6.11. The most important conclusions from this analysis are the following:

6.5.2.1.1 Intensity & pattern of communication during NSD

There is a clear difference between highly and less successful developers in the intensity of communication during the NSD process. Highly successful developers communicate more intensively with their lead customers throughout the NSD process and keep communication levels high and constant whereas less successful developers begin the NSD process with low levels of communication and increase it as they move from the first to the last stage, focusing communication on the implementation stage of NSD.

It seems that the less successful are very reluctant to communicate with customers in the first two stages. The major reason for this attitude is fear of competition and is illustrated in the words of two respondents saying “We could communicate more with customers but we are frightened to do so because of competitors” and “Communication is low because this company thinks that any development detail is confidential”.

What is also interesting is that highly successful developers emphasise communication in the second stage of the process (development) because the specifications of the new product are decided at this time and therefore, it is very important to communicate with customers in order to test viability of the new product and estimate possibility of customer acceptance.

These results are also reinforced by the quantitative data obtained as it is shown on table 6.3. The implication is clear, for less successful developers, communication with customers is far more important in the last phase of NSD than in earlier phases. However, an interesting observation is that when we differentiate between traditional and new technology communication, results show that highly successful developers use new technology communication methods more intensively than less successful developers in all three phases of NSD. Consequently, the less successful are not only afraid to communicate until development but do not use much new technology even in the last phase where most communication takes place.

Table 6.3: Intensity of Communication by Phase and Type

Phase	Method	Intensity of use of methods:	
		Highly successful developers (n=5)	Less successful developers (n=4)
Phase 1: Initiation	- Traditional	3.21 ¹	1.96
	- New technology	1.40 *	0.50
Phase 2: Development	- Traditional	3.02	2.38
	- New technology	1.48 *	0.50
Phase 3: Implementation	- Traditional	3.00	3.20
	- New technology	1.65 *	0.75
Combined average:	- Traditional	3.08	2.51
Phases 1, 2, & 3	- New technology	1.51 *	0.58

¹ To be read: On a scale of 1= use the least to 5= use the most and 0= do not use at all, highly successful developers use traditional methods of communication with an average intensity of 3.21 in the initiation phase of NSD.

* Indicates a difference that is statistically significant at the 0.10 level of significance applying the Wilcoxon-Mann-Whitney test (Siegel & Castellan 1988).

Source: Field study

6.5.2.1.2 Communication methods used

The major conclusions drawn from our analysis concerning the type and number of communication methods used are the following:

1) There are no significant differences between the two groups in the number of communication methods used and in the type of traditional communication methods used. At first, the overall number of methods of communication used by the two groups of companies is shown to differ considerably. The five highly successful developers use 13 traditional and new technology methods overall, while the four less successful developers use 9 traditional and new technology methods (see Table 6.4).

However, when the average number of methods is considered for each development phase, there is only one statistically significant difference in the methods of traditional and new technology communication used, in the second phase of the NSD process (see Table 6.5). This suggests that highly successful developers use a significantly wider range of traditional and new technology communication methods than less successful developers only in the development phase of the NSD process. Also, an important observation is that less successful developers use the highest number of communication methods in the third stage of NSD, whereas the highly successful companies keep the number of methods used almost constant throughout the NSD process (see Table 6.5).

2) Highly successful developers use more new technology communication methods when communicating with lead customers. When results for communication methods are separated into traditional and new technology significant differences are revealed between the two groups of companies. These are shown in Table 6.6. Results reveal that the use of new communication technology is a key differentiator between highly and less successful developers. The differences are statistically significant and important managerially. In all three phases highly successful developers use significantly more new technology to communicate with lead customers than do less successful developers. Overall, the highly successful group uses on average 2 new technology communication methods whereas the less successful group uses only an

average of 0.50 methods. Also, the focus of the less successful developers in communication at the last stage of NSD is further emphasised since in that stage there is a significant difference between the scores of the two groups both for traditional and new technology communication methods used (see Table 6.6).

This lack of emphasis on new technology on the part of less successful developers is due to the fact that they have not invested in new technology communication systems and do not feel that new technology can help them become more successful. As a respondent commented “email is a waste of time and interferes with workload” and as someone else emphasised “we do not need to use new technology in customer communications”.

3) Communication methods used vary. Personal meetings, telephone, letters and mailings and email are the most popular methods of communication for the highly successful group. In addition to personal meeting and telephone, seminars and workshops are very common in less successful developers. Also, fax is used more by highly successful developers.

Table 6.4: Communication methods used.

	No. of methods used:	
	Highly successful developers (n=5)	Less successful developers (n= 4)
TRADITIONAL METHODS		
Personal meetings	3	3
Telephone	3	3
Seminars, Workshops	3	3
Newsletters	3	3
Educational brochures	3	3
Letters, mailings	3	3
Fax	3	3
Other (on-site training)	3	-
$\Sigma=$	8.00	7.00
NEW TECHNOLOGY METHODS		
E-mail	3	3
Internet	3	-
Extranet	-	-
Intranet	-	-
E-telecom (picture telephony)	3	-
Webcasting or streaming audio	-	-
Virtual conferencing	3	-
Virtual communities	-	-
Informational CD-ROMs	3	3
Broadcast fax	-	-
$\Sigma=$	5.00	2.00

* Indicates a difference that is statistically significant at the 0.10 level of significance applying the Wilcoxon-Mann-Whitney test (Siegel & Castellan 1988).

Source: Field study

Table 6.5: Communication Methods used by Phase

Phase of NSD	Method	Average No. of methods used:	
		Highly successful developers (n=5)	Less successful Developers (n=4)
Phase 1: Initiation	- Traditional <u>and</u> new technology	5.00 ¹	4.25
Phase 2: Development	- Traditional <u>and</u> new technology	5.50	* 4.00
Phase 3: Implementation	- Traditional <u>and</u> new technology	5.75	6.50
Phases 1, 2 and 3	- Traditional <u>and</u> new technology	6.25 ²	6.75

¹ To be read: On a total of 18 traditional and new technology communication methods used, highly successful developers use an average of 5 methods in the initiation stage of NSD.

² To be read: 6.25 represents the average of all communication methods used by developers, which represents a wider spread of methods than are used within each individual phase. Note that different communication methods are used in different phases, meaning that the average for all these phases is greater than the averages for individual phases

* Indicates a difference that is statistically significant at the 0.10 level of significance applying the Wilcoxon-Mann-Whitney test (Siegel & Castellan 1988).

Source: Field study

Table 6.6: Communication Methods used by Phase and Type

Phase of NSD	Method	Average No. of methods used:	
		Highly successful developers (n=5)	Less successful Developers (n=4)
Phase 1: Initiation	- Traditional	3.75 ¹	4.00
	- New technology	1.25 ² *	0.25
Phase 2: Development	- Traditional	3.75	3.75
	- New technology	1.75 *	0.25
Phase 3: Implementation	- Traditional	4.25 *	6.00
	- New technology	1.50 *	0.50
Phases 1, 2 and 3	- Traditional	4.25 ³ *	6.25
	- New technology	2.00 *	0.50

¹ To be read: of a total of 8 traditional methods, highly successful developers use on average 3.75 methods in the initiation phase of NSD.

² To be read: of a total of 10 new technology methods, highly successful developers use an average of 1.25 methods in the initiation phase of NSD.

³ To be read: 4.25 represents the average of all traditional communication methods used by developers, which represents a wider spread of methods than are used within each individual phase (8-point scale used for traditional methods and 10-point scale used for new technology methods). Note that different communication methods are used in different phases, meaning that the average for all these phases is greater than the averages for individual phases

* Indicates a difference that is statistically significant at the 0.10 level of significance applying the Wilcoxon-Mann-Whitney test (Siegel & Castellan 1988).

Source: Field Study

6.5.2.1.3 Developer functional & employee involvement

The interesting observations concerning the developer functions and employees that are involved in communication during NSD are the following:

1) Highly successful developers do allow more functions of their organisation to communicate with lead customers than less successful developers. If we break down the results into the three phases of NSD, we observe that although highly successful developers lead in involving a greater number of functions of their organisation in communicating with lead customers in the first two phases, less successful developers take the lead in the third phase (see Table 6.7). Less successful developers increase the number of functions at the end of the NSD process and involve overall a lower number of their functions in communication with customers. These findings lend support to the contention that less successful developers focus on communication with lead customers predominantly in the final phase of the development process.

2) There is a differentiation in the type of departments that are involved in communication. First, the importance of involving the R&D department is shown by the results. Most highly successful developers involve R&D in communication whereas only half of the less successful developers do so. Also, the departments of Production and Distribution are not involved in communications until the 3rd stage in the less successful group, whereas they are involved from the beginning in some of the highly successful developers. However, in both groups of companies Marketing is the primary function in the communication effort.

3) One very important difference between the two groups of companies is that the highly successful use one more function on average for communication in the second stage of NSD where the specifications of the new product are decided. This further emphasises the importance of this stage for the highly successful group. Consequently, one could suggest that involving the customer more in this stage may deliver a higher rate of new service success.

Table 6.7: Functional involvement by Phase

Phase of NSD	No. of functions involved:	
	Highly successful developers (n=5)	Less successful developers (n=4)
Phase 1: Initiation	3.25 ¹ *	2.50
Phase 2: Development	3.75 *	2.75
Phase 3: Implementation	3.25	3.50
Combined average for Phases 1, 2 & 3	3.42 *	2.92

¹ To be read: of a total of 8 functions in the developer organisation, highly successful developers use on average 3.25 functions when communicating with customers in the initiation phase of NSD. Functions are: R&D; Marketing; Production; Distribution; IT; Finance; Risk Management; Other.

* Indicates a difference that is statistically significant at the 0.10 level of significance applying the Wilcoxon-Mann-Whitney test (Siegel & Castellan 1988).

Source: Field study

4) The results concerning employee involvement reveal the same pattern as functional involvement. Highly successful developers allow a higher percentage of employees to communicate with lead customers than less successful developers. Highly successful developers keep the percentage high throughout the NSD process with a slight emphasis on the second phase, whereas less successful developers again are found to concentrate on the implementation stage. They tend to increase the percentage of people communicating with customers as they move from the first to the last stage of NSD (see Table 6.8). These companies begin with a low percentage, increase it slightly in the development stage and increase it almost threefold in the implementation stage emphasising further the importance of the last stage for this group of developers. Also, in contrast to most of the results discussed, employee involvement is significantly different between the two groups in all 3 stages of the

NSD process. Although the less successful increase the number of people communicating a lot in the third stage, the overall percentage is still a lot smaller than the one involved in highly successful companies (see Table 6.8).

Table 6.8: Employee Involvement by Phase

Phase of NSD	% of employees involved:	
	Highly successful developers (n=5)	Less successful developers (n=4)
Phase 1: Initiation	5.98 % ¹ *	1.18 %
Phase 2: Development	8.58 % *	1.43 %
Phase 3: Implementation	7.99 % *	4.32 %
Combined average for Phases 1, 2 & 3	7.52 % *	2.31 %

¹ To be read: On average in highly successful developers 5.98% of employees communicate with customers in the initiation phase of NSD. The percentage is calculated as follows: number of employees is indicated for each function (and for each stage); numbers are added for summated number of employees communicating with customers; summated number is divided with the total number of employees of the company.

* Indicates a difference that is statistically significant at the 0.10 level of significance applying the Wilcoxon-Mann-Whitney test (Siegel & Castellan 1988).

Source: Field study

6.5.2.1.4 Customer functional involvement

In respect of customer functional involvement, results showed that highly successful developers communicate with less functions of the lead customer organisation than do less successful developers. However, some interesting patterns emerge in the behaviour of the two groups of developers. Highly successful developers communicate with the same range of functions of the lead customer organisation throughout the NSD process, whereas less successful developers increase the number of functions they communicate with as development progresses proving once more their focus on the implementation stage (see Table 6.9). However, in both groups of developers communication is done mainly with key functions of the customer organisation like marketing, finance and IT.

Table 6.9: Functional Involvement within Customer Organisations by Phase

Phase of NSD	No. of functions involved:	
	Highly successful developers (n=5)	Less successful developers (n=4)
Phase 1: Initiation	2.20 ¹	2.25
Phase 2: Development	2.20	2.75
Phase 3: Implementation	2.20 *	3.50
Combined average for Phases 1, 2 & 3	2.20	2.83

¹ To be read: On a total of 8 functions in the customer organisation, highly successful developers communicate on average with 2.20 functions. Functions are R&D; Marketing; Production; Distribution; IT; Finance; Risk Management; Other.

* Indicates a difference that is statistically significant at the 0.10 level of significance applying the Wilcoxon-Mann-Whitney test (Siegel & Castellan 1988).

Source: Field study

Table 6.10: Developer – lead customer communication skills - Content Analytic Summary for highly & less successful developers

Communication methods used		Highly successful companies (n=5)			Less successful companies (n=4)		
		Initiation	Development	Implementation	Initiation	Development	Implementation
Traditional	Personal meetings	5*	5	5	4	4	4
	Telephone	5	5	5	4	4	4
	Seminars, workshops	2	2	2	4	3	3
	Letters, mailings	5	5	5	2	2	4
	Fax	3	3	3	1	1	2
	Newsletters	-	-	1	1	1	3
	Educational brochures	-	-	1	-	-	4
	On-site training	-	-	1	-	-	-
New Technology	Email	3	3	3	1	1	1
	Internet	1	1	1	-	-	-
	Informational CD-Roms	1	1	1	-	-	-
	E-telecom	-	1	-	-	-	-
	Video Conferencing	-	1	1	-	-	-
Developer functional involvement		Almost constant No of functions communicate with customers throughout NSD. Drops in the end			The highest No of functions communicate with customers in the implementation stage		
Functions	R & D	4	4	4	2	2	1
	Marketing	4	4	5	4	4	4
	Production	1	2	2	-	-	2
	Distribution	2	2	2	-	-	2
	Finance	1	1	-	1	-	1
	IT	1	2	2	-	1	1
	Risk Management	1	3	-	1	2	2
	Legal	1	1	2	-	-	-
	Executive Management	1	1	-	-	-	-
Sales	-	-	-	2	2	2	

Customer functional involvement		Almost same No of customer functions communicated throughout the NSD process			The highest No of customer functions communicated is in the implementation stage		
Functions	R & D	1	-	-	1	1	1
	Marketing	3	3	3	2	2	3
	Production	1	1	1	-	-	1
	Distribution	-	1	1	-	-	1
	Finance	2	2	2	4	3	4
	IT	2	2	2	1	2	2
	Risk Management	-	-	-	-	1	1
	Tax	1	1	1	-	-	-
	Sales	-	-	-	1	1	1
	Legal	1	1	1	-	-	-
Developer employee involvement	Average % of employees that communicate with customers	7.52%			2.31%		
	Pattern	No individual pattern emerges. Average % increases a lot in 2 nd stage emphasising its importance.			Low in the beginning, increases slightly in the development stage and increases almost threefold in the 3 rd stage.		
	Same people communicate with customers from each function	5* ¹			4		
Communication intensity during NSD	Communication intensity levels	Mostly constant and high with small variations in all 5 developers.			Increase from 1 st to 3 rd stage in 3 out of 4 developers. Highest level in implementation. Increase from 2 nd to 3 rd much higher than 1 st to 2 nd		

* To be read: 5 companies out of 5 in the highly successful group use personal meetings in the initiation stage of NSD.

*¹ To be read: 5 companies out of 5 in the highly successful group use the same people from each function to communicate with customers

Source: Field study

Table 6.11: Developer-lead customer communication skills - Content Analytic Summary for similarities and differences between highly & less successful developers

	Differences		Similarities
	Highly Successful Companies (n=5)	Less Successful companies (n=4)	
Intensity of communication during NSD	Constant levels of communication throughout the NSD process	Focus of communication in the implementation stage of NSD	-
Communication Methods used	Extensive use of New Technology (NT) communication methods	Limited use of NT communication methods	Number of communication methods used Type of traditional communication methods used
Developer functional involvement	More functions communicate with customers R&D department involved in communication effort Production and Distribution departments involved throughout the NSD process.	Less functions communicate with customers R&D department not involved in communication effort Production and Distribution involved only in implementation stage of NSD	Same people from each function communicate with customers throughout NSD Marketing is the primary function in the communication effort
Customer functional involvement	-	-	Number and type of customer functions communicated during NSD
Developer employee involvement	A high % of employees communicate with customers throughout NSD	% of employees communicating increases from beginning to end of NSD process	-

Source: Field study

6.5.2.1.5 Correlation between variables used in propositions & NSD success

In order to reinforce qualitative results and show which of the variables used in propositions are correlated the most with NSD success, we calculated the Spearman Rank-order Correlation Coefficient for each variable analysed in propositions. The results of the Spearman correlation coefficient are shown in Table 6.12.

Table 6.12: Correlation results

Variables	Rs	Type of correlation	D value (Dc= 62 & Dn=178)	Significance at 90% level
No of methods used	0.0041*	Positive (close to 0)	119.5 > 62 **	Not significant
No of traditional methods used	-0.5166	Negative	182 > 178	Significant negative
No of NT methods used	0.5833	Positive	50 < 62	Significant
Intensity of use of methods	0.33	Positive	80 > 62	Not significant
Intensity of use – Traditional methods	0.366	Positive	76 > 62	Not significant
Intensity of use –NT methods	0.5	Positive	60 < 62	Significant
Developer functional involvement	0.0833	Positive (close to 0)	110 > 62	Not significant
Developer employee involvement	0.5166	Positive	58 < 62	Significant
Customer functional involvement	-0.4666	Negative	176 > 62 and < 178	Not significant

*To be read: The very small figure of 0.0041 which is close to 0 indicates that there is no correlation between the Number of methods used and new service success.

**To be read: The D value is 119.5 which is higher than the critical value 62. So the correlation between the No of methods used and new service success is insignificant.

Source: Field study

Results showed that correlation with NSD success is statistically significant only for the percentage of employees that communicate with lead customers, and for the number of new technology communication methods used as well as the intensity of their use. This agrees with the results of cross-case analysis where these variables are

shown to differ significantly between the two groups of companies for all 3 stages of the NSD process (see tables 6.3, 6.6 and 6.8). Also, the number of traditional methods used is inversely correlated with new service success at a significant level. This means that the highest the number of traditional methods used, the less new service success achieved (see Table 6.12 for results of correlation). Although we can not support the validity of such a result due to the small sample of this study, we can point out that a trend supporting such a notion is revealed in Table 6.6. It seems that as the NSD process progresses, the less successful use significantly more traditional communication methods in the last phase while continuing to use very little new technology whereas the highly successful use both traditional and new technology in all stages. So, we could argue that in the last stage of the NSD process less success is associated with using a wider range of traditional communication methods.

6.5.2.2 Company configurational characteristics

The second objective of cross case analysis involved determining the configurational characteristics of highly as opposed to less successful developers. The aim was to ascertain that the developers that were assigned to the highly successful group also had configurational characteristics that were associated with new service success in the literature whereas the opposite would be true for less successful developers. This way we could suggest that the skills in communication are associated with the existence of other configurational characteristics of successful developers. The McKinsey 7S framework, which was used in this analysis, encompasses all the different factors under the control of management that may influence new service success and that as a result may be associated with higher or lower success. Another S, status, is added for the purpose of this study denoting the differences in the availability of resources (people and financial) in each sample company (see paragraph 5.6 for an analysis of each S used). Table 6.13 contains detailed results for both highly and less successful developers for all the Ss. The numbers given in each column denote how many sample companies gave each reply.

As we can observe, there are differences in all the Ss between the highly and less successful developers showing that the two groups of companies have different ways

of doing business. Highly successful developers are found to have most of the characteristics associated with new service success such as a decentralised structure with empowered employees, low bureaucracy, a formal NSD process, high market and relationship orientation, top management involvement in NSD and top quality personnel. In contrast, less successful developers lack a lot of these characteristics. Although all sample companies were active new service developers and were quite successful in their own right in NSD (according to their new service portfolio), some were more successful than others and the differences found between them are managerially important. They show that being skilled in communication during NSD is related to having certain configurational characteristics that are associated with new service success in the literature. Communication skills are not self-standing. The most important configurational differences that are revealed from the results are presented here according to each S analysed:

1. Structure:

- Three out of five highly successful developers have decentralised decision making and the NPD team has the authority to make decisions about new products. In contrast, in the less successful group decision making is centralised for all 4 sample companies.
- Four out of five highly successful developers have someone who is clearly responsible for the schedule of new products whereas only half of the less successful do the same.

Results show that the less successful group is characterised by a more strict structure with no specific responsibility for certain tasks. This is illustrated in the comment of one of the respondents of the less successful group saying, "We have a very strict structure because we are a bank. We will answer to invisible shareholders if we loose money. So we keep everything tight".

2. Systems

- Less successful developers are much more bureaucratic and innovation is not encouraged in these organisations (3 out of 4) whereas this happens only in 1 out of 5 in the highly successful group.

- Highly successful developers have either a formal (3 developers) or an informal process of NSD with defined steps (2 developers) while in the less successful group half of the respondents do not have any specific process.
- All 5 highly successful developers have high internal communication whereas less successful developers have mostly moderate internal communication (3 out of 4).
- Cross-functional project teams are used more by highly successful developers (4 out of 5 use them in the highly successful group, 2 out of 4 in the less successful group).

3. Staff

- The highly successful group has a much better quality staff. Marketing, NPD, and other functional specialists are abundant and possess a wide variety of backgrounds and experience. In contrast, less successful developers lack in staff quality and availability. This is evident from the answer of the respondent of one less successful company who emphasised the fact that they lack technical and marketing specialists but they can not afford to hire any because of budget constraints.

4. Style

- Leadership style is a lot more innovation-oriented in the highly successful group where top management emphasises the need to be first in the market.

In highly successful companies there is an inspiring leader that promotes the importance of innovation and a top management team that supports innovative activities and allocates enough resources to NPD. In contrast, in the less successful managers think that “top management is only interfering by getting involved in NPD” as one of the respondents put it.

5. Strategy

- Clear measures of new service success are used more and targets of profits or revenues from new products are set more often by the highly successful group.

- The use of time-based schedules in NPD is more widespread in highly successful developers.

6. Shared values

- Although all sample companies focus on satisfying customer needs, highly successful developers embrace customer relationships and encourage continuous innovation more than the less successful.

The difference in culture between the two groups of companies is easily observed. The highly successful support the notion that “Relationships are very important here” whereas the less successful argue that “Leasing is a quite transactional business, it is not a relationship most of the time”. Consequently, in the words of one of the respondents “we are looking more for customers to do a one-time deal than create a relationship with them”. However, some of the less successful have started recognising the value of customer relationships but have not started developing such relationships yet.

7. Status

- The availability of resources, both in people and money, is a major differentiator between the two groups (it is high or moderate for highly successful, moderate or low for less successful).

The highly successful companies have high budgets for NSD and are able to recruit highly trained people. Some of the respondents were very disappointed with the fact that there is not enough money for employing more technical and marketing specialists although there is a very big need for such people. Financial resource availability in particular was even linked to speed of development directly. As one respondent commented “we develop products more quickly than competitors because we spend more”.

8. Skills

- Both groups have good customer contact and management skills (4 out of 5 for the highly successful and 3 out of 4 for the less successful).

- Knowledge brokering is an area of expertise where the highly successful group exceeds the less successful.

The highly successful have developed the ability to seek customer knowledge, share it with others in the company, and exploit it for developing successful new products. Consequently, in such companies information about customer needs is disseminated faster within the organisation and this seems to affect speed of NSD.

These results are analysed and combined in Table 6.14 that outlines the major differences and similarities in configurational characteristics between highly and less successful developers.

Table 6.13: Configurational characteristics - Content Analytic Summary for highly & less successful developers

S	Variable	Highly successful developers (n=5)	Less successful developers (n=4)
Structure	High Hierarchy	1*	1
	Medium Hierarchy	1	-
	Low Hierarchy	3	3
	Centralised decision making	2	4
	Decentralised decision making	3	-
	Clear responsibility for profitability of new products	-	1
	No clear responsibility	5	3
	Clear responsibility for schedule of new products	4	2
Systems	No clear responsibility	1	2
	Low bureaucracy, innovation encouraged	4	1
	High bureaucracy, innovation discouraged	1	3
	A defined NPD process is in place	3	2
	Steps exist but no documented process in place	2	-
	No process exists	-	2
	High internal communication	5	1
	Moderate internal communication	-	3
	Low internal communication	-	-
	Cross-functional project teams used	4	2
Staff	Cross-functional consultation only	1	-
	No use of cross-functional teams	-	2
	Marketing and NPD specialists are abundant	1	-
	Marketing and NPD specialists are limited	4	-
	Lack of marketing and NPD specialists	-	4
	Skilled specialists in all functional areas	5	3
	Lack of specialists in all functional areas	-	1
	Wide variety of backgrounds and experience	4	1
Moderate variety	1	1	
Style	No variety	-	2
	Top management emphasises need to be first	3	-
	Moderate emphasis	1	1
	No emphasis	1	3
	Top management is actively involved in NSD	3	2
	Moderate involvement	-	1
Strategy	Top management not involved	2	1
	Focus on improvement of existing products	5	4
	Focus on development of radical new products	-	-
	Clear measures of success used for new products	3	2
	Unclear measures used	1	-
	No measures of success are used	1	2
	Revenue and profit targets are set for new products	3	-
	Targets are not set	2	4
Time-based schedules used in NSD	Time-based schedules used in NSD	2	1
	No time-based schedules used	3	3

Shared values	Focus on satisfying customer needs	5	4
	No focus on customer satisfaction	-	-
	Want and value relationships with customers	4	2
	Operate on a more transactional mode	1	2
	Universal support of continuous innovation	5	1
Status	Limited support of continuous innovation	-	3
	High availability of people resources	4	-
	Moderate availability	1	2
	Low availability	-	2
	High availability of financial resources	2	-
	Moderate availability	3	2
	Low availability	-	2
Skills	Good customer contact and management skills	4	3
	Limited skills	1	1
	Good knowledge brokering skills	3	-
	Limited skills	1	2
	No skills at all	1	2

*To be read: From the highly successful group one sample company had a high hierarchy.

Source: Field Study based on the McKinsey 7S framework of Peters & Waterman (1982).

Table 6.14: Configurational characteristics- Content Analytic Summary for similarities and differences between highly & less successful developers

S	Differences		Similarities
	Highly Successful Companies (n=5)	Less Successful companies (n=4)	
Structure	Decentralised decision making Clear responsibility for schedule of new products	Centralised decision making No clear responsibilities for NSD	Mostly flat structure with a limited number of hierarchy levels No clear responsibility for the profitability of new products
Systems	Formal NSD process High internal communication Extensive use of crossfunctional teams	Mostly ad hoc NSD or informal process Low internal communication Limited use of crossfunctional teams or no use at all	-
Staff	High quality and availability of staff	Lack of high quality staff	-
Style	First to market or early follower	Market follower	Top management involvement is not significantly different
Strategy	Clear measures of success used often Goals are set for new products	Occasional use of clear success measures No goals set for new products	Focus on improvement of existing products (incremental NSD)
Shared values	Universal support of continuous innovation Want & value relationships with customers	No support of continuous innovation Operate in a more transactional mode	Focus on satisfying customer needs
Status	High availability of resources	Lack of resources	-
Skills	Effective knowledge management	Lack of skills in knowledge management	Good customer contact and management skills

Source: Field study

6.5.2.3 NSD practices & New service success

Apart from the analysis of the configurational characteristics of sample companies and the examination of developer-lead customer communication skills, it was deemed essential to look into whether there were any other factors that may influence new service success in the two groups of sample companies. To that end, cross-case analysis also examined the problems in NSD that each company had; the reasons for higher or lower success as perceived by respondents; the ways they can increase new service success further; what measures of new service success are currently used by the sample companies; and what is the average development time for each group of companies. Also, details of profit margin and spend on new services were analysed in order to make comparisons between highly and less successful developers. The results of the analysis appear in Tables 6.15 (NSD practices) and 6.16 (New service success). The most important findings from this analysis are the following:

6.5.2.3.1 NSD practices

- Highly successful developers want to be first in the market with new products much more often than less successful developers thereby enjoying pioneer advantages.
- The average development time of new services for less successful developers is twice as long as the one for highly successful developers. This is mostly due to the absence of a formal NSD process or of a suitable infrastructure that supports NPD. As a respondent commented “It takes a long time to develop products because we lack a formal NSD process and the necessary infrastructure”. Long development times are also due to the fact that less successful companies perceive of fast NSD as very risky. As one respondent emphasised “Developing something quickly means greater risk. If we do it quickly, we do not do it properly”.
- All 9 companies have problems more or less in keeping the development time schedule and that is due to increased regulation, to complex procedures during the NSD process and to shortage in resources. In the words of the respondents “The most difficult thing is to keep the schedule in NSD due to regulation and

complex approval procedures” and “Problems in keeping development time schedules stem from the fact that we try to do more than what we have resources for”.

- The number of products developed simultaneously does not vary a lot between highly and less successful developers (on average 6 and 5 products respectively).

6.5.2.3.2 New service success

- Keeping close communication with customers as well as the extent of market and customer knowledge were mentioned as reasons of higher new service success by 3 of the 5 respondent companies in the highly successful group. Such companies have recognised the value of knowing the market. As respondents emphasised “Market knowledge is the main reason for our success, knowing customers is very important” and “We specialise in certain markets and we understand these markets very well. We go to great lengths to learn everything about our markets and our customers”.
- Highly successful developers use more specific measures of success for new services, hence they are able to monitor better after launch performance and discontinue unsuccessful products. As a respondent emphasised “To increase new service success we must monitor product performance after launch”.
- There are many ways of increasing further new service success of which the most important mentioned were employing high quality staff, communicate more closely with customers, increasing resources allocated to NSD, increasing internal communication, and enhancing processes and infrastructure. From tables 6.15 & 6.16 it is evident that although highly successful developers need to make things more sophisticated in the way they develop new services, less successful developers lack some fundamental skills in NSD such as prioritising between projects according to available resources and integrating the product into the company’s capabilities.
- Some of the highly successful developers have a formal budget for new products and are setting profit and revenue goals from new products.

- Average profit margin from new products varies greatly in both groups. However, an important observation is that old traditional lessors have lower profit margins than new entrants and niche players.

The similarities and differences between highly and less successful developers in NSD practices and new service success are summarised in Table 6.17.

Table 6.15: NSD practices - Content Analytic Summary for highly & less successful developers

		Highly Successful Companies (n=5)	Less Successful companies (n=4)	
NSD practices	Frequency of first to market intent	Most of the time Often Rarely	4* 1 -	
	Average NSD time (depends on product complexity & regulation)		3 to 6 months	6 months to 1 year
	Average No of products developed simultaneously		6 (range of 3 to 12)	5 (range of 2 to 8)
	Budget for new products	Formal budget No budget	2 3	4 -
	Average profit margin from new products		Varies greatly for both groups of companies and it is lower for traditional lessors than for smaller niche players. It can be as low as 0.5% and as high as 40%	

Source: Field study

*To be read: 4 of the 5 highly successful companies wanted to be first in the market most of the time.

Table 6.16: New service success - Content Analytic Summary for highly & less successful developers

	Highly Successful Companies (n=5)	Less Successful companies (n=4)
Average new service success score	3.68	3.01
Reasons for falling behind in NSD schedule	<ul style="list-style-type: none"> • Difficult and complex approval procedures for new services and high regulation 	<ul style="list-style-type: none"> • Difficult and complex approval procedures for new services and high regulation • Lack of the proper infrastructure. • Lack of resources. • Complexity of the design phase where subjective data are used.
Reasons for being highly or less successful	<ul style="list-style-type: none"> • Keeping close communication with customers • Specialising in certain markets • Proactive attitude to the market • High spend on NSD • Market and customer knowledge • Expertise in leasing, known in market and high market share • Products are incremental 	<ul style="list-style-type: none"> • Lack of NPD department and team • Lack of a robust NPD process. • Limited communication with customers • The quality of marketing research • High bureaucracy that leads to long development times • Proactive attitude to the market • Long development times mean that employees change in the process and even more delays happen. • Not having someone responsible for schedule of new products. • Complex processes and lack of infrastructure. • New products do not integrate well into the company's capabilities.

<p>Ways to increase new service success further</p>	<ul style="list-style-type: none"> • Employment of good salespeople with technical knowledge in leasing. • Increasing resources allocated to NSD and internal communication • Close customer communication. • Spotting the window of opportunity early on. • Be more aware of what competitors offer. • Monitor new products properly after launch. • Change internal attitude to risk • Loosen regulation on leasing • Do more structured finance, as opposed to traditional leasing, which is more susceptible to innovation 	<ul style="list-style-type: none"> • Enhance processes and infrastructure, and market products more aggressively. • Let marketing lead NPD so that new products are developed because there is a need in the market. • Monitoring internal procedures and making sure that the product integrates into the company's capabilities. • Plan further ahead and prioritise between projects depending on available resources. • Get closer to customers. • Employment of specialist salespeople. • Building a new NPD department
<p>Success measures used for new services</p>	<ul style="list-style-type: none"> • Business coming in from the new service or business written on the new service. • Whether the new service attracts good quality risk. • Return on equity • Cash profit • Return on capital employed 	<ul style="list-style-type: none"> • Business written on the new service. • Return on equity • Profit margin • Return on assets

Source: Field study

Table 6.17: NSD practices and New service success - Content Analytic Summary for similarities and differences between highly & less successful developers

	Differences		Similarities
	Highly Successful Companies (n=5)	Less Successful companies (n=4)	
NSD practices	<ul style="list-style-type: none"> • Short NSD time • High first to market intent • Close communication with customers is very important • Fundamental skills in NSD • Formal budget and goals set for new products 	<ul style="list-style-type: none"> • Long NSD time • Low first to market intent • Close communication with customers is not important • Lack of fundamental skills in NSD • No formal budget or goals set for new products 	<ul style="list-style-type: none"> • Problems in adhering to development time schedule because of product complexity and high regulation • Almost same number of products developed simultaneously
New Service Success	Specific measures of new service success are used	General measures of new service success used or no measures at all	Business written on new service & Return on equity used as success measures

Source: Field study

6.5.2.4 The New Service Development Process

Cross-case analysis provided us with enough data to put together a certain new service development process for each group of sample companies, the highly successful and the less successful. There are many differences between the process used by highly successful developers and the one used by less successful developers. The most important difference is the extent of customer communication in all 3 stages of NSD. As Figure 6.6 shows, highly successful developers keep constant communication with customers throughout the NSD process, by proactively seeking customer ideas, by testing market attractiveness of a new product through development, and by testing the final product with a small set of customers before launch. In contrast, as shown in Figure 6.7, less successful developers rely more on internal sources of information during NSD. Contact with customers is limited and is only increasing in the execution of the marketing plan at the end of the NSD process.

Furthermore, another conclusion drawn from the two figures is that post launch review is more thorough in the highly successful group and this helps in monitoring better the success of new services launched and discontinue the unsuccessful ones with minimum loss. Also, we observe that the less successful are more bureaucratic in approval procedures and that they don't use cross-functional project teams. There is only a cross-functional consultation organised by the Marketing function. Finally, idea generation is more strategically-oriented in highly successful developers indicating that new products are selected very carefully according to company capabilities and market demand. Thus, it can be argued that this contributes to their higher success in the market.

Figure 6.6: The NSD Process for Highly Successful Developers

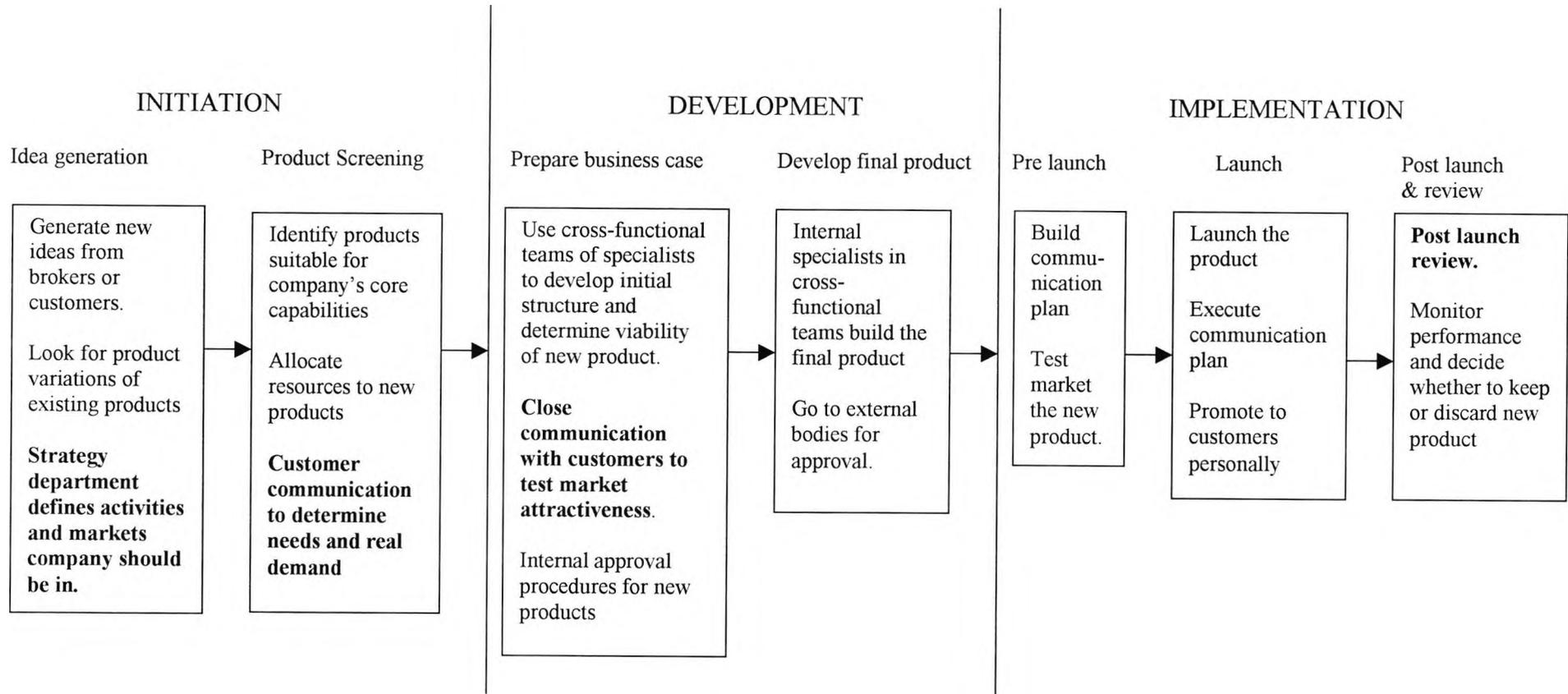
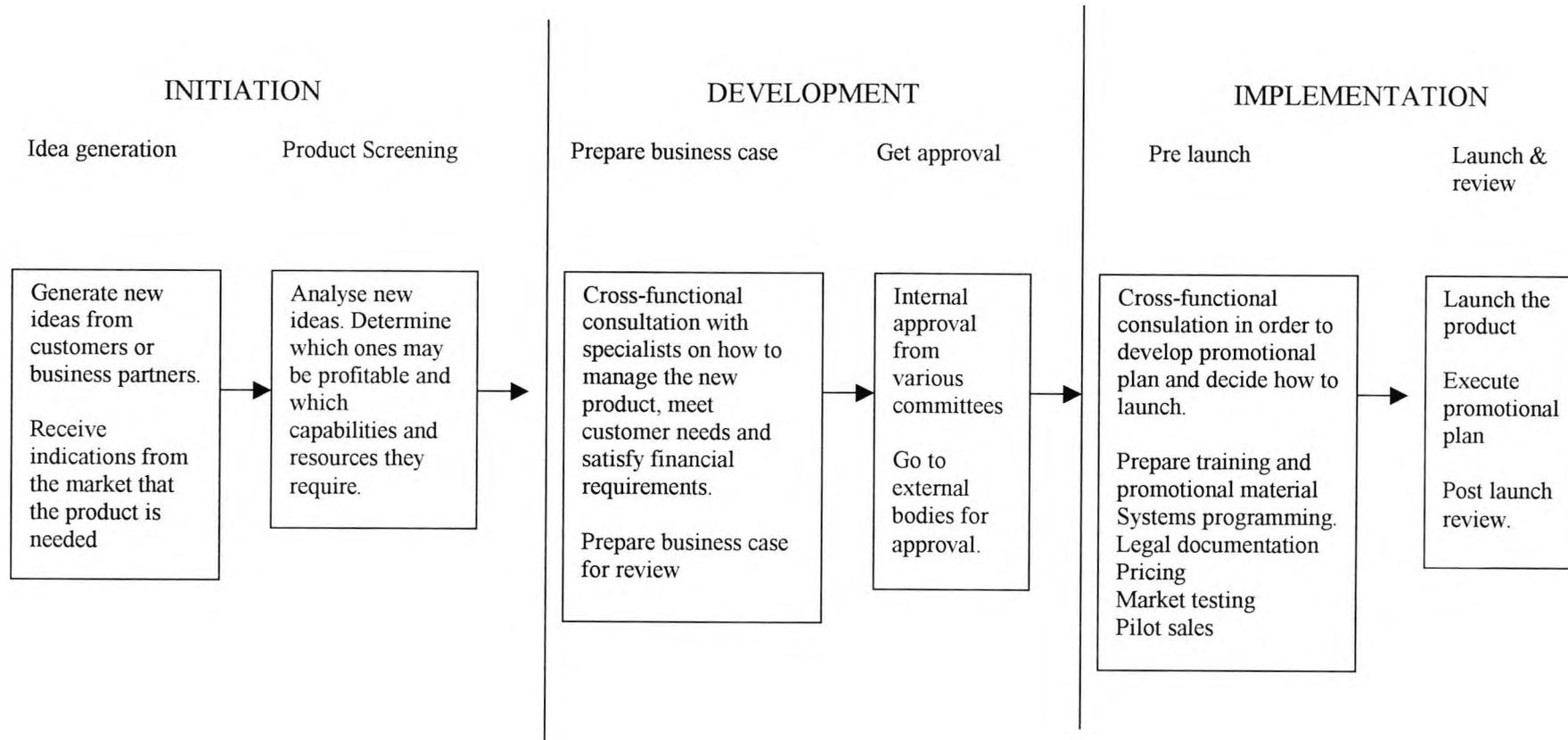


Figure 6.7: The NSD Process for Less Successful Developers



6.5.2.5 The nature of communication behaviour

Apart from looking at the NSD process in whole, it is very important to try and analyse the communication behaviour of sample companies during this process. In this section we will analyse cases in order to find the underlying, salient issues concerning developer-customer communication. Thus, we will combine findings from all stages of fieldwork and delve into the results presented in paragraphs 6.5.2.1 to 6.5.2.4 in order to explicate the nature of communication behaviour for the two groups of companies analysed. It is critical to find out what are the major differences in such behaviour that may account for the difference in new service success. First, we construct a time ordered meta-matrix (see Table 6.18) where it is evident who are the actors in communication and which actions take place in each stage of the NSD process for each sample company. Also, we assess the overall level of communication in each stage of the process and we expand on the nature of information that is supplied from customers to developers in each stage. This way, the clear differences in communication practices between the two groups become evident.

Table 6.18: A time ordered meta-matrix for developer-lead customer communication during the NSD process for highly and less successful developers.

Sample company	Actors involved	Initiation phase	Level of com/tion	Development phase	Level of com/tion	Implementation phase	Level of com/tion	Overall level of com/tion
HS ₁	Customers, NPD, Marketing, specialists	NPD & Marketing approaches customers. Ideas come in	High	Specialists meet customers to define product specifications according to their needs.	Medium	NPD & Marketing communicate with customers to final test the product and verify existence of need	Medium	Medium High
HS ₂	Customers, NPD, Marketing, specialists	NPD & Marketing communicate with customers to learn needs and look for product variations to satisfy such needs	High	Specialists communicate with customers to approve suggested new products	High	Marketing promotes product to customers and NPD discusses product details and needed changes	High	High
HS ₃	Customers, NPD, Marketing, specialists	NPD & Marketing communicate with customers to determine real demand for new products as opposed to the one determined by the strategy department.	High	Specialists develop new products in consultation with customers. Required changes are made.	High	NPD refines products based on customer needs, products tested with customers for attractiveness.	High	High
HS ₄	Customers, parent organisation., specialists, NPD, Marketing	NPD, Marketing & parent organisation communicate with customers to generate new product ideas.	High	Specialists communicate with customers to test real need for new product.	Medium	NPD does final testing with customers. Verifies existence of need.	Medium	Medium High

HS ₅	Customers, affiliate organisation, specialists, NPD, Marketing	NPD, Marketing & affiliate organisation communicate with customers to generate new product ideas.	High	Specialists test market attractiveness for suggested new products and how easy they can be developed	High	NPD & Marketing pre-test products with customers before launch.	High	High
LS ₁	Customers, specialists, NPD, Marketing	Marketing receives indications from the market that new product is required.	Low	Marketing communicates with customers to test attractiveness. Specialists review results.	Medium	Marketing communicates intensively with customers to test new product and to sell.	High	Medium
LS ₂	Customers, parent organisation, specialists, NPD, Marketing, Account executives	Account executives pull ideas in from customers and the parent organisation and screen them for viability and prospects. No formal process for capturing ideas.	Low	Specialists in Product screening team do marketing research to determine viability, and forecast new product profitability and sales.	Medium	Account executives communicates with customers to test product, to run pilot programmes and to promote new products.	High	Medium
LS ₃	Customers, specialists, NPD, sales Marketing	Salesforce communicates with customers to generate new product ideas.	Low	NPD gets info on customer needs & specialists design product to meet financial requirements and customer needs.	Medium	Mainly promotional communication that originates from Marketing.	Medium	Medium Low
LS ₄	Customers, specialists, NPD, Marketing	Marketing & NPD comes up with new product ideas based on market knowledge.	Low	NPD communicates with customers to test prototype for attractiveness. Specialists decide on product viability.	Medium	Market testing, pilot runs. Marketing communicates with customers to promote new product and sell.	High	Medium

HS= Highly successful, LS= Less successful

Source: Field study

From the time ordered meta-matrix in Table 6.18 we can draw the following very important conclusions about how sample companies manage communication through the NSD process:

1. In highly successful companies the Marketing and NPD departments play an active role in communicating with customers. They initiate communication by asking customers for new product ideas in the initiation stage of the NSD process. In contrast, the less successful only receive indications from the market and are passive to that information. They don't initiate communication nor have any formal way of going about such communication. The NPD department is not involved in this stage in most less successful companies whereas in two of the four less successful neither Marketing nor NPD are involved in communication. Only account executives or the salesforce assume the role of communicating with customers.
2. In the development stage, highly successful companies communicate directly with customers through multi-functional teams of specialists. These teams develop the basic structure (prototype) of the new product based on known customer needs and test further the attractiveness of new product ideas that were collected in the first phase of development. By using teams, the information processing capacity of the company increases (as postulated by Tushman and Nadler 1978) and therefore the new product is developed a lot quicker and has more chances of success in a rapidly changing and highly competitive environment like the one of financial services. Also, these teams channel information to approval committees fast and without distortion and therefore, the NSD process is shortened considerably and mistakes are minimised. On the other hand, less successful developers communicate with customers only through their Marketing or NPD departments during development whereas teams of specialists review information and decide on product viability and attractiveness for the company. Some of the less successful companies do not even have formal cross-functional teams of specialists. There are specialists within the company that look at product viability and attractiveness but they do not work in formal teams and do not come in direct contact with customers. As a result, sometimes the information they get is inadequate or distorted and the processing of information takes longer because it has to go from department to department. Also, the

channelling of information back to marketing and NPD is made difficult and therefore NSD takes longer.

3. In the implementation stage, highly successful developers communicate with customers through their NPD and Marketing departments with an aim not only to promote new products but also to determine product viability and attractiveness and verify that the new customer need served by the new product still exists. In contrast, less successful developers use only their Marketing departments to communicate with customers at this stage. The NPD is not involved in this stage of the NSD process and the intent of communication is more promotional than related to product testing.
4. The Marketing and NPD departments are shown to be the major actors of communication in the whole NSD process since they continue to communicate with customers throughout the process and in the less successful they assume the role of the company's communication link with the external environment.

Following the pattern of the previously analysed differences, the overall level of communication is found to be either high or medium-high in the highly successful group and medium to medium-low in the less successful.

In addition, it is very useful to determine what exactly is the nature of information that is provided by customers throughout the NSD process. According to case study analysis leasing companies seek the following types of information when communicating with customers in each stage of the process:

1. In the initiation stage they look for:
 - The emergence of a new need as a result of a change in regulation, taxation or company aims and objectives.
 - A new product idea partially developed by customers.
 - A new window of opportunity that can be discovered early by discussing customer needs and future plans
 - What customers want to achieve with the new product.

2. At the development stage communication provides information on whether the prototype product is actually attractive to customers and what further modifications are needed.
3. At the last stage of the NSD process communication helps in determining whether customer needs still exist since in financial services such needs change very fast and the new product could have become obsolete.
4. After launch communication is a good source of feedback of product utility and suggested changes to become more attractive.

6.6 Conclusions

This chapter has reviewed the findings of the field study. The aim was to advance theory on developer-customer communication. The ultimate goal was to provide qualitative insights into the differences between highly and less successful developers in developer-lead customer communication during NSD.

Both quantitative and qualitative findings indicated the importance of developer - lead customer communication in successful NSD. The key findings reveal that highly successful developers communicate more intensively with lead customers throughout the NSD process, and use a wider range of and more intensively new technology communication methods. They also involve a higher number of functions and a higher percentage of employees in communication with lead customers throughout the NSD process. Furthermore, highly successful developers keep communication levels high and constant throughout the NSD process with a slight emphasis on the development stage whereas less successful developers increase communication when moving from one stage to the next, with most communication taking place in the 3rd stage of NSD (implementation stage).

Moreover, an important finding that reinforces the above conclusions is that the role of lead customer communication is very limited in the NSD process of the less successful group. These companies rely more on internal sources of information for NSD in contrast to the highly successful group that keeps a high level of communication with customers in all stages of NSD.

Also, closer analysis revealed that highly successful developers practice proactive communication in the initiation stage of NSD, use a cross-functional team specialists that communicates directly with customers in the development stage and do rigorous product testing in the implementation stage through their NPD & Marketing departments that communicate with customers. In contrast, the less successful developers are passive to the market in idea generation, in development customers are communicated indirectly through one department or salesperson that communicates the information to the specialists of different departments, and in implementation product testing is limited whereas only Marketing communicates with customers mainly for promotional reasons. The next chapter will discuss the findings of the field study and the managerial implications of such findings.

CHAPTER 7

DISCUSSION AND MANAGERIAL IMPLICATIONS

7.1 Introduction

In the previous chapter we have analysed the data collected in the field study. Results showed that there are, indeed, important differences between highly and less successful developers in the way they communicate with lead customers during NSD. This chapter will discuss the findings of the field study and the managerial implications of such findings. This research study has widespread implications for companies that aim to be successful in developing new services and for others that want to formalise the process of communication with customers and make it more effective in terms of getting quality information from customers for NSD. The findings become even more important in highly competitive environments where continuous change, short product life cycles, and easy imitation of new products render the quality of developer-customer interaction even more critical for successful NSD.

7.2 Developer - lead customer communication during NSD

The results of this study provide insights into the way developers of leasing services communicate with their lead customers during the NSD process. While all the companies that co-operated in the study were active new service developers, the results achieved by them in terms of development success were significantly different. One would not normally expect pronounced differences between sample members since they were all successful companies in their own right. However, results show that outstanding success in NSD is associated with certain communication skills. Consequently, it is important to assess the managerial importance of the differences between highly and less successful developers in communication. Here we will analyse each aspect of communication behaviour in turn referring to issues we set out to investigate from the beginning as well as to new, unexpected findings. As a result, some new propositions will emerge for future research.

7.2.1 Intensity and pattern of communication

On the basis of the evidence collected, the five highly successful developer companies would appear to exemplify an approach to communicating with lead customers that is quite different from that of many less successful new service developers. Highly successful developers communicate more intensively with lead customers and keep communication levels high throughout the NSD process. These companies are characterised by an open system (as defined by Rogers & Agarwala Rogers 1976) where the level of exchange of information with the environment is high. They proactively communicate with lead customers by means of multi-functional teams of specialists, and emphasise communication in the development phase of the NSD process. In this phase the service concept and the essential specifications of the new product are agreed and customer information at this point is very critical for NSD. Customer-supplied information helps determine if a product is viable in the market and prevents companies from allowing potential failures to move further in the development process. Highly successful firms possess the right systems that allow only the products that are viable and that fit the company's capabilities to move further into the development process.

In contrast, the less successful developers communicate less intensively with lead customers. Their system is less open and therefore, less information is exchanged with the company's environment. These developers tend to start the NSD process with low levels of communication and then increase it as they move from the first to the last stage, concentrating communication mostly on the last stage (implementation stage). In this phase less successful developers appear to feel most at ease in sharing information with their customers.

Based on these conclusions a new proposition can be tested by future researchers in various contexts:

NP1: Highly successful developers communicate intensively with lead customers throughout the NSD process emphasising communication in the development stage of NSD whereas less successful developers start the NSD process with low levels of communication and increase it when moving through the process with most communication taking place in the implementation stage of NSD.

7.2.2 Lead customers

The focus of the less successful group on the implementation stage of NSD could be interpreted as an “emergency action” by some researchers. However, in this study, from the interview data we come to the conclusion that it is fear of copying and the notion that customers are not really knowledgeable in this area that are influencing companies in their communication strategy. In the words of two of the respondents “Customers want blue skies but we obviously cannot give them what they ask for. So it is better not to ask them what they want in the first place” and “If we communicate early in the process then competitors may find out”. Obviously, this supports our notion that highly successful developers have taken measures to communicate with lead customers (those more able to help them in NPD since they have already faced the need for new products and stand to benefit significantly from fulfilling this need) and not with all customers. In contrast, less successful developers haven’t taken steps to select the right customers for communication. As a result, they fear to exchange information and focus communication at the end in order to promote their new developments disregarding the fact that the new product may not be what customers actually want.

Also, the ability of identifying and relating to lead customers surfaces as a major difference between highly and less successful developers. Although we did not test for it systematically, we strongly suspect that highly successful developers not only do things right during the development process, but also do the right things as far as selecting and using lead customers is concerned. All the highly successful developer companies in the sample stated that they purposively make contact with carefully selected customers (often on a confidential basis) in order to discuss new development possibilities. Highly successful developers communicate intensively

and lastingly with "lead" customers whom they take into their confidence. They know who their lead customers are and they use them extensively for information. This was not the case in all four less successful developers. Although all sample companies had lead customers, the less successful had trouble identifying them and getting the information they can provide. In this context, it is not surprising to find that for less successful developers communication with customers on development matters is carried out most intensively in the latter stages of the development process.

Consequently, the major differences between the two groups of sample companies rest on when they communicate with lead customers and on how extensively they use lead customers for NSD purposes. Results suggest that to obtain maximum benefit from communication between developers and customers there is need for intense and lasting communication with a group of carefully identified "lead" customers throughout the NSD process. Merely communicating with all customers, even with the help of sophisticated new technology, is unlikely to be sufficient for achieving efficiency in development.

Therefore two new propositions can be formulated for future research:

NP2: The ability of new service developers to identify and use lead customers for the provision of useful NSD information is a major differentiator between highly and less successful developers.

NP3: Less successful developers communicate most intensively in the implementation stage of the NSD process because they have not selected the right customers for communication and therefore they are afraid of competition.

7.2.3 Integration of the communication effort

The importance of integrating the communication effort emphasises the usefulness of cross-functional teams in NSD and the importance of collaboration and integration between the different departments of an organisation. In particular, the importance of integration between R&D and Marketing in NPD is emphasised in the literature (e.g. Gupta, Raj, and Wilemon 1986; Ruekert and Walker 1987). An integrated communication strategy based on multi-functional teams and effective collaboration between all departments is associated with a higher level of new service success.

The results of cross-case analysis revealed that highly successful organisations involved more of their functions and employees in the communication effort. Also, the importance of the involvement of specific departments in each stage of the NSD process is emphasised by the results. The NPD and Marketing departments are important in the first and last stage of the process whereas the existence of a team of specialists that comes in direct contact with customers is critical in the development stage. Highly successful developers have recognised that need and they have formed a formal team from different departments of the organisation that assesses new products and decides on market attractiveness and viability. Furthermore, highly successful developers have integrated their R&D department in communication from the beginning of the development process whereas only half of the less successful included R&D in any stage of NSD. In addition, the integration of the departments of Production and Distribution in the communication effort throughout NSD seems to differentiate highly from less successful developers. These results indicate that it is advisable for developers to involve more of their functions and employees in customer communications since this may lead to a faster channeling of the most important customer-supplied information throughout the organisation, thereby facilitating knowledge brokering and customer-driven NSD and decreasing development times. Also, the integration of the departments of R&D, Production and Distribution in communication emerges as one of the most important factors in judging the quality of the communication effort.

Consequently, two new propositions emerge from results and are posited as follows:

NP4: Highly successful developers communicate with lead customers directly in the development stage of the NSD process using a formal, multi-functional team of specialists whereas less successful developers communicate indirectly with lead customers in the development stage through their NPD or Marketing departments and there is no formal team of specialists working on NSD.

NP5: The involvement of the departments of R&D, Production and Distribution in communication with customers throughout the NSD process is a differentiator between highly and less successful developers.

7.2.4 The use of new technology

The use of new technology in communication emerges as a critically important issue for new service developers. This is partly expected since financial products offered to customers are complex and therefore, extensive, cost-effective and fast communication is needed so that the appropriate specifications of the new product can be defined quickly and accurately. Highly successful developers use a lot more new technology than less successful developers in their communication with lead customers throughout the NSD process and have started developing new management systems to exploit it to full advantage. Doing this is likely to translate to more favourable performance, in particular as far as development times are concerned. Highly successful developers achieve a development time, which is half what less successful developers achieve (3 to 6 months as opposed to 6 to 12 months). Using new technology communication methods increases the frequency of communication, as well as the number of channels available to organisations and decreases any costs related to communication. Companies that use new technology are able to keep communication levels high and constant as shown by our results for the highly successful group. This way they can exploit any customer-derived information for more effective NSD and decrease development times. Especially business customers are very knowledgeable and can provide useful insights during the NSD process.

Therefore, a new proposition is formulated and postulates that:

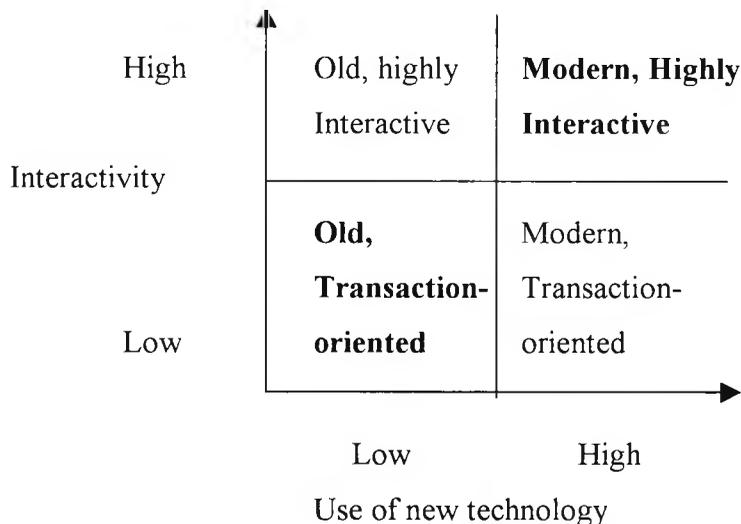
NP6: The use of new technology in developer-lead customer communication speeds up communication, makes it possible for developers to keep communication levels high and constant and reduces new service development times and as a result increases new service success.

7.2.5 Type of communication relationship.

As demonstrated by our results, there are significant differences in the management of communication between highly and less successful new service developers. The key differences between the two groups of companies centre on: (i) the interactivity of communication which is defined by the intensity of use of different communication methods, as well as the extent of integration of the communication effort (number of functions and employees involved), and (ii) the extent of use of new technology in communication. Based on these two characteristics of the communication effort we came up with four types of communication relationships (see Figure 7.1) that can exist between developers and customers. Highly successful developers tend to have modern and highly interactive relationships with their lead customers, whereas less successful developers cluster on the old and transaction-oriented type of relationship. Overall, our results suggest, in the context of developing new leasing services for business customers, that more efficient NSD is associated with a distinct type of communication relationship with lead customers.

These results have very important managerial implications since they suggest that if companies embrace new technology in communications and if they interact more extensively and in an integrated manner with their lead customers, they might be able to enhance their NSD success. Also, an important conclusion is that two important dimensions of effective developer-customer communication are revealed and can be used as a base for further research in the field. Finally, the types of relationships identified will provide companies with a point of reference against competitors in terms of effective external communication and with a new useful tool for evaluating their communication practices.

Figure 7.1: Types of developer-lead customer communication relationships



Source: Field study

Therefore a new proposition that can be tested in other contexts is posited as follows:

NP7: Highly successful developers have modern and highly interactive relationships with their lead customers, whereas less successful developers have old and transaction-oriented relationships.

7.2.6 Managing knowledge & Effective information processing

Learning from customers and managing knowledge are very important matters for developing organisations. A successful organisation in NSD also needs to be learning-oriented. It is important to be able to learn from customers, disseminate knowledge throughout the organisation and embody it in new technology and products (it must be good at knowledge brokering). Extensive and cross-functional communication with customers, as well as the use of new technology communication methods can increase the ability of developers to learn from the market.

However, the issue is not only how to learn from customers but also how to manage such knowledge. One of the observations we made from the results of cross-case analysis is that the two sample groups differ considerably in the way they manage knowledge attained by customers. Less successful developers don't know how to channel customer-derived knowledge within the organisation and how to use it in

NSD. This finding supports the conclusion that communication is not enough by itself. There is a need for a structured way of exploiting customer-derived information to develop successful new products.

Consequently, innovation is not only about communication but also about information processing. It is not enough to communicate. The information has to be processed accordingly if it is going to be useful. Information processing means that explicit knowledge gained by customers is exchanged and combined with explicit knowledge of company specialists and thus, new knowledge is created. This mode of knowledge creation is termed as combination by Nonaka (1994) and involves exchanging information through various exchange mechanisms or communication methods. Tushman and Nadler (1979) propose a model for information processing and claim that high performing organisations are those that match info processing requirements and capacity. They postulate that the requirements of communication depend on how complex the task is, and how dependent it is on many units of the organisation, as well as on the stability of the task environment and the degree to which a unit is dependent on another unit to perform a task effectively. They also claim that when companies use organismic structures (highly connected communication networks that allow many individuals within the company to work on a task and solve problems and for the synthesis of many different points of view) and complex as well as comprehensive co-ordination and control mechanisms (like formal information systems and teams), they have a higher information processing capacity. In corporate banking, the environment is rapidly changing and highly unstable, and the task of developing new services is very complex and it depends on many departments of the organisation. Consequently, in such an environment it is essential for businesses to match information processing requirements and capacity.

Therefore two new propositions that can be tested in similar environments to corporate banking posit that:

NP8: Highly successful developers match information processing requirements and capacity by using organismic structures and complex co-ordination and control mechanisms whereas less successful developers have a mismatch of requirements and capacity.

NP9: The ability of developers to channel customer-derived knowledge fast throughout the organisation and embody it in successful new products is a differentiator between highly and less successful developers.

7.2.7 Proactive idea generation – Initiating innovation

Developer-customer communication in the early stages of NSD is especially useful when developers practice proactive idea generation. Such companies actively seek customer advice and needs in order to develop successful new products (Cooper 1986). They ask customers about their future needs and whether they have any ideas on improving existing products and customer service. Such practice has been associated with successful new product development (Cooper 1986).

Results show that the highly successful group follows the problem find-solve approach (Rochford 1991) where products are developed based on identified market needs and a formal screening process is used. These companies rely largely on external sources of information. In contrast, less successful developers adopt a fortuitous scan approach (Rochford 1991) that involves random idea generation and creating new products by modifying old ones. These companies develop many line extensions and modifications based primarily on internal sources of information.

These observations suggest that successful NSD is related to a market-based initiation of innovation activities and the use of customer information for strategic NSD. This conclusion is validated by past research on innovation initiation patterns. Johnes and Pavlidis (1995) researched the corporate banking market and found that in initiation activities of innovation, there is strong evidence that leader banks adopt a predominantly market-based approach to identifying product innovation opportunities. They pursue initiation strategies that involve selecting markets on the basis of benefits sought by actual and potential clients. Barabba and Zaltman (1991) have expressed the issue well by stressing that such companies 'listen first to the voice of the market' and only thereafter 'to the voice of the company'. In contrast, follower banks still tend to pursue a predominantly asset-based strategic approach to initiating innovation, where asset capabilities are considered first and market

opportunities second. In other words, such companies build what they can and not what the customer wants.

The results of our study suggest that a market-based initiation of innovation is more effective in developing corporate financial services. In this context, proactively communicating with customers becomes critical for companies that want to be successful in NSD.

Therefore a new proposition posits that:

NP10: Highly successful developers follow a market-based initiation of innovation characterised by proactive communication with customers in the idea generation stage whereas less successful developers practice asset-based initiation of innovation and are passive to communication that originates from customers.

7.2.8 Top management involvement

Another interesting observation made from cross-case analysis is that top management is involved in NSD in some of the sample companies in both groups (highly and less successful developers). Consequently, the success of new service developments does not seem to be associated a lot with this variable. This finding suggests that the involvement of middle management in communication, as well as multi-functional involvement throughout NSD, are much more important for success than the involvement of top management. This observation supports the conclusions drawn by Nonaka (1991). He supported the notion that middle managers are able to synthesise tacit knowledge, make it explicit and embody it into new products and technologies. Thus, they are the true “knowledge engineers” of the knowledge-creating company. Consequently a new proposition for future research postulates that:

NP11: The level of multi-functional middle management involvement in NSD is a differentiator between highly and less successful developers.

7.3 The configuration of successful new service developers

According to the results of the study the two groups of companies analysed differ in their configurational characteristics which are analysed based on the McKinsey 7S framework and include structure, strategy, skills, staff, style, shared values, systems and an eighth S—status denoting differences in the availability of resources of the sample companies. In other words, they have a different way of doing business.

Highly successful developers aim to be first to market very often, have a very innovative culture that supports continuous innovation and the development of long-term, close relationships with customers, and are characterised by a decentralised structure and empowered employees. They also have a formal strategy for NSD including clear success measures for new products, profit and revenue goals from new products and a highly structured NSD process that emphasises communication with customers in every stage and has a strong follow-up stage after launch in order to monitor performance of new products and rationalise product lines. The highly successful group possesses the skills to prioritise between products and select the ones that fit the firm's capabilities, and has ample available resources for NSD.

On the other hand, less successful developers do not have a formal strategy regarding new products and follow a rather ad hoc NSD process that is not based on communication with customers. Also, they are characterised by centralised decision making, bureaucratic approval procedures, and lack of fundamental skills that are necessary for effective NSD.

Results suggest that in organising for NSD success the most important differences between highly and less successful developers rest on the possession of the right systems; the existence of a highly trained, specialist staff; ample funding for NSD; a culture that supports continuous innovation, and on the ability to use the knowledge gained from customers for successful NSD.

This posits a big challenge for service companies. It is critical for them to realise that issues like embracing a market-oriented culture that supports continuous innovation, building a specialist workforce, becoming skilled in knowledge brokering,

establishing a formal NSD process based on internal communication and cross-functional teams and securing funds for NSD are far more important than having the right strategy or structure. However, some considerations connected to structure and strategy are also important for successful NSD such as the existence of a formal success strategy with set profit and revenue goals for new products and clear success measures, and a low hierarchy with high front-line authority.

Overall, the results of the study show that the existence of skills in communicating with lead customers for NSD purposes is connected to having many other characteristics of successful innovators as these are illustrated in the literature. So, a new proposition that can be tested in future research posits that:

NP12: Companies that exhibit the configurational characteristics of successful new service developers are more likely to possess the right developer-lead customer communication skills.

7.4 NSD strategy

The two groups of companies analysed in the study – highly successful developers and less successful developers - illustrate quite different approaches to the exploitation of new product opportunities. The highly successful group pursues relationships with selected customers in order to achieve results through a continuous and integrated, new product development program. At the extreme, less successful developers would appear to be predominantly transaction-oriented, focusing on one-off development deals, often on an opportunistic basis.

In summary, our results indicate that highly successful developers follow a predominantly customer-driven NSD strategy as opposed to a supplier-driven strategy followed by less successful developers. This difference is illustrated in the comment of one of the respondents from a highly successful firm who said “If you don’t know the customer, you don’t know his needs and therefore, you can not develop successful products”. In highly successful developing companies, certain selected customers are considered a valuable source of information and are communicated with confidentially throughout the NSD process. In the initiation

stage customers are used for idea generation in order to determine needs and real demand, in the development stage they are used for testing the product concept for attractiveness and determine the need for any potential changes, and in implementation customers are contacted for test marketing purposes. In this way, quite new services are developed on the basis of known customer needs and not primarily on what the supplying company is capable of (like in the case of less successful developers). One of the respondents in one of the highly successful companies emphasised that fact by saying “Now we are led by the market. In the past we were led by technical people and we ended up with a product because we could do it and not because there was a customer need for it”. Responding to customer needs with appropriate new products requires an appreciation on the part of developers of the nature of the communication process with customers. As has been shown in the results, it is the substance of the communication process – not the trappings – that is associated with development success. Companies that follow a customer-driven strategy appreciate more the benefit of developing what customers want and recognise the need to communicate with customers skilfully.

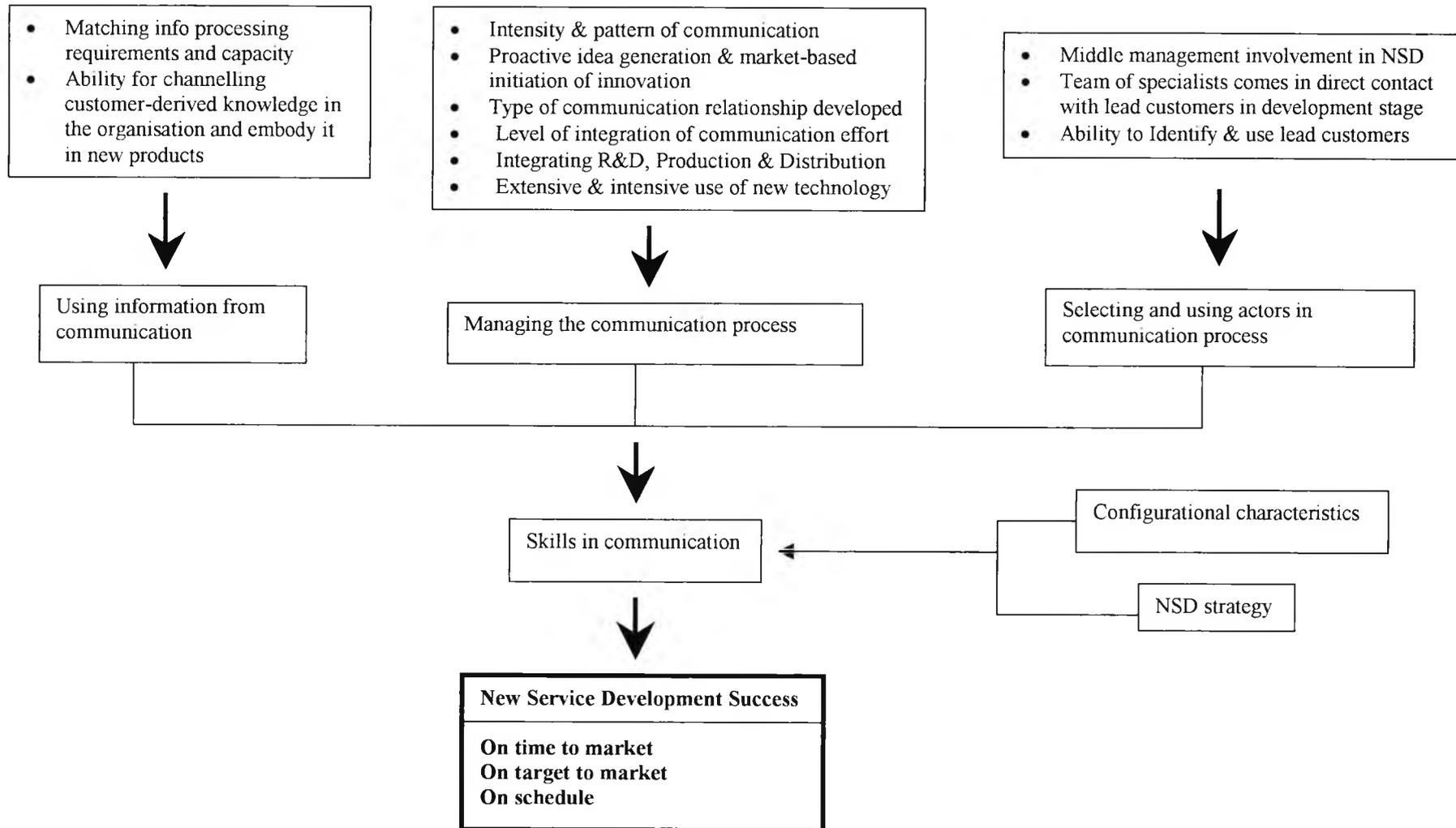
Consequently, a new proposition emerges and posits that:

NP13: New service developers that follow a customer-driven NSD strategy are more skilful in communication and successful in NSD than developers following a supplier-driven NSD strategy.

7.5 The revised propositional framework

In accordance with the results of the field study, the propositional framework has been changed to incorporate the importance of different communication skills. Some of the skills used in the initial framework were shown to be associated with a higher level of NSD success and some others were not. The results revealed that there are many other communication skills that are important for NSD success. The new framework shows that the skills in communication belong to three categories: (i) using information from communication; (ii) managing the communication process, and (iii) selecting and using actors in the communication process. The level of communication skills also appears to be influenced by the configurational characteristics of sample companies and by the NSD strategy they follow. The existence of such communication skills is associated with a higher level of NSD success. The skills included in each category are related to the old propositional framework as well as to the new propositions that emerged from the study's results. The revised propositional framework appears in Figure 7.2.

Figure 7.2: Developer-lead customer communication skills associated with NSD success: a revised propositional framework



7.6 Other issues

Apart from the nature of communication between developers of new services and their lead customers, there are other interesting issues that emerge from the results of the study. These will be examined here.

7.6.1 New product profitability

Both highly and less successful developers do not emphasise the profitability of new products. Most companies do not have someone responsible for such profitability whereas on schedule development is more important. This is mostly due to the fact that leasing products are types of long-term finance structures and therefore, it takes some time for their profits to become clear. Therefore, it would be valid to suggest that when developing complex products in rapidly changing markets with short product life cycles success measures connected to speed to market and on schedule development are more important than profitability-based measures. As a result, the success measures used in this study are highly appropriate for the context investigated.

7.6.2 Number of new products developed simultaneously

Both groups of companies develop simultaneously roughly the same number of new products, a finding that agrees with Griffin (1997) who found that there is no difference in the rate of NPD introductions between successful and less successful new product developers. We would expect highly successful developers to develop a smaller range of products for which there is an evident customer need expressed and that fit the company's capabilities. In contrast, we would think that the less successful would develop more products on an ad hoc basis. However, the existence of high competition in the market and the pressure to develop products fast in order to fulfil rapidly changing customer needs may explain this phenomenon. The fact is that although the number of simultaneously developed products are almost equal, the highly successful have a more structured and strategic way of going about it and are consequently more successful.

Therefore we can safely suggest that the number of new products in development is not a differentiator between highly and less successful developers in complex financial services.

7.6.3 New entrants versus traditional lessors

Case study results show that the average profit margin of old traditional lessors appears to be a lot lower than that of new entrants and niche players. Naturally, most would expect big, established companies to be able to charge higher prices because of their clout in the market. However, the fierce competition that exists in the leasing market reduces profit margins per se. Also, new entrants and niche players have specialised in certain fields of financial services and have worked more in developing close relationships with selected customers. As a result, they are better able to charge premium prices for specialised services. From the interview data, it becomes evident that only recently big corporations have realised that they will not survive if they don't become more flexible in NSD and if they do not approach their customers for information.

7.6.4 The danger of getting too close to customers

Contacting customers for NSD purposes has been shown to be beneficial for companies in accurately identifying market requirements, quickly define product specifications and thus reduce time to market and increase customer satisfaction. Communication between developers and their customers provides companies with the necessary information for developing successful new products. Intensive communication is more effective as it is shown in this study, intensive meaning that more functions and people communicate with customers through more new technology communication methods and more often.

However, there are also disadvantages from too much contact. First, as Datar et. al. (1996) argue, too much customer input can create confusion and duplication of effort, and this ultimately increases time to market. The authors find that only when companies work with a limited number of customers in NPD, a distributed structure (which is associated with a higher level of new product success) provides shorter

time to market than a concentrated structure. The implication is that companies can not have close interaction with all customers. This observation is in agreement with the results of our study that show how highly successful developers make contact with a selected group of customers (lead customers) during NSD. Communicating with all customers is not sufficient and may lead to an increase in time to market.

Furthermore, long-term relationships with customers have been criticised as having many disadvantages from researchers. Moorman, Zaltman and Deshpande (1992) suggest that long-term relationships foster relational dynamics that dampen the positive impact of trust. They find that this happens because customers may acquire a high level of experience with the supplier, or think that the supplier is becoming too stale or too similar to the customer and therefore has less value to add. Also, the customer can start having higher expectations from service providers or he can start thinking that the supplier takes advantage of the trust between them and acts opportunistically. Consequently, companies should be aware of these problems and maintain relationships at a desired level of closeness and constantly assure customers of the high level of service they get. Communication can enhance the effectiveness of relationships as shown in this study, but such communication must also provide customers with any information they need on the services offered. A two-way communication seems to be essential if the benefits of relationships are to be reaped by new service developers.

Finally, there is another danger from too close relationships with customers. Some customers, especially in the business-to-business market are very sophisticated and know how to articulate their complex needs. Sometimes they design part of the new product and then co-operate with developers for completing it. Such customers are very dangerous because they can acquire all the technical knowledge they need and become competitors of the developing company. Therefore, companies should be careful of the amount of information they divulge to customers.

7.6.5 The predictors of continuous success

Griffin and Page (1996) emphasise that there is a need to find out which are the predictors of continuous success. The authors argue that using post-hoc measures of success leads to an understanding of how well a firm has developed products in the past but does not help forecast whether any particular product will succeed or whether the firm will continue developing a stream of successful products in the future. So, researchers will need to examine which factors can create a competitive advantage for companies and eventually lead to a continuous development of successful new products. A successful communication effort that provides good quality information for NSD purposes may create a sustainable competitive advantage for companies and cannot be imitated easily by competitors. Customer-supplied information can provide a continuous flow of information that rationalises the number and quality of potential new products and reduces costs of NPD and time to market. Therefore, a continuous stream of successful products emerges. Thus, it can be argued that effective management of the communication process can be a predictor of continuous success, which is very important in markets with short product life cycles like financial services where continuous innovation is associated with a higher level of new service success (Brown and Eisenhardt 1997; Hargadon 1998).

7.7 Conclusion

This chapter has analysed the research findings and highlighted areas for consideration by active new service developer companies that want to manage their communication with customers effectively for NSD success. The purpose of this study was to show which communication practices are associated with outstanding success in NSD, or in other words which communication skills are necessary for successful NSD.

The results of the study emphasise the areas of differentiation between highly and less successful developers in managing communication with their lead customers. These include differences in the intensity and pattern of communication, the ability of identifying and using lead customers, the extent of integration of the

communication effort, the use of new technology, the type of communication relationship they follow, the way they manage knowledge and process information, the way they generate ideas and initiate communication with customers and the role of middle management in the communication effort. Also, the relationship between configurational characteristics of successful innovators and skills in communication is analysed and the importance of a customer-driven NSD strategy for effective communication shown. Based on these results we have changed the conceptual framework formulated in Chapter 4. The new framework shows that there are three important categories of skills in managing developer-lead customer communication: (i) using information from communication, (ii) managing the communication process, and (iii) selecting and using actors in the communication process.

Furthermore, we have analysed further issues that emerged from cross-case analysis and were related to new product profitability, the number of new products developed simultaneously, the profit margin of new and old lessors, the danger of getting too close to customers, and the predictors of continuous success. The next chapter will discuss the limitations of the study, and the contributions made to theory development and will also highlight areas for future research.

CHAPTER 8

CONTRIBUTIONS TO THEORY DEVELOPMENT & SUGGESTIONS FOR FURTHER RESEARCH

8.1 Introduction

The last chapter analysed the managerial implications of the results of this study. This chapter has three objectives. (i) To identify any theoretical or practical contributions of this study; (ii) To describe the limitations of this study, and (iii) To make suggestions for further research.

8.2 Contributions of the study

This study has contributed both to theory and practice. It has provided new knowledge concerning the nature and management of developer-customer communication in corporate financial services development, but has also found support for the conclusions of previous researchers. All these contributions will be presented here.

8.2.1 New knowledge

This study has contributed to new knowledge in the area of NSD by providing insights on how new service developers communicate with their lead customers during the NSD process. We have identified communication practices associated with outstanding NSD success and have built theory on which communication skills are important for successful NSD. These contributions will be analysed here.

In chapter 2 we illustrated the need for research into the management of developer-customer communication because such communication can provide good quality information that may be used for enhancing NSD success. The objectives were to analyse the range and quality of communication methods used, the intensity and timing of their use during the NSD process, and who participates in communication in each stage of the process.

The results of this study conclude that if companies manage communication by using many new technology communication methods, by communicating intensively and by involving more functions and employees in the communication effort throughout the NSD process, they might achieve higher rates of new service success. The importance of the use of new technology in communication is particularly emphasised by our results. The use of such technology can make communication more frequent and intensive, increase the number of communication channels available to organisations, allow for faster channelling of customer-supplied information and decrease cost of communication. On the other hand, the number of communication methods used by developers as well as the number of customer functions communicated during the NSD process do not seem to differentiate highly from less successful developers.

Based on the above results, two important dimensions of effective communication have been revealed, on which companies can base their communication relationship and on which future researchers can expand on. These are: (i) the level of interactivity of communication (including the intensity of communication as well as the extent of integration of the communication effort), and (ii) the level of use of new technology in communication. Based on these two dimensions of developer-customer communication, four types of relationships are revealed and it is suggested that modern and highly interactive relationships, which are based on high interactivity and extensive use of new technology, are associated with a higher level of new service success than old and transaction-oriented type of relationships. Overall, a distinctive type of relationship is associated with more efficient NSD whereas two dimensions of effective developer-customer communication are revealed.

Moreover, the pattern of communication followed is shown to differ between highly and less successful developers. The highly successful keep communication levels high throughout the NSD process. The less successful start off with low levels of communication and increase it as they move through the process with most communication taking place in the implementation stage. The development stage appears to have special importance for successful NSD in the context investigated

since the highly successful companies slightly focus their communication efforts on this stage of the NSD process. This is the stage when product specifications are decided and consequently, customer input is very important in order to secure product acceptance.

Furthermore, the involvement of the departments of Production and Distribution in developer-customer communication surfaces as an important differentiator between highly and less successful developers. The quality of departments that is involved in communication seems to be important for an effective communication effort.

Also, identifying and using lead customers is shown to be a very important skill for new service developers. It seems that not knowing which are the customers that can help most in NSD and not being able to get the right information from them leads to a focus of communication on the last stage of development. This means that new products are not based on customer needs and consequently have fewer chances of being successful.

By blending all findings, we developed a propositional framework that reveals the three categories of communication skills that are important for achieving a higher rate of NSD success in the context investigated: (i) skills in using information from communication, (ii) skills in managing the communication process, and (iii) skills in selecting and using actors in the communication process. This new framework shows that it is not enough to know how to manage the communication process. Developers should be skilled in selecting who will communicate with customers during the NSD process and how the information generated will be used for successful NSD. Also, all the different skills identified that make up these three major categories suggest that achieving effective communication is a very difficult and complex task for organisations and requires an organisation-wide effort.

Finally, in chapter 3 we illustrated the need for research into the different roles that customers assume during NSD and into how and when customers are appropriately involved in the development process (Brown and Eisenhardt 1997; Akamavi, Twaites and Burgess 1998a). This study concludes that customers should be involved

in NSD intensively and throughout the NSD process. Customers communicated assume different roles throughout the development process. In the first stage they generate ideas for new services, in the second stage they approve the product concept and suggest changes and in the third phase they are used for product and market testing purposes. Their input is important in all three stages and that is supported by the fact that highly successful developers maintained high levels of communication with lead customers throughout the process. In this context, lead customers assume the role of co-producers of new products, especially in the second stage of the NSD process. This implies that there is a deep interaction between developer and lead customer where more ideas are exchanged and more new products are developed as suggested by Akamavi, Twaites and Burgess (1986). Although new services are highly incremental developments, customers assume the role of co-producer because: (i) the product is complex and therefore developers need constant customer input, and (ii) customer needs change very fast and as a result the new product can become obsolete before it is launched.

8.2.2 Support or refute previous findings

Apart from building new theory, our results also supported or refuted the conclusions of previous researchers. This study has contributed to already established theory in the following ways:

1. The results of this study show that some of the past assertions of researchers for services are refuted. Companies operating in the leasing market and we suspect in the market of corporate financial services in general, benefit from a formal NSD process. In our study, most highly successful developers had a formal process in place whereas most of the less successful developers didn't. This goes against the conclusions of many previous studies concluding that in services, ad hoc NSD is more effective (e.g. Scheuing and Johnson 1989; Cooper 1994; Cooper and Edgett 1996). However, our findings are in line with the results in the NPD literature where having a formal NPD process is a major driver of new product success (e.g. Cooper & Kleinschmidt 1993, 1995, 1996; Davies & Brush 1996; Cooper 1998). This could be due to the

fact that leasing services are complex and there is a need to formalise processes in order to speed up development and ensure customer satisfaction. Similarly, the conclusion that the latter stages of NSD (product testing, test marketing, and commercialisation) are not important in the development of new banking products (Reidenbach and Moak 1986) is not supported by our results since in our sample both groups of companies assigned importance to these stages.

2. From analysing the configurational characteristics of sample companies that are associated with NSD success in the literature, we came to conclusions about which ones are important for success in the context investigated. Also, we suggested that the existence of communication skills is influenced by whether or not developer companies have such configurational characteristics. The characteristics identified as important include a flat, decentralised structure with empowered employees, low bureaucracy, high internal communication, the use of cross-functional teams, a well-trained specialist workforce, ample resources for NSD, a culture supporting continuous innovation, and skills in creating and disseminating knowledge (knowledge brokering). Overall, developers possessing such characteristics are more likely to be effective in communication than others.
3. The results of the study support the conclusion of Nonaka (1994) that middle management is critical in knowledge creation since it is very important that different specialists from many departments of the company communicate with lead customers. These specialists belong to middle management and help in the fast and efficient use and dissemination of customer-derived information. Thus, they contribute to knowledge creation.
4. The importance of the use of multi-functional teams in NSD (e.g. Adler 1995; Hitt et. al. 1999) and of inter-department collaboration (e.g. Gupta, Raj & Wilemon 1986; Olson et. al. 1995) is also shown by our results. Highly successful developers involve more of their functions in communication with customers and use formal multi-functional teams.

5. Also, the importance of direct contact between the multi-functional team of specialists and customers is revealed. In the highly successful companies a multi-functional team of specialists communicates directly with lead customers whereas the less successful communicate only through their NPD or Marketing departments. This finding extends the results of other researchers that emphasised that it is very important for those doing the development to be in direct contact with potential users (Gobeli and Brown 1993; Bacon et al. 1994; Tushman and Katz 1980).
6. The importance of frequent and early communication between R&D and customers that is emphasised in the literature (Gupta, Wilemon and Atuahene-Gima 2000) is also supported by our findings since the highly successful involved R&D in communication in all three stages of the NSD process.
7. The value of following a market-oriented, customer-driven NSD strategy is supported once more by this study. The highly successful companies are found to practice NSD based on close communication with customers from the beginning of the NSD process with an aim to develop what customers want. The value of market-oriented strategies for NPD as opposed to transaction-oriented strategies has been highlighted in the literature. Market-oriented NPD has been described as having top management involvement, and cross-functional collaboration (Aaby & Discenza 1993) both of which have been associated with higher new service success rates. Also, a market-based approach of NPD has been shown to be more effective for incremental new products (the ones we concentrate on in this study) and involves knowing what customers need and want and meeting these demands (Lynn and Akgun 1998).
8. The practice of proactive idea generation is once again associated with higher success in NSD following the assertions of Cooper (1986).

9. The focus of the less successful on the implementation stage as far as communication with lead customers is concerned concurs with the assertion of Reidenbach and Moak (1986) that earlier involvement of customers in NPD would improve NPD success. The highly successful tend to involve customers in the NSD process from the beginning.

10. In connection with measuring success of new services, we have to point out that although the measures of success as well as the level of measurement we used in this study have not been used extensively by researchers, results indicate that they are indeed very useful for measuring speed in highly competitive, rapidly changing markets with short product life cycles following the assertions of Brown & Eisenhardt (1997). Measuring success in the new service portfolio level showed that such strategy renders more reliable results than assessing the success of individual projects or the overall program of each company. The new service portfolio level strategy incorporates the advantages of both project and program level measurements and is very useful in the particular context investigated in this study.

8.3 Limitations of the study

This study provides insightful results for theory and practice. However, in common with the majority of research studies, it also has limitations. The major limitations are:

- (i) The sample we used is small (only 9 leasing companies). However, care was taken that all participating companies are active developers of new services. Also, the goal was to establish a few data points that will be used by other researchers in larger scale studies. In terms of case study research the size of the sample was satisfactory.
- (ii) The study refers to a specific market and a certain type of products, the market of leasing products. Therefore, some would argue that generalisability of results is limited. However, the leasing market is a highly competitive, rapidly changing market and part of the wider corporate banking market.

Consequently, generalising results to similar industries is feasible. Following McKelvey (1982) we hold that it is best to produce results that are generalisable within a narrow field, rather than to produce results over a broad range of settings that have far more limited generalisability. This does however mean that the challenge is passed to future researchers to explore the management of developer-customer communication and its effect on new service success in other contextual settings.

- (iii) Statistical results are of limited reliability since the sample is too small for detailed statistical analysis. However, the aim of statistical tests was to reinforce our qualitative results and not to provide definite, statistically significant, causal relationships between variables. So, in this context statistical analysis was helpful but not exhaustive and certainly not enough by itself.
- (iv) The field study was based on single respondents from each company that were questioned twice, using a mailed questionnaire and through personal interviews. However, results were triangulated by taping interviews, two methods of data collection, and internal documents from each sample company. Also, respondents were selected beforehand because they were responsible for NSD activities within each sample company. Therefore, they were the most appropriate sources of information for the purposes of this study and can be described as key informants.
- (v) The sample was a non-probability sample. The sampling procedure was purposive and not random. The aim of selecting the sample was to make sure all companies chosen are active in NSD in the last few years. Purposive sampling is a technique frequently used in qualitative research and helps in focusing qualitative data collection. The non-probability of our sample rendered statistics marginally useful but also freed us from the danger of selecting an inappropriate sample.
- (vi) The study is limited to incremental NSD since in the context investigated, radical developments are very rare. However, our preliminary fieldwork showed that in corporate banking new products are complex and communication with customers is important irrespective of how radical the

new product is. So, one could suggest that the results of this study may also be true for some types of radical products.

8.4 Suggestions for further research

This study has analysed developer-customer communication in a very closely defined research context. Our suggestions for further research fall into the following areas: (i) the need to investigate how internal communication affects time to market and how external communication affects other types of new service success; (ii) the need to define which are the antecedents of effective communication; (iii) the need to extent the research to other contexts; (iv) the need for longitudinal studies to take into account the changes in communication practices brought about by time; (v) the need to analyse further the role of new technology in effective communication; (vi) the need to find out the importance of communication in supply chain relationships in manufactured product settings; (vii) the need to study the effect of communication on other types of innovation; (viii) the need to build a framework comprising all dimensions of effective communication (internal and external) in NSD, and (ix) the need to rationalise the NSD process for business-to-business complex financial products and examine the role of communication in each stage. We will discuss each in turn.

8.4.1 Internal / external communication and new product and service success

In addition to external communication, internal communication and its importance for effective operations and successful NPD has been emphasised in the literature (Brown and Eisenhardt 1997; Lievens et. al. 1999). Consequently, future research must address the strength of the relationship between speed of NSD and internal communication. Does effective internal communication lead to a more timely development of new products or services or not and to what extent? How strong is the relationship between the two variables? Also, since success of new products or services is multidimensional (Griffin and Page 1993), the relationship between the effectiveness of internal or external communication and other measures of success has to be examined empirically and analytically. Furthermore, future research must

analyse the antecedents of effective internal communication and its impact on different types of new service success.

8.4.2 Antecedents of communication effort effectiveness

This study has examined in detail the skills that companies should possess for an effective communication effort with their lead customers. However, there are many other variables that may influence NSD success. Using the McKinsey 7S framework we can identify such variables that include the company's structure, strategy, systems, staff, style, shared values and also status which analyses the level of resources' availability in each company. Each of these Ss can influence the quality of communication between developer and customer. Consequently, future research must address the level and quality of influence of each of these factors on the effectiveness of the communication effort.

8.4.3 Other research contexts

This study focuses on the leasing market. So, there is a need to assess the generalisability of our findings in other contextual settings. Future research must test these findings in other types of financial services, other turbulent and rapidly changing markets and also in the development of tangible products. Furthermore, it will be very interesting to duplicate this study in retail products or services in order to see how communication management changes due to the different level of sophistication and the different service expectations of retail customers.

8.4.4 Longitudinal studies

Our research is focused on one point in time. Future research must address the possibility of variation in communication practices through time. As the relationship with customers becomes stronger or as the company develops higher expertise in a product area, communication management may change. These and other time effects must be analysed in similar or other contexts by longitudinal studies based on one type of products.

8.4.5 New technology

New technology has emerged as a very important field in communicating effectively externally (with customers or suppliers) or internally (within departments). Companies are using new technology to increase levels of communication, provide a higher level of service quality and speed up operations and NPD. Therefore, researchers should try and analyse the effects of the use of new technology on effective communication, internal or external.

Also, new technology helps companies decrease costs of communication and provides a more integrated and fast communication effort based on multiple channels. Therefore, it is regarded as especially urgent to investigate whether quite new internet-based technology will allow developers to benefit from communication with a larger number of actual and potential customers than has been possible on a cost-effective basis in the past, thereby possibly by-passing the need to focus communication efforts quite so intensively on traditional lead customers.

Finally, this study gives only an indication that new technology provides the basis for an effective communication effort. It is imperative to find out how new technology can affect communication practices in the long run and its effect on new service success. So, longitudinal studies, that examine how communication practices change in time due to the use of new technology and in turn how these practices affect success of new services, are now needed.

8.4.6 Communication in supply-chain relationships in manufactured new products and its effect on new service success.

Apart from customers, suppliers are another very important group. The relationships developed between suppliers and customers in the business-to-business context prior to the sale of the end product (early stages in the supply-chain) can be analysed separately, especially in the context of manufacturing firms where the time taken between starting production and supplying the end product is long and involves many intermediary suppliers. The role of communication in the effectiveness of these

relationships, the types of relationships that are formed as a result of such communication and such communication's effect on different types of new service success are some very interesting subjects for future research.

8.4.7 Developer-customer communication and its effect on process or market innovation.

This study has indicated that developer-customer communication is important in successful NSD. However, there are other types of innovation that warrant attention. Future research can address the effect of communication on process or market innovation. Such studies are needed because customer-supplied information can help companies estimate whether they should enter new markets or focus more on the existing market segments they serve. Such information can also provide insights on changing customer needs so that companies can modify their processes to accommodate such needs.

8.4.8 Dimensions of effective communication in NSD.

This study concluded that the extent of use of new technology as well as the extent of interactivity of communication are two very important dimensions of effective external communication. Also, we have come up with a framework that describes which communication skills are associated with outstanding NSD success. However, there are still many questions unanswered on the whole range of dimensions of effective communication. What other things constitute effective communication? What are the dimensions by which we should appraise the quality of communication relationships? A framework must be built comprising all possible dimensions of communication both external and internal. Future research can draw on our results to expand the range of dimensions identified and to validate our findings in other contexts.

8.4.9 NSD process for complex financial services.

The NSD process formulated from the results of this study can be used to develop a model useful for analysing how companies that operate in highly competitive, rapidly changing environments and produce complex products, innovate successfully. The process produced from the data collected in this study pays special attention to communication with customers and is focused on three major stages. However, future research can undertake a detailed analysis of each stage and reveal the interrelationships that exist between phases and sub-phases and between different parts of the organisations analysed. The steps of such a NSD process should be defined for future use of researchers and practitioners who want to make their process more effective.

8.5 Conclusion

This study has allowed us to examine the management of developer-customer communication within a specific contextual setting that is characterised by incremental NSD, short product life cycles, high competition, and rapidly changing customer needs.

Our findings show that in the context investigated, customer involvement in NSD, through a skillful communication effort, may increase rates of NSD success. We conclude that companies that communicate intensively with a selected set of lead customers, use a lot of new technology in communications, and involve many of their functions and employees in the communication effort, throughout the NSD process are more successful in NSD in terms of being on time to market, on target to market and on schedule in development.

Whilst the findings are of obvious importance in the field investigated, they also provide guidance for further research in the same or other industry settings. Future studies should concentrate on how all the configurational characteristics of developers influence different types of NSD success, on identifying further dimensions of communication relationships, on developing a model for effective

developer-customer communication, and on determining the role of new technology in such communication. Also, our study should be extended to other research contexts.

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APPENDIX I

**COVER LETTER AND STRUCTURED MAILED
QUESTIONNAIRE**

COVER LETTER

Pinelopi Athanassopoulou
City University Business School
Strategy & Marketing Department
Frobisher Crescent, Barbican Centre
London EC2Y 8HB

Date:

Respondent's name
Respondent's title
Company name
Address

Dear XXX,

I refer to our telephone conversation a few days ago when I briefly described to you the research study that I am undertaking in City University Business School and I informed you that I will be sending you a letter and the questionnaire for the study.

Within the Innovation Research Unit at the City University Business School, I am conducting a research study in order to complete my PhD degree. My study focuses on the leasing market. It aims to analyse in detail how and when leasing suppliers communicate with their lead corporate customers (i.e. the ones that are being communicated for new service development purposes, and that are likely to help more with new products) in the course of new service development. Specifically, I will determine the breadth of communication methods used, when should they be used in the course of new service development and which functions of the organisation should participate in these communications. The ultimate goal of this study is to test whether the differences in the way suppliers communicate with their lead corporate customers, influence new service success (success meaning developing new products on time to market, on target to market, and on schedule).

I am inviting a group of leasing suppliers to take part in the research. All the selected companies are active in new service development in this area.

The objectives of the research

The objectives of the study are:

1. To identify which communication methods leasing suppliers use in communicating with their lead corporate customers in the course of new service development.
2. To analyse how they use these methods and when in the course of new service development.
3. To determine who takes part in this communication in the course of new service development.

COVER LETTER

Pinelopi Athanassopoulou
City University Business School
Strategy & Marketing Department
Frobisher Crescent, Barbican Centre
London EC2Y 8HB

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Address

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The objectives of the study are:

1. To identify which communication methods leasing suppliers use in communicating with their lead corporate customers in the course of new service development.
2. To analyse how they use these methods and when in the course of new service development.
3. To determine who takes part in this communication in the course of new service development.

4. To find out whether the differences in the way suppliers communicate with their lead customers influence new service success.

The expected benefits

Due to the increasing competition in the leasing market and the short product life cycles, it has become very important for suppliers to develop new products quickly. Research in this field has proved that the information supplied by lead customers is very important in new product/service development and customer involvement in the new product development process has been associated with faster new product/service development. In view of these facts ensuring an excellent communication with customers becomes a key element in the new product success equation.

Recent articles have demonstrated how new communication technology can enhance communication with customers with an aim to a speedier new product/service development. Also, they have reported how more and more companies are embracing new methods of communication as a means for better communication with customers and more successful new service development. However, it is still not clear what is the best breadth of communication methods for successful new service development, when they should be used more intensively during new service development, and which functions of both supplier and buyer organisations should be involved in these communications.

Companies that will take part in this study can use this knowledge to manage effectively their communication efforts to ensure that new products are quickly and efficiently delivered to the marketplace. Also, they will be able to benchmark themselves against other suppliers that will be revealed as best communication practice benchmarks.

My contribution

In order to help your organisation to reap all the benefits of this study a comprehensive analysis of the findings will be made available to all participants. Also, recommendations for improving the communication process will be provided to all participants.

Your contribution

I realise that you have considerable demands upon your time and therefore I will endeavour to make your contribution as short as possible. Typically I will ask for some of your time and that of another person that is involved in new service development in your employing organisation. In normal circumstances information gathering will be limited to a questionnaire completion and one interview with each of you for half to one hour.

Confidentiality

In view of the nature of this study the identity of your organisation will not be revealed in any publication without your prior permission. It is usual practice to publish the results of such studies in the academic press and in this regard the identity of your organisation will be disguised.

This is an important study from both academic and industry viewpoints. It will expand considerably our understanding of how the use of different communication methods can enhance communication with lead corporate customers and eventually increase new service success. This is an issue that is very dear to financial service suppliers since they operate in a highly competitive, rapidly changing environment where continuous innovation is essential for survival. Also, it becomes even more important when we consider that the development and sale of most corporate banking products require close contact with customers.

It must be added that the study will be concerned only with present and past practices of customer communications and no enquiries will be made regarding any future strategic plans.

Successful completion of the research will enable me to complete my PhD degree at the University, which as you know, is very important for my career and me.

I do hope that your organisation can join the research programme. I will contact your secretary in the next few days to inquire into the matter. I enclose a copy of the questionnaire for you to review and if you decide to take part in this study, please complete it and return it in the pre-paid envelope to the address shown on the front of this letter. In the meantime, feel free to contact me on 0171 729 5772 or send me an email at P.Athanassopoulou@city.ac.uk or apinelopi@hotmail.com if you need any more information or if you would like to raise any other issues.

Yours sincerely,

Pinelopi Athanassopoulou
PhD Candidate
City University Business School
Strategy & Marketing Department

Using table 1 in the next page can you please :

- List the new leasing products your employing organisation has launched in the last three years? (new products here are defined as significant product improvements or product line extensions). Please insert the names of new products in the first column of table 1. You can use a separate sheet if necessary.
- Indicate how well did each of the new products, that you listed in question 3, catch the window of opportunity in the market when launched. In other words were they on time to market to exploit sales and profit opportunities or they were late to enter the market? (Please use the following scale to score each new product and then indicate your score by circling the appropriate number in the second column of table 1 labelled as **window of opportunity (on time to market)**).

First to market	Early follower	Just on time	Late follower	Very late
5	4	3	2	1

- Indicate how well did each of the new products, that you listed in question 3, perform in meeting market needs at the time of launch. (Please use the following scale to score each new product and then indicate your score by circling the appropriate number in the third column of table 1 labelled as **meeting market needs (on target to market)**).

Perfectly matched market needs	Mostly matched market needs	Just matched market needs	Partly not matched market needs	Not matched market needs at all
5	4	3	2	1

- Indicate how well did each of the new products, that you listed in question 3, perform in meeting your internal product development time schedule. (Please use the following scale to score each new product and then indicate your score by circling the appropriate number in the fourth column of the table labelled as **meeting schedule (on schedule)**).

Exceeded development time targets	Easily met development time targets	Just met development time targets	Fell behind development development time targets	Very late compared to development time targets
5	4	3	2	1

PART B: QUESTIONS ABOUT THE ORGANISATIONAL CONFIGURATION OF YOUR EMPLOYING ORGANISATION

1. How many management levels are there in your organisation? (Please tick as appropriate)

1-2 3-4 5-6 7-8 >8

Please indicate from the following scales to what extent do you agree or disagree with each one of the following statements concerning your employing organisation (Please tick as appropriate).

	Strongly agree	Agree	Neither agree or disagree	Disagree	Strongly disagree
2. Members of the new product development team can make decisions without referring to senior managers outside the team.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. There is one person with clear responsibility for the profitability of each newly launched product.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. There is one person with clear responsibility for the schedule of each new product development project.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. Bureaucracy is low and innovation and lateral thinking are openly encouraged in this organisation.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. This organisation does not have a defined new product development process.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7. This organisation is characterised by an extensive use of internal, informal, lateral communication flows.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8. The new product development process is characterised by the use of cross-functional project teams.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9. This organisation is characterised by having a high number of highly skilled marketing and new product development specialists.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10. This organisation places an emphasis upon having highly skilled specialists in all functional areas.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

- | | | | | | |
|--------------------------------------------------------------------------------------------------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| 11. The employees of this organisation have a wide variety of backgrounds and experience. | <input type="radio"/> |
| 12. Top management emphasises the need for this organisation to be the first in the market to launch new products. | <input type="radio"/> |
| 13. Top management is actively involved in new product development. | <input type="radio"/> |
| 14. In this organisation we focus on the improvement of existing products. | <input type="radio"/> |
| 15. In this organisation, we have clear measures of success for our newly launched products | <input type="radio"/> |
| 16. This organisation is setting the following targets for new products: | | | | | |
| • Proportion of revenues to be derived from newly launched products | <input type="radio"/> |
| • Proportion of profits to be derived from newly launched products. | <input type="radio"/> |
| • Other (1): specify _____ | <input type="radio"/> |
| • Other (2): specify _____ | <input type="radio"/> |
| 17. In this organisation, we use clear time-based schedules to guide new product development activity. | <input type="radio"/> |
| 18. This organisation focuses on satisfying customer needs. | <input type="radio"/> |
| 19. This organisation wants and values relationships with customers. | <input type="radio"/> |
| 20. There is a universal support for continuous innovation in this organisation. | <input type="radio"/> |

- | | | | | | |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| 21. In this organisation, we have easy access to the right skills when developing new products. | <input type="radio"/> |
| 22. In this organisation, we have easy access to financial backing for new product development. | <input type="radio"/> |
| 23. This organisation has well developed customer contact and management skills. | <input type="radio"/> |
| 24. The employees of this organisation are skilled in gathering knowledge from customers, share it with their co-workers and exploit it for the successful development of new products. | <input type="radio"/> |

PART C: THE USE OF DIFFERENT COMMUNICATION METHODS IN DEVELOPER-CUSTOMER COMMUNICATION

This part of the questionnaire concerns the use of different communication methods in communicating with your lead customers during new service development. Please answer the following questions to the best of your ability.

1. Using table 2 in the next page please indicate:
 - i) Which of the communication methods that are listed in table 2 does your employing organisation use to communicate with lead customers for new service development purposes? (please tick as many as appropriate using the second column of table 2 labelled "methods we use").

For the communication methods that you indicated that are used by your employing organisation please answer the following questions:

- ii) How intensively do you use each of these communication methods in the initiation stage of new service development? (The initiation stage includes idea generation, product screening, preliminary market assessment and market research, financial and business analysis, and concept development and evaluation).
- iii) How intensively do you use each of these communication methods in the development stage of new service development? (The development stage includes service design and process development, and in-house service testing with customers and operations personnel).
- iv) How intensively do you use each of these communication methods in the implementation stage of new service development? (The implementation stage includes product testing before launch, test marketing or piloting, employee training, in-house selling and communication of the new service to frontline personnel).

Please use the 5-point scale below for your scoring. Please score with 5 the methods you use most intensively, and with 1 the methods you use least intensively. Give a score of 0 to the methods that you do not use at all in any particular stage.

Most intensive use						Least intensive use	Do not use at all
5	4	3	2	1	0		

Table 2: To be used for answering question 1.

Method of communication	Methods we use	Intensity of use of communication methods		
		Initiation stage	Development stage	Implementation stage
Personal meetings				
Telephone				
Seminars, Workshops				
Newsletters				
Educational brochures				
Letters, mailings				
Fax				
E-mail				
Internet				
Extranet				
Intranet				
E-telecom (picture telephony)				
Webcasting or streaming audio				
Virtual conferencing				
Virtual communities				
Informational CD-ROMs				
Broadcast fax				
Other 1: Please specify: _____				
Other 2: Please specify _____				

2. For each period of new product development (namely pre-development, development, and implementation), which functions of your organisation communicate with lead customers? (Please tick as appropriate for all three stages)

Stage 1		Stage 2		Stage 3	
R&D	<input type="radio"/>	R&D	<input type="radio"/>	R&D	<input type="radio"/>
Marketing	<input type="radio"/>	Marketing	<input type="radio"/>	Marketing	<input type="radio"/>
Production	<input type="radio"/>	Production	<input type="radio"/>	Production	<input type="radio"/>
Distribution	<input type="radio"/>	Distribution	<input type="radio"/>	Distribution	<input type="radio"/>
IT	<input type="radio"/>	IT	<input type="radio"/>	IT	<input type="radio"/>
Finance	<input type="radio"/>	Finance	<input type="radio"/>	Finance	<input type="radio"/>
Risk Management	<input type="radio"/>	Risk Management	<input type="radio"/>	Risk Management	<input type="radio"/>
Other: specify	<input type="radio"/>	Other: specify	<input type="radio"/>	Other: specify	<input type="radio"/>
_____		_____		_____	

3. For each period of new product development (namely pre-development, development, and implementation) how many employees from each function communicate with lead customers? (Indicate the number of employees for each function in each of the 3 stages in the space provided)

Stage 1	No	Stage 2	No	Stage 3	No
R&D	___	R&D	___	R&D	___
Marketing	___	Marketing	___	Marketing	___
Production	___	Production	___	Production	___
Distribution	___	Distribution	___	Distribution	___
IT	___	IT	___	IT	___
Finance	___	Finance	___	Finance	___
Risk Management	___	Risk Management	___	Risk Management	___
Other: specify	___	Other: specify	___	Other: specify	___
_____		_____		_____	

4. For each period of new product development (namely pre-development, development, and implementation) , which functions of the lead customer organisation communicate with your employing organisation? (Please tick as appropriate for all three stages)

Stage 1		Stage 2		Stage 3	
R&D	<input type="radio"/>	R&D	<input type="radio"/>	R&D	<input type="radio"/>
Marketing	<input type="radio"/>	Marketing	<input type="radio"/>	Marketing	<input type="radio"/>
Production	<input type="radio"/>	Production	<input type="radio"/>	Production	<input type="radio"/>
Distribution	<input type="radio"/>	Distribution	<input type="radio"/>	Distribution	<input type="radio"/>
IT	<input type="radio"/>	IT	<input type="radio"/>	IT	<input type="radio"/>
Finance	<input type="radio"/>	Finance	<input type="radio"/>	Finance	<input type="radio"/>
Risk Management	<input type="radio"/>	Risk Management	<input type="radio"/>	Risk Management	<input type="radio"/>
Other: specify	<input type="radio"/>	Other: specify	<input type="radio"/>	Other: specify	<input type="radio"/>

5. Is there any other comment you would like to make or anything you would like to add? (Please use the space below for your comments and suggestions)

Section D: Classification information

In order to help us classify your answers and do our statistical tests please provide the following information about you and your employing organisation

1. Name of employing organisation:
2. Total number of employees:
3. Annual turnover:
4. The name of the Department you work in:
5. Your full name:
6. Your position in the organisation:
7. Your job responsibilities:

All information provided in this questionnaire will remain strictly confidential

APPENDIX II

INTERVIEW SCHEDULE FOR PERSONAL INTERVIEWS

PART A:

1. Is there a formal budget for new products? If yes, what % of the overall budget (or expenditure) goes to new products? If no, why?
2. What is the average development time for your new products?
3. How many products on average do you develop simultaneously?
4. If the scores in the first 2 qualifying questions of the questionnaire were high:
Question: I noticed that you communicate extensively with lead customers during NSD and that you often want to be first in the market with new products. Do you believe that this a reason for the success of your new products and why?
If the scores in the first 2 qualifying questions of the questionnaire were low:
Question: I noticed that you have limited communication with customers during NSD and that you rarely want to be first in the market? Is there a particular reason for that behaviour?
5. Inquiry into the reason(s) of existence of one very low or high score in one of the new service success criteria in contrast to the other two.
6. Inquiry into the reason(s) for significant differences in the new service success scores of different products scored in the questionnaire.
7. If new product scores are similar:
Your new products are quite successful / unsuccessful in the terms I defined in my questionnaire. What in your opinion is the main reason for that?
8. What else do you think that you need to do as an organisation in order to increase further the score of you new products in the terms defined in the questionnaire?
9. Which one of the new products that you scored for me in the questionnaire would you say is representative of new service success in your organisation? If no product is representative, the respondent is asked what average new service success score would you give your organisation in the terms defined in the questionnaire?

PART B:

Questions are related to the scales used to measure each S of the McKinsey 7S framework and inquire into the reasons of inconsistencies between scores in two different scales of the same S or of different Ss. Also, the exact meaning of certain ambiguous scores is sought especially middle scores of 3.

Structure:

1. I noticed that there is no one responsible for the profitability and/or schedule of new products. Is there any particular reason for that? Does that affect your ability to reach profit and time targets and to what extent?

Note: If the respondent has answered that they set profit and revenue targets for new products, but that no one is responsible for profitability of new products then the question must be also related to that inconsistency.

2. What is the level of decision-making authority of the NPD team?
3. Since you have a high (low) hierarchy, do you think that this inhibits (encourages) innovation?

Systems:

1. How bureaucratic would you say that your organisation is? To what extent are procedures formalised? To what extent employees are encouraged to come up with new ideas and implement them?
2. Is there a particular reason why internal communication is low? (in cases where the score on this scale was low).
3. I noticed that you don't use cross-functional teams to guide new product development activity. How do you organise new product development and who gets involved in it? (in cases where the respondent has indicated no use of cross-functional teams).

Staff:

1. In which departments are your NPD and Marketing specialists concentrated? Which departments suffer the most from this lack of specialists? (in cases where respondents indicated that NPD and Marketing specialists were limited).
2. In which departments do you lack functional specialists the most? Do you use any outside specialists in order to compensate for internal unavailability? (in cases where respondents indicated that they didn't emphasise development of specialists in all functional areas).
3. What is the background and experience of your employees?

Style:

1. What is the role of top management in new service development?
Probes: How extensive is their involvement in NSD? How much do they support innovation?

Strategy:

1. Why do you focus on incremental innovation?
2. What measures of success do you use for newly launched products? (if respondents indicated that they use clear measures of success).
3. Do you measure new service success at all? If yes, how? If no, why? (if respondents indicated that they don't use clear measures of success).
4. If you don't set any profit or revenue targets for new products, how do you evaluate if a new product is going well in the market? (in cases where respondents replied that no targets are set for profits or revenues).
5. Is there a particular reason why you do not have a formal new service development process? Do you think that this is a disadvantage or advantage for your organisation? (in cases where no formal NSD process exists).
6. Do you think that having a formal NSD process has helped or inhibited the growth of your organisation? In your experience, would you say that a formal process is needed for the development of complex products like leasing and why? (when respondents indicated that a formal process was in place).
7. I observed that you do use time-based schedules to guide new product development activity. Can you tell me how they work and what time frames do you use? (in cases where respondents replied that they use time-based schedules)

Shared values:

1. Since you concentrate on the improvement of existing products, why don't you support continuous innovation? (in cases where scores of the two scales were conflicting).
2. Although you focus on satisfying customer needs, you don't value and want relationships with customers. How do you explain that? (in cases where scores of the two scales were conflicting).
3. Why is your support for continuous innovation limited? (in cases of scores indicating limited support).
4. Why is it that you don't want and value relationships with customers? (in cases where scores for that scale were low)

Status:

1. In the questionnaire you indicated that resources are not adequate for new product development. What type of resources do you miss the most? To what extent do you think that this lack of resources hinders successful new service development? (in cases where scores indicated low availability of resources)

2. Regarding the availability of people and financial resources, do you think that it is acceptable or the organisation is lacking in that domain? (in cases of ambiguous scores of 3)
3. I observed that your organisation has a high availability of resources for NPD. Do you think that this is a major driver of new service success? (in cases where scores indicated high availability of resources).

Skills:

1. I understand that your customer contact and management skills are limited. What kind of skills do you lack as an organisation? (in cases where scores indicated limited skills).
2. I understand that your organisation has good customer contact and management skills. Can you describe to me the skills you have as an organisation in that respect? (in cases where scores indicated a high level of skills).
3. I understand that your knowledge brokering skills are limited. What kind of skills do you lack as an organisation? (in cases where scores indicated limited skills).
4. I understand that your organisation has good knowledge brokering skills. Can you describe to me the skills you have as an organisation in that respect? (in cases where scores indicated a high level of skills).
5. I understand that your organisation has no knowledge brokering skills. Is there a particular reason for that? Would you like to become better as an organisation in that respect? Do you think that such skills are essential for new product development? (in cases where scores indicated that the company has no skills in knowledge brokering).

PART C:

1. Let us take the most representative product in new service success that you scored for me in the questionnaire (or another that you think is a typical new service development in your organisation – in cases where no product from the ones scored was representative). Can you review the steps you followed when developing this product. Please describe the actions taken as well as who took part in each step.

Probes:

- How did you communicate with customers in each stage of NSD?
- In which stage of the 3 I described in the questionnaire, was communication with customers more intense? Do you agree with that or do you think that the focus of communication should change?

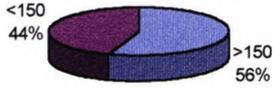
2. Is it the same people from each function of your organisation that communicate with customers in all 3 stages of the NSD process (namely initiation, development, and implementation)?
3. I observed that you keep communication levels almost constant in all 3 stages of NSD. Why do you do that? Do you think this creates a competitive advantage for your organisation? What are the advantages of keeping communication levels constant? (in cases where communication levels are constant)
4. I observed that you start the NSD process with very low levels of communication and then you increase them as you move through the NSD process with the most communication happening in the implementation stage. Is there a particular reason for that? Do you feel that increasing communication early on in the process could increase the success of your new products? (in cases where communication levels increase from one stage to the next).
5. In the questionnaire you indicated that you use very few (or none whatsoever) new technology communication methods. Why is that? Do you plan to use more in the future? If no, why? (in cases where little or no use of new technology is indicated).
6. I noticed that you use quite a lot of new technology in communicating with customers. Has this helped you in new product development? What are the advantages of using new technology? (in cases where a lot of new technology is used by respondent companies).

GENERAL:

1. What would you like to change most about the way you develop new services?

APPENDIX III: THE PROFILE OF THE SAMPLE

**Figure 6.1: Size of sample companies
(in millions of turnover)**



**Figure 6.2: Size of sample companies
(in number of employees)**

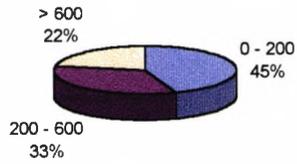


Figure 6.3: Ownership of sample companies

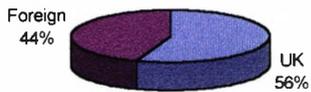
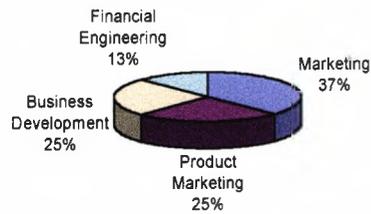


Figure 6.4: Departments of respondents



**Figure 6.5: Type of leasing business
practiced by sample companies**

