

Danish architecture sales to Germany in the 1990s

a network approach to examining the professional service and project-related internationalization of Danish architectural service firms

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**Danish Architecture Sales to Germany in the 1990s:
A Network Approach to Examining the Professional Service and Project-
Related Internationalization of Danish Architectural Service Firms**

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February 8, 1999

This paper is a fully revised and expanded version of the paper that the author presented at her department's Ph.D. Student Presentation Seminar on October 28, 1998. Changes include revisions of research questions; additionally, some data from the author's recently commenced main field study has been included. The academic research presented in this paper is however, by no means finished or nearly finished. The author expects to continue to interviewing, revising, and refining her work throughout 1999; her Ph.D. dissertation is due at the end of December 1999 when her research grant runs out.

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0. Foreword.

At the beginning of the current decade, in January 1990, the Danish construction market, and therefore also the market for architectural services, were in the midst of a severe slump (Eurostat, 1995). At the same time, the German market was beginning to boom (European Construction Research, 1995:8, 12). One of the reasons for this was fall of the Berlin Wall and the subsequent process to unify the two German states - the Federal Republic of Germany and the so-called German Democratic Republic - in one, larger Federal Republic of Germany.

Due to the poor circumstances on the home market, many Danish construction industry actors, including individual Danish architects (in most cases those who were unemployed) as well as Danish architectural service firms, decided to attempt to find profitable jobs on the German market (Halskov, 1995). However, a great deal of the aspirations of the Danish firms who attempted to sell construction industry related goods and services in Germany were dashed. By 1996, many of the largest Danish engineering consultancy and construction contracting firms had lost billions of Danish *kroner*, and a great number of small firms, typically architectural service firms or subcontractors in the construction process, had experienced severe losses, some of which had jeopardized the very existence of these firms (*ibid.*). This development surprised insiders in the Danish construction industry and the general public in Denmark alike, as both groups believed that Denmark has high construction standards and that the firms that had attempted exports and other types of sales in Germany were generally technically competent and had sound domestic business policies (*ibid.*).

This doctoral dissertation research will not attempt to explain the reasons for the misfortunes of the Danish construction industry on the German market. Instead it will focus on the sales and marketing activities of three Danish architectural services firms that have achieved a degree of success on the German market in the 1990s and are still present on this market today. It is however the hope of the author of this work, as well as of the partners and other employees of the three Danish firms that generously contribute many hours of their scarce time to the author's research project, that other Danish construction industry actors, including especially Danish architects and architectural service firms, will benefit by reading and reflecting upon the judgements and choices of these firms as they are presented in this research work.

However, it must be noted that the author bears sole responsibility for her case study research and the content of this research paper; thus the interpretations of the events and the connections made

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between empirical observations and theories of business economics in her work are hers alone. Additionally the author deems it best to mention that she is a business economist and that the main academic aim of her research is to contribute to progress in the business economic discipline of marketing. Her academic dissertation work may therefore seem mystifying or very demanding to read to persons who have other educational backgrounds, such as architects, engineers, or skilled craftspeople. If general interest is expressed by members of the Danish architectural and/or construction industry community and funds are available for this purpose, the author may write a “less academic” book about her research in Danish (and possibly also German) after completion of her scientific study to make it easier for persons from these industries to understand her research results.

1. Introductory Presentation of Research Questions.

The author chose a number of research questions for her Ph.D. dissertation case studies of three Danish architectural service firms’ exports to Germany on the basis of her initial, exploratory pilot study research undertaken from November 1997 to August 1998. She subsequently changed and further refined her research questions from September to December 1998. Her current formulation of the research questions will be explained briefly in this section and thereafter treated in great depth in the subsequent sections of this paper.

The first two questions are of a general nature:

1. How did the German market for architectural services develop during the nineties in terms of total market size and growth rates at the national and federal state (i.e. *Länder*) levels?

2. Who were the major actors involved either directly or indirectly in the Danish export of architectural services to Germany in the 1990s? The major actors will be referred to collectively as the “Danish-German Architectural Export Actors”; it is expected that the group will include not only architectural service firms but also engineering consultancy firms, contracting firms, financial institutions, governmental bodies as well as professional and industrial organizations.

The first two research questions serve the purposes of providing a general overview of the situation on the German market for architectural services in the nineties at the macro-economic and network-actor levels as well as laying a broad contextual foundation upon which the specific experiences of the three case study firms can be explained.

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The remaining research questions are related to a model developed by three French marketing researchers for firms that sell projects. The model, which is a general marketing configuration for project-to-order supplier firms, is depicted in Figure 1 on the next page and will be explained in depth in Subsection 3.3.2. of this paper. The term “project” will be defined and related to architectural firms’ offerings in Subsection 2.4.

3. What sort of specific knowledge about the German market and the specific projects on the German market did the case study firms need to possess in order to receive architectural project jobs on the German market? This research question relates to steps 2 - 5 of Cova, Mazet, and Salle’s General Marketing Configuration as shown in Figure 1 on the next page; it concerns the knowledge that enables the architectural service firms to interact with important persons, officials, and firms (the “network” of step 2 in the model) who might potentially place a project order or possess information concerning potential orders (related to the “dynamic project screening” of the step 4). It also deals with the knowledge that enables the architectural service firms to understand information coming from the broader “environment” (see the model’s step 3) of the German construction industry.

4. How were concrete architectural project jobs obtained by the case study firms? Here the focus of the empirical case research is the steps leading up to the successful “creative offering” of the three case study firms (steps 5 - 10 of the model of Figure 1). Key subquestions include: Did the steps undertaken by the architectural service firms follow the chronological order listed in the General Marketing Configuration? Does the model leave some important factors out and/or include some irrelevant factors? In the case of architectural competitions in Germany and orders from the public sector that have been procured in accordance with the regulations of the EU Public Service Directive, did “network investments” (step 2 in the model) and/or “negotiations” (step 9 in the model) play a role, and if so, what was their role?

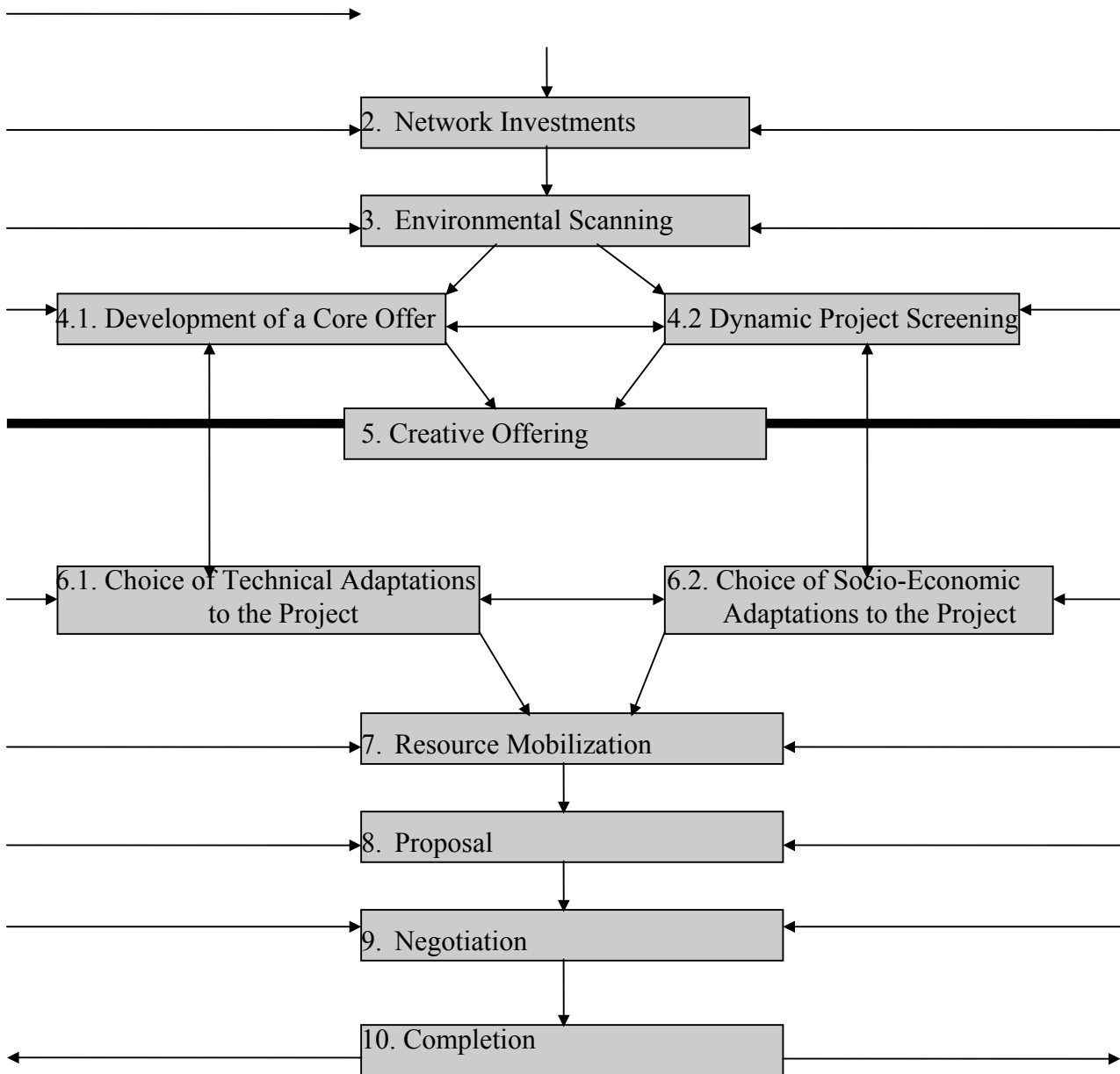
5. What role did previous project work play when case study firms obtained specific projects on the German market? This question deals with the relationship between the awarded projects-in-progress/already completed projects (both are represented below the thick line of Figure 1 by steps 5 - 10 of the model) and new project awards.

Cova, Mazet, and Salle’s General Marketing Configuration for Project-to-Order Supplier Firms is a contribution to the subfield of marketing theory that deals with “project marketing” and “systems selling”. This subfield will be explained further in Subsections 2.4 and 3.1.-3.3. Additionally, within the project marketing/systems selling subfield, Cova, Mazet, and Salle as well as the author of this work consider themselves to be associated with two closely related international groups of researchers, the International Marketing and Purchasing Group (subsequently referred to as the IMP

Figure 1. Cova, Mazet, and Salle’s General Marketing Configuration for Project-to-Order Supplier Firms.

1. Analysis and Strategic Priorities ←

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Steps 1 - 5 above and on the thick horizontal line concern marketing-related steps taken independent of a given project (the phase of the anticipation of a project).

Steps 5 - 10 on and below the thick horizontal line concern marketing and coordination efforts related to a specific project that has been awarded or is in the processes of being awarded to the project-selling firm in question (the adaptive phase).

Source: Cova *et al.*, 1994, p. 40.

Group) and the International Network for Project Marketing and Systems Selling (in the following abbreviated as INPM).

The members of these groups emphasize that both the buying and the selling parties play *active* and *interactive* (and thus NOT merely *reactive*) roles in the marketing/purchasing of industrial and

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investment goods, such as buildings (Servais, 1994:54-62). In the opinion of the researchers associated with the IMP and INPM groups, it is therefore very important to examine the relations between the buyer-seller “dyade” (a key concept in IMP/INPM terminology, see e.g. Håkansson, 1992:14-18) as well as more complex “networks” and “positions” of “actors” on a given market (see e.g. Easton, 1992). This will also be explained in much greater depth in Subsection 3.3.1.

Having briefly introduced the research questions of this work, the content of the rest of this paper will now be summarized to help readers orient themselves in their further reading:

Key concepts such as “architectural services”, “architectural exports”, “internationalization”, “professional services”, “knowledge”, “projects”, “construction projects”, and “architectural projects” are defined and delimited in Section 2.

On the basis of the preceding sections, Section 3 contains a review of project marketing literature relevant to the sale of project-related architectural services. This literature review contains a subsection concerning contributions from the IMP/INPM researchers as well as another subsection dealing with selected (mainly North American) research from other project marketing schools or perspectives.

Section 4 commences with a brief discussion of general business economic internationalization theory and contributions from this huge body of literature that are especially relevant to this research project. Furthermore, the discussions of the internationalization theory and the preceding discussions of Sections 2 and 3 are related to the author’s epistemological and ontological beliefs in the concluding subsection of Section 4.

In Section 5, the focus is once again upon the research questions of this study. The scientific and practical relevance of these questions are discussed in depth in relation to:

1. The current “State of the Art” of INPM and IMP scientific work, including relevant on-going scholarly debates among INPM and IMP researchers, as presented in Subsections 3.3.1. to 3.3.3.
2. The author’s empirical and secondary data from her pilot study research (see Appendix A).

Key methodological and methodical issues concerning the case studies of this dissertation are also discussed in Section 5.

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In Section 6, the last textual section of the main body of this paper, profiles of the three architectural service firms that have most generously agreed to participate in this research are presented. Additionally, some initial main study results are listed and discussed.

Section 7 contains the bibliography. After the bibliography, there are two appendices to this paper: Appendix A summarizes the initial architectural services related and pilot study research undertaken from November 1997 until August 1998. This initial research has formed the basis for the author's choice of the IMP/INPM approach as the most appropriate approach for her study. Appendix B contains a very brief introduction to the discussion in the social sciences concerning paradigms and the nature of valid knowledge (epistemological discussions). It is intended to aid readers with non-academic, natural science, architectural, or engineering backgrounds who may be perplexed by the methodological, epistemological and ontological issues touched upon in Sections 2 - 5.

2. Definition of Key Concepts.

2.1. "Architectural Services", "Architectural Exports", and "Internationalization".

In daily conversation, when one speaks of "architectural services", images of architects drawing buildings are probably what most often come to the mind of the layperson. In reality, however, architects offer a wide range of individual services which are combined in various ways depending on agreements with the client in question. Additionally, many architects no longer predominantly draw manually; instead they use computerized design software such as CAD-programs. Over and beyond that, portfolios of services offered vary from one architectural firm to another and from country to country due to e.g. differences in legal regulations and the organization of the construction industry. Thus it is necessary to specify the exact meaning of the terms "architectural services", "architectural exports", and "internationalization" in relation to both this paper and the author's entire Ph.D. dissertation study.

Taken in very general terms, the individual services offered by architectural service firms are predominantly related to the following areas¹:

1. Designing new buildings
2. Conceptualizing additions or improvements to existing buildings, e.g. renovations

¹ Unfortunately the author has not been able to find a good comprehensive definition of "architectural services", and thus has deemed it necessary to attempt to construct her own definition based on her literature studies.

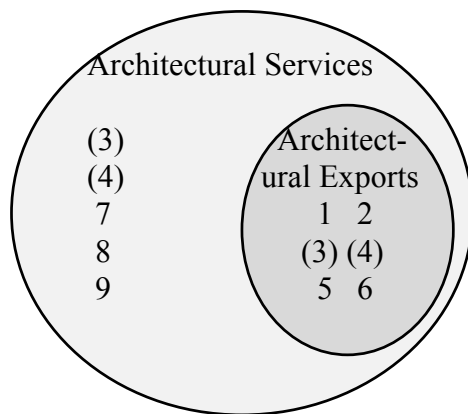
3. Managing or assisting in the construction of new buildings
4. Managing or assisting in the construction of additions or improvements to existing buildings
5. Urban planning related services
6. Designing lawns, gardens, playgrounds or other outdoor areas (these areas belong to the subfield of landscape architecture)
7. Building inspection-related services, e.g. in connection with property sales/rentals or storms
8. Management of facilities
9. Performing preliminary site studies for clients considering construction projects

With regard to the international sale of architectural services, not all of the above services are equally suited for *exports* defined as “the sale of goods and services in another country than the country in which they were produced” (see e.g. Luostarinen and Welch, 1990:20-30). Service types 7 - 9 concern services that must be performed at the site of the building itself and thus cannot be exported. On the other hand, design and urban planning related services (types 1, 2, 5, 6) can usually be performed at a distance from the site, as long as the architect(s) performing the service has the necessary information about the site.

With regard to service types 3 - 4, the situation is a bit murky. The overall management of a construction project usually requires the on-sight presence of the architect on a continual basis and therefore cannot be considered an export as defined above. On the other hand, consultant type assistance in connection with specific problems related to a given construction project may or may not require architect presence, depending on the types of assistance provided. Thus this type of work may or may not fall within the above definition of exports, as shown in the diagram of “architectural services” and “architectural exports” in Figure 2.

The relation of architectural service exports to an architectural firm’s offerings becomes more complex when one takes into account that offerings to individual customers often are bundles of the individual services listed and depicted above, which are specified in e.g. subcontracting contracts (see Luostarinen and Welch, 1990:112-116 for a definition of international subcontracting). In

Figure 2. Graphic Depiction of “Architectural Services” and “Architectural Exports”



Source: Author’s own conception.

situations where architectural service firms have achieved contracts which require the delivery of a combination of design and construction management, only the design-related tasks of this bundle of services can be regarded as exports. On the other hand, if the contract specifies a combination of design and construction assistance services, the design element can be regarded as an export with certainty whereas the export status of construction assistance services will depend upon their nature.

Before a research project definition of “internationalization” is stated, a brief digression into important general differences in the typical customer portfolios of German and Danish architectural service firms will be undertaken in order to reduce the scope of the internationalization discussion to that which has immediate relevance to the dissertation project at hand. Danish law, in contrast to German law, does not contain stipulations that prescribe an architect’s legal responsibility for certain aspects of the building process (Oliver-Taylor, 1993:25, 35, see table 1 on the next page).

The allocation of legal responsibility influences (a) the distribution of work between the professional consultants and the other actors in the construction process as well as (b) the distribution of work among the professional consultant groups (i.e. architects and engineers). German architects carry out more site supervision and management administration than most of their colleagues in other EU countries, including Denmark, where other persons employed by contractors often undertake these tasks (Button and Fleming, 1992:411, Oliver-Taylor, 1993:37).

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Table 1. Normal Allocation of Legal Responsibility in the Construction of Buildings.

| Area of Responsibility | Denmark | Germany |
|-------------------------|--------------|--------------------|
| Ground | Contractor | Arch. + Engineer |
| Stability calculation | Contractor | Engineer |
| Bill of quantities | Contractor | Architect |
| Design | Contractor | Architect |
| Inspection of materials | Contractor | Arch. + Contractor |
| Direction of the works | Contractor | Architect |
| Final acceptance | Both parties | Architect |

Source: Oliver-Taylor, 1993, 25, 35.

Therefore typical German architectural service firms are “generally multidisciplinary, include specialist technicians, and provide a comprehensive design and project management service” (Button and Fleming, 1992:411). With regard to the relationship between the different professional groups, the stipulation that architects in Germany bear the legal responsibility for many construction related supervision and management administration tasks makes the German market comparatively more attractive to Danish architects and less attractive to Danish engineers, who often are made responsible for these types of tasks in Denmark (Hartung, 1997).

Results from the author’s pilot study summarized in Appendix A indicate that many Danish architectural service firms that made their first export attempts to Germany in the early 1990s cooperated with experienced German architectural service firms because the Danes were not familiar with the German market (see e.g. Håndværksrådet, 1992:14-5; *Arkitekt- og byggebladet*, March 1994:15; *Arkitekten*, 1993/5:176-8). Most of these Danish firms started with the export of design-related services (service areas 1, 2, 5, 6) only. With regard to service areas 3 and 4, although some of the more ambitious exporters also went on to work with construction assistance tasks (which as previously mentioned may either have been pure export activities or the production of services on German soil), the author has found no evidence that one or more Danish architectural service firm(s) have born the legal responsibility for construction management in Germany in the 1990s (see Section 6 for further details). However, there are several Danish architectural service firms that currently have or previously have had subsidiaries in Germany in the nineties; these subsidiaries have been used for both design-related and construction assistance activities. Additionally a few other Danish architectural firms have been involved in other extended types of cooperation (e.g. joint project-related ventures) on the German market during this period. Therefore

the operations in which representatives from Danish architectural service firms worked in Germany either temporarily or as employees of a subsidiary in the 1990s can be categorized as “international subcontracting” (Luostarinen and Welch, 1990: 112-113), “partial project operations” (*ibid.*:126), “subsidiary operations” (*ibid.*:156), and “joint contractual ventures” (*ibid.*:158).

On the basis of the above, the focus of the “internationalization” in this study will be upon projects that will include one or more of the following types of international operations: exports, international subcontracting, partial project operations, subsidiary operations, and joint contractual ventures, all as defined by Luostarinen and Welch (1990). In theory, this “internationalization” can encompass all nine types of architectural services listed on page 9; however types 8 and 9 have not yet been found in the author’s empirical study (see Section 6). Additionally, two other internationalization issues, “inward international operations” (in which the input to the production process is internationalized by e.g. imports, see *ibid.*:181) and “international cooperation operations” such as R&D cooperation (*ibid.*:190-193) may be briefly touched upon in relation to research questions 3 - 5, if data are found which indicate that input internationalization or international knowledge-related cooperation played a role in obtaining projects in Germany.

2.2. Architectural Services in Relation to General Characteristics of the Professional Services.

As a concept, “services” have been defined in a wide variety of ways in business economics literature. However, there are a number of characteristics which have been included in a great number of the earlier definitions, e.g. that services are intangibles as compared to goods and that they must be consumed instantaneously because they are, by nature, perishable (see e.g. Løwendahl, 1997:16 or Sharma, 1991:21). These general service definitions and characteristics have, in turn, also been highly criticized, on account of the fact that services are highly heterogeneous (*ibid.*), including offerings from catering to engineering calculations, from family therapy to air transportation.

Due to this extremely wide range of services the author does not deem a discussion of architectural services as services fruitful. Instead she will immediately go one step further by discussing architectural services as professional services. On the basis of extensive readings, Løwendahl (1997:18), listed three common characteristics of professions that are found in a large number of scientific definitions of the term:

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- “1) a vocation founded in a body of knowledge, typically a higher (academic) education
- 2) a vocation concentrated on the application of this knowledge, combined with experience, to problems of vital importance in society and in a way which involves the altruistic service to clients, rather than self-seeking motives such as profits or status
- 3) a vocational organization based on a common code of ethics, where self control is supported by peer reviews, such that members who break the code of ethics may be excluded”

With regard to the above characteristics, the author is skeptical towards characteristic two. “Problems of vital importance in society” is an extremely vague definatory concept. Over and beyond that, she considers the notion that the professions are altruistic and non-self-seeking pretentious. Løwendahl attempts to justify this claim, but the author is also loath to accept her further elaborations (*ibid.*:19):

“A primary characteristic of a professional service is “the altruistic service to clients”, meaning that in cases of conflict of interest between what is profitable for the supplier and what will be the best solution for the client, the latter alternative must be chosen. This is a difficult constraint to impose on a firm, but it is critical to the long-term reputation of the company.”

Although the author agrees that it is usually in the long-term interest of the professional in question to put his or her clients’ interests first, she finds insufficient justification for the a posteriori claim that this is what actually characterizes a profession.

With regard to characteristics 1 and 3, the author has no similar objections in principle. However it must be noted that while characteristic 1 can be said to be applicable to architecture as it is practiced in both Germany and Denmark (see Appendix A for details), characteristic 3 is only true of the architectural profession as it is practiced in Germany. Architects in Germany must be registered by the *Architektenkammer* of the German federal state or *Land* in which they are working (*Arkitekt- og Byggebladet*, March 1995:33), whereas there is no comparable collegial organization with the power of peer review in Denmark.

On the basis of these three characteristics of professions, Løwendahl goes on to define five common characteristics of a “professional service” (Løwendahl, 1997:20):

- 1) “It is highly knowledge intensive, delivered by people with higher education, and frequently closely linked to scientific knowledge development within the relevant area of expertise.
- 2) It involves a high degree of customization.

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- 3) It involves a high degree of discretionary effort and personal judgement by the expert(s) delivering the service.
- 4) It typically requires substantial interaction with the client firm representatives involved.
- 5) It is delivered within the constraints of professional norms of conduct, including setting client needs higher than profits and respecting the limits of professional expertise.”

Characteristic 5 will be eliminated because of the previously voiced objections to the argument upon which it rests. On the other hand, the author’s pilot study (see Appendix A) indicated that characteristics 1-4 do apply to Danish architectural services and exports. More specifically, Danish architects’ offerings of service types 1-6 and 9 are customized (characteristic 2, above) and therefore require substantial discretionary effort on the part of the architectural firm (characteristic 3) as well as substantial architect interaction with clients (characteristic 4). Danish offerings of service types 7 and 8 are, in contrast, not usually highly customized, but as the author’s results (*ibid.*) suggest that service types 7 and 8 are currently of relatively minor importance in relation to the entire portfolio of architectural services, this idiosyncrasy will be ignored in the subsequent discussions of the terms “professional services” and “architectural services”.

It should be noted that Løwendahl’s characteristics 2 - 4 are defined in relative and rather vague terms. Thus using her characteristics in defining architectural services serves not so much to give a clear picture of what architecture services are exactly, but to differentiate the commonalities that architecture-as-a-professional-service shares with other professional services from the characteristics of other types of offerings sold in the economy. It is therefore fruitful to narrow the focus once more and look at architectural services in relation to technical consultancy services.

Sharma’s 1991 work deals with the foreign operations of technical consultancy firms (TCFs). Technical consultancy, as defined by Sharma (1991:20), refers to “industrial services sold to organizations, public or privately owned. These partly resemble services, partly industrial markets and still possess their own particular characteristics.” Sharma then goes on to describe technical consultancy services in relation to characteristics commonly associated with services and professional services. Many of Sharma’s characteristics of technical consultancy services are relevant to some of the nine types of architectural services specified in the previous subsection.

With regard to intangibility, Sharma (*ibid.*:22) states:

“The intangibility discussion is only partially relevant to TCFs. As TCFs execute an assignment, a report containing text, figures and tables is prepared. These are not absolutely intangible. The client can both see and grasp the report. The skills consumed

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in producing the output is [*sic!*], nevertheless, invisible and difficult to touch and grasp. Consequently, some of the consequences attached to the intangibility dimension hold for TCFs as well.”

Concerning architectural services, these remarks are highly relevant with regard to the design-related services (service types 1 and 2) as well as preliminary site studies (service type 9).

Sharma goes on to deal with the issue of inseparability (*ibid.*:23):

“The production of technical services cannot be separated from its producer. As stated in the previous section, technical advice can, nevertheless, be stored on a piece of paper in the shape of figures and text. These are transportable. However, [...] a proper interpretation of the advice and recommendations demands a close interaction and exchange between the producer of the service and its user. Established and stable relationships between the buyer, and the technical consultant is instrumental for this purpose. In this sense even in the field of technical consultancy, a separation of service from its producer is difficult and indeed undesirable.”

These observations are worth considering with regard to the relations of the different types of architectural services to each other, especially as applies to the relationship of the architectural design work (service types 1 and 2) and the implementation of the designs in the building work (service types 3 and 4). However, in Denmark as in many other countries where there is no legal stipulation requiring that an architect manage the construction process, a de facto separation between design and production is often seen (see Appendix A). Danish and European architects bemoan this situation (see e.g. *Arkitekt- og byggebladet*, November 1992:31 and Eurostat:1995:24-39), whereas certain customers as well as other actors in the construction industry apparently prefer it. Thus the general undesirability of this separation cannot be as categorically determined for the architectural services industry as Sharma’s statement suggests.

Returning now to the standardization debate, Sharma’s remarks on this subject are as follows (Sharma, 1991:23):

“For TCFs, the issue of standardization is made still more problematic as no two assignments are absolutely identical, especially not in the international market. In international markets due to differences in taste, climatic conditions, cultural values, traditions, topology etc. the technical solutions called for vary. As a consultant gains insight into a field and obtains feed-back from others (in the network), his performance and the quality of the services rendered may improve and vary. Thus brand name is difficult if not impossible to establish. Among TCFs, use of brand name is non-existent

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[sic!] and consumer loyalty must be ensured through alternative means. [...] it is more important to build up good-will, establish reputation and nurture relationships.”

Articles from Danish architectural magazines (*Arkitekt- og Byggebladet* and *Arkitekten*) as well as the pilot study interviews (see Appendix A) confirm these observations with regard to standardization and the difficulty of the establishing of one’s name in the architectural services industry. These conceptual remarks will therefore be included in the further delimitations of the term “architectural services”. However, Sharma’s statement about non-existent brand name use is probably too extreme with regard to both technical consultancy and architectural services. Some large technical consultancy firms such as the Swedish-Swiss multi-national company Asea Brown Boveri have in fact established names for themselves that function as de facto brands. Additionally one could argue that certain architects (e.g. the Dane Jørn Utzon) or architectural firms have established brand-like names for themselves either on the basis of broad artistic recognition or exceptional technical expertise in specific fields such as airport or concert hall construction.

The last characteristic commonly associated with services and professional services that will be mentioned in this paper on the basis of Sharma’s work is perishability. Sharma (1991:24-5) comments upon the specifics of the perishability issue with regard to TCFs in the following way:

“In the work on service industries, it is argued that services can not [sic!] be stored [...] and thereby create problems of demand management. [...] advance production is not feasible [...] The issue of perishability is, consequently, different in service industries. The above argument holds for TCFs as well. Managing demand fluctuation is difficult for TCFs at the same time as capacity utilization must remain high (85-90%) to avoid losses. The avoidance of excess capacity is important. [...]

TCFs borrow consultants from each other. [...] it is frequently difficult for a TCF to maintain all its experts. Borrowing experts from outside is common and the network is important. The network helps TCFs to balance their own excess capacity through lending people to other parts of the network. TCFs who have worked together borrow from each other to reduce time and resource investment.”

The author’s pilot study interviews confirmed that borrowing experts from the outside is also a very common way to deal with the similar perishability problems of the architectural services firms. In fact, one of the architects interviewed actually bases his entire one-man practice on providing services to other, larger architectural service firms that regularly experience demand fluctuations! Thus this aspect of architectural services will also be included in further conceptualization efforts.

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Before going on to a discussion of the nature of “knowledge” in the next subsection, characteristics inherent to architectural services as a subfield of the professional services are listed below to summarize the delimitations undertaken in this subsection:

1. Architectural services are highly knowledge intensive.
2. Architectural services involve a high degree of customization and thus are non-standardized.
3. Architectural services involve a high degree of personal judgement on the part of the architect(s).
4. Architectural services involve substantial interaction with clients or their representatives.
5. Architectural services involve both intangible and tangible elements; however, most inputs in the production of the tangible elements are intangible.
6. Architects perceive a problem of inseparability in relation to architectural services, whereas other actors do not necessarily perceive this problem.
7. Brand name is extremely difficult to establish in the field of architectural services.
8. Architectural services are perishable in the sense that advance production is not possible.

2.3. The Knowledge Aspect of Architectural Services.

Knowledge and its role in relation to marketing and other business administration and economic phenomena have been increasingly discussed in this century since the groundbreaking work of Austrian Nobel Prize Winner Friedrich Hayek (1937 and 1945). In this research project, a discussion of knowledge and the knowledge intensive nature of architectural services is necessary in relation to the delimitation of research question three (see page 5). More specifically, it is necessary to discuss (a) types of knowledge and (b) potential locations of knowledge. However, aside from the work of Sharma, there is a lack of IMP studies that incorporate insights concerning the role of knowledge and organizational learning in relation to networks and dyadic relations (Möller, 1993:361). Therefore this subsection will primarily discuss the definitions of researchers who are not directly affiliated with IMP and INPM Group work.

“Knowledge” has been defined by strategic knowledge management theorists Sanchez and Heene (1997:4) as “the set of beliefs held by an *individual* about causal relationships among phenomena” (authors’ *italics*). Additionally, these two authors operate with a term they call “organizational knowledge” which they have stated is “the shared set of beliefs about causal relationships held by individuals within a group” (*ibid.*).

In their social constructivist definitions, these two scholars state that while knowledge originates and exists within individuals, it can also be located at the level of the organization. Sharma (1992) builds upon this suggestion by adding yet other levels; he suggests that a key source of knowledge

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“in a business service firm may be its activities in networks. Network knowledge may be (1) industry specific, (2) technology specific, (3) function specific or (4) client specific.” (Sivula *et al.* 1997:124).

Figure 3. Sivula *et al.*'s Typology of Knowledge-related Activities in a Business Service Firm.

| | | LOCALITY OF ACTIVITY | |
|-------------------------------|------------------|--|--|
| | | internal | interface |
| transfer of knowledge | | BACK OFFICE 1. vertical 2. horizontal | SERVICE DELIVERY 1. extension 2. utilization of client's knowledge in service delivery |
| development of knowledge base | TYPE OF ACTIVITY | INTERNAL DEVEL. 1. R&D 2. Training | EXTERNAL DEVELOPMENT 1. cooperative development 2. absorption 3. development by pressure |

Source: Sivula *et al.*, 1997:125.

Sivula *et al.* (1997:125) in turn build upon Sharma (1992) by specifying possible activities of knowledge transfer and accumulation of a business service firm in their model (above).

In relation to research question 3 (see page 5), the focus will be upon knowledge that is a prerequisite for the interactions undertaken to obtain project orders; these interactions are located in the interface with other parties. However, the type of activity is not encompassed by Sivula *et al.*'s model because their model deals with “learning” which is “a process which changes the state of knowledge of an individual or organization” (Sanchez and Heene, 1997:6) or the *dynamic* transfer and accumulation of knowledge whereas research question 3 behooves a *static* description of types of knowledge needed as *prerequisites* for interface interactions.

In relation to this study, Finnish post-doctoral researcher Marjatta Maula proposed several potential locations for the knowledge of the architectural services (e-mail from Maula to the author dated 1998-10-26):

“an individual architect is well-educated and knowledgeable (= the knowledge is located in the head of a “lonely rider”); that the drawings of the building etc. are complex (= the knowledge is located on a piece of paper or as bits in the computer); that

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the project is complex (= the knowledge is located partially in the network of different actors and partially in the architect/office); that the project, together with many others, constitutes for the office a part of its continuously growing knowledge base (= the knowledge consists of the architect that may actively support maintenance and further projects if it is reasonably computerized and connected to relevant sources of external knowledge)”

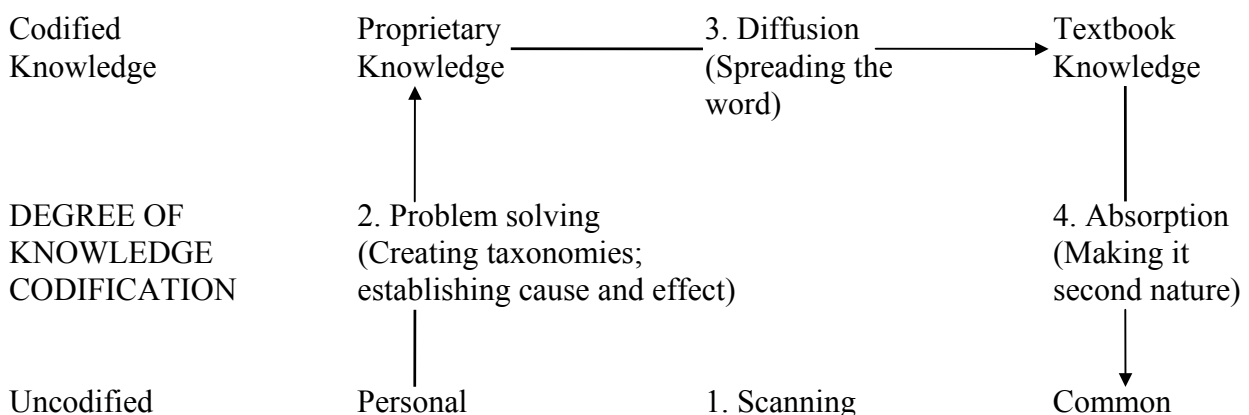
Returning once more to definitions of types of knowledge, other scholars have developed conceptualizations quite different than those of Sanchez and Heene (1997:4). One of the best known is Polyani’s “tacit knowledge”:

“Polyani uses the example of the skater (who can skate beautifully but who cannot explain how she manages to skate the way she does) to propose that “we know more than we can say” (1962). This example has been invoked by many writers to suggest that important knowledge within individuals and within organizations can be “tacit” - i.e. *incapable* of articulation.” (Sanchez and Heene, 1997:8, authors’ *italics*)

In contrast to Sanchez’s and Heene’s definition of knowledge, the conceptualization of tacit knowledge includes neither beliefs or causal relationships because the this type of knowledge is found at a level of subconsciousness that precludes articulation. However, in relation to learning and the dynamics of knowledge, many authors believe that knowledge that may at one time be completely “tacit” may, at least to some extent, be described by others who e.g. study the practice of individuals and groups (see e.g. Bourdieu, 1990) . This allows for the possibility of other persons accessing and using the knowledge (Sanchez and Heene, 1997.:9).

The strategic knowledge management researcher Boisot has developed a social learning cycle which depicts the process of knowledge spreading in relation to the marketing and strategic planning activities of firms. His model is pictured on the next page. Polyani’s “tacit knowledge” is, in the terms of Boisot, uncodified, and either personal knowledge or common sense.

Figure 4. Boisot’s Social Learning Cycle.



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Knowledge

Knowledge ← (Acquiring new insights) Sense

Undiffused TARGET POPULATION

Diffused

The four steps of the learning cycle are as follows:

“1. *Scanning*

Identifying threats and opportunities in generally available but often fuzzy data- i.e. weak signals. Scanning patterns such data into unique or idiosyncratic insights that then become the possession of individuals or small groups. Scanning may be very rapid when the data is well codified and abstract and very slow and random when the data is uncoded and context specific.

2. *Problem solving*

The process of giving structure and coherence to such insights - i.e. codifying them. In this phase they are given a definite shape and much of the uncertainty initially associated with them is eliminated. Problem solving initiated in the uncoded region of the I-Space [i.e. Information Space] is often both risky and conflict laden.

3. *Diffusion*

Sharing the newly created insights with a target population. The diffusion of well-codified and abstract data to a large population will be technically less problematic than that of data which is uncoded and context specific. Only a sharing of context by sender and receiver can speed up the diffusion of uncoded data; the probability of achieving a shared context is inversely proportional to population size.

4. *Absorption*

Applying the new codified insights to different situations in a “learning-by-doing” or a “learning-by-using” fashion. Over time, such codified insights come to acquire a penumbra of uncoded knowledge which helps to guide their application in particular circumstances. Where newly acquired uncoded knowledge clashes with already extant implicit models, a new round of scanning activity may be initiated in order to eliminate the discrepancy.” (Boisot *et al.*, 1997:69)

Source: Boisot *et al.*, 1997:69; Hall, 1997:48.

In relation to the study of knowledge of research question three, the case study method (interviews and document analysis, as described in Section 5) will limit the type of knowledge to that which lies at a level of consciousness and can be codified as well as articulated. This means that the case studies will not be able to capture knowledge that is tacit and remains tacit throughout the study. However the interviews may lead to learning processes both with regard to the respondents as well as the author, in that the questions of the interviews will force the respondents to articulate and thus codify their knowledge, in accordance with Boisot’s social learning cycle.

However, as the content of the empirical data which will be received when researching question 3 cannot be predicted, no one particular definition of knowledge will be chosen beforehand. Thus the

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aim of this subsection is to list key definitions of knowledge that will influence further dissertation research.

In relation to research question 3, the levels of knowledge to be focused upon will be the level of the firm and the level of the individual in the firm who works directly with German project jobs. On the other hand, with regard to research question 5, knowledge at other levels, such as the level of the dyade or the network, may play a role. However, in both cases, knowledge will be examined from a static perspective, i.e. an attempt will be made only to describe the stock of knowledge, not the process of its acquisition. Research question 4 is the only dynamic question of the study, yet it does not specifically deal with knowledge.

The knowledge intensive nature of architectural services influences all of the other architectural services characteristics summarized on page 17 in some way. To round up the discussion of the nature of knowledge of this section, the more specific role of knowledge in relation to the other characteristics of architectural services will be described:

In relation to characteristic 2, the high degree of customization and non-standardization of architectural services (which, in turn, makes the establishment of brand name difficult according to characteristic 7 and furthermore renders these services imperishable in accordance with characteristic 8), the knowledge about how to customize the architectural service in question lies at the level of the architectural firm actors and possibly also at the level of their interactions with their more permanent external cooperation partners/customers, e.g. in the dyade or in a personal network. In international project work, this knowledge concerns “e.g. differences in taste, climatic conditions, cultural values, traditions, topology” (Sharma, 1991:23). Additionally, it is partially tacit and will remain so but it may also contain elements from Boisot’s social learning process model that may be communicated to the researcher.

Characteristic 3, the high degree of personal judgement on the part of the architect(s), relates primarily to the uncodified, undiffused part of the knowledge, whereas characteristic 4, the substantial interaction with clients or their representatives, is related to both undiffused personal social knowledge (Svensson, 1990; Östnäs and Svensson, 1986) and the diffused knowledge that may be located in a network or dyade, as Sharma (1992) suggests.

Characteristic 5 – which states that architectural services involve both intangible and tangible elements while most inputs in the production of the tangible elements are intangible - can be related

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to the discussion of knowledge in this subsection in the sense that the intangible elements are uncodified knowledge whereas the tangible elements (e.g. drawing, models, contracts) contain specimens of diffused, codified knowledge, in the terms of Boisot *et al.* (1997). However with regard to the perception of the knowledge content of architectural services (characteristic 6), the situation that architects perceive their services as being inseparable, whereas many other actors do not share this perception seems to indicate that the other actors do not acknowledge (or wish to acknowledge) the importance of knowledge that may include uncodified elements and that may be located in the dyades between them and the architects. Instead they believe that the knowledge necessarily for the further steps of the construction project is adequately presented in the codified, diffused physical documents (e.g. drawings and models) produced by the architects.

2.4. Architectural Services as Parts of Construction Projects.

In order to enable a discussion of architectural services in relation to construction projects, it is necessary to define construction projects. Thereafter the role of architectural services within the typical construction project can be established. Due to the large body of literature concerning the marketing of projects, it is then fruitful to go on to find general characteristics of projects in the project literature and then critically assess to what extent these characteristics apply to construction projects. These steps will be taken in this subsection, thus laying the foundation for the discussion of architectural services and construction projects in relation to the general project marketing literature in the subsequent subsection.

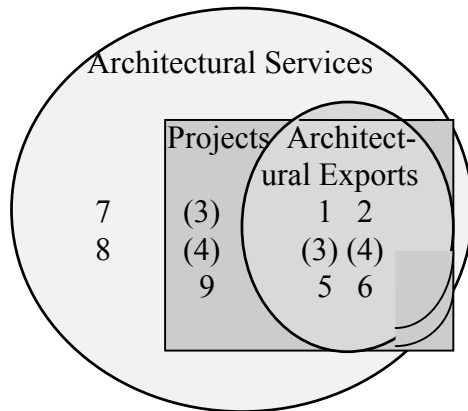
Unfortunately, the step of defining construction projects is not undertaken in most of the works on construction projects because these works are practically-oriented “how to manage” handbooks. Most probably the authors of these works (very often rightfully) assume that their audience has a good general idea of what is meant by “construction projects” and therefore go immediately to the management issue at hand. In this more scientifically oriented paper, the definition of construction projects will be quite general; here a “construction project” refers to a set of activities resulting in either the construction of a building/landscape or improvements to existing buildings/pieces of property.

As depicted on the next page, seven of the nine individual types of architectural services identified in Subsection 2.1., namely types 1, 2, 3, 4, 5, 6, and 9, are exclusively related to construction projects in that they are only undertaken in two situations, either a) the situation in which a

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construction project in anticipated or b) the situation in which the construction project process has been formally commenced. The remaining two types of services, building inspection (type 7) and management of facilities (type 8) are not related to construction projects².

Figure 5. Architectural Services and Exports in relation to Construction Projects.



Source: Author's own conception.

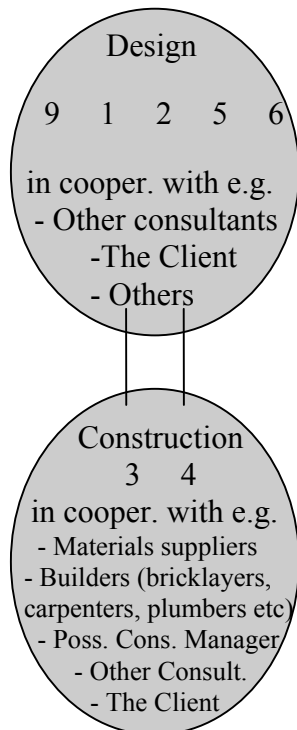
Most construction management handbooks (see e.g. Day, 1994 or Oxley and Poskitt, 1996) separate the construction project process into two major phases, (1) the design phase and (2) the construction phase, based on the assumption that the client reviews and approves the building and landscape designs before construction begins. A Swedish empirical study of major construction projects (Hellgren and Stjernberg, 1995) provides support for this division, albeit its conclusions are not 100 % unambiguous. Hellgren and Stjernberg's (1995:384) empirical results show that this division exists in the sense that very different actors constellations are involved in each of the two phases and that the actor coordination processes in the two phases also are vastly different. However, while Hellgren and Stjernberg find support for this distinction on the basis of actors and activities, they do not find unequivocal support for the linear chronological division typical of normative, practice-oriented construction management literature. On page 383, they state: "Design activities [...] may continue to the end of the process, although the more significant design processes take place early."

Keeping in mind the above limitations and problems of the division of construction projects into a design and construction phase, this two-phase conceptualization is depicted in Figure 6. It will be

² Architects who manage construction projects usually inspect the buildings in connection with the final building acceptance upon the completion of construction. However, this type of building inspection is regarded as a part of construction management tasks (number 3 and 4) in the author's work.

referred to both this subsection's discussion of construction projects as projects and the next subsection's discussion of architectural services in relation to project marketing.

Figure 6. The Division of Construction Projects into Design and Construction Related Phases seen from the Viewpoint of the Architect.



Source: Author's own conception on the basis of literature studies.

Turning now to the literature on the marketing of projects, "project business" is a term that has been defined in a wide number of ways in business literature (Ahmed, 1993:27; Cova, 1990a:9). As a consequence of this broad usage, the scientific limitation problems associated with the "project business" and "project marketing" concepts are similar to the definatory problems concerning the concept of "services" which were discussed in the beginning of Subsection 2.2. A further problem is potential synonyms and partial synonyms: "Systems sales" is a concept related to "project marketing"; the two terms are regarded and used as a synonyms by some authors, while other authors prefer to make various distinctions between the two words (Ahmed, 1993:30).

Based on this conceptual vagueness, the paper includes literature that uses both terms as well as other, less frequently found partial synonyms such as "contracting" or "package deals", e.g. for the literature reviews of Sections 3 and 4. The author will, however, stick to the term "project business" in her own conceptualizations because the phrase "construction projects" is common in English language parlance concerning construction and architectural services.

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To enable a discussion of construction project offerings in relation to project offerings in general, it is, as previously mentioned, necessary to examine elements of definitions of “projects”. In this subsection, definitions found in three of the most widely recognized contributions to the project marketing and systems sales literature will be scrutinized.

The Swedish academic Lars-Gunnar Mattsson is usually credited for having popularized the term “systems selling” in 1973, in his seminal article on this project-related subject³. According to Mattsson’s (1973:108-109) definition, systems selling relates to the sale of:

“a combination of hardware and software components that in principle could also be *marketed separately* and which are, at least to some extent *standardized*. The system sold in each case is therefore an adjustment to the individual customer’s needs of *some basic problem solution ideas*. The system that is offered consists of components between which the relations are predetermined by the seller in two steps: (1): general system design, and (2) system design adjusted to the individual customer. Systems selling is, according to this definition, something more than selling a set of products which can be used by the buyer to construct a system. The seller has to take prime responsibility for the design of the system. Neither does the systems selling concept include supply of unique, tailor-made systems to each customer.” [The *italics* in this quotation are also found in Mattsson’s article.]

Mattsson’s definition of systems selling is quite different than most later definitions in that it explicitly excludes offers that are tailored to the needs of individual customers. This aspect of his definition will be disregarded in the following for two reasons: it contrasts to later definitions and it does not fit architectural services at all as they, as discussed in previous subsections, most often are uniquely tailored to the needs of the customer.

Other elements of Mattsson’s definition will, on the other hand, be included in the subsequent discussion of construction projects as projects. These elements are Mattsson’s specification that 1.) systems are made up of hardware as well as software components and that 2.) these components to some extent are standardized. Last but not least, Mattsson’s contrast between systems sales and product sales (i.e. that system sales concerns the selling of comprehensive solutions created to solve broad customer problems as opposed to merely selling products that fulfill specific functions) will comprise point number 3 of the subsequent discussion of construction projects in relation to general criteria of projects.

³ However, the very first reference to the term “systems selling” is found in the following article: Murray, Thomas J. (1964): “Systems Selling: Industrial Marketing’s New Tool”, in *Dun’s Review*, October 1964 (Mattson, 1973:119).

Based on a project cycle used by the World Bank, Finnish scientist Karin Holstius conceptualized and empirically tested a project marketing cycle (see Holstius, 1987 and 1989) often cited by scholars working within the traditions of the interaction- and network-oriented International Marketing and Purchasing (IMP) group as well as researchers in the newer, IMP-related International Network for Project Marketing and Systems Selling (INPM). In connection with the development and testing of her cycle, Holstius specified three characteristics common to projects (Holstius, 1989: 8):

1. The sale of “a discrete package of investments, services and other actions”.
2. The objective of the sale is the creation of long-term capital assets.
3. The sales package is delivered within a designated period of time.

Holstius’ first characteristic is very similar to Mattsson’s first point; therefore it will not be discussed as separate point from Mattsson’s point. In contrast, the objective of project sales will be discussed in relation to construction projects as point number 4, and time limits will be discussed as point 5.

The last conceptualization of project marketing to be used in this subsection is the work of German business economist Klaus Backhaus, who has researched project marketing from a neo-institutional perspective (see Backhaus *et al.*, 1995). In a textbook concerning the marketing of investment goods, he lists a number specific characteristics of project marketing not included in Mattsson’s (1973) and Holstius’s (1989) work. These will also be discussed in relation to architectural services and have therefore been assigned numbers in the list below. According to Backhaus (1995: 431-433), project marketing (i.e. “industrielles Anlagengeschäft” in German⁴) is distinguished by the following characteristics:

- customized production (discussion point number 6)
- long-term nature of the investment (point number 7)
- high value of the single order (point number 8)
- bidder/supplier coalitions (point number 9)
- an ever-increasing share of service in the offering (point number 10)

⁴ Unfortunately “industrielles Anlagengeschäft” is not a perfect translation of project marketing, as “industrielles Anlagengeschäft” does not include certain types of construction activities for the public or private sector such as the building of museums or residential dwellings. However, on the basis of Günter and Bonaccorsi (1996:532), the author will permit herself to refer to the German language “industrielles Anlagengeschäft” literature as literature comparable to English-language project marketing and systems selling literature.

A translation problem also exists in relation to French language literature. According to Cova (1990:9-10), “systemes” refers to combinations of goods and services, “travaux” refers to the installation work in connection with systems and project sales, and “projets” is the French word for systems and project sales that involve a combination of installed goods and projects.

- differences between the customer's and the supplier's levels of know-how (point number 11)
- possibility for variations in the scope of supply activities and other contractual aspects (point number 12)
- international offerings (point number 13)
- discontinuity of incoming orders (point number 14)
- order financing offerings, i.e. "financial engineering" (point number 15)

Turning now to construction projects and discussion point 1, with relation to Mattsson's specification that systems (or projects) are made up of hardware as well as software, this is very true for the construction industry. Hardware elements in construction projects are walls, foundations, the electronic wiring of the building, radiators, windows, etc. whereas software elements refer to the human design and building related efforts (Mattsson, 1973:108).

With regard to discussion point 2, standardization, most hardware elements in the construction industries of today's Western countries are standardized elements that are produced *en masse*. This is a relatively recent development; during the past century the importance of standardized elements in the building process has increased greatly to the detriment of non-standardized, on-site craftsmanship. (For a discussion of this development's effects on Danish architectural practice, see *Arkitekt- og Byggebladet*, 1992:30-34.)

On the other hand, in Western countries, buildings have for a long time been regarded and sold as an entity, and, with the exception of craftspeople who have preferred to construct their own homes, this has been the dominant type of final user sales. Thus the third discussion point, i.e. the contrast between systems sales and product sales on the basis of the generic level of fulfilled need, is of less relevance to the construction industry than it is to producers of industrial goods.

With relation to which types of gains or assets are the objective of sales (discussion point 4) in the construction industry, Holstius' specification that the objective of the sale is the creation of long-term capital assets is too narrow. While many private homes as well as industrial and non-profit organizations' buildings are indeed regarded mainly as long-term capital assets by shareholders (see e.g. Harrigan and Neel, 1996: 90-106, for the discussion of the influence of architectural design on the asset value of a medical care facility), the primary objective of construction projects is sometimes other types of value creation which cannot be expressed in economic terms. In the case of e.g. an art museum, the main objective of the construction project in question may be to create a building that is an example of a particular artistic style for future generations. Additionally, in publicly supported construction projects of multi-purpose facilities (see e.g. Hellgren and Stjern-

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berg, 1995:385-7), the exact combination and prioritization of the many objectives of the projects may be highly unclear even to the parties making the decisions about the projects. This may for example have been the case with regard to the construction of a building containing a public library, a train station, and a shopping mall in Odense, Denmark in the early 1990s.

Discussion point 5, concerning time limits, on the other hand can be regarded as applicable to construction projects, as contracts concerning construction projects often specify specific dates upon which the project in question must be finished.

The author's remarks about discussion point 6 build upon the remarks about discussion point 2. Customization is a part of all construction projects due to the software element of projects. However the degree of customization may vary widely from one construction project to another.

With regard to the long-term nature of the investment, discussion point 7, and the high value of the single order, discussion point 8, both criteria are unproblematic with regard to construction projects. With discussion point 9 there are also no problems; empirical data (in e.g. various articles in *Arkitekt- og Byggebladet* and *Arkitekten* concerning Denmark and Germany; Dickson (1995) on Denmark; Gerkan (1995) with regard to Germany; Kadefors (1995) with regard to Sweden, Madsen's (1991) Danish study; Schultz and Wiberg (1981) on the construction exports of the Nordic countries) proves the existence of bidder/supplier coalitions in the construction industry. A case in point is the survey undertaken by the Danish Council of Practicing Architects (PAR) in 1992 which found that 79% of PAR member and affiliated firms had worked with engineers and 88% had worked with Danish contractors with regard to exports to Germany (*Arkitekten* 1993:3/120).

Discussion point 10, an ever-increasing share of service in the offering, is, on the other hand, highly problematic with regard to construction projects. As previously mentioned in the discussion of point 2, standardized elements play a greater role in construction project offerings today than they did in the previous century. Additionally, the trend seems to be going towards increased rationalization of service elements in construction projects, both with regard to Germany, where architect involvement in construction projects is required (*Arkitekt- og byggebladet*, February 1994:30) and the rest of the Western Europe:

“Statistics suggest that the industrialization of the building sector in the US and Japan is much more advanced than it is in Europe. This is attributed in part to the highly

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sophisticated prefabrication of residential buildings which exist there. It is still generally accepted that a real demand for 'products' of this type does not yet exist in Western Europe. However, if the economic slump were to persist, offering a well-prepared supply of such products could succeed in resolving the problem of dwindling resources and time available and increasing needs to some extent.

EU architects are no more open than producers or consumers to taking such a step, which would call into question the specific architectural features which characterise most of the Member States. Nevertheless, even if the single internal market were to remain insensitive to the search for effective ways of responding quickly to a housing demand that requires a minimum degree of comfort and also affordability (such needs are still immense: 1.5 million new dwellings in ten years are planned for Germany alone), designers and building firms would still be able to offer their services and products to many other regions of the world where housing needs are even more acute. [...]

[o]ne of the most pronounced tendencies in the demand circuit for construction is that the course of this demand is increasingly going directly 'from the consumer to the producer', with 'designers' being passed by." (Eurostat: 1995:24-38, 24-39)

An assumption of differences between the customer's and the supplier's level of know how (discussion point 11) is relatively unproblematic with regard to the construction projects because most clients usually know less about the design- and construction-related tasks than the suppliers. However, it is possible to vary the scope of hardware and software provided by external sources in the construction project if the client does possess hardware (e.g. components) or software (e.g. knowledge) relevant to the construction project in question. Thus discussion point 12 is also fulfilled in relation to nature of construction projects.

The thirteenth point, about international offerings, is fulfilled to some degree. The author's pilot studies (see Appendix A) have shown that the construction industry is not highly internationalized. Danish actors in the construction industry have turned to exports mainly on account of home market stagnation (*Arkitekt- og byggebladet*, 1991:42). Additionally, their export activities have to a large degree been nomadic; they have wandered from one export market to another in correlation with the cyclic fluctuations of real estate markets (see Appendix A). These cyclic fluctuations, which to a large degree are due to variations in the real interest rate, are one of the reasons why the flow of incoming construction project orders is relatively discontinuous. (This last statement is a verification of discussion point 14 with regard to construction projects.)

Finally, order financing offerings (characteristic 15) are sometimes used in the construction industry in conjunction with construction project offerings.

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To summarize the above discussion, relevant key characteristics of construction projects found in common definitions of projects in the project marketing literature include the following:

- A. There are differences between customer's and supplier's level of know-how with respect to project offerings. (11)
- B. Project offerings include hardware and software components. (1)
- C. Some of the components are standardized. (2)
- D. Customization is a part of project offerings, yet the extent of customization varies from project to project. (6)
- E. The scope of supply offerings may be varied between project offerings in accordance with the capabilities and means of the buyer. (12)
- F. Project offerings concern large orders in terms of monetary value. (8)
- G. Project offerings concern long-term investments. (7)
- H. Project offerings may include financial packages or other "financial engineering" measures. (15)
- I. Project offerings often involve bidder/supplier coalitions. (9)
- J. Project offerings are international in the sense that offerers sometimes come from foreign countries. (13)
- K. Project offerings are subject to deadlines and time limits. (5)
- L. Orders for projects are discontinuous. (14)

A characteristic from the project marketing literature which applies to construction projects but is less relevant due to historical reasons is that project offerings fulfill generic customer needs (3).

Characteristics from the project marketing literature which do not apply to all construction projects include the following:

- The objective of the sale is the creation of long-term capital assets. (4) This characteristic, however, probably applies to most construction projects.
- Project offerings include an ever-increasing proportion of service elements. (10)

2.5. Architectural Services seen from a Project Marketing Perspective.

On the basis of the discussions of the previous three subsections, the aim of this subsection is two-fold:

1. To define the architectural service elements of construction projects by combining the main themes of the discussions of Subsections 2.1.-2.3.
2. Based on the first point, to categorize specific characteristics of architectural services relevant to the construction project related sales according to the degree of single project or single phase specificity.

Fejl! Ukendt argument for parameter.

Subsection 2.4. ended with a brief summary of characteristics of construction based on several renowned definitions from the project marketing literature. In the first part of this subsection, these construction project properties will be discussed in relation to the characteristics of architectural services discussed in Subsections 2.1. and 2.2.

Differences between customer and supplier levels of know-how (see point A, p. 30) play an important role, particularly for architectural service firms involved in construction projects. This is because the work of architects (as opposed to that of many other non-professional actors in the construction project process) is characterized by a high level of software components (B). These software components are highly knowledge intensive (Mattsson, 1973:108; Løwendahl, 1997:20). When the architects are working with the design-phase tasks related to the specific construction project in question (i.e. tasks 1, 2, 5, 6, and 9 as defined in Subsection 2.1.), these software elements entail substantial interaction with clients (Løwendahl, 1997:20, Hellgren and Stjernberg, 1995), a high level of personal judgement (*ibid.*), perishability (Sharma, 1991:24-5), as well as both tangible and intangible elements (*ibid.*:22). The interaction between client and architectural service firm is very important because the involved architect(s) must understand the client's needs and project objectives to be able to incorporate them in the design proposals. Achievement of client trust and consent does not, on the other hand, normally occur through branding (*ibid.*: 23).

Design-phase decisions made in accordance with customer specifications also affect the proportion of standardized components in the project (C) and the extent of customization in the construction project (D). Additionally, choices concerning the use of supply offerings of the buyer (E) may be discussed as early as the design phase, if buyers are intent on ensuring that their means and capabilities are utilized to their full potential in the construction project as a whole.

In the construction phase, the controversial inseparability issue (see Sharma, 1991:21, as well as Subsection 2.2.) plays a large role with respect to the scope of construction management and consultancy tasks (i.e. tasks 3 and 4 in Subsection 2.1.) that are awarded to architectural service firms. This is also true in Germany where architect participation is required (see Gerkan, 1995).

Provided that the architectural service firm plays a role in the construction phase, their construction management and consultancy efforts are once again software elements. These elements are, figuratively speaking, the glue that holds the hardware elements of the construction process together. Additionally, architect involvement in the construction phase is marked by some of the

Fejl! Ukendt argument for parameter.

same characteristics as the architect-specific tasks of the design phase: a high level of individual judgement, the combination of tangible and intangible elements, and perishability. However, the level of architect interaction with clients may or may not be substantial in the construction phase depending on factors such as the level of incorporation of buyer capabilities and means (E).

Characteristics F - L of construction projects most often have similar general implications for all of the actors involved in the construction projects, including the architectural service firms. Furthermore, these characteristics are independent of the two phases of the construction project process and, with the exception of H, also of the specific customers' requirements. Thus architectural service firms may choose strategies to deal with these conditions either as individual firms or in cooperation with other construction project firms or both. Additionally, construction project firms can choose to primarily address these issues outside the framework of specific construction projects. For example, the specific cooperation traditions or agreements of a certain bidder/supplier coalition (I) may include periodic or ad hoc discussions among the coalition members concerning developments regarding issues such as deadlines (K), potential cooperation with international offerers (J), and the creation of "financial engineering" measures (H), as well as issues related to the general nature of project business (e.g. F, G, L) and the nature of the coalition itself (I).

Based on the above remarks, Figure 7 on the next page seeks to clarify the connections between characteristics A to E listed in Subsection 2.4. and insights from Subsections 2.1. to 2.3. Characteristics F to L are merely repeated above the figure because, as explained in the preceding paragraph, they concern general characteristics of construction projects that cannot be related exclusively or specifically to either the design or the construction phase of a specific project.

With regard to viewing the preparation and delivery of a bundle of architectural services as a project in itself within the larger construction project, Holstius (1987:49, 56-58) states that this is possible:

"The provision of consulting services differs from the delivery of construction, machinery and turnkey projects in that consulting services can be directed specifically towards one or more of the stages in the project cycle." (*ibid.*:49)... "the services rendered by a consulting firm can range from a more limited assignment at one of the project stages to a full turkey contract." (*ibid.*:56)

Fejl! Ukendt argument for parameter.

On the basis of the above, in the cases studies of this research project, the individual contracts concerning construction or renovation projects entered into by the Danish case study architectural firms are regarded as “architectural projects” in their own right. These individual architectural projects are, in turn, made up of variations in the bundles of possible architectural services.

Figure 7. Key Characteristics of Construction Project Related Architectural Services that are a Part of Architectural Project Offerings.

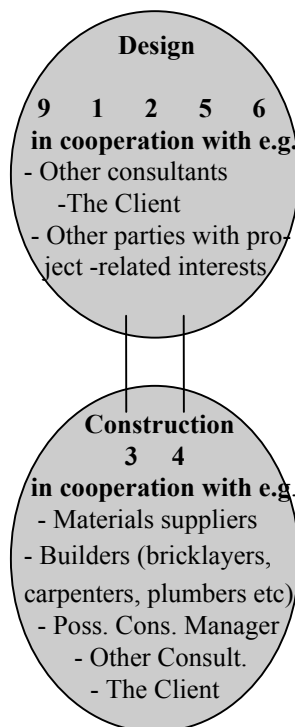
General Characteristics related to neither Specific Construction Projects nor Specific Construction Project Processes and Phases:

- Project offerings concern large orders in terms of monetary value.
- Project offerings concern long-term investments.
- Project offerings may include financial packages or other “financial engineering” measures.
- Project offerings often involve bidder/supplier coalitions.
- Project offerings are international in the sense that offerers sometimes come from foreign countries.
- Project offerings are subject to deadlines and time limits.
- Orders for projects are discontinuous.

General Characteristics related to Specific Construction Project Phases:

Project Process:

Key Characteristics:



- **Substantial client and architect interactions** due to:
 - Differences between customer and supplier know-how levels and
 - The need of the architectural firm to familiarize itself with client objectives.
- The services are **Knowledge-intensive software contributions** that are
 - **Perishable** (i.e. they cannot be produced in advance) and include a
 - **High Level of discretionary effort/personal judgement** and result in
 - **Both intangible and tangible service elements.**
- The tangible designs produced affect the **standardization** and **customization** of the construction phase and must take **buyer contributions** into consideration.
- **Brand name recognition** plays a highly negligible role in buyer decisions.
- Extent of architect involvement related to the **inseparability issue.**
- **Substantial or insubstantial client - architect interactions** due to:
 - e.g. **potential buyer supply offerings and contributions.**
 - **Differences between customer and supplier know-how levels**
- The services are **knowledge-intensive software inputs** in the fields of
 - **construction management** or **construction consultancy** that so to speak
 - connect the **tangibles** and the **intangibles** of the construction activity. They are:
 - **Perishable** (i.e. they cannot be produced in advance) and include a
 - **High Level of discretionary effort/personal judgements.**
 - **Revisions of decisions** concerning **design** may be made during construction.
 - Further **decisions** concerning **standardization** and **customization** levels as well as
 - the **Scope of buyers' contribution** to the phase may be made.

Source: Author's own conception on the basis of literature studies.

3. A Review of Project Marketing Literature relevant to the Sale of Project-Related Architectural Services.

3.1. Methodology and Delimitation of the Literature Review.

The purpose of the literature review of this paper is to take advantage of and build upon previous scholarly contributions relevant to the research questions previously stated in Section 1. Thus the review of this section aims to be an *integrative research review* as opposed to a purely *theoretical review* (see Cooper, 1989:13) and will focus on the insights and results of previous research efforts.

Unfortunately, in the social scientific community, there appears to be a lack of rigorous, well-accepted methodologies concerning literature reviews (Cooper, 1989:11). The author's literature searches⁵ on this topic resulted in only a handful of scholarly contributions (e.g. Cooper, 1989; Easton, 1995a; Helmericks *et al.*, 1991; Leibert, 1996; Meyer, 1988). This may be partially due to a lack of agreement about the nature of scientific knowledge (see e.g. "Appendix B. On Social Science Paradigms"), yet it is also the case that for each specific paradigm there are many fewer works written about the methodology of reviewing previous research than about the methodology of undertaking new studies.

All of the contributions located in the database search, with the exception of Meyer (1998), dealt with the establishment of rigorous criteria for meta-analysis of quantitative post-positivist or positivist studies. Her research question was whether researchers' literature studies and knowledge of the current "state of the art" are adequately assessed in connection with applications for US funding grants. Meyer's conclusion was negative, and she therefore suggested that research grant administrators and review boards should pay more attention to the completeness and currentness of literature studies submitted with grant applications.

With regard to the position of reviews in IMP and INPM literature, Easton (1995a:461-2) has made the following remarks:

"Reviews may not, at first blush, appear to be an example of a research methodology. However, they can create new empirical knowledge, as well as integrating, consolidating, and advancing theory. They may do so by relating different findings and coming to new conclusions. In the industrial networks field, reviews are not yet common [...]. However, partial reviews and reinterpretations are often incorporated in papers reporting empirical or theoretical work. The complexity of network studies

⁵ The author searched the databases of the Danish Royal Library and the Copenhagen Business School Library as well as the article indices ABI Inform (1991-1998), Sociofile, and Helecon International.

means that such reworking may be a necessary part of development, and it is clearly to be both expected and encouraged. Meta-analysis is a more clear cut example of the creation of knowledge:

“Whereas a traditional qualitative literature review is not seen as empirical research, meta-analyses apparently are....” (Aldag and Stearns, 1988, p. 257).

It involves the analysis of the outcomes of a number of quantitative studies concerned with examining a common issue (for example the relationship of intention to action) that, fulfilling the requirements for statistical inference, can be treated as a series of samples and “meta-conclusions” drawn. While such studies are rare in industrial network research, there is no reason in principle why meta-analyses should not be carried out.”

Easton’s “meta-analysis” (*ibid.*:461) corresponds to Cooper’s (1989:13) “theoretical review”.

However, concerning the “state of the art” of publications specifically dealing with the marketing of projects, one can say the following: The current body of work encompasses a multitude of research approaches, including the following four categories (see e.g. Cova, Mazet and Salle; 1993:378):

1. Quantitative empirical studies (mainly concerning competitive bidding)
2. Case studies and other qualitative empirical studies
3. Conceptual studies
4. Practice-oriented contributions

It would be possible to assess and integrate results from studies of type 1 according to the post-positivist meta-analysis theoretical review comparison criteria developed by e.g. Cooper (1989). Although the large number of quantitative project marketing studies have not yet been assessed in this manner⁶, the author judges that this task would not be a worthwhile undertaking in connection with this research project because, as has been indicated in Section 1, this research will mainly be based on insights from IMP and INPM Group project marketing literature which lies outside the subfield of competitive bidding. This paper will therefore merely summarize key research questions, ontological assumptions, and results of the body of quantitative competitive bidding studies.

Contributions of type 2 will be assessed on an individual basis according to scientific criteria relevant to qualitative studies as described in Altheide and Johnson (1994), Flick *et al.* (1995), Jørgensen (1989), Kvale (1996), Maaløe (1996) and Yin (1994); studies that are deemed metho-

⁶ For those who might consider such an endeavor, the comprehensive bibliography of the early competitive bidding literature found in Starck and Rothkopf (1979) would be a good starting point.

dologically incorrect on the basis of these works will be excluded. However it should be noted that sufficient data for exclusion assessments is not always provided; judgement of e.g. studies presented in articles or working papers is often difficult because underlying research methodology is merely briefly summarized in these short contributions. In cases where the methodology is not described thoroughly, the studies will be given the benefit of the doubt and will be included. Similar to the analysis of the contributions of quantitative research, this review will focus on the research questions, ontological assumptions, and results of the qualitative empirical studies.

Conceptual studies (type 3) are in this paper defined as studies which do not include empirical observations, such as Hedaa (1998).⁷ With regard to conceptual studies, the focus will be on their research questions, the resulting conceptualizations and the underlying ontological assumptions. As for the practice-oriented contributions (type 4), these types of work are scientifically speaking less well-founded, irregardless of the scientific paradigm that the authors subscribe to. Their prescriptive suggestions and underlying assumptions will, however, be included in this more scientifically-oriented review for three reasons:

- Practice-oriented contributions influence the cognitive perceptions of researchers and inspire qualitative, quantitative, and conceptual scientific studies.
- The scientific community does not agree about precise distinctions and boundaries between “practice-oriented contributions” and “scientific studies” due to the more fundamental disagreement about the nature of science (see e.g. “Appendix B. On Social Science Paradigms”).
- For better or worse, some authors of literature reviews include practice-oriented work in their reviews as a matter of principle.⁸

In her literature studies, the author has aimed to read comprehensively and include the most current contributions of the project marketing field, in accordance with Meyer’s (1988) suggestions. However, the author has not yet received all the titles she has ordered; her study therefore cannot be considered exhaustive. The bibliography of Section 6 should, however give the reader a good idea of the scope of the author’s studies; with the exception of Backhaus *et al.* (1995), which was mentioned *en passant* in Section 2, the bibliography includes only literature which the author has skimmed or read. Should a reader however wish to know which titles the author is still planning to read and include in her further work, the author will provide him or her with a list of literature ordered but not yet received.

⁷ It follows from this definition that studies based on grounded theory and other inductive methods are classified as qualitative empirical studies.

The purpose of this paper's literature review is, as previously mentioned, to enable the integration of previous research insights into the framework of the empirical study. On the basis of this goal, both the general development of the field of project marketing and especially interesting studies in relation to this study's research questions will be treated in the literature review. However, only a selected few of the studies listed in the bibliography will be specifically discussed in the following subsections; they will be selected according to an assessment of two factors:

- The relevance of the study in question to the research project at hand
- The standing of the study in question in the academic world (Studies judged to be especially "renowned" and/or "seminal" will be included.)

Several articles and studies deserve specific mention in this subsection because they contain project marketing literature reviews. These studies have been critically examined on two levels, the content level and literature review methodology level, to obtain inspiration and insights for this literature review⁹:

- Tikkanen (1998)
- Backhaus and Büschken (1997)
- Owusu (1997)
- Ahmed (1993) (The literature review is found in Chapter 2 of this doctoral dissertation.)
- Cova, Mazet, and Salle (1993)
- Cova (1990b)

With regard to a more specific delimitation of the literature review, many works concerning themes related to project marketing were examined but quickly excluded because they deal with topics irrelevant to the research questions of this study. These exclusions concern the following categories of contributions:

- Studies dealing specifically with technology transfer projects (e.g. Holstius, 1993)
- Studies dealing specifically with the marketing of projects from Western countries to the developing countries or the former Eastern block (e.g. Ahmed, 1993; Ghauri, 1998 and 1983; Jansson, 1989; Ronkainen, 1984; Welch *et al.*, 1996)

⁸ With regards to literature reviews concerning the field of project marketing, the author judges Tikkanen (1998) to be a case in point.

⁹ The author, however, has refrained from using any one of these specific studies as a model for her literature review, as she found that each of the examined literature reviews had its strengths and weaknesses.

- Studies focussed on situations in which offered sales can be either of a generic-problem-solving *project* nature or of a technical problem-solving *product* nature (e.g. Azimont *et al.*, 1998; Backhaus and Weiber, 1987; Kosonen, 1990; Mattsson, 1973)

The previous remarks in Subsection 2.4. concerning the long-term traditions of selling buildings as entities justify the exclusion of the last group of studies.

3.2. The Historical Development of Non-IMP and Non-INPM Related Project Marketing Research relevant to the Sale of Project Related Architectural Services.

As mentioned in Subsection 2.4, Lars-Gunnar Mattsson is credited for having popularized one of the most important project concepts, namely “systems selling”, in 1973. However, the earliest research contributions on the sale of projects are a couple of decades older than Mattsson’s often-cited article. In the 1950’s and 1960’s, many quantitative research studies on the subject of project bidding strategies were undertaken (see Starck and Rothkopf, 1979, for a comprehensive review of these studies). The ontological assumptions of these early studies were those of the neo-classical economic paradigm, and the aim of the scientific research was to create models to solve practical bidder problems such as “when to bid” and “how much to bid” (Boughton, 1987:88). Thus, many of these type 1 studies (i.e. quantitative empirical studies) also contained the normative frameworks and practical prescriptions common to type 4 contributions.

Two very early contributions (Friedman, 1956; Vickrey, 1961) to the competitive bidding literature literally inspired a host of similar subsequent studies. Friedman’s article presented an economic model to determine the optimum bid in a competitive situation where each competitor submits one closed bid at a time (Friedman, 1956:104). However, he also discussed possible adaptations of his economic model to the situation where a firm submits a number of bids simultaneously (*ibid.*: 110-112); this theoretical problem in turn inspired a substantial number of the (predominantly Anglo-American) studies listed in Starck and Rothkopf (1979).

Vickrey’s contribution modified the neo-classical assumptions of perfect markets, and subsequently dealt with the problem of securing Pareto-optimal bidding results in imperfect markets using a modified neo-classical economic framework (Vickrey, 1961:8). He proved that it is possible to achieve a Pareto-optimal bidding result in imperfect markets by establishing in advance that the price is to be determined by the first rejected bid (*ibid.*:28); this milestone in economic research

prompted great academic interest in creating neo-classical economic competitive bidding models that encompass market imperfections, especially in the English speaking world.

Around the beginning of the 1970s, contributions that included basic marketing and strategic concerns of project suppliers (e.g. Mattsson, 1973) began to challenge the neo-classical economic bidding models which regarded suppliers as pricetakers and, so to speak, “product-parameter-takers” (Boughton, 1987:88). During the 1970s and 1980s, these voices from the disciplines of marketing and strategic management gained strength and increasingly attacked the neo-classical competitive bidding literature for leading to indiscriminately reactive (or “pell-mell”) bidding approaches (Bansard *et al.*, 1993; Cova *et al.*, 1993:378).

Key contributions from the 1970s and 1980s that sought to create and refine frameworks for *strategic supplier construction* of project offers include Dunn and Thomas (1986), Hannaford (1976), Mattsson (1973), and Page and Siemplenski (1983). The ontologies that formed the basis for these articles cannot be fully discerned on the basis of the articles itself; however, one ontological belief that distinguishes them from the previous project bidding literature can be discerned from all four of the above-mentioned articles; all four are based on the belief that it is possible for the project supplier to create an offer that is differentiated in that it fulfills broad, generic needs of the customer. Additionally, in relation to a subsequent discussion in the next subsection, it is worth noting that two of these contributions also include explicit statements to the effect that *interaction* between sellers and buyers plays a role in project marketing (Dunn and Thomas, 1986:2-3; Hannaford, 1976:144). However, based on the assessment of Subsection 2.4. that the construction industry always has been based on project sales and limitations of the literature review listed in the previous subsection, the author deems the exact research questions of the above four articles irrelevant to this research project and will therefore refrain from discussing them further in this literature review.

In the 1980’s, some of the competitive bidding research (e.g. Boughton, 1987; Slatter, 1990) was undertaken with the goal of creating bidding strategies that incorporate insights from the emerging frameworks for strategic supplier construction offers of Mattsson (1973) and his later contemporaries. In a quantitative study, Boughton (1987) used a standardized survey questionnaire to examine to what extent US construction firms used the neo-classical competitive bidding models in comparison to other criteria, such as company objectives or desirability of the job in their competitive bidding decisions. Boughton’s (1987: 89-90) results indicated that only 9% of the construction firms used mathematical competitive bidding models and that construction firms

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instead ranked the factors “clearness and detail of specifications”, “past experience with similar work”, “confidence in subcontractor bids”, “location of project”, “number of competitors”, “duration of project”, “workload”, “market condition (busy or slow)”, “size of bid”, “opportunity for follow-on work”, and “relationship with architect/owner” as being the most important elements of bidding strategies (in that order). Additionally Boughton (1987:92) recognized the “interactive nature of the bidding process”, which, in his words, meant the following:

“the reputation of the supplier is a factor, as well as the supplier’s knowledge of how the buyer operates. It is not uncommon for a low bidder to increase revenue through change orders as the project evolves. Thus, a supplier may “low ball” the bid, with an expectation of improving the profit margin through post bid contractual revisions. It is therefore important for any prospective bidder to consider the role, if any, that client-supplier relationships will play, not only in the selection process but throughout the life of the contract.”

On the basis of these results, Boughton (1987:94) suggested the following managerial implications:

1. The creation of a formalized Management Information System (MIS) “to monitor, gather, analyze, store, and evaluate a wide range of market information [...] far beyond the collection of past competitive bid histories. Information about the company, the customer, the competition, and the environment must be obtained and processed to produce knowledge that can be used directly in decision making.”
2. Using a three step approach to move “the strategy away from the traditional cost plus markup approach to a demand/value orientation.” The three steps suggested were:
 - Setting performance standards for achieving defined company objectives.
 - Selecting target bid opportunities that best fit the above criteria.
 - Estimating how much the job is worth to the firm (value of the job).”
3. Managerial policy making based on the fact that buyers are not constrained to accept the lowest bid, and in practice often incorporate nonprice features such as “value’, as represented by delivery, reliability, technical ability, and knowledge, and general reputation of the firm.”

3.3. The Contribution of IMP and INPM Group Work on Project Marketing relevant to the Sale of Project Related Architectural Services.

3.3.1. An Introduction to and Criticism of the IMP Group Work and IMP Terminology.

On the other side of the Atlantic Ocean, in Western Europe, the International Marketing and Purchasing Group (IMP Group) of researchers has since the beginning of the 1980s developed dyadic interaction and network models that focus on the relationship-related aspects of business-to-business marketing and purchasing, the underlying assumption being that both seller and buyer play

active roles.¹⁰ The first major IMP study (Håkansson, 1982) was an empirical study of international industrial purchasing and marketing in six Western European countries. The research was explorative, yet it had the goals of (a) developing concepts and models to aid in the understanding of close, long-term buyer-seller relationships in industrial markets and (b) identifying factors that could influence the level of stability in the dyadic buyer-seller relationships (*ibid.*:6).

The second major IMP study (see e.g. Turnbull and Paliwoda, 1986 and Håkansson, 1987) extended the framework to encompass other relationships beyond a given buyer-seller dyade. According to Easton (1992:104):

“It is concerned with individual relationships as in the first study but has moved on to examine each relationship in the context of the other relationships a particular firm may have. It therefore operates at a higher level of aggregation than the first programme of work and might be said to provide one form of link between studies of firms buying and selling and the full blown network level of analysis.”

Today IMP Group members continue to share common ontological beliefs that relationships in dyades and networks play a decisive role with regard to the marketing and purchasing results of firms. However, the original theoretical framework of IMP Group work, which comprised Inter-organizational Theory and Williamson’s (1975) New Institutional Economic Theory (Håkansson, 1982:10-14), has been modified, in that both Williamson’s (1975) markets and hierarchy dichotomy has been abandoned and general agreement about the fundamental theoretical framework has lessened (Möller, 1993). Current IMP researchers subscribe to a wide range of epistemologies; as two cases in point, the Finnish researcher Henrikki Tikkanen (1997: 77-89) advocates a scientific approach common to the “postmodernism”, “subjectivism”, “relativism”, “conventionalism”, “constructivism”, “critical pluralism” labels (*ibid.*: 83), whereas Professor Geoff Easton (1995a and b) from the United Kingdom argues for a realist epistemology.¹¹

However, the IMP Group still operates to a large extent on the basis of a common vocabulary. This enables definitions of key IMP terms to be given in the following paragraphs. According to Easton (1992:106):

¹⁰ Today, the body of researchers associated with the IMP Group is still mainly Western European. However, the group includes scientists from the Eastern Europe, the Middle East, Africa, Australia, and New Zealand, as well as a few North Americans. The presence of Latin Americans and Far Eastern Asians is however negligible.

¹¹ As explained Subsection 4.3 and Appendix B, the author of this paper places herself between moderate social constructivism and critical realism which allows for a critical pluralism concerning methods and methodology.

“**relationships** (emphasis added) among firms are the *sine qua non* of an industrial network approach. [...] One analysis of interfirm behaviour distinguishes between relationships and interactions (Johanson and Mattsson, 1987). The relationship elements of the behavior are rather general and long-term in nature. Interactions, by contrast, represent the here and now of interfirm behaviour and “constitute the dynamic aspects of relationships” (Johanson and Mattsson, 1987).”

Relationships are seen by many IMP researchers as being comprised of four elements (Easton, 1992: 106-110):

1. **Mutual orientation**, which “implies that firms are prepared to interact with each other and expect each other to do so” (Mattsson, 1988).
2. **Mutual dependence** or **perceived mutual dependence** which “in some sense may be regarded as the price a firm may have to pay for the benefits that a relationship bestows. Dependence is partly a matter of choice and partly a matter of circumstances.” (Easton, 1992:107)
3. **Bonds**, i.e. “a measure of tying albeit unspecified, between partner firms” (*ibid.*). Bonds may include e.g. “economic, social, technical, logistical, administrative, informational, legal and time based dimensions” (*ibid.*:108).
4. **Relationship investments** or “processes in which resources are committed in order to create, build or acquire assets which can be used in the future” (Johanson and Mattsson, 1986).

Furthermore, according to Easton (1992: 111):

“Relationships form the context in which transactions take place. Transactions [...] may be divided into **exchanges** and **adaptation procedures** [emphasis added]. The latter are closely associated with the investment element of relationships. Adaptation is a continuous process which results in changes in products or services bought or sold, in processes of manufacture or in routines and administrative procedures and which implies resource commitment. The resulting adaptations are investments in specific relationships. The returns to adaptation investment are strengthening of bonds between firms, easier resolution of conflicts, confirmation that continuing adaptation is possible and development of mutual knowledge and orientation (Johanson and Mattsson, 1987).

Adaptation processes are, in turn, related to exchange processes. “The more intensive the exchange process among firms, the stronger will be the reasons to make adaptations. The type of adaptations is also related to the characteristics of the exchange, including frequency, complexity, and regularity” (Johanson and Mattsson, 1987). Similarly exchange processes are intimately connected to relationships. Relational elements strongly influence the processes of exchange, for a firm will not order a product from a partner firm that it knows the firm finds difficult to produce. Conversely continuing exchanges provide the only medium firms have to change the form of their relationship. For example social exchanges may be strengthening social bonds at the same time as product exchanges are weakening technical bonds.”

In the IMP approach, an **industry** is viewed as “a network of interconnected exchange relationships”, which “implies adopting a systemic focus and level of explanation” (Easton, 1992:104).

Fejl! Ukendt argument for parameter.

However the relationship between the individual relationships and the entire network is neither simple or additive (*ibid.*:106). From the view of a specific firm (*ibid.*:112):

“it is clear that a firm will have, except in the sparsest of networks, more indirect than direct relationships. [...] However it is equally likely that some law of “distance” will apply such that the more distant and indirect the relationship the less impact it will have. One could, for example, imagine a situation where an indirectly connected secondary ring of firms might be capable of insulating the focal firm from the rest of the network. In a similar way indirect relationships provide the context for direct relationships and are capable of strongly influencing them (Mattsson, 1986). [...]

Mattsson (1986) identifies seven dimensions which can be used to characterise indirect relationships. They include distance from a focal firm; vertical or horizontal nature; complementary or competitive; narrow or wide connection: the strength, kind and content of the direct bonds concerned; the interdependency of the direct relations concerned and the value added of a focal firm’s direct relationship. Such a characterisation provides a link between descriptions of the operation of direct relationships and the operation of networks. For example the predominance of widely or narrowly connected indirect relationships will fundamentally affect the microstructure and microprocesses of networks. It remains to be seen whether this intermediate form of analysis provides a useful route to descriptions of aggregate network phenomena.”

In IMP Group work, **networks** are regarded as **structures** (*ibid.*). Here, however, the terminology of IMP Group members varies, due to the difficult boundary issue. Some IMP scholars use the term “network” to describe the global economic system which encompasses all industries, the public sector, and private households, whereas others speak of “industry-specific networks” (the usage above) and yet others of subdivision of networks called “nets” (Easton, 1992); the nets are delimited “according to criteria such interdependence between positions due to industrial activity chains, geographical proximities etc.” (Mattsson, 1988).

Within the network(s) or nets, at any given point in time, the member firms/organizations of the network have **positions** (Easton, 1992: 114-115). Mattsson (1984) has described four characteristics of positions, which Easton (1992:115) summarizes as follows:

1. “**Function** [emphasis added] describes the function firms are held to perform, the activities they are expected to undertake, for example, a limited line wholesaler.”
2. “The **identity** [emphasis added] of the net of firms that the focal firm has relationships with [...]. If the net changes the expectations change and so does the position.”
3. “[T]he **relative importance** [emphasis added] of the firm in its net, measured by size or other correlates of power.”
4. The **level of analysis** in relation to the position, e.g. the micro- or the macroposition.

Johanson and Mattsson (1986) elaborate on the distinctions between micro- and macropositions:

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“The micropositions are characterized by: a) The role of the firm in relation to the (other) firm(s), b) its importance to the other firm, and c) the strength of the relationship with the other firm. The macropositions are characterised by: a) the identity of the other firm with which the firm has direct relationships and indirect relationships in the network, b) the role of the firm in the network, and c) the strength of the relationships with other firms.”

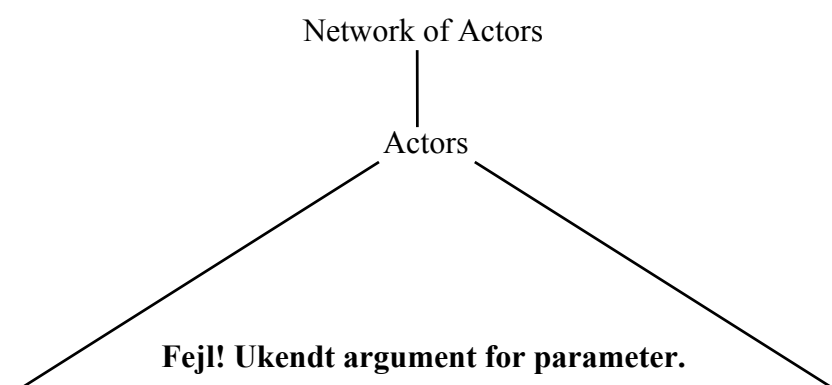
Irregardless of the level of aggregation, the network(s) or nets are usually stable but not static, as change is a major topic in the literature about industrial networks (Easton, 1992:116). However, there is strong disagreement about the forces that drive the **processes** of network coordination and changes (*ibid.*: 119) – i.e. whether the processes of change are caused by entropy, a lack of balance between resources that leads firms to commence investment processes or by yet other factors.

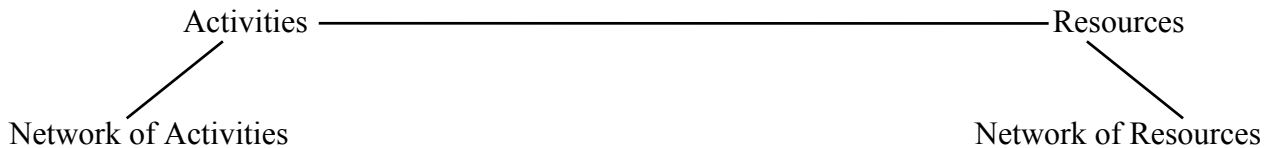
Håkansson and Johanson (1992) developed the so-called A-R-A model “to make possible an integrated analysis of stability and development in industry. [...] The model’s basic classes of variables are actors, activities and resources” (*ibid.*:129); it is depicted in Figure 8 on the next page.

The **actors** of the A-R-A model are marked by five characteristics (*ibid.*: 130-1):

1. Actors perform and control activities.
2. “Through exchange processes actors develop relationships with each other” (*ibid.*:130).
3. Actors base their activities on either direct control over resources, which is based on ownership, or indirect control over resources, which is “based on relationships with other actors and the associated dependence relations with those actors” (*ibid.*)
4. Actors are goal oriented and aim to increase control over the network through control over resources or activities or both. This, in turn, enables them to achieve other, more specific goals.
5. “[A]ctors have differential knowledge about activities, resources and other actors in the network. This knowledge is primarily developed through experience with activities in the network. Consequently, the knowledge of nearer parts of the network is greater than knowledge of more distant parts. The actors know different parts of the network, and even if they have experience of the same parts such experience may not be identical” (*ibid.*:131).

Figure 8. The Actor-Resources-Activities (A-R-A) Model.





Source: Håkansson and Johanson, 1992: 130.

As for **activities**, the A-R-A model distinguished between two types of activities, based on previous work done by American marketing scholar Wroe Alderson (1957 and 1965):

1. Transformation activities, in which “resources are changed in some way” (Håkansson and Johanson, 1992:131).
2. Transfer activities, in which direct control over a resource is transferred from one actor to another (*ibid.*).

Resources, according to the A-R-A model (*ibid.*: 132) as well as Alderson’s (1957 and 1965) theory, are fundamentally heterogeneous. This means that resources both “have attributes in an unlimited number of dimensions” (Håkansson and Johanson, 1992: 132) and “the use and value of a specific resource is dependent on how it is combined with other resources” (*ibid.*: 133). The relationship between knowledge and resources is proposed to be the following (*ibid.*:133-134):

“Knowledge and experience of resources are important. First, when heterogeneous resources are combined their joint performance increases through experiential learning and adaptation. This is valid in the small scale when very specific resources are combined when performing specific activities. It is also valid in the large scale when bundles of resources controlled by one actor are combined with other bundles of resources. Second, when heterogeneous resources are combined new knowledge emerges which creates possibilities for new and improved combinations. New insights into the handling of resources can break existing activity cycles and transfer chains and contain the seeds for development and change in industrial networks. Thus, when resources are heterogeneous, change induces further change. This holds both for those resources which are used in the activities and those which perform and influence activities. It is also valid both for transformation resources and transfer resources.

Resources can be characterised, first by the actors controlling the resource. They can be controlled directly by one actor or jointly by several actors. Indirectly the resources can be controlled by those actors who have relationships with the actor directly controlling the resource. The less available a resource the more important is the control over it and the more efforts will be spent on getting control over it. If there is a surplus of the resource, control is of no interest to the actors. A second characteristic is the utilisation of the resource in activities. How many dimensions of the resource are used and how

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standardised is the utilisation in each of the dimensions? We can conceive a scale with the resource used in one dimension in a standardised way as one extreme and in multiple dimensions in unique ways as the opposite extreme. Standardisation and uniqueness refer to how the resource is used by one actor as compared with the use of the resource by other actors. A third characteristic is the versatility of the resources. To what extent and at what cost can the resource be used in other activity cycles and in other transfer chains?”

Although the importance of knowledge is emphasized in the above, Håkansson and Johanson are unclear about the exact position of the knowledge in the network. Questions pertaining to e.g. whether knowledge is a resource in itself and where it is positioned – e.g. embedded in the individual actors, the relationships between the individual actors or the activities that form the processes remain unanswered. On page 132 (*ibid.*), the two scholars state that:

“from the perspective of the network, single activities by specific actors are almost never indispensable. They can always be dispensed with. This means that if a specific activity disappears the network can remain functionally intact because the surrounding activities are adjusted so that they take over the function of the absent activity. Furthermore, it is always possible to conceive of changes in the performance of single activities as well as in the couplings between them which would not affect the functioning of the network.”

Furthermore, on page 134, Håkansson and Johanson (1992) list four forces that bind the three respective networks together: functional interdependence, power structure, knowledge structure, and intertemporal dependence. Here the knowledge structure is commented in the following way:

“[T]he design of the activities as well as the use of the resources is bound together by the knowledge and experience of present and earlier actors. And the knowledge of those actors is related one to another.”

The two last statements cited above seem however somewhat incoherent and perhaps even contradictory. For if actors can be dispensed with, the knowledge is most likely not specifically located in individual actors but in the community of present and earlier actors, even though the resources that the actors possess are claimed to be specific and the previously mentioned actor characteristic five explicitly states that “actors have differential knowledge about activities, resources and other actors in the network” (*ibid.*: 131).

The above-mentioned imprecise statements that fail to locate the exact position of knowledge in relation to the individual actors and its influence upon actor replaceability point also to two more general weaknesses of IMP theory: its inability to explain the emergence of networks and its lack of

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accountability for the knowledge and interpretation procedures of the involved actors (Andersen, 1995: 83-4). From an interpretive point of view, Andersen elaborates his criticism as follows (*ibid.*):

“any social order must be seen as organized by actors in ways that are meaningful to them. The relationship content is therefore not given in advance, but hinges on the actors’ interpretation. Knowledge is not merely formed by structural contingencies of networks, but actively shapes them. [...] Although the organization of activities depends to a large degree on structural contingencies, it is actors who interpret network possibilities, form relations, and eventually transform network structures. The neglect of the cognitive aspect of actors’ decision-making in the network perspective, in spite of the focus on structural elements, leaves some unanswered questions about the role of knowledge and action. Organizations consist of actors, whose activities are coordinated. Organized activity, whether it takes place under the auspices of the organization or between organizations, is an act of applying meaning to reality [...]. Apart from pointing to historical interaction as the basis for shaping shared experiences and learning among interacting organizations, the network perspective has not offered any convincing or integrated explanations for how specific meanings emerge and become shared in a larger community of actors.”

At a higher level of analysis, it is fruitful to note *en passant* that the “interpretivism” issue is merely one of many issues related to the environment of the firm that IMP/INPM Group members touch upon now and then without achieving intersubjective agreement; the scientific contributions included in this literature review as well as other IMP-related studies document that Group consensus concerning other issues central to IMP/INPM network and interaction research, such as the exact nature of the environment-firm boundaries as well as the nature of the environment itself, is also lacking (see e.g. Möller, 1993:359-363).

3.3.2. An Introduction to INPM Work concerning Project Marketing.

The general interpretivist criticism of the IMP approach will now be ignored for the time being, to allow for the presentation of a number of key IMP-related contributions that deal with project marketing. These contributions come from members of the “International Network for Project Marketing and Systems Selling” (in the following abbreviated as INPM), the IMP-related *subgroup*¹² previously mentioned in Section 1. In relation to most of the other IMP literature, the literature of this subgroup generally takes the specific features of project marketing business (in

contrast to feature specific to other types of industrial marketing) into account. Specific project marketing features that are dealt with by the INPM but not by other IMP researchers include (Ahmed, 1993:55-56):

- The presence of software as well as hardware elements in projects.
- Projects concern large investments.
- Each project is unique.
- The existence of technological and knowledge gaps between the seller and buyer.

As these features have already been discussed in Section 2, no further explanation of these characteristics will be given here. However, for the sake of completeness, two assertions often associated with IMP research which are problematic with regard to project marketing and therefore sometimes (either explicitly or implicitly) excluded by INPM researchers (on the basis of Ahmed, 1993:44) will also be mentioned:

- The categorical assertion of the long-term nature of relationships.
- The categorical assertion of the repetitive nature of marketing activities.

In subsequent years, several groups of INPM researchers have worked refine the description of the most important and unique characteristics of project marketing as opposed to general industrial marketing characteristics that concern the rest of the IMP Group. One such effort concerns the so-called D-U-C framework; this term was first coined in the work of the research team of Cova and Ghauri (1996) and is currently being refined and elaborated by Hungarian business economists Mandják and Veres (1998). On the basis of Cova and Ghauri (1996), Tikkanen (1998:264) lists the three unique D-U-C features of project marketing (the *italics* are Tikkanen's):

1. "The *discontinuity* of demand for projects and the importance of the long-term development of the supplier-buyer relationship;
2. The *complexity* of each individual project in terms of the number of actors involved throughout the supply process;
3. The *uniqueness* of each project in technical, financial and socio-political terms."

Characteristic 1, discontinuity, as described by Tikkanen (1998:264) seems to be in opposition to Ahmed's (1993:44) previously mentioned statements that (a) project marketing seller-buyer

¹² As the INPM is a subgroup of the IMP Group, future references to the IMP Group also will include members of the INPM unless otherwise stated.

relationships are not necessarily long term and that (b) marketing activities are not necessarily repetitive, due to the unique nature of each project.

On the other hand, the second and third D-U-C characteristics, complexity and uniqueness, are not in contradiction to Ahmed's (1993) work. However, it should be noted that, in connection with their model building, Mandják and Veres (1998:473) regard complexity (point 2) more broadly than Cova and Ghauri (1996) as summarized by Tikkanen (1998); in the definition of Mandják and Veres, the term also includes the complexity related to the fulfillment of multiple and/or subsequent project orders.

The sum of the specific features of project business discussed above present the following challenges to general IMP theory as described in the preceding subsection:

1. The long-term nature of relationships in project marketing is a subject of controversy.
2. The discontinuity of demand may lead to a lack of bonding, long-term mutual dependence, and mutual orientation beyond the single project.
3. The uniqueness and complexity of each project may lead to a lack of adaptation procedures that go beyond the single project as well as a lack of network coordination and change processes. The most far-reaching consequence of this could be that the world of project business is more aptly placed in the framework of the world of virtual corporations than in the framework of networks. According to Andersen (1995), "Temporability in network interaction can be seen in project-like organizational forms, such as construction consortia, as well as in SMEs attempting to preserve flexibility. As pointed out by Kallinkos (1989), although cooperation in construction consortia is organized around projects, where actors participate for a limited time and where there is a substantial turnover of actors and constellations, they are still able to capitalize on shared experiences, using these to rationalize coordination."

In the following, major contributions of INPM researchers and the way these contributions deal with these project-specific issues and problems in relation to non-IMP project marketing as well as other IMP literature will be described.

In an exploratory study, French INPM researchers Cova, Mazet, and Salle (1993 and 1994) examined (a) to what extent project marketing firms have attempted to practice selected normative suggestions of recent non-IMP/INPM project marketing and strategic management literature (i.e. prescriptions similar to e.g. Boughton, 1987:94, as described on Subsection 4.2.) and (b) the results of these attempts. Their study dealt especially with environmental aspects of the project marketing firm because a large proportion of recent marketing and strategic management literature contains the (sometimes implicit) ontological assumption that the project marketing firm can plan and strategize in relation to the environment.

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In-depth interviews with key informants from major European companies in several different industrial sectors involved in project business comprised the method of the study (Cova, Mazet, and Salle, 1993:395-6). Key results were as follows (Cova, Mazet, and Salle, 1994:32):

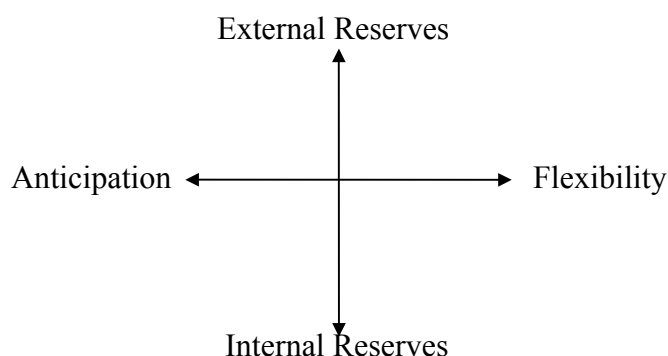
1. “concerning the screening of projects, companies found difficulties defining stable priorities for a given period of time due to the importance of human factors (intuition, motivation, personal involvement) in the selection of projects [...] In addition, most firms claim their screening strategy is of the ‘go/no go’ type, but flexible enough to vary and balance the different efforts put into each project. More than sophisticated choices concerning markets and technologies, it is often the financial constraints of the yearly budget allocated to tender preparation that determine the final selection of projects.
2. Concerning the scanning of project opportunities, companies have progressively acknowledged the importance of interpersonal relationships between individuals [...]
3. Concerning the analysis and the definition of strategic priorities, difficulties are raised due to the heterogeneity and the rapid evolution of the projects and of their environment”

Based on this response results, Cova *et al.* (*ibid.*) made the following constructively critical statement concerning the strategic marketing literature reviewed in their study:

“it does not grasp the complexity of the situation faced by project- to-order supplier firms and may lead to criticisms and contradictions when strictly implemented”

Building upon Cova *et al.*’s criticisms, the said group of French researchers went on to adapt a recent conceptual model to illustrate some of tensions caused by the overly-simplified models of the body of marketing literature they had examined:

Figure 9. Cova *et al.*’s Project Marketing Strategy Framework.



Source: Cova *et al.*, 1993:395, adapted from Bansard *et al.*, 1993:130.

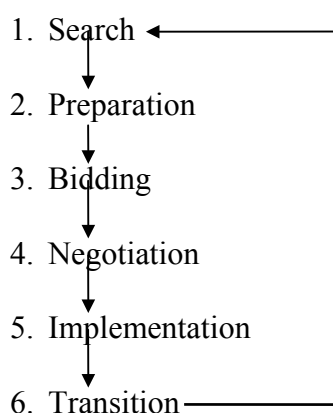
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In the Figure 9, “anticipation” refers to the project supplier firm’s strategic need to use resources to keep itself informed about very specific technological, political, or financial developments in the environment, e.g. through specific network contacts and to develop specific policies and programs in relation to these specific developments. “Flexibility”, on the other hand, refers to the need to use resources to maintain broad networks, to ensure that the firm’s project offerings that are considered to be top quality by important parties in the broader network, and to ensure that individual project offerings can be adapted to e.g. specific cost and customization demands (Bansard *et al.*, 1993: 130-131). Due to resource limitations, there is an inherent tension between these two types of needs; therefore the project marketing firm is constantly forced to prioritize between these two types of needs.

The tension between internal and external reserves refers to whether the resources are to be used on in-house measures or on measures that involve outside parties in the network (*ibid.*: 129-130).

Karin Holstius’ (1987) project marketing cycle is the first major INPM project marketing phase model. Holstius developed her cycle on the basis of a project cycle used by the World Bank for development projects; she thereafter tested it using long interviews with executives of Finnish project exporting firms and the corresponding qualitative criteria for theory testing (*ibid.*). The six phases of Holstius’ project marketing cycle, which describe the process of marketing and delivering a project seen from the seller’s point of view, are depicted in the Figure 10:

Figure 10. Karin Holstius’ Project Marketing Cycle.



Source: Holstius, 1987:54.

Holstius' conceptualization of project marketing is linear within the single project offer; it also specifies that in the case of subsequent multiple projects, the sum of experiences related to a particular project in question are, so to speak, "fed back" to the persons undertaking the project search function in the project selling firm, and that they use this feedback to refine their project search methods. Last but not least, Holstius, in keeping with Ahmed's (1993:44) remarks, does not assume that buyer-seller relationship will necessarily continue to exist after the completion of the project or that project activities are of purely repetitive nature (i.e. occur without modifications).

The simplicity and elegance of Holstius' model as explained above poses two problems in relation to the research project at hand:

1. Holstius' model must be modified to explain situations in which the project marketing firm works with multiple projects at the same time and/or commences new projects without having completed the existing project's cycle.
2. Hellgren and Stjernberg's (1995:384, as previously mentioned in Section 2 of this paper) work suggests that the negotiation of construction project details (step 4 in Holstius' model) actually continues into the implementation phase (step 5).

To ensure Holstius fairness, it must be mentioned that she herself (1987 and 1989) and the other scholars whose contributions include or build upon her model (e.g. Ahmed, 1993, Cova, 1998; Cova and Holstius, 1993; Holstius and Cova, 1998a and b, Mandják and Veres, 1998, and Tikkanen, 1998; see also Cova, Mazet and Salle, 1996b) demonstrate profound understanding of the general oversimplification problems inherent to simple and elegant models.

Another characteristic of Holstius' (1987) model is that each phase is undertaken by the project selling firm in interaction with its environment, although the model solely presents the perspective of the project marketer (Owusu, 1997:486). Holstius' ontological assumptions as to the nature of this interaction however include the possibility of anticipating and preparing for projects as well as the existence of supplier-buyer relationships (Holstius, 1987:53) and she indicates that completed projects may have a "reference value", in that they can be instrumental in generating new business (*ibid.*:63).

Whereas Holstius' project marketing model focuses upon one individual project at a time, later, more sophisticated models take the possibility of several concurrent projects into account. This is in keeping with one of the chronological developments in the INPM project marketing literature: the initial studies (e.g. Holstius, 1987; Ahmed, 1993) mainly dealt with the individual project and the development of relationships between the parties during the course of the project. Later

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contributions however deal with the more general development and maintenance of relationships between projects (Tikkanen, 1998: 268).

Holstius' model (1987) has been expanded into a more sophisticated phase model by Cova *et al.* (1994) on the basis of an exploratory, qualitative case study using the Decision System Analysis methodology (*ibid.*: 33-36). The new model, which has already been depicted in Figure 1 on page 6 of this paper, is less simple and elegant, yet it is a more powerful tool because it can be used to conceptualize many more aspects of project marketing from the perspective of the project marketer, including situations where there are no immediate projects at hand. Additionally, the model can be easily modified to depict situations where concurrent work on two or more projects is undertaken or situations concerning of post-project supplementary delivery services (see Mandják and Veres, 1998: 485 for further information on supplementary delivery services).

An additional strength of the new model is its more detailed depiction of the pre-project phases. Mandják and Veres (1998: 484) have commentated the implications of this development:

“The merit of the model is that it calls attention to the two fundamentally separate phases of the preparatory stage of the project. There is no concrete project in the anticipative stage, the company watches the market in order to gain information necessary for anticipating future projects. This, however, is not a passive process because the company wants to affect and initiate the future projects through the network (Cova et al. 1996, Cova-Hoskins 1997). Once the future project starts to take shape either in the form of a tender or a contract, it is followed by the second stage of preparation, the adaptive stage.

The concrete project does not yet exist but the contractor starts to prepare and mobilises its network and if possible, tries to influence the buyer concerning the development of specifications of the project to be purchased (Cova et al. 1996, Cova-Hoskins 1997). This is followed by the offer stage and the project negotiation stage. The last element of the model is realisation (Coca et al. [*sic!*] 1995).”

On the basis of the above merits, Cova, Mazet, and Salle's General Marketing Configuration has been chosen as the basis for research questions 3 – 5 of this study, as previously mentioned in Section 1.

There are certain INPM concepts currently under construction that are worth mentioning in this review as they may prove to be highly relevant tools in describing the characteristics of project marketing relationships outside the boundaries of the single project, as is necessary in the research

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project at hand. These include the “sleeping relationship” (Hadjikhani: 1996), the “milieu” (Cova, Mazet, and Salle, 1996a), the “project marketing horizon” (Tikkanen, 1998), and INPM treatment of the social construction of demand issue (see e.g. Cova, 1998; Cova and Hoskins, 1997; Cova and Crespin-Mazet, 1997). The following elaboration of these concepts-under-construction will only include a discussion of the preliminary definitions, due to the “work-in-process” nature of the research on them.

Hadjikhani’s (1996) “sleeping relationship” comes from his recent contribution to the study of the marketing of successive projects; in his 1996 article, he examines the nature of the buyer-seller relationships in “the period after project completion in which project buyer and seller are not concerned with resource exchange or negotiation and the buyer’s mobility is high” with the aim of proposing “a conceptual framework for when the project is completed” (*ibid.*:319,320). In his work, he also challenges traditional negotiation models that presuppose that negotiation tactics are the main determinant of the success or failure in the marketing of a project (*ibid.*: 332). His methodology is qualitative; he used the case study method to examine project-related activities in the post-project period and the role of *dependence* and *trust* in this period. However, his article is methodologically weak; it does not specify how many case studies were undertaken, which types of projects had been undertaken in the individual case studies, and which geographic areas were involved.

Hadjikhani’s (*ibid.*) “sleeping relationship” refers to cases of continued buyer-seller dependence after completion of the project itself (due to i.e. the possible future need for improvements or replacement parts with regard to the project). Hadjikhani interpreted his case study results concerning “sleeping relationships” as follows (*ibid.*:332-333):

“During sleeping relationships, contacts based on e.g. technology-based, financial, and social relationships were used on an off-and-on basis. These contacts were based on trust, and trust was a significant factor in the sense that it affect influenced buyer behavior with regard to ordering new projects. In the sample of case study firms studies, in cases where the level of buyer trust of the sleeping relationship was high, there were incidents where buyer chose the seller to produce new projects. Thus in these cases, negotiation tactics did not necessarily play a key role.”

With regard to the concept of “mileau”, Cova et al. (1996a:654) have developed the concept on the basis of single case study of the French construction group BTP’s activities in the Loiret region of France as well as secondary literature about renowned industrial districts such as Baden-

Württemberg in Germany and Tuscany in Italy. In their project marketing research, the “milieu” is a “socio-spatial configuration that can be characterized by four elements” (*ibid.*):

- a territory
- a network of heterogeneous actors related to each other within this territory
- a representation constructed and shared by these actors
- a set of rules and norms (“the law of the milieu”) regulating the interactions between these actors.”

Furthermore, Cova *et al.* (*ibid.*) describe a “milieu” in the following way:

“What distinguishes the milieu from a simple localized network of industrial actors is its collective linkage to the territory developed by practices of all types [...]. The actors share, both in their life and in their imagination, the community of some elementary structures. In this approach, the territory is no longer considered as a simple support of localisation factors but more and more as a group of territorial agents and economic, socio-cultural, political, and institutional elements having specific organisation and regulation patterns [...], shared rules and norms. This territory is characterized as global as it “not only integrates companies, but also the population, the workers, the various organizations as well as multiple social and cultural dimensions.”

Thus the concept of the milieu attempts to also include some static elements of the cognitive factors that the interpretivist Andersen (1995) deemed lacking in IMP network theory, as described at the end of the previous subsection. Finnish INPM scholar Tikkanen (1998:271) acknowledges the potential of the concept of milieu, but questions whether its strong emphasis on spatiality is pertinent (the *italics* in the following citation are Tikkanen’s):

“Despite the fact that the empirical evidence gathered by French project marketing researchers strongly supports the claim for spatiality, i.e. “the socio-geographic vision” (Cova *et al.* 1996, Cova *et al.* 1994), I would still suggest that, on many occasions, the various actors belonging to a project marketer’s horizon might not be so geographically concentrated (cf. Tikkanen and Lindblom 1998). Thus, I see no reason to automatically include the notion of spatiality as a pertinent feature of complex actor constellations encountered in contemporary project business (cf. Cova *et al.* 1996, 661). However, as project marketers broaden and widen their horizon, i.e. span more projects or project opportunities and include more actors in it between individual project supplies, it is certainly apparent that “*the relational logic is paramount, exchanges are more of a social nature than of a techno-economic nature and are concerned with other actors than just business actors i.e. so-called institutional actors*” (Cova *et al.* 1996,650).”

Tikkanen’s own concept-under-development for capturing relevant environmental characteristics of the complex network of relationships both within the stages of a single project and between the individual projects is the “project marketing horizon” (Tikkanen, 1998:270). It refers to:

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“the relevant characteristics of a network involved in the project business of a focal project supplier, seen from a focal firm viewpoint. These characteristics can be investigated, for example, through the application of the basic A-R-A (actors, resources, activities) model of industrial networks developed within the IMP group [...]. It should be noted that a focal net, or a “project network” related to the supply of a single project, is only a part of the project marketing horizon, which also includes the long-term development of relevant ties between several economic, social and political actors and between individual project supplies or project marketing processes. This also indicates that the supplier-buyer relationship can no longer be considered the only focal point in relationship, e.g. during the discontinuity phase between projects. Thus, the concept of the project marketing horizon can be perceived as an elaboration of the network view of project supplies adopted in some recent research (see e.g. Welch *et al.* 1996, Tikkanen and Lindblom 1998, also Tikkanen 1995). Furthermore, it also adds long-term orientation to the basic concept of project marketing, which is no longer seen as the mere management of individual project marketing processes, despite their explicit interlinkedness through transition phases. In a sense, the project marketing horizon might be considered a conceptualization of the relevant contextual embeddedness of an organization engaged in project marketing containing both short-term and long-term elements [...].”

Tikkanen’s “project marketing horizon” can, however, be criticized for the same things that the A-R-A model was criticized for at the end of Subsection 3.3.1.:

1. The categorical assumption of long-term relationships based on the assumption that the relationship content is given in advance.
2. The lack of precision with regard to the position of knowledge.

With regard to the first point of criticism, Bonaccorsi, Pammolli, and Tani (1996) note that while project marketing firms aim to “maintain the global control of the technological dynamics of the system” (*ibid.*:539), in situations where innovation is like to occur, the complex relationship content between project marketing firms and other project actors cannot be given in advance (*ibid.*:546-547). For the world of architects, this problem has lead the Swedish architect Ahlqvist (1992: 85-86) to suggest that architecture should be regarded as a field of knowledge instead of a field of activity, thus enabling architects to redefine their role in construction projects on an ongoing basis and thus influence future demand for their knowledge:

“If the architects fail to participate in the necessary modernisation of the design and building process and continue to regard the design process more as an end in itself, they are likely to loose [*sic!*] even more of the influence they once had.

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Architects, who during the end of the eighties were overloaded with design work under conditions ideal at least for their self-indulgence are now under employed or not employed at all. It is unlikely that they will ever experience conditions of the kind typical for the past few years. This may, quite naturally, cause a feeling of despair but could, on the other hand be regarded as an opening to a revitalisation and a re-establishment of the profession. [...]

Instead of being determined by its main fields of activities, primarily planning and designing, the architects profession ought to be defined by its sphere of knowledge. Technical, aesthetic and economic knowledge about buildings, environments in the whole and parts combined with understanding of the conditions required for their creation should form the common base that defines the profession. The application of that knowledge in design, management, public or private administration, research, education, construction etc. should be the superstructure. The creation, management and preservation of an architecture with a quality that discriminates it from the mere construction or development requires professionals whose activities are based on and supported by knowledge.”

Other, more recent INPM contributions (e.g. Cova, 1998; Cova and Hoskins, 1997; Cova and Crespin-Mazet, 1997) specifically deal with this “social construction of demand” issue. Their ontological assumption is that it is possible for project suppliers to construct demand, with respect to a single, discrete project offer. This leads the scholars listed above to declare that there are two possible approaches of maximizing firm success with regard to project marketing which are encompassed by the so-called “Twin Track Networking Approach to Project Marketing” (Cova and Hoskins, 1997:546-7):

1. The deterministic approach, i.e. anticipating the competitive arena and the rules of the game
2. The constructivist approach, i.e. becoming actively involved in shaping the competitive arena and the rules of the game

According to their contribution (*ibid.*) as well as Cova (1998), the project selling firm has the opportunity to choose either a mainly deterministic approach or a mainly constructivistic approach to project marketing; additionally, the firm in question can switch from deterministic to constructivistic strategies or vice versa at the different stages of the project marketing cycle. These choices are depicted in relation to Holstius’ project marketing cycle on page 67 of Cova (1998). The research of Cova, Hoskins, and Crespin-Mazet concerning the “social construction of demand” issue is, however, as previously mentioned, merely in a work-in-progress stage. Two of the three contributions, namely Cova (1998) and Cova and Hoskins (1997), are practice-oriented and include conceptual models which have not yet been empirically scrutinized/tested. However, Cova and Ma-

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zet (1997:354-356) have also commenced a qualitative research project consisting of case studies of four project marketing situations using the sociological content analysis methodology in an attempt to verify their concepts.

3.3.3. “Boundary Spanner” and “Relationship Promoter” Actor Roles.

Both non-IMP and IMP researchers have developed conceptualizations that describe the roles of specific organizational actors who interact with actors from other organizations. In the United States, non-IMP Group organizational theorists Adams (1976) and Aldrich and Herker (1977) have elaborated upon the roles and functions fulfilled by the so-called “Boundary Spanner”, whereas German IMP innovation management scholar Gemünden (1986, 1990, Gemünden and Walter, 1994, 1995a and b) has developed and refined the concept of the “Relationship Promoter” (in German: “Beziehungspromotor”).

As interaction with members of other i.e. firms or public sector organizations is important for project selling firms, insights and definitions from these respective conceptualizations will be summarized in this subsection, to lay the foundations for the further delimitation of research questions 3 and 4 (see page 5) in Section 5.

Adams (1976: 1176) lists three properties of organization actors who have interactions with actors from other organizations:

1. “the occupant of such a position – named here the boundary role person or BRP – is more distant, psychologically, organizationally, and other physically, from other members of his organization than they are from each other, and he is closer to the external environment and to the agents of outside organizations”
2. “he represents his organization to the external environment”
3. “he is his organization’s agent of influence over the external environment”

According to Adams (*ibid.*: 1177), point number 2 implies two-way informational activity: The BRP “must, in effort, perform two representational tasks: He must reflect his own system to the outside and he must reflect the outside inwardly.”

In Aldrich’s and Herker’s (1977) conceptualization of boundary spanning roles, Adams’ point number 2 plays the central role, yet their conceptualization also encompasses Adams’ point number

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3. Aldrich and Herker focus namely on the two classes of functions performed by boundary spanners (*ibid.*: 218-221):

1. The Information Processing Function.
2. The External Representation Function.

According to Aldrich and Herker, information processing encompasses the following (*ibid.*: 218-219):

“Boundary role incumbents, by virtue of their position, are exposed to large amounts of potentially relevant information. The situation would be overburdening if all information originating in the environment required immediate attention. Boundary roles are a main line of organizational defense against information overload. [...] Expertise in selecting information is consequential, since not all information from the environment is of equal importance. [...]

The process by which information filters through boundary positions into the organization must be examined. Boundary roles serve a dual function in information transmittal, acting as both filters and facilitators. [...] boundary role personnel selectively act on relevant information, filtering information prior to communicating it. [...]

The expertise of boundary role occupants in summarizing and interpreting information may be as important to organizational success as expertise in determining who gets what information, depending upon the uncertainty in the information processed. Information to be communicated often does not consist of simple verifiable “facts”. If the conditions beyond the boundary are complexly interrelated and cannot be easily quantified, the boundary role incumbents may engage in ‘uncertainty absorption’, - drawing inferences from perceived facts and passing on only the inferences.”

External representation, in the terms of Aldrich and Herker (*ibid.*: 219-220):

“can be viewed in terms of an organization’s response to environmental influence. Environmental constraints and contingencies can be adapted to in at least three ways: (a) by internal structural differentiation to match the pattern of the relevant environment, which requires information about environmental characteristics; (b) by gaining power over relevant elements of the environments, manipulating it to conform to the organization’s needs; and (c) a compromise position, the modal pattern of use of boundary personnel in “normal” boundary spanning roles. Included under the external representation function are all boundary roles that involve resource acquisition and disposal, political legitimacy and hegemony, and a residual category of social legitimacy and organizational image.”

Aldrich and Herker do not, on the other hand, deal with the dilemmas that could potentially be caused by Adams’ (1976) first point as mentioned above, as they assume that “the normal flow of

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authoritative commands is from the core of the organization to these boundary roles. The behavior of personnel in these roles is supposed to reflect the policy decisions of decision makers in line roles.” (Aldrich and Herker, 1977:220).

However, for professional service such as architectural firms Aldrich’s and Herker’s assumption about the flow of authoritative command may be highly problematic, as Løwendahl (1997:54) suggests:

“When professionals who are employed by the firm also individually hold the critical resource for value creation, the goals are typically developed through an interaction between the senior professionals. These goals are not set by outsiders, and operations are developed jointly by the professionals over time, not designed in order to fulfil the needs of external stakeholders. Goals of the organization are compatible with those of the individuals, and as long as the firm is small, the professionals oversee each other’s work. In the extreme case, all professionals are equal partners, and all decisions concerning the firm and their joint efforts are made in partner meetings with everyone present.”

On the basis of the two conflicting commando scenarios of Aldrich and Herker and Løwendahl (above), several of Adams’ remarks about internal conflicts regarding boundary role persons will be cited, as they could prove relevant to future empirical research of e.g. research question 4:

“The BRP who bargains with an external agency on behalf of his organization must not only attempt to reach an agreement with outsiders, but must also obtain agreement from his own group as to what constitutes an acceptable agreement with the external organizations. The BRP is at the crunode of a dynamic, dual conflict in which the outcomes of conflict resolutions attempts (however tentative) in one conflict become inputs to the second conflict, the outcomes of which then become new inputs to the first conflict, and so on.” (Adams, 1976:1178)

“[O]verseas personnel frequently express concern about their distance from their organization, even though they may be enjoying unusual perquisites. The feelings are often reinforced by visits and audits that are clearly in the nature of ‘checks’.” (*ibid.*: 1176-1177)

“Under some conditions, accurate representation of the external world is of paramount importance, as when the function of the information is to permit the organization to adapt to external events. Under other conditions, the function of representation is secondary and designed to subserve another function, such as influence of organization members. This, in effect, constitutes impression management of the BRP’s own constituents.” (*ibid.*: 1177)

“When representation by the BRP is manipulatively designed to influence selectively either insiders or outsiders, it may be primarily coping or defensive behavior on his part. It is coping behavior if it is functionally related to the achievement of organization outcomes. [...] Distorted representation is defensive if the primary object of the

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behavior is to project the BRP as a person and if such service potentially conflicts with the achievement of organization outcomes.” (*ibid.*: 1177-1178)

“BRPs must *display* [Adams’ *italics*] their loyalty and norm-adherence to a greater extent than do other organization members, although, in fact, their loyalty and norm-adherence may under some conditions be greater and more rigid than that of other members. To the degree organizational membership is attractive to BRPs, their display of fealty may be correlated with the extent to which they perceive their fidelity is suspected. The more they feel their behavior and beliefs are suspect, the more they will display their loyalty, the more they will *be* [Adams’ *italics*] loyal to the organization and its norms, and the more narrowly, rigidly, and exclusively they will interpret organizational norms and demands. Paradoxically, a corollary consequence of being suspect and of rigid norm interpretation is to *apply* [Adams’ *italics*] norms and demands inflexibly in bargaining transactions and, therefore, possibly to reduce bargaining effectiveness, at least over the long run. That is, there may result an intransigent demand for maximum outcomes rather than a question for optimal outcomes.” (*ibid.*:1179)

“[Another] consequence deriving from the suspicion attached to boundary role positions is conflict for the incumbent. The organizational need for optimal outcomes, whether explicit or not, and the need for BRPs to display their loyalty and norm-adherence are often incompatible. For example, allowing a vendor a given margin of profit in order to achieve an optimal outcome in obtaining organizational inputs may give the appearance that the negotiator is disloyal” (*ibid.*).

In Gemünden’s conceptualizations of the “relationship promoter” (see Gemünden, 1986, 1990, Gemünden and Walter, 1994, 1995a and b), Aldrich’s and Herker’s previously mentioned “external representation function” is focused upon much more than their “information processing function”. Therefore, the following description of selected aspects of Gemünden’s work will focus upon the “external representation function”.

In Gemünden’s first contribution (1986), he focused upon the dyadic interaction between a seller and buyer organization in a situation where innovation was of importance (*ibid.*: 134). Additionally, he specified to types of promoter roles, the “promotor [*sic!*] by power” and the “promotor [*sic!*] by know-how” (*ibid.*). In his 1990 contribution, he expanded upon his previous promoter roles (thus also implicitly distancing himself from his previous, more simplistic conceptualizations) by emphasizing, as Adams (1976), that a promoter also needs to insure internal organization support for his external activities (Gemünden, 1990: 4). Additionally the promoter must have the communicative ability to explain his specific know-how both internally and externally (*ibid.*: 5). Over and beyond that, Gemünden went further than dyadic interaction in his 1990 contribution, to list eight different types of external actors that the “relationship promoter” might have interactions and/or relationships with (*ibid.*:18-22):

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1. Customers
2. External consultants
3. Dealers or merchants of finished products
4. Producers of complementary technologies
5. Suppliers
6. Competitors
7. Public business assistance authorities, e.g. Chambers of Commerce or Trade Representatives
8. Institutions specializing in R & D, such as universities and independent research institutions

In their 1994 work, Gemünden and Walter (pp. 5-6) created an extensive list of possible “power sources of the relationship promoter”. This list will be cited in below in its entirety, as it contains a thorough discussion of the characteristics that may allow actors to enter into relationships as well as maintain and use them for their own and/or their firm’s purpose(s). The italics of the following citation are all Gemünden’s and Walter’s:

“(a) Persons are attractive partners in a social systems because of certain *personal characteristics*.

- Persons who dispose of a certain amount of *expert knowledge* are able to lead professional conversations with potential problem solvers as well as assess their need of problem solving within a sufficient reliability. Persons who are competent in their fields are likelier to be asked for advise and to be accepted by experts as undemanded counsellors [*sic!*] as well as mediators. Expert knowledge is helpful in order to influence external partners.
- Relationship promoters acquire or dispose already of sufficient knowledge about the (potential) *co-operation partners*. This relates among others to their willingness and ability to co-operate with each other as well as to the risks that could endanger the co-operation.
- Persons between which an *affinity* exists, e.g. relating to the language, value notions, and aims, are more expected to be able and/or willing to maintain exchange relationships.
- Relationship promoters posses the *social competence* to awaken and keep up the willingness to interact of partners, once they are found.
- Relationship promoters develop or dispose of an *identification power (referent power)* with respect to their partners which is particularly useful when it comes to exert [*sic!*] influence beyond organizational frontiers.
- Relationship promoters dispose of the necessary *experience* of how to detect appropriate partners and win them over for a co-operation. They are aware of the typical relationship conflicts and pay attention to a foresighted conflict management, where conflicts are spoken out openly in good time and binding agreements are made.

(b) Persons are attractive partners because of a certain *position* in a social system.

- Persons with high, *hierarchically legitimated power* are attractive partners because of their decision competence and their pervasion potential as well as the resources they dispose of, as e.g.

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promoters by authority on the side of the user organization with respect to the innovation supplier.

- Position bearers of *lower ranking*, like e.g. project managers, are favored in the taking over of a relationship promoter role, since possibilities (e.g. a time budget) are granted to them in order to enter into and maintain contacts and relationships to external partners. Furthermore it can be expected that external partners hold project managers for competent dialogue partners. There are a number of other proposals coming from the business practice. To these belong the ‘product manager’ and the ‘key account manager’. The proposals are embedded in certain management concepts.
- Relationship promoters dispose of a *strong network*. They already know appropriate internal and external co-operation partners or persons who could provide contacts to potential partners. Connect to a *high network centrality* is the access to information and the possibility to control it, which presents a power source for relationship promoters.

Consequently, we understand the relationship promoter as a person who actively and intensively advances inter-organizational exchange processes by good personal relationships to key actors who dispose of critical resources.

A relationship promoter has the more power [*sic!*], the more important the resources are that his dialogue partners bring in, the more efficiently he reaches these partners, the more he can lead the dialogue with them or advance their exchange processes, and the less third parties are able or authorized to fulfill this function.”

Methodically it must be noted that Gemünden and Walter (1994, 1995a and b) make rich use of secondary sources to justify this list of power sources. However, they do not test the individual propositions listed above; instead they test related hypothesis that seek to confirm the general importance of the role of the “relationship promoter” with regard to e.g. technological and economical success as well as factors such as trust and commitment (*ibid.*).

4. On the Choice of Business Economic Internationalization Theory in Relation to the Study of the Export of Danish Architectural Services.

4.1. Introduction.

Already the title of this paper indicates that the focus of this study is the internationalization of Danish architectural service firms from a network perspective. The internationalization theoretic perspective, however, has not yet been explained and qualified; this will be undertaken in this section by first describing and contrasting key elements of several major business economic internationalization theories and their ontologies and then discussing the strengths and weakness of the network approach to studying internationalization in relation to the other theories in Subsection 4.2. The discussion of internationalization theories in this subsection will be rather brief and, in

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contrast to Section 3, methodological assessments of the individual contributions will not be undertaken because there exists an excellent, thorough, and comprehensive metatheoretical work on these types of theories (Strandskov, 1995) which could enlighten persons interested in internationalization theories with regard to these aspects¹³.

Lastly, in Subsection 4.3., the boundaries of the network perspective on internationalization will be delimited with respect to this study and its research questions as listed in Section 1. This delimitation will deal with the previously mentioned ontological fuzziness of network theories with regard to the issues of “interpretivism” and the “social construction of demand” (see Subsection 3.3.1. and 3.3.2. of this paper), and will also be based on the author’s epistemological and ontological standpoints which she will explain.

4.2. The Network View of Internationalization versus Other Internationalization Theories.

As previously mentioned at the beginning of Subsection 3.3.1. (see also Håkansson, 1982), the network research of the IMP Group was originally based on the ontological belief that interactions between firms play a decisive role in marketing efforts and purchasing decisions of firms on industrial markets. With regard to the researchers of the IMP Group who have developed network related internationalization theory (e.g. Axelsson and Johanson, 1992; Johanson and Mattsson, 1992a and 1988), their corresponding common key ontological belief is that the interactions and relationships between a firm and other actors in its national and international environment are important factors in determining the internationalization process of the individual firm in question.

However, the body of literature on internationalization of the IMP Group is small, the range of specific internationalization-related topics covered is wide, and the coverage itself is rather spread and sporadic. Therefore only one conceptualization that is relevant to this project’s research questions will be dealt with, namely Johanson’s and Mattsson’s (1998:200) suggestion that there are three ways in which a firm can establish and develop positions in relation to counterparts in foreign networks:

¹³ Strandskov (1995) is in Danish; the author of this paper does not know whether his book has been or will be translated into English. However, she can recommend several articles of Strandskov in English to interested readers who do not have a reading knowledge of Danish.

1. “through establishment of positions in relation to counterparts in national nets that are new to the firm, i.e. *international extension*”
2. “by developing the positions and increasing resource commitments in those nets abroad in which the firm already has positions, i.e. *penetration*”
3. “by increasing coordination between positions in different national nets, i.e. *international integration*” (The *italics* are Johanson’s and Mattsson’s.)

Several other internationalization frameworks will be presented and discussed in the following paragraphs, for thereafter to compare them with the above-mentioned aspects of IMP network internationalization theory. These contributions are as follows:

- the so-called “Uppsala Internationalization Model”
- institutional economic theories of internationalization based upon transaction cost theory (e.g. Williamson, 1979) as presented in Strandskov (1995) and Johanson and Mattsson (1988)
- the so-called “textbook view” of foreign market entry as epitomized by Root (1994); Axelsson and Johanson (1992) coined the term “textbook view”

The Uppsala Internationalization Model was the result of a number of studies (e.g. Johanson and Vahlne, 1977) on the internationalization of Swedish manufacturing firms undertaken at Uppsala University in the 1970s. They resulted in a description of the internationalization process “as a gradual step-by-step commitment to sell and to manufacture internationally as a part of a growth and experiential learning process” (Johanson and Mattsson, 1988: 209). There are two levels of description of the final Uppsala model (Petersen and Pedersen, 1996: 118), a level that states that internationalization takes place as a process and a level that suggests that the process is incremental.

One of the Uppsala model’s implicit assumptions is that the firm *chooses* to begin to export, e.g. because of an interest in achieving long-term growth. This and the suggestion that internationalization processes per se are incremental have later been called into question (see e.g. Strandskov, 1995:82-85; Petersen and Pedersen, 1996: 122-123) due to increasing pressure to internationalize in certain industries. For the architectural services industry, this criticism does not seem especially relevant, due to the fact the construction sector and the architectural services industry are not especially international in comparison with other sectors (see Appendix A).

From a network perspective, it is on the other hand interesting to examine the reason proposed by the Uppsala Internationalization Model for incrementalism: the experiential learning process. The

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Uppsala model suggests that (a) a process of experimentation and learning determines the internationalization path of the firm and (b) this process takes place through interactions with actors on the foreign market. Network theorists of internationalization would be willing to subscribe to these propositions. However the difference between the Uppsala model and the network theories of internationalization is that the Uppsala model does not attempt to explain to what extent the individual firm interactions are embedded in relationships.

The institutional economic theories of internationalization are based upon the distinction found in Williamson's (1989:234) transaction cost theory between markets and hierarchies (and, in some versions of the theories, possible intermediate modes of organization) as well as the Williamson's underlying ontological belief that firms internalize economic transactions in hierarchies if they are not best governed the market mechanism (*ibid.*). On the basis of these foundations, institutional economic theories of internationalization seek mainly to explain to what extent and when firms that operate internationally will internalize their international transactions in hierarchical forms of governance (e.g. subsidiaries) and when these same firms will externalize them in market transactions (Strandskov, 1995:89-112). Some institutional economic theories of internationalization also seek to explain intermediate modes of organization such as joint ventures or virtual corporations (*ibid.*).

From a network point of view, Johanson and Mattsson (1988:209) criticize the transaction cost approach to studying internationalization for not considering "the cumulative nature of activities, the use of external assets, the development potential of network relationships, or the interdependence between national markets". The institutional economic perspective could also from the IMP perspective be criticized for not taking the possible existence of "sticky markets" (Hedaa, 1996) into account.

The "textbook view" on internationalization, as epitomized by Root (1994), makes use of the very common ontological assumption of the strategic management literature of the 1980s (e.g. Porter, 1980 and 1985, as well as Boughton, 1987, who was discussed at the end of Subsection 3.2) that the firm can analyze "relevant" environmental factors and the interconnection of these on foreign markets, and on the basis of this analysis develop and implement a strategy for entry onto the various markets studied. Root's practically oriented book (1994) explains in depth how this may be done. A further implicit ontological assumption of Root's, which is shared by Porter (1980 and 1985), yet questioned by Boughton, is the absence of Hedaa's (1996) sticky business markets; thus,

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in the mind of Root (*ibid.*), potential buyers on the foreign market buy products based mainly on discrete assessments of their physical characteristics.

It is obvious that the “textbook view’s” exclusion of the interactive aspect would be severely criticized by IMP researchers. The above-mentioned strategic management related ontological assumptions of the “textbook view” are critically scrutinized at a meta-theoretical level in e.g. Håkansson and Snehota, 1989. At a lower level of abstraction, Axelsson and Johanson’s (1992) case study based qualitative research seeks to provide - and succeeds in providing - examples and categorizations of operationizable factors related to relationships that play a role in foreign market entry, yet are omitted in the “textbook view” (*ibid.*: 221, 231-233):

- Knowledge of the specific actors in the network(s) of the foreign country in question
- Knowledge of the relative positions of the actors in the foreign country’s network(s)
- Knowledge of direct and indirect firm relationships to actors in the foreign country’s network(s)
- Knowledge of how the support of these actors could be mobilized in relation to the planned export activities
- The ability of the export firm’s actors to orient itself, i.e. “obtain an understanding of where different actors including the actor itself stand in relation to each other” (*ibid.*:231)
- The ability of the export firm’s actors to position their firm in the network of other firms
- The ability of the firm to seize export market network opportunities that turn up at irregular or totally unexpected intervals

It is worth noting that the above list of factors omitted in the strategic management literature fits remarkably well with the picture painted by Cova, Mazet, and Salle (1994:32, see Subsection 3.3.2 of this work) with regard to the neglect of network and relationship factors in “textbook” project marketing contributions.

To summarize key points of the discussion of the four types of internationalization theories in this subsection, two continua are shown in Figure 11. They depict the levels of environmental and structural determinism in the four respective theories.

Figure 11. Levels of Environmental and Structural Determinism in Internationalization Theories.

Figure 11a. Environmental Determinism of Internationalization Path.

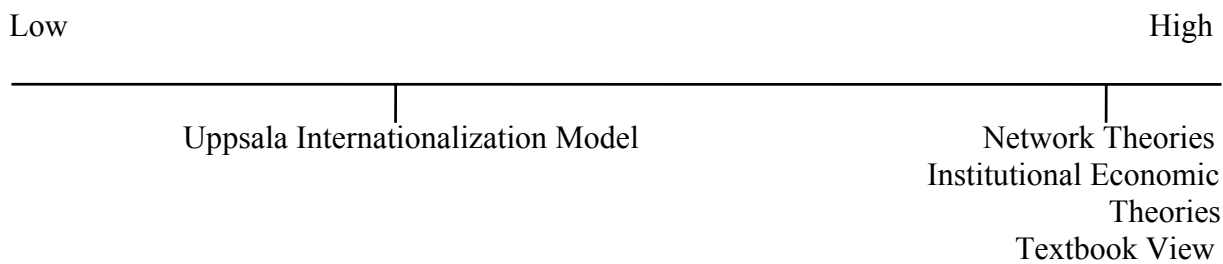
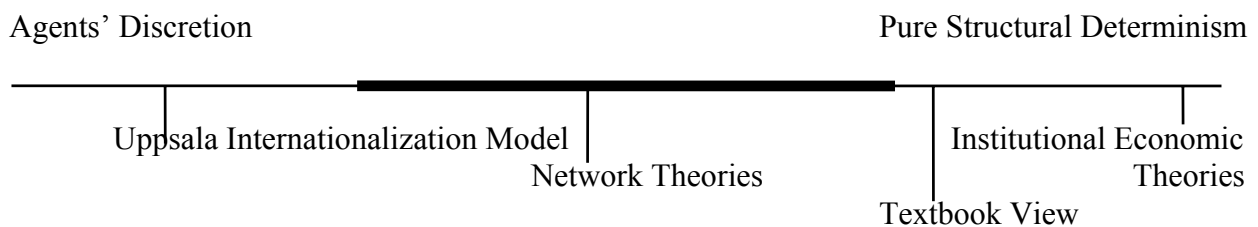


Figure 11b. Degree of Structural Determinism in Internationalization Path.



Source: Author's own conceptualization.

As can be seen from the depiction in Figure 11a, firms are most free to independently determine their path of internationalization in the Uppsala internationalization model. This is because the Uppsala model operates with firms experimenting with internationalization and learning-by-doing; the only constraints the environment places on the internationalization path of firms seen from an Uppsala internationalization theory point of view relate to the knowledge from practical experience that firms must receive during their internationalization efforts in order to further internationalize.

In the other three theoretical perspectives, factors in the environment play a comparatively much larger role. In the network theory, it is of course the network that determines the path of internationalization; in the institutional economic theories it is the relative efficiency of markets versus hierarchies, and in the textbook view it is a number of parameters relating to areas such as target customers, product, competition, and the macroenvironment (Axelsson and Johanson, 1992:220)

With regards to the degree of structural determinism in Figure 11b (see e.g. Bourdieu, 1990; Giddens, 1993), by including so few environmental factors, the Uppsala internationalization model leaves most of the internationalization decisions to the discretion of the actors in the firm. The range of network theoretical approaches lies approximately in the middle of the discretion-

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determinism continuum. It is marked by the thick line in the figure; this is because the various network approaches includes varying degrees of interaction between individual agents and their networks. These interactions are, in turn, both structuring and structured by the individual agents.

On the other hand, the institutional economics approach and the textbook views contain factors that clearly are structurally determining. In the institutional economics approach, the question of markets or hierarchies determines the path of internationalization; little or nothing is attributed to the actions of the agent. With regard to the textbook view, there are more choices to for agents to make, or perhaps one should say rationally calculate, due to the inclusion of the many traditional marketing parameters. The parameters, however, are still structurally determining with regards to the internationalization path.

On the basis of the above, the author deems that each of the four internationalization theories has its strengths and weaknesses and could be useful in certain circumstances. On the basis of her brief remarks, she however also finds it impossible to judge which of the approaches is best seen from a global perspective; even Strandskov (1995) is very careful in avoiding categorically “ranking” of theories in his very thorough presentation. With relation to her work, she is however convinced that the network approach will provide her with the strongest conceptual tools for examining the internationalization of architectural service firms, due to the predominant role that social relationships play in construction sector (see e.g. Albertsen, 1996; Gerkan, 1995; Hansen *et al.*, 1994; Harrigan and Neel, 1996; Hellgren and Stjernberg, 1995; Håndværksrådet, 1992; Kadefors, 1995; Madsen, 1991; Svensson, 1990; Wentz, 1992; Östnäs, 1984; Östnäs and Svensson, 1986; as well as Section 6 and Appendix A of this paper¹⁴).

4.3. The Delimitation of the Boundaries of the Network View of Internationalization.

¹⁴ One issue related to method and methodology which remains unresearched is the extent to which the pre-understanding of the architects in the author’s pilot study may have been unconsciously biased towards or against the network approach on the basis of architect participation in firm-related seminars and courses. Although the author attempted to structure her pilot study interviews to minimize her personal preference for the network approach, she knows that some Danish architects have already been exposed to normative suggestions based on network theory which have been presented in seminars and practice-oriented publications and therefore may have a predetermined opinion of these “cooperation-related approaches”. As two cases in point, in the early 1990s, both the Danish Federation of Small and Medium-Sized Enterprises (*Håndværksrådet*) and the Society of Associated Danish Architects (*Associerede Danske Arkitekter*, ADA) advised firms without previous activities in Germany to cooperate with an experienced architectural or construction company in the beginning to get more experience as well as German references (*Håndværksrådet*, 1992:14-5; *Arkitekt- og byggebladet*, March 1994:15). Firms were also advised to employ e.g. German-speaking persons who had knowledge of the German construction market and share the costs of this among themselves (*Håndværksrådet: ibid.*). The author believes that this advice was at least partially based the recommendations found in some practice-oriented IMP work to the effect that networks can and should be used or created to solve marketing and exporting problems.

On the basis of the concluding remarks in the previous subsection, the first methodological delimitation of this section concerns the general limits of interpretation of the data which will be generated in the empirical study of this research project. In connection with this important aspect, it should be noted that the IMP framework for this study has been chosen on the basis of an *inductive* approach, i.e. after surveying the existing literature on architectural services and interviewing persons from or in daily contact with Danish architectural service firms, as described in Appendix A.

Furthermore it should be noted that the data generated in the empirical study will be interpreted in relation to the IMP framework, i.e. the author will examine the relationship of the general prescriptions of Cova, Mazet, and Salle's "General Marketing Configuration for Project-to-order Firms" (see Figure 1, page 6) to the specific German market related activities of her three case study firms.

Due to the *inductive* nature of the methodology used in choosing the internationalization theory framework, this study will not be able to confirm that the IMP paradigm that has been chosen for the study of the internationalization of the Danish architectural services industry actually was or is the best framework for studying this topic. If the author attempted to confirm this assertion, her arguments would be circular and thus could be reduced to mere tautologies. The author senses a need for making this point due to the fact that these types of erroneous inferences are quite common in practice-oriented business literature and, unfortunately, also can be found in some contributions to scientific journals and anthologies.

Having made this point, the author now will go on to explain her position in relation to the "social construction of demand" discussion. As her general stand on this issue has influenced her further refinement of her research questions as described in Section 5 of this paper, she judges this subsection to be the proper place for a general statement on this issue.

Previously in this paper, reference has been made to the diversity of epistemologies and ontologies (see Subsection 4.3.1.) that characterize IMP Group research. According to most social science paradigms (see Appendix B of this paper for further information about scientific paradigms), with the exception of radical, post-modernism constructivism, in which the differences between levels of theory are declared non-existent (see Guba, 1990:25-6; Alversson and Deetz, 1996:192), the epistemological and ontological meta-theoretical levels must form a coherent whole. The author has

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previously stated that her epistemology is a type of methodological pluralism somewhere between critical realism and constructivism; this is possible because, as Easton (1992:447) argues:

“the social constructivists and critical realists are much closer than their rhetoric would allow. The critical realist would argue that there is a reality but that it may be ultimately impossible to know what it is. Thus disagreement about its nature are not due to its nonexistence but to problems of discovery. Alternatively, the social constructivist might say that such disagreements are inevitable, since there is no reality. However, since the success of human activity depends upon the creation of an agreed-upon reality, then it is only too plausible that something resembling reality would be apparent in our social world.”

All IMP researchers’ ontologies include the social construction of demand to some extent, in that IMP Group members agree that buyer-seller agreement upon the good/service/project sold is constructed through interactions between buyer and seller; it is the *limits* of this social construction on which they adamantly disagree. On one extreme, one finds works such as Gemünden and Heydebreck, 1994 and Schubert, 1994 in which the social construction is minimized to an extent that allows structurally determining macro-variables to rule. The other extreme is to be found in Tikkanen (1997) who believes in the predominance of a postmodern business environment (*ibid.*:11, 87), i.e. the presence of a “interdependent, cooperative exchange and complex, fragmented and enacted business environment” (*ibid.*:81) and that approaches where reality is regarded as a world of symbolic discourse, a pure social construct, or a manifestation of human intentionality (*ibid.*:84) should predominate. In Tikkanen’s world, demand is a pure social construct, just like all other phenomena.

The author’s position on the social construction of demand is related to her ontological beliefs on the social construction of reality. Her ontology lies well between the extremes described in the previous paragraph and is perhaps closest to the ontological/epistemological positions of the French sociologist Pierre Bourdieu as will be explained in the following:

As a part of his method and methodology, Bourdieu combines the "objective" focus common to deterministic critical realist research with the presentation of the actors' own experiences (which is the focus of the constructivists). However, Pierre Bourdieu's sociology is at the same time critical of both determinist and interpretivist epistemologies:

"social science must not only, as objectivism would have it, break with native experience and the native representation of that experience, but also, by a second break, call into

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question the presuppositions inherent in the position of the 'objective' observer."
(Bourdieu, 1990: 27)

Bourdieu believes that there are certain universal conditions for human existence which can be objectively described. Hence his defense of the objective side of his research.

However, Bourdieu is at the same time very aware of the dangers of pure "objective" research (e.g. that fact that results from this type of research depend upon the researcher's *selective* powers of observation which also can contribute to projections) and sees the need for listening to the viewpoints of the subjects studied. However, what these persons tell is not the only - nor the final - side to the story, for there are many things that they take for granted or perhaps have "forgotten" as well:

"The mode of knowledge that can be called 'phenomenological' sets out to reflect an experience which, by definition, does not reflect itself, the primary relationship of familiarity with the familiar environment, and thereby to bring to light the truth of that experience which, however illusory it may appear from the 'objective' viewpoint, remains perfectly certain, *qua* experience. But it cannot go beyond a description of what specifically characterized 'lived' experience of the social world, that is, apprehension of the world as self-evident, 'taken for granted'. This is because it excludes the question of the conditions of possibility of this experience"
(Bourdieu, 1990: 25-6)

Besides his previously stated belief in certain universal conditions for human existence, Bourdieu takes the objective stand of the subjective-objective duality with regard to another issue: Bourdieu views the actions of human subjects as being improvisation based on after-the-fact interpretations. When asked about their actions, subjects often refer to "objective truths". These "objective truths" are, however, according to Bourdieu, in reality subjective constructions devised to solve a problem related to the *objectively describable universal conditions for human existence*.

Through the use of the term "habitus", Bourdieu explains how human subjects act. The individual - or many individuals together - develop a cognitive perception of the world and practical strategies for solving problems. These things are developed not by consciously creating optimal solutions, but through a semi- or subconsciously acquired ability to act in certain ways in certain situations (Callewaert in Andersen and Kaspersen, 1996: 347).

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At the epistemological level, the actions of these individuals, or their "practice", does not follow rules. Instead the individuals improvise on the basis of their habituses, in a way comparable to a jazz band's improvisation during a jam session (*ibid.*). Bourdieu states concerning practice:

"Practice is the product of processes which are neither wholly conscious nor wholly unconscious, rooted in an ongoing process of learning which begins in childhood, and through which the actors know - without knowing - the right thing to do."
(Bourdieu, 1994: 62-63.)

Because the logic of practice according to Bourdieu neither can be deduced from the objectivist position of the deterministically-oriented researcher searching for rules or from the statements of the participants themselves, which the interpretive researcher would prefer to accept, the epistemology of Bourdieu's sociology requires a "double break" from primary knowledge, i.e. that one takes "two steps back" when one attempts to construct the habitus which produces practices:

"This construction presupposes a break with primary knowledge, whose tacitly assumed presuppositions give the social world its self-evident, natural character. [...] Finally, it is only by means of a second break, which is needed in order to grasp the limits of objectivist knowledge [...] that we can integrate the gains from it into an adequate science of practices." (Bourdieu in Lemert, 1981: 86-7)

According to Bourdieu, the main reason for this distancing is the fact that the research in scientific studies theoreticizes about a practice that is in itself *non*-theoretical in nature:

" Because theory [...] only can be understood from a viewpoint away from the stage on which the action is placed, the distance lies perhaps not so much where it is usually looked for, in the gap between cultural traditions, as in the gulf between two relations to the world, one theoretical, the other practical." (Bourdieu, 1990: 14)

Returning now to the author's position concerning the "social construction of demand", she believes that there are certain macro-economic frameworks in which socially-constructed networks are embedded and that these macro-economic frameworks can be described intersubjectively. Without being an macro-economic theorist herself, she judges that the groundbreaking work of Storper and Salais (1997) probably contains the best description of "socialized", "pragmatized" macro-economic dynamics; thus she will embed her IMP/INPM related research in macro-economic, structural factors which should be understood as Storper and Salais's descriptions of the four worlds of production (*ibid.*: 44-76).

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Furthermore, as Storper and Salais' epistemological and ontological beliefs (see *ibid.*: 3-43) concerning the nature of economic relations and the limits of actors' scopes of action are remarkably similar to Bourdieu's (with the exception of Bourdieu's more sociologically-oriented *habitus* concept which is not included in Storper and Salais' work), the boundary between the macro-economic, structural factors and activities/interpretations of individual actors in a network is not regarded by the author as impermeable. This is depicted by the dotted boundary line in Figure 12a.

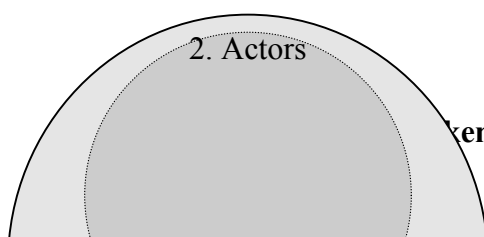
The consequence of the permeable boundary between actor/network-related and macro-economic factors is the possibility for reciprocal determination. Thus actors and networks of actors may sometimes be able to influence certain macro-economic factors, just as certain macro-economic factors influence the rules of the game of that actors play and their interpretations thereof in their interactions with one another. However, analogous to Bourdieu's belief in certain universal conditions for human existence, the author believes that there probably are some structural or macro-economic factors that are immune to network or actors' attempts to change them. Thus in her depiction of the social construction of the actor/network level (Figure 12b), there are two arrows depicting the larger influence of macro-economic factors on actors/networks and only one the arrow going the other way, showing the lesser opposite influence.

With regard to traditional marketing mix variables such as price and product qualities, it is the author's belief that these are solidly embedded in the actor/network level, and that the boundaries between the marketing mix variables and the actor/network level are relatively easy to determine. This is depicted by the inner circle of Figure 12a and its solid line. Furthermore, the parameter values of the tradition marketing variables are determined by the actors in the network's internal interactions as well as their strategies based on interpretations of the macro-economic factors. These remarks are the justification of the single one-way arrow going from the networks to the traditional marketing variables.

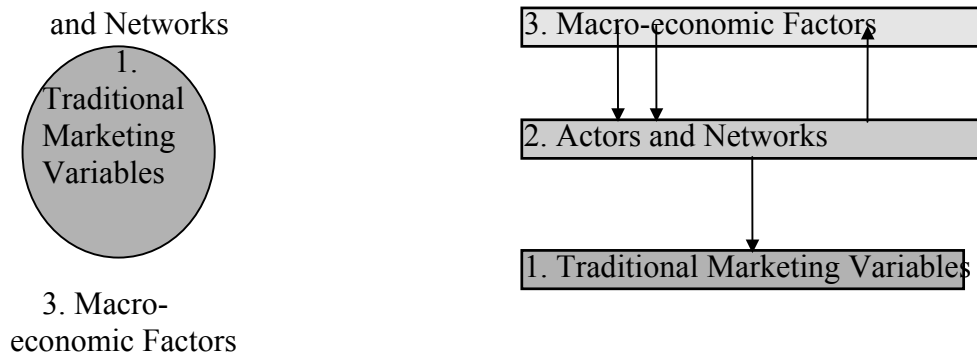
Figure 12. The Embeddedness and Social Construction of Networks in Relation to “Business Economic” Factors in the Author’s Work.

Figure 12a. Embeddedness.

Figure 12b. Social Construction.



Wendt argument for parameter.



Source: Author's own conception.

5. An Elaboration on the Scientific Relevance of the Empirical Study Questions and the Methodology and Methods to be Used in the Empirical Study.

5.1. Introduction: General Remarks concerning the Entire Study.

The primary aim of this empirical study as a whole is to *describe* the export activities to Germany of three Danish architectural firms on the basis of mainly qualitative data. The goal of this entire research project seen as one entity is to complete an explorative-integrative case study, i.e. a case study in which both existing theory and the research subjects' own viewpoints and actions are examined, with the potential long-term goal of creating new theory (Maaløe, 1996:90-7). This type of case study is based upon the premises that the researcher recognizes and states her theoretical preconceptions as well as other forms for knowledge/prejudices concerning the field to be studied (*ibid.*: 96), so that she also can distance herself from them if necessary on account of new and surprising evidence (*ibid.*). This has been done in the first four sections of this paper as well as in Appendix A. Concerning the dialectic process between theory and empirical data, Jansson, Saqib, and Sharma (1990:5) state the following:

“The empirical relevance of the theories thus has to be asserted, which does not mean a statistical test of hypotheses derived from theory. Such a classical deductive hypothesis testing method is based on the logical-positivist presumption of an objective world consisting of universally valid scientific laws. Organizational behaviour cannot be reduced to such simple laws. The organizational world is much more complex. A social science theory is broader and lacks the rigour of tightly constructed mathematical models. It is construed for the special problems found by the studied TNCs and government agencies and consists of several individual theories that are adjusted to each other within the developed theory. These theories have in their turn been selected from

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a greater number of theories. Some will be found to fit the problem. Some will not. One main problem is to do this in a consistent way, so that individual theories do not contradict each other.

Through this process theories are accepted or refuted in a new situation. This framework can then be utilized as a vehicle for examining other cases, i.e. be generalized to other situations. This adjustment process is mainly controlled by empirical data, when the theoretical framework becomes empirically motivated. The boundaries of the individual theories, the premises of the theories, etc. are researched by comparing them with the studied reality. As much research in social science, our method is a combination of inductive and deductive methods, a constant interchange between data and theory.”

Abduction is a term commonly used for the combination of inductive and deductive methods (Andersen, 1988:139-140; Denzin, 1978:109). According to Denzin (*ibid.*), the research process in an explorative-integrated case study is abductive:

“That is, they do not use a full-fledged deductive-hypothetical scheme in thinking and developing propositions. Nor are they fully inductive, letting the so-called “facts” speak for themselves. Facts do not speak for themselves. They must be interpreted. Previously developed deductive models seldom conform with the empirical data that are gathered. The method of abduction combines the deductive and inductive models of proposition development and theory construction.”

However, the step of new theoretical construction will only be undertaken if the empirical data to be collected and analyzed support some clear patterns. Thus theory development will not be forced, in accordance with the spirit of Ahmed’s (1993:67) statement concerning pre-mature categorizations:

“if a social phenomenon lends itself to a clear-cut and consistent categorization, then most likely something is wrong with the researcher [*sic!*] approach. An exceedingly simplistic approach has been adopted and/or some blind spots prevent the detection of the various aspects of the phenomenon. An impaired comprehension results.”

Instead the goal of this study will be to generate descriptions related to existing theoretical contributions based on careful methodological analysis of the data. It is also expected that these descriptions will be of a scientific quality that will enable them to inspire subsequent theory- or model-building. Thorough, well-conceptualized description is regarded by many IMP and INPM scholars as an important precondition for the building simple and powerful models, as Finnish IMP researchers Halinen’s and Törnroos’ (1998:188) statement indicates:

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“We feel, however, that the key to simple and powerful models lies in an awareness of the broader and more complex reality from which the models are drawn.”

British IMP business economist Easton (1995b) argues that case study research seen from a realist epistemology is very useful for studying causality and that Håkansson and Johanson’s (1992) A-R-A framework can be used for this purpose (Easton: 1995b:386). This, however, will not be attempted, as such an attempt would minimize possible interpretive and social constructivist factors (see e.g. Andersen, 1995:83-84, as cited at the end of Subsection 3.3.1.).

In having chosen the IMP/INPM framework, the author has, as previously hinted in Subsection 3.3., at the same time chosen to near herself to (a) some degree of social constructivism and (b) the sociology of economics, thus at the same time also distancing herself from e.g. pure neo-classical economics. This, however, does not mean that she distances herself from economics altogether. In the words of Hedaa and Törnroos (1997:3):

“The offered perspective means, consequently, that more ‘socially constructed’ phenomenon come into the fore than in the traditional (neo classical) notions of the marketing management approach. This does not, however, indicate that the economic variables should be forgotten, but should be considered as being embedded into the process of interaction between the members of the business network.”

In Subsection 4.3., the author has stated her personal ontology about the nature of the embeddedness, i.e. the role of the interpretations of actors and networks on one hand in relation to various macro- and micro-economic variables on the other. Having done so, the scope of this research project will now be explicitly limited to (a) interpretations of interactions to be found at the network level (level 2 in Figure 12) and (b) factors at the level of the traditional marketing variables (level 1), which are embedded in the network. As the case studies to be undertaken will be historical reconstructions of past activities undertaken by the three Danish case study architectural firms on the German market, the issue of how large networks of actors may have influenced the broader macro-economic reality (i.e. the potential influence of level 2 on level 3) is not relevant to the research project. Instead, research question 1 will present some macro-economic data about the size and growth of the German market for each year of the 1990s. These figures will be taken as the “given” level 3 macro-economic framework within which the three case study architectural service firms have worked in the 1990s.

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Instead of attempting to find causal relationships, as Easton (1995b) suggests, constructing teleological explanations at levels 1 and 2 may be attempted, if the data generated is of a nature that can support this. According to Jansson, Saqib, and Sharma (1990: 8):

“The main difference between causal and teleological explanations concerns time order, i.e. that the causing factor must occur before that it is supposed to cause. Otherwise causes and consequences will be mixed up. With teleological explanations time order does not matter, particularly not when used to study interactive behavior in a network. What matters is the interaction, not how it starts or ends. In this research we are thus not concerned with making causal statements about consequential behaviour, since we have not tried to determine whether an event x led to event y. One sequel is that prediction is not important, since it will be difficult to find laws to extrapolate into the future. Instead, the focus of the research is on explanation. Covariance and the consideration of rival explanatory factors are then still important.”

With regard to geographical limitation of this research project, regarding Germany as one architectural service market has also been given critical consideration. Due to the facts that Germany is a federal country, the country was unified less than a decade ago, and most German architectural firms operate only locally or regionally (Gerkan in *Der Architekt*, 5/1990:247), the question could be raised whether the German market should be considered as one market in this study.

Several alternative ways of partitioning Germany have been considered, including distinguishing between the territory belong to the former German Democratic Republic and the territory of the Federal Republic of Germany before October 3, 1990. The main arguments for this approach are the facts that the former GDR region has received and still receives some special subsidies (Håndværksrådet, 1992) and that it to some extent still is undergoing the transition to a market economy. Another possibility would be to look at individual Federal German States or *Länder*. Credible reasons for this choice include the facts that the *Länder* are responsible for the regulation of the architect profession (Button and Fleming, 1992:411, Oliver-Taylor, 1993:33-5) as well as a large part of German construction legislation (Galkowski *et al.*, 1997: 16, *Arkitekten*, 1993/5:182) and that most German architects and contractors only work locally due to the federally organized German political system (Oliver-Taylor, 1993:50). Yet another possible categorization would be to concentrate on specific urban German regions with particularly high rates of growth as was done in the European Construction Research report (1995).

The previous paragraph suggests that there is no one right answer to the question of whether it is best to work with data from the whole of Germany or from some specific region. Moreover, as the

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jobs that Danish architects have done are spread quite evenly across the entire country (*Arkitekt- og byggebladet*, February 1993: 32)¹⁵, and as the unification process has come so far in the territory of the former GDR, with the abolition of many transitory subsidies and temporary rules (see Håndværksrådet, 1994), the author saw no pressing reason for creating requirements that the German projects must be located in certain geographical areas. The argument for accepting projects from the whole of Germany is further strengthened by the large probability that working on the level of the *Länder* would not be feasible, as many of the *Länder* are quite small and one cannot know beforehand in which *Land* network actors are located. This argument is also applicable to the "Regions of Growth" in the European Construction Research (1995) report. On the basis of these considerations, no requirements about the location of the Danish architectural service firms' activities on the German market will be made; instead this study will deal with projects undertaken in any region of Germany.

5.2. Remarks concerning Research Question 1 on the Size and Growth of the German Market.

As mentioned in the previous subsection, this question, which concerns the macro-economic development of the German market for architectural services will serve as the given, macro-economic framework within which the three case study firms have worked.

However, statistics specifically concerning the total volume of architectural service sales in Germany and the individual German federal states (*Länder*) have not been found in the materials the author has examined (e.g. Bundesarchitektenkammer, 1990-1997; Eurostat, 1996; Statistisches Bundesamt, 1998). Instead the statistics found either include architectural and engineering consultancy services in one category or concern themselves with e.g. the construction industry as a whole, the number of registered architects, or the number of buildings built. Therefore the author is planning to inquire whether there are other sources that might produce statistics specifically dealing with architectural services sales in Germany during interviews with representatives from the German Chambers of Architects (*Architektenkammer*) and the German Federation of Architects (*Bund Deutscher Architekten*) which will take place on her field research trip to Germany from February

¹⁵ Results from a later study commissioned by the Danish Federation of Small and Medium-Sized Enterprises (Håndværksrådet, 1994: 64) indicated that the bulk of activities for the entire Danish construction industry was concentrated in northern Germany. However, only approx. 4 % of the respondents of this study were architects (*ibid.*: 60). The author therefore prefers to use the source mentioned above.

20-27, 1999. She will also consider including statistics about the number of registered architects (Bundesarchitektenkammer, 1990-1997) in her answer to this research question.

5.3. Remarks concerning Research Question 2 on Danish-German Architectural Export Actors.

As described in Appendix A as well as in *Arkitekten*, 1993/5:166-183, the path leading to export-related activity on the German market has varied greatly from one Danish architectural service firm to another. Additionally, a number of articles (from e.g. *Arkitekten*, *Arkitekt- og Byggebladet* and other sources) document that the vast number of public and private actors as well as actor constellations have been involved in Danish architectural service exports to Germany. As previously mentioned in Subsection 2.4., p. 29, a survey undertaken by the Danish Council of Practicing Architects (PAR) in 1992 found that 79% of PAR member and affiliated firms had worked with engineers and 88% had worked with Danish contractors with regard to exports to Germany (*Arkitekten* 1993: 3/120).

Relevant private sector Danish architectural export actors could possibly include the individual architects and architectural service firms, persons from contracting firms (e.g. Højgaard & Schultz, Rasmussen & Schiøtz), engineering consultancy companies (e.g. COWI Rådgivende Ingeniører), financial institutions (e.g. Kuben) as well as skilled tradespeople such as carpenters, bricklayers, plumbers, etc. Additionally, employees of interest organizations such as the Danish Federation of Small and Medium-Sized Enterprises (*Håndværksrådet*), the Council of Practicing Architects (*Praktiserende Arkitekters Råd*, PAR), the Danish Association of Engineering Consultants (*Forening af Rådgivende Ingeniører*, FRI), and the Society of Associated Danish Architects (*Associerede Danske Arkitekter*, ADA) may have played a role. Individuals from public sector institutions that have been indirectly involved in architectural exports include e.g. employees of the two Danish Schools of Architecture, the certified Schools of Construction (*byggetekniske højskoler*), the Ministry of Housing, the Trade Commissioner (*eksportstipendiat*) program of the Ministry of Business and Industry's (*Erhvervsministeriet*) Agency for Trade and Industry (*Erhvervsfremmestyrelsen*), the Ministry of Foreign Affairs' Commercial and Construction Industry Attachés, the Danish Institute of Construction Industry Research (*Statens Byggeforskningsinstitut*), as well as persons from local and regional Chambers of Commerce and Business Information Centers.

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It is obvious that the scope of this study will not allow a comprehensive description of all of these actors. Therefore focus will be placed upon the largest contracting firms, engineering consultancy firms, financial institutions, and public housing associations, the international committee of the Council of Practicing Architects, as well as the Trade Commissioners, the Construction Industry Attachés, and key actors from the Ministry of Housing. Architectural firms will, on the other hand, be included in greater numbers, as they form the focus of this study.

Knowledgeable persons from these firms/organizations (i.e. key informants, as explained in the subsequent subsection) will be contacted by telephone and asked about the scope of their architecture-related activities in Germany in the 1990s. Additionally these respondents will be asked to name other actors with which they have had frequent contracts and/or cooperation with in an attempt to discover the existence of possible relationships and networks between the individual firms/organizations¹⁶ as defined in Subsection 3.3.1.

The results of the survey of major actors will be used to describe the extent to which a “Danish export network” and/or groups of actor cooperation constellations have existed and the nature of this network and/or these actor constellations. Additionally, the results will be assessed in relation to Johanson’s and Mattson’s (1998:200) three modes of establishment in relation to counterparts in foreign networks, which were previously described in Subsection 4.2., pp. 66-67.

5.4. General remarks about the Methodology and Methods of Research Questions 3 – 5.

Questions 3 – 5 comprise the *case study questions* of this research in the true sense of the word. Using the terminology of Yin (1994:39), the case study to be undertaken can be categorized as being an embedded, multiple-case study. The study is multiple in the sense that the export activities of not just one, but three Danish architectural service firms are examined. It is embedded in the sense that for each case study firm studied, it is not the entire firm as a whole that is the object of examination; instead the analysis concerns specific subunits of activities (see *ibid.*:41), i.e. activities related to the sale of architectural services in Germany.

¹⁶ With regard to the Construction Industry Attachés and the Trade Commissioners, these persons will only be asked to name public sector cooperation as confidentiality rules prohibit them from speaking of their work for private sector clients.

Concerning the research methodology¹⁷ of this project, there are several potential level of analysis: the firm at large, the persons of the firm involved in export activities, the individual activities, i.e. projects themselves. The first relevant question with regard to this topic is the following: When may one generalize at the firm level on the basis of the statements of individual actors? Tikkanen (1998: 274) has several remarks relevant to this theme:

“It should also be noted that the [...] higher levels of aggregation, ranging from informal groups or firm departments to large multinational corporation or informal alliances, pose a slight theoretical and methodological problem for the identification of relevant actors in the horizon of an organization with its strategic focus on project business. The fact that individuals are inevitably the basic interactants in all collective actor configurations is thus somewhat paradoxical. Regardless of whether a relevant actor is identified in an informal group, a firm department or a whole organization, it is the individual actor-interactants within them who, through every-day social interaction, construct the reality or realities encountered in various project marketing situations [...] Thus, the empirical identification of the relevant actor-structures in the horizon of a project marketer might not be as easy as the above typology would imply, at least at first sight.”

Due to the fact that specific persons are responsible for specific projects on the German market in the three case study firms (see Section 6) and research questions 3-5 deal specifically with embedded issues, to use Yin’s terminology (i.e. the projects on the German market and not the general goals or objectives of the firms in question), the problem raised by Tikkanen is less prominent in this research project. Therefore the key informant method (see Heide and John, 1995:539-541) will be used; the key informants will be the actors in the architectural firms who have been responsible or contributed substantially to acquiring projects on the Germany market, and thus have fulfilled the so-called “boundary spanners” or “relationship promoter” roles described in Subsection 3.3.3.

As case studies will be historical, the critical incidents method (see e.g. Hedaa and Törnroos, 1997: 4-5) will be used to prompt informants to elaborate on research questions 3 – 5. However, it should be mentioned that an inherent weakness of this method is its tendency to represent the past as a series of discrete events, i.e. specific stimuli and responses, with intervening periods of no action. This is a simplification, reduction and misrepresentation of the past, which increases potential problems of selective memory bias, even through some respondents may actually recall critical events as happening in this way. Analogous to the way a lack of explicit communication is at the same time a type of metacommunication (Skaates, 1997:17-19), a period with a lack of critical

¹⁷ As in Skaates 1997, I will in this section use Anthony Giddens’ (1993) distinction between method (i.e. the techniques and sources used to collect information) and methodology (techniques used to interpret and analyse

events does not imply a total lack of stimuli and response because inaction is also a type of action (Hedaa, 1994). However, respondents may be likely to not be able to recall the stimuli and responses of such a “period of inaction” due to a number of factors, one of them possibly being Hedaa’s so-called “black hole” effect (*ibid.*).

The primary method used to collect data will be semistructured qualitative interviews¹⁸; however analysis of documents (e.g. project proposals, firm balance sheets, firm policy papers) may be used as an independent method or to generate questions for the interviews. By choosing to reconstruct a series of critical events, the case studies will contain an element of path dependency with regards to the answers for all three case study research questions, although path dependency is only indirectly an issue in relation to research questions 3 and 4.

The question of memory and selective memory biases is relevant with regard to a second interpretive concern, namely the boundary problem inherent in all network and interaction research: How does one assess the boundaries of an actor’s/a firm’s network of relationships and contacts? In this research, boundaries will be set by the recollections of the respondents and the prompting of the interviewer; thus the problem of selective memory bias may also affect the network and interaction data generated. However, Yin (1994:13) states that an inherent characteristic of the case study is the very fact that “the boundaries between phenomenon and context are not clearly evident.”

A third type of potential bias has to do with the problem that respondents will be more liable to report on “unusual” or “surprising” events, and less likely to tell about everyday occurrences which they take for granted. To overcome this bias, the interviews will be structured in such a way that the questions will include some of the key themes from the theories that are being examined. The questions will at the same time aim to be open and not leading, to allow for the discovery of paradoxes, surprises and the contratheoretical insights of respondents (see Maaløe, 1996:183-187).

Thus the chosen interview *method* is not purely phenomenological (as suggested by McCracken, 1988) but is instead openly interpretive (and thus concurrently includes *methodological* elements as well). This, however, is in accordance with the epistemological and ontological beliefs of the author as presented in her summary of the French sociologist Bourdieu’s (1990:25-6) commentary about epistemology in Subsection 4.3, pp. 73-75.

information).

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Concerning links between the key informants and other relevant actors (such as customers and potential customers, organizations, governmental offices, and other actors in the construction industry), in the terminology of Hallén (1992:215), this research will focus mainly on interpretations of person-centered and organization-centered networks (and relationships and contacts); these are similar to the “actor network” level of Håkansson’s and Johansson’s (1992) A-R-A model previously described in Subsection 3.3.1., pp. 45-48 of this paper. However, specific elements concerning networks of resources and activities will also be relevant to specific research questions, as will be explained in the three subsequent subsections which deal specifically with each of the three case study research questions.

In conclusion, it should be noted that the usual reason for choosing the multiple case-study design is “analytic generalization” (Flick *et al.*, 1995: 446-450; Maaløe, 1996:71-75; Yin, 1994:31), which in the words of Yin (*ibid.*) means the following:

“Multiple cases, in this sense, should be considered like multiple experiments (or multiple surveys). Under these circumstances, the method of generalization is “analytic generalization,” in which a previously developed theory is used as a template with which to compare the empirical results of the case study. If two or more cases are shown to support the same theory, replication may be claimed. The empirical results may be considered yet more potent if two or more cases support the same theory but do not support an equally plausible, *rival* theory.” (The *italics* are Yin’s.)

However, in this dissertation study, as previously mentioned in Subsection 5.1., theory generalization is not the final goal, even though the case study questions have been inspired by the theoretical model of the process of project marketing of Cova, Mazet, and Salle’s “General Marketing Configuration for Project-to-Order Supplier Firms” which is depicted in Figure 1 on page 6. Therefore the reason for selecting three case study firms is rather different: By choosing to work with three Danish architectural firms that have all managed to export to Germany throughout the 1990s yet are dissimilar in many respects, a more rich, well-rounded, and “complete” description of the German market activities of the most successful Danish architectural service firm operating in Germany can be obtained.

5.5. Remarks concerning Research Question 3 on German Project-Related Knowledge.

¹⁸ For further information about semistructured interviews, see Kvale (1996:124-143).

As previously implied in Subsection 2.3., research question 3 is the most exploratory of the three case study questions in that (1) no one definition of knowledge can be used in questioning and (2) the respondents' understanding of "knowledge" as well as the prompts that the researcher chooses to use will (2a) affect the answers given by the respondents as well as (2b) possibly prompt processes of further reflection and learning in both the researcher and her respondents.

In the terminology of Løwendahl (1997:42, 43), the knowledge needed relates to the ability of the selling firm to make or sell "credible promise" to customers or other cooperation partners on the German market. In the case that the Danish architectural firm in question has sought to obtain projects in cooperation with other Danish or German firms, the knowledge the firm in question needs to acquire itself is also related to the knowledge that its cooperation partner firms already has.

General legal and construction processes organizational differences relevant to Danish architectural service firms operating in Germany were described in Subsection 2.1., pp. 10-11; respondents will be asked to elaborate on their knowledge of these at different points of time in relation to specific project offers in their own words. The answers given in relation to this question will be related to the resources and activities dimensions of the A-R-A model (Håkansson and Johanson, 1992) as described on pp. 45-48.

Additionally interviewees will be requested to relate their knowledge to their ability to (a) make social or network contacts, (b) understand the German construction industry, and (c) undertake the process of looking for projects. Inquiries as to the importance of differences in taste, climatic conditions, cultural values, traditions, and topology and their influences on the architectonic solutions commonly offered in Germany will also be made on the basis of Sharma's (1991:23) remarks on international consultancy work in Subsection 2.2., p. 16.

Questions concerning the "national division of labor" (e.g. which employees are Danish and which are Germans, how much to the German employees know about the Danish architectural services and construction industries and vice versa, how many years of experience abroad do the respective employees have, etc.) at specific points in time in the 1990s will also be used to obtain a picture of the types of knowledge acquired.

In Section 2.4., p. 30, possible differences between the level of customer's and supplier's know-how was listed as a critical characteristic with respect to project offerings. Respondents from the Danish architectural firms will therefore be asked to describe the knowledge that they have used to

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asses the level of know-how of their prospective German clients and to what extent they have perceived differences in know-how. The opinions of German architects operating in Germany will also be obtained on this issue.

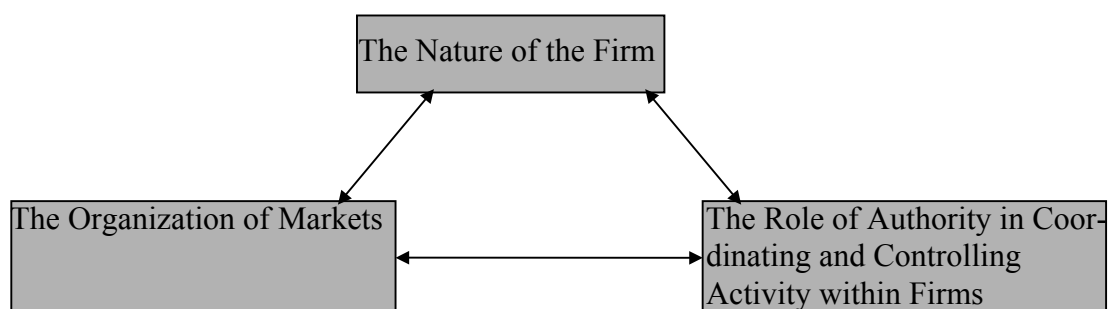
Over and beyond that, the knowledge required to invest in specific relationships as well as broader networks will be discussed on the basis of Easton's (1992) characterization of relationships as presented on p. 43 and a presentation of the "Anticipation" versus "Flexibility" issue (Bansard *et al.*, 1993) as depicted on page 52. This discussion will, however, be connected with a debate about whether one can speak of "network" and "relationship" investments at all in the architectural services industry in connection to Research Question 4; this debate will be elaborated upon in Subsection 5.6.

Respondents will also be queried about their knowledge of the **identity** of the constellation of firms that they have sought to work with and their knowledge of the potential **function** they would have in the constellation in question, in accordance with Mattson's (1984) definition of position as summarized on p. 45 and the previously mentioned A-R-A model (Håkansson and Johanson, 1992).

Furthermore, respondents will be presented with the characteristics and dilemmas of the boundary spanner and relationship promoter roles as presented in Subsection 3.3.3. and asked to comment upon their general relevance for obtaining projects and their personal experience in fulfilling these roles.

Finally, a depiction of the "business system" concept (see e.g. Whitley, 1993) may be presented to respondents; they will then subsequently be asked to make general statements about differences in the organization of architectural services in Germany and Denmark (and possibly also between different industries or regions in Germany) based on the model.

Figure 13. Basic Elements of the Business System.



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Source: Andersen, 1995: 90.

5.6. Remarks concerning Research Question Four on the Process of Obtaining Projects.

Research question 4 comes closest to a test of a model of Cova, Mazet, and Salle (1994) depicted on p. 6. However, the purpose of the question is not to validate or refute their model but to use it as a basis for a richer description of the process of obtaining project orders on the German market for architectural services.

The key informants from the Danish case study firms will therefore first be asked to describe the process of obtaining seeking and obtaining a number of project orders on the German market in their own words. Thereafter they will be presented with critical questions that indirectly related to the model – i.e. (a) the question raised by Ahmed (see Subsection 3.3.2, p. 49) and touched upon in Subsection 5.5. as to whether long-term relationships and networks exist on construction project markets seen in the light of the discontinuity issue, (b) the temporality challenge of Kallinkos and Andersen (see p. 50), and (c) the dilemma of “anticipation” versus “flexibility” (p. 52), which was also mentioned in the previous subsection. Additionally, the position of negotiations in relation to orders from the public sector and orders financed by the public sector will be discussed in light of the EU Public Services Directive (Council of the European Communities, October 13, 1997), as will be explained in Section 6.

The final step of showing the interviewees Cova, Mazet, and Salle’s (1994) model, explaining it to them, and asking for commentary will then be undertaken.

5.7. Remarks concerning Research Question 5 on the Role of Previous Project Work.

As previously mentioned on page 5, this research question deals with the relationship between (a) already awarded projects that are/were either still in progress or completed and (b) subsequent project awards that the individual case study firms have/had obtained.

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Similar to the method to be used in discussing Research Question 4, the key informants will first be asked to explain in their own words the relationship between already awarded projects and subsequent acquisition of project work. Thereafter, several IMP/INPM concepts will be introduced in the interviews. These will include the following:

- Holstius' (1987:63) "reference value", previously mentioned on p. 54 of this paper
- Hadjikhani's (1996) "sleeping relationship", as discussed on p. 55 of this paper
- Cova *et al.*'s (1996a) socio-graphic concept of the "milieu", as described on pp. 56-57
- Tikkanen's (1998) "project marketing horizon", as explained on pp. 57-58
- The "discontinuity" issue, as presented on pp. 49-50
- The "position" (Mattsson, 1984, see pp. 44-5) possibly created by the firm's portfolio of projects

With regard to Holstius' (1987:63) "reference value", several factors can contribute to such a value. First, with regard to projects already completed, the reference value can consist of, to use the terms of Løwendahl (1997: 43), either a) the perception of the firm's ability to deliver what has been promised, possibly in cooperation with the client or b) the perception of the firm's ability to learn from its project work and continually improve its service quality.

On the other hand, with regard to projects-in-process or e.g. runner-up prizes/honorable mentions in architectural competitions or public tendering procedures (as required by Council of the European Communities, October 13, 1997), a "reference value" may be present even though the project in question has not yet been completed or, in the case of runner-up prizes/honorable mentions, will not be realized. In this case, the "reference value" is based on trust in the judgement of the selection committee that awarded the project or the runner-up prize/honorable mention in question.

The position of knowledge is also interesting to examine with regard to Holstius' "reference value". If the potential customer emphasizes that the cooperation aspect of the project completed or in progress, the knowledge can be regarded as being placed at the level of the dyad or the constellation of actors involved in the project as well as at the level of the architectural firm and its actors, as was previously suggested in Subsection 2.3. on p. 21. These aspects will all be discussed with respondents in relation to Holstius' "reference value."

Turning now to Hadjikhani's "sleeping relationship", situations and potential situations in which dependence and/or trust existence to an extent to merit an ongoing, yet dormant relationship will be discussed with the informants. The discussion will also include mention of firm-specific merits such

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as customer-perceived excellence in design or specialist technical knowledge (see Winch, 1993: 929-931) as well as supplementary service offerings such as facility management (see Subsection 2.1., p. 9). The issue of knowledge placed in the customer-architectural firm dyad mentioned in the previous paragraph will also be brought into the interviewer-informant dialogue about possible “sleeping relationships” and their effects.

With regard to Cova *et al.*'s (1996a:654) “milieu” and Tikkanen's “project marketing horizon”, the issue of the primacy of interpretive versus structural factors, as described by Andersen (1995: 83-84), comes into the foreground. However, the author anticipates that it would be impossible for her to create a dialogue with her respondents about this issue, let alone ensure construct validity (see Yin, 1994: 33 for a discussion of case study construct validity) as the respondents as practitioners of architecture are not used to thinking in terms of whether agency or structure has primacy. Thus she will not attempt to discuss which frame of reference is best with her interviewees but use both to gain insights as to the nature of the role of previous project work.

With regard to Cova *et al.*'s (1996a) interpretivist conceptualization of the “milieu”, the extent of the “socio-geographic” organization (see the first Tikkanen (1998) citation on p. 57 of this paper) of the German construction and architectural services markets and possible reasons for “socio-geographic” organization will be discussed with the respondents. Related concepts that include interpretive elements such as “social capital” (Araujo and Easton, 1998; Bourdieu, 1986) and “cultural capital” (Albertsen, 1996; Bourdieu, 1996) will also be explained and discussed with respondents.

In relation to Tikkanen's “project marketing horizon”, the foundational model upon which it is based - Håkansson's and Johanson's (1992) A-R-A model (see Subsection 3.1.1., pp. 45-48) - will be presented to the respondents and they will be asked a) if they can think of examples of actor, resource, and activity networks and b) to describe these networks. In this connection, the critical issue of “discontinuity” (see pp. 49-50) and its role in relation to the nature of contacts, relationships, and networks will also be discussed, as Tikkanen's “project marketing horizon” implicitly suggests that the discontinuity problem can at least be overcome in the sense that long-term ties can be established (see Tikkanen's 1998:270 definition on p. 57).

The last point of discussion will be the establishment of “position” according to the Mattson's (1984) characteristics. The relevance of each of the characteristics in terms of long-term project

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marketing and previous project work will be critically deliberated in the discussions with the interviewees from the case study firms.

6. Profiles of the Case Study Architectural Firms and Initial Study Results.

6.1. The Three Case Study Architectural Firms.

As previously mentioned in the foreword to this paper, three Danish architectural service firms that have achieved a degree of success on the German market in the 1990s and are still present on this market today have generously agreed to contribute numerous hours of their scarce time to the research project at hand, for which the author of this paper is extremely grateful.

In discussions with the three firms in question in the Autumn of 1998 all parties agreed that full anonymity need not be guaranteed in the sense that employees in the three case study firms are welcome to mention their participation in this study to relevant persons in organizations or governmental bodies, if they deem it pertinent. The author of this paper will, however, guarantee the members of the firms full confidentiality in that she will receive permission from the persons interviewed before she directly cites them and will also discuss whether the citation(s) in question should be made anonymous in her work with the relevant person before including them in her work.

On the basis of the above remarks, the three case study architectural firms will be briefly presented without mentioning their names in the following:

Architectural firm 1 was founded in 1985 and employs approximately 30 persons, of whom most are either educated as architects or certified building constructors, or have received some other construction industry relevant education. Architectural firm 1's original strength in 1985 was housing. However the firm has subsequently sought and succeeded in broadening its areas of expertise in Denmark, especially after the so-called "Ølgaard report", which was made public by the Danish government in 1989. The main conclusion of the "Ølgaard report" was that there would be a decreased need for publicly funded housing in Denmark in the 1990s. Today the firm receives orders for many types of construction and urban renewal projects.

Architectural firm 1 has been active on the German market since 1990. Its initial form of activity was a cooperation agreement between Architectural firm 1 and a German architectural firm situated

in Hamburg. Architectural firm 1 terminated the agreement because it did not provide the expected level of income.

In the beginning of 1992, a strategy concerning the establishment of a subsidiary in Germany was discussed in the firm's professional advisory board. After some modifications to the strategy, a subsidiary was established in Berlin. The subsidiary is today led by a Danish certified building constructor who has years of experience on the German market in cooperation with an German architect educated in Germany. Architectural firm 1 has been involved in German projects or received prizes in Germany concerning, among other things, gasoline stations, housing, urban renewal, and embassy construction.

Architectural firm 2 was founded over five decades ago and is one of Denmark's large architectural firms with a strong design profile in Denmark as well as broad expertise from a wide range of construction project types – e.g. museums, sports stadiums, universities, research and development centers, factories, hospitals, housing. Architectural firm 2 is relatively well known in Denmark and has designed domestic and foreign factories for a Danish multi-national corporation (MNC) that have been built in a host of different countries.

Architectural firm 2 chose to concentrate on the German market in the beginning of the 1990s and subsequently to locate its subsidiary in Berlin in the Spring of 1993. The subsidiary in Berlin is managed by a Danish educated Danish architect who has later become a partner in the firm. The other employees in the subsidiary are Germans educated in Germany. Architectural firm 2 has been involved in German projects or received runner-up prizes/honorable mentions in Germany for e.g. housing projects, a research and development center, a sports stadium, a hospital, and a university building.

Architectural firm 3, which is also one of Denmark's large architecture firms, was founded in 1971 after the unexpected and premature death of a world-famous Danish architect and furniture designer. The Dane in question had won international competitions since the late 1950s; therefore the firm and its employees had some years of international experience which could be used also after his death. Additionally, the famous Dane had attracted several ambitious foreign-born employees to his firm on the basis of his reputation; some of these remained in the subsequently founded firm.

Today, architectural firm 3 has a relatively international body of employees which includes Germans, North Americans, and Asians. Three of its ten partners were born in Germany; two of which came to Denmark to work for the renowned architect himself. The third German-born partner came the year after his death. The firm concentrated on and succeeded in establishing a name in its own right after the death of the renowned designer, and today it is active in a broad range of architectural projects – from e.g. office buildings to museums to theaters to factories to hospitals to housing to university buildings. Similar to architectural firm 2, it also designs buildings for a Danish MNC.

Architectural firm 3 has exported to Germany as well as many other foreign countries for several decades, and both German and Danish architects have been responsible for the specific projects in Germany, depending upon the skills required. The firm has in previous decades had a couple of temporary subsidiaries in Germany, and in 1997 a subsidiary was started in Wiesbaden in connection with a specific project in the German federal state (*Land*) of Hessen. This subsidiary is run by one of the German-born partners.

In the 1990s, architectural firm 3 has been involved in German projects or received runner-up prizes/honorable mentions in Germany for e.g. projects concerning university buildings, a museum, a theater, housing, a hospital, urban renewal projects, offices and administrative buildings.

6.2. Selected Results from Main Study Research.

6.2.1. Introduction.

In the following, a few selected results will be presented in general terms, due to the facts that (a) translations of the quotations from the interviews conducted in Danish and German to English has not yet been undertaken and (b) permission to quote specific statements has not yet been cleared with the respondents in question.

The structure of the inquiry method concerning the case study research questions 3 – 5 is, as previously mentioned in Subsections 5.6. and 5.7. on pp. 89-90, to begin by asking the informants to explain the topic in question in their own words, for thereafter to introduce specific concepts. The first interviews, in which the informants have mainly been asked to elaborate upon the topics in their own words, have been undertaken with all but one of the initially selected key respondents; the interview with this last key respondent will take place later in February 1999.

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Some of the information generated in the pilot study interviews (see Appendix A) has also been referred to and/or built upon in the main empirical study. Therefore the general statements in the subsequent subsections of this section will also include statements from the pilot study interviews; however, when this is the case, it will be specifically indicated.

6.2.2. Initial Results concerning Research Question 3.

Respondents from Case Study Firms 1 and 2 as well as several respondents from the pilot study interviews admitted to initially having had deficits of knowledge concerning the German legal framework and the organization of the German construction industry at the time they commenced sales efforts in Germany in the early 1990s. Some of these respondents admitted to making beginner mistakes, especially with regard to registration in the German Registers of Architects (*Architektenkammer*) and the set of German regulations (HOAI) concerning the rights, duties, and fee scales that may be offered by architects practicing in Germany. (These rules are listed in German in Barth, 1997; The Danish Council of Practicing Architects, PAR, has produced a Danish translation of the rules.) Additionally, some respondents felt that their knowledge of the “legalistic” German construction sector culture had been lacking and that they had learned by making (sometimes very expensive) mistakes. Research question 3’s more systematic questions, i.e. related to the networks of resources and activities, have not yet been touched upon in the interviews.

With regard to Sharma’s (1991:23) list of possible differences in international consultancy work, as mentioned on p. 16, many respondents told without prompting that differences in taste were of relatively little importance; if the client wanted e.g. a basement, a basement was included in the houses designed. Some of the German clients had been open towards Danish architects because of an interest or openness towards their own interpretations of “Danish” or “Nordic” design. However there were also several times when some of the Danish architects were asked to design features that they themselves did not consider functional, e.g. small, closed kitchens, which had resulted in lengthy discussions with the buyers and the consultation of the German regulations for e.g. publicly financed housing.

Climatic conditions and topology, on the other hand, seemed to present little problem for the Danish architects. With regard to topology, examples of Danish architects working out proposals concerning renovations of buildings built by renowned German architects were mentioned; in these

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cases, the Danish architects in question showed interest and respect for the historical heritage of the neighborhood and buildings in question. Cultural values and traditions specific to the construction and architectural services industry in Germany seemed, however, on the other hand to be the source of many frustrations, even in cases where the respondents in question had made efforts to inform themselves about the German legal framework (e.g. HOAI) and the relevant German authorities. With regard to this point, several respondents made remarks to the effect that it is difficult to obtain knowledge if one does not even know which questions to ask.

In firms 1 and 2, the division of labor very quickly became one in which Danish born and educated architects make the initial project sketches and the details are worked out by German born and educated architects in accordance with the specific requirements of German law and the traditions of the German construction industry. The more precise questions about the years of foreign and domestic experience of the key employees have not yet been asked. This is also the case for the remaining Research Question 3 subquestions concerning (a) differences and assessments of differences in customer and supplier know-how, (b) the nature of knowledge required to invest in specific relationships, (c) the identity of the constellations of firms with which the Danish firms work in Germany and their own function with the constellation, and (d) their assessment of the “boundary spanner” and “relationship promoter” roles.

6.2.3. Initial Results concerning Research Question 4.

Key respondents have elaborated in their own words upon many of the projects that have been awarded on the German market. Their chronological descriptions have varied substantially both from person to person (due, perhaps, to person-specific variations in oral description strategies) and from project to project. However, one general pattern seems to stand out in the minds of respondents, namely that there are two ways of obtaining projects:

- a.) Through contacts (used mainly in the private sector)
- b.) Through competitions and public tendering procedures (used mainly in publicly financed projects, although competitions also are used by private persons or firms)

Additionally, until a firm begins to receive orders from contacts, competitions and public tendering procedures are perceived by the respondents as the main way to attempt to obtain work, although most of the time the honorarium received for participating in (restricted) public tendering

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procedures or competitions does not cover the expenses incurred in participating, and, in the case of open competitions or tendering procedures, usually no honorarium is paid at all.

The impression of the author from the descriptions given by respondents in their own words is that they are aware that they also establish the contacts which at some time may bring them an order, yet it has proven difficult for them to elaborate upon how they established these contacts in practice, as they have not previously been asked to verbalize their practice in their field before. Respondents seem, however, to agree, that chance plays a large role and that they in a great number of situations do things to make good impressions without being able to know beforehand which persons will contact them later. Some respondents – both from the pilot study and the main study firms – have also attended official receptions, arranged e.g. in connection with the Danish Minister of Housing's visits to Germany or official arrangements where Germans have been invited to learn about Danish public housing. Some of these meetings have resulted in a few contacts or valuable pieces of advice for a few of the respondents, yet also here it is either difficult for respondents to explain which factors prompted the advice or contacts. It seems furthermore to be the impression of several of the respondents that their German partners have been influenced by very diffuse, diverse impressions of Denmark – e.g. from recent vacations or short business visits in Denmark or experiences decades ago, e.g. in connection with the rebuilding of West Germany after the Second World War. In the East German region, some respondents have sometimes had the impression that it has in certain situations been an advantage to be Danish (and not “West German”) on the private market.

Respondents indicate that both long and short-term relationships exist in the private construction sector. They have, however, not yet been asked whether they have considered whether it is possible for them to say anything in general about long-term relationships on the German market. However, some spontaneous responses seemed to indicate that especially in the former West Berlin, long-term construction industry relationships had existed to an extent not seen in the rest of the former West Germany, due to the unique “island of social market economy” nature of the former West Berlin, and that these still play a role to some extent in the market in and around Berlin of today.

With regard to the EU Public Services Directive (Council of the European Communities, October 13, 1997), the author has researched the implementation and the resulting interpretation of the directive in Denmark and Germany.

In Denmark, the directive was implemented on time, i.e. the directive became a part of national law on the date originally set by the EU Council of Ministers, July 1, 1993 (Danish Ministry of

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Industry, June 22, 1993). With regard to architectural services, the directive is interpreted by the Danish authorities to allow for the use of design contests or open or restricted tendering procedures and, in certain exceptional cases, tendering procedures involving negotiations with selected prequalified bidders (*ibid.*). Additionally, the directive mentions two time schedules, the normal and the accelerated procedure schedules, and lists the minimum amount of time that must be allotted for bidding firms for each of these schedules. The Danish interpretation of the directive is that the accelerated procedure is only to be used in exceptional circumstances (*ibid.*)

In practice, Danish public authorities have made relatively little use of exceptions clauses which allow for accelerated procurement procedures and tendering procedures involving negotiations (Danish Association of Consulting Engineers, 1998: 2-4). This is depicted in the Table 2 on the next page.

Table 2. Percentage of Types of Calls for Tender and Use of the Accelerated Procedure in 1997 with regard to Architectural and Engineering Consultancy Services.

| | Germany | Denmark |
|-----------------------------------|-------------------|-----------------|
| Types of Calls for Tender | | |
| 1. Design contest | approx. 15% | approx. 22% |
| 2. Open Tendering Procedure | approx. 6% | approx. 5% |
| 3. Restricted Tendering Procedure | approx. 6% | approx. 65% |
| 4. Negotiated Tendering Procedure | approx. 73% | approx. 8% |
| Use of Accelerated Procedure | 39.3 % of 3 and 4 | 4.7% of 3 and 4 |

Source: Danish Association of Consulting Engineers (March 1998).

Germany, in contrast, as well as several other EU member states, did not manage to implement the services directive on time. Former Danish Minister of Commerce Mimi Jakobsen wrote to the EU Commissioner for the Common Market, Mario Monti, in the Summer of 1995 to ensure implementation and uniform interpretation of the directive in all EU countries. (Forchhammer, July 26, 1995). In August 1995, Commissioner Monti brought a related case against Belgium, Germany, France, and Greece before the EU Court in Luxembourg (Redder, August 24, 1995).

However, Germany did eventually implement the directive through two laws, the “Verordnung über die Vergabebestimmungen für öffentliche Aufträge” (VgV), which has most recently been amended by the German *Bundesrat* on April 25, 1997 (Danish Association of Consulting Engineers, February

3, 1998) and the “Verdingungsordnung für freiberufliche Leistungen” (VOF), which is the main law and was put into effect on November 1, 1997 (Jochem, 1998:49).

The German interpretation of the directive with regard to architectural and engineering consultancy services is markedly different than then Danish, as can be seen from the table above. Both the secretariat of the Danish Council of Practicing Architects, PAR (telephone conversation with an employee at the PAR’s secretariat on January 4, 1999) and the aforementioned Danish Association of Consulting Engineers (March 1998 and February 3, 1998) are aware of these national differences in interpretation and actively press for an EU-wide harmonization of national interpretations.

With regard to the experiences of the individual architects of the case and pilot studies, of those asked, all architects with experience in Germany indicated an awareness of national differences in the interpretation of the EU public services directive. However, viewpoints and experiences with the directive diverged. A few respondents indicated that negotiation in their opinion was only to be allowed in exceptional situations and that the German interpretation of the directive was wrong. Others indicated that negotiation was in some circumstances – e.g. with regard to the renovation of existing buildings built in a particular style by prominent architects – the most reasonable procedure and ought to be used a bit more often in Denmark. A single respondent mentioned a peculiar experience which had occurred before the official implementation of the directive in Germany. This respondent had found a tendering announcement and had called the responsible German authority in question to inquire about it. Upon achieving contact with the authority in question, this respondent was told that the authority already had found the firms needed to undertake the restricted tendering procedure, which indirectly implied that the prequalification selection process was only a *pro forma* procedure. The firm in which this respondent works has subsequently made a habit of inquiring about German EU tendering offers in telephone conversations to save it the trouble of preparing prequalification round documents in cases in which the firms to participate in the final round have *de facto* been chosen beforehand.

With regard to the accelerated procedure, the response of Danish pilot and main study respondents was more unanimous: Respondents criticized the widespread German use of the accelerated procedure for being unfair and a *de facto* hindrance to foreign participation in procurement procedures. Some respondents went so far as to suggest that local or regional German interests were served by the relatively common use of the accelerated procedure in Germany.

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With relation to Cova, Mazet, and Salle's model (p. 6), the statements of respondents indicate that negotiation after presentation of a proposal also takes place regularly with regard to the public sector projects and private projects supported by public money in Germany. However, this seems not to be the case in Denmark.

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6.2.4. Initial Results concerning Research Question 5.

From the key informants' descriptions of the effect of previous project work and awards on subsequent project work, some initial descriptive statements concerning Holstius' (1987:63) "reference value" and Hadjikhani's (1996) "sleeping relationships" can be made.

With regard to the "reference value", the cumulative statements of the case study firms indicate that there have been circumstances in which projects-in-progress as well as runner-up-prizes, honorable mentions, and being prequalified to participate in the restricted procedure or the procedure of negotiation have seemed to have a certain "reference value". For one firm a German project currently in progress has resulted in prequalification for similar German projects, even though the project-in-progress is not completed yet. Another firm has experienced that after a certain important prequalification both German public and private sector actors showed great interest in the firm's work; when the same firm was not prequalified in a subsequent related project, this German interest disappeared.

Informants have found it difficult to describe the role of previous project work in general terms. In their opinion, it varies greatly from project to project. However, several interviewees have mentioned that when a specific type of building project has been completed, certain relevant construction industry actors become aware that the firm has the specialist technical ability to complete similar projects.

Respondents found it more difficult to comment upon possible reputational effects concerning the ability to cooperate with clients and/or the ability to learn. With regard to these issues, it must be mentioned that all three Danish case study architectural firms attempt to make a name for themselves in a wide variety of types of projects on their home market. This is a relatively typical strategy for Danish firms operating on their domestic market (interview with Associate Professor Niels Albertsen of the Århus School of Architecture, March 1998), whereas a greater number of architectural service firms operating on the German market are more specialized (*Arkitekten*: 1993/5: 180). This can probably be attributed to the greater number of complex specialist projects on the large German market in comparison with the Danish market (*ibid.*).

Several respondents both from the pilot and main study indicated that they felt very anonymous on the German market in relation to their status on the Danish market; a few indicated that their very presence on the German market had resulted in some sort of "prestige" or "reference value" effect

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in their domestic Danish efforts. The fact that the Danish firms in question also had gone after projects in many different German regions or federal states (*Länder*), whereas many German architectural firms are only active locally or regionally (Gerkan in *Der Architekt*, 5/1990:247) was also discussed with some of the respondents, yet they were loath to make general statements about the effect of this characteristic of their efforts on the German market in relation to the ability of their firms to obtain projects on this same market.

With regard to Hadjikhani's "sleeping relationship", respondents indicated that in cases where they had discontinued yet on-going relationships with certain order givers, e.g. MNCs or public authorities before the implementation of the EU public services directive, trust had in their opinion played a major role. Their general reputation as a serious architectural service firms strong on design and/or the specialist technical knowledge in question also played a role, and their knowledge of the client and his or her requirements as well as the client's knowledge of their firm were also significant factors in the opinion of the key informants. Some of this client-architectural firm relationship specific knowledge could be considered embedded in the dyad of the client-architectural firm relationship in the judgement of the researcher.

On the other hand, dependence seems to strong a word to use about the client-architectural service firm relationships on the basis of the interview conversations conducted until the present date. Supplementary services such as facility management that could potentially increase client dependence upon the architectural firm in question were also not mentioned in the initial interviews.

In subsequent interviews, the researcher will continue to ask questions about the relationship between completed projects and project proposals and/or projects-in-progress and future project work, both in relation to the concepts of the "reference value" and the "sleeping relationship" and with regard to the concepts not yet covered in her research interviews, e.g. Cova *et al.*'s (1996a:65) "milieu", Tikkanen's (1998) "project marketing horizon", Mattsson (1984)'s "position" and the issue of discontinuity, as presented in Subsection 3.3.2. on pp. 49-50.

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Appendix A. Pilot Study Research on Danish Architectural Exports to Germany.

A.1. Chronological Description of the Pilot Study Research.

In November 1997, Professor Steen Thomsen of the Århus School of Business¹⁹ suggested to the author that a study of the internationalization of the architectural services industry might be interesting; he had thought a great deal about this industry in connection with a paper that he had recently written (Thomsen, 1997). His suggestion prompted the author to begin gathering information on architectural service firms and the industry at large.

In the first two months of the author's literature studies, she examined Professor Thomsen's thoughts but came to the conclusion that, although she found his paper extremely interesting, it would be best for her to draw upon other theories in her study of this topic. During these first two months, she also decided that limiting her study to Danish architectural exports to Germany would be an acceptable choice for two very different reasons:

1. In the 1990s, Germany had by far been the most important export market for Danish architects and the entire Danish construction industry (Hartung, 1997).
2. The author has a double major M.A. in International Business and German from the University of Odense and is therefore especially qualified to examine Danish architectural exports to *Germany*.

In the next phase of her pilot study research (January - August 1998), the author concentrated on finding the best theoretical framework for her study. In this period, she used *paradigm crossing* (see Schultz and Hatch, 1996): By incorporating both subjectivist and objectivist methodologies in her research, she examined the business of running architectural service firms from many perspectives and noted the tensions and differences as well as the commonalities in perspectives. She then compared the scopes, strengths and weaknesses of the different perspectives as well as examined which perspectives are compatible with one another with reference to the architectural services industry.

By May 1998, the author realized that she was gradually coming to the conclusion that choosing a *specific research group's approach* to studying the phenomenon of the internationalization of the architectural services sector and attempting to work from *that one approach* in her further research would be the best alternative. As previously mentioned in Section 1, during the summer of 1998,

¹⁹ Professor Steen Thomsen was appointed Professor of International Business at the Århus School of Business on January 1, 1998. In November 1997, he was an Associate Professor at the Institute of International Economics and Management at the Copenhagen Business School.

she chose the INPM/IMP Groups' approach. However, in this section, she will briefly elaborate on the insights she received from her very broad and somewhat scattered introductory pilot study research.

In January of 1998, the author began to examine the broader dynamics of architectural services in relation to the construction industry in Denmark, Germany, and the European Union at the industry level. Additionally, she looked at the following issues at the firm level:

Are there small economies of scale in the production of architectural services, as is commonly assumed? If there are small scale economies, are these caused by heterogeneous demand, convex production functions, or other factors?

Examining these issues resulted in the author writing two initial reports which described the Danish, German, and EU construction and architectural service industries. These are not listed in the bibliography; instead Subsections A.3.-A.5. of this appendix contain a summary of some of the most important results that the author found.

Last but not least, the author gathered qualitative primary data in an empirical pilot study undertaken with the goal of gaining an increased understanding of the "working world" of Danish architects who are employed by or owners of architectural service firms. She had previously prepared for this qualitative pilot study work by reading existing works on architectural practice (Albertsen, 1996; Blau, 1984; Gerkan, 1995; Harrigan and Neel, 1996; Östnäs and Svensson, 1986; and Svensson, 1990).

In the period between May and August 1998, she conducted a total of 15 semi-structured interviews, one in cooperation with Research Professor Per Jenster from her department; these supplemented an initial interview in March 1998. The distribution of the pilot study interviews is as follows:

- 2 interviews with representatives of Danish architects' organizations (DAL and PAR)
- 1 interview with a person employed at the International Office of the Danish Ministry of Housing
- 3 interviews with professors and associate professors at Danish Schools of Architecture
- 1 interview with a teacher from a Danish School of Construction's international program
- 2 interviews with Danish architects who had worked in Germany for/with Danish and German architectural service firms

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- 1 interview with two Danish architects who worked for a major Danish architectural firm that had had a subsidiary in Berlin for several years during the mid-1990s
- 1 interview with a Danish architect who owned his own firm and had experience with export to Southern Europe/Africa
- 1 interview with a Danish architect who worked for a firm that had no exporting experience
- 1 interview with a Danish architect who previously had had his own firm (which did not export) and currently was working as an international design consultant for a company that sells clothing in its own shops in Scandinavia, Eastern Europe and the German-speaking countries
- 2 interviews with 2 unemployed Danish architects, one of which had worked for an architectural firm in another Nordic country for a number of months

The questions that the author asked concerned architects' actions and perceptions of their daily working life. They included topics such as: How do architects act to obtain and possibly retain customers and projects on the domestic Danish market (as well as the German market and/or other foreign markets if they are involved in activities abroad)? Do they use a "network of contacts" to acquire some of the project orders they receive? If so, how do they do so? Do they use a "network of contacts" to acquire competencies or new artistic ideas? How do individuals in Danish architectural service firms view their firms' domestic and foreign activities in terms of possibilities and desired events? If they have attempted exports to Germany, how long have they been on the German market and how do they view their activities there in terms of importance and future perspectives? How do architects measure their success, i.e. what role do economic, artistic, or other factors play for the individual architect interviewed?

A few of the broad and somewhat diffuse results of the author's empirical pilot study research are listed in Subsection A.5. of this appendix. In relation to her choice of main study questions, the results from her interviews listed in this subsection directly contributed to the choice and delimitation of the main study questions in that they pointed to the fact that, when asked, most respondents stated that they believed personal connections and relationships with actors on the German market had been a deciding factor with regard the success of Danish architectural firms' efforts on this neighboring market.

Over and beyond that, the author's case study results and her readings of secondary sources indicated that while many Danish architectural service firms have had some exposure to foreign markets by winning competitions, only a very few had attempted and succeeded in going further by establishing and nurturing contacts and relationships that would enable them to receive future orders from the export markets upon which they had won competitions.

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Due to the small number of Danish architectural firms that had managed to establish and nurture contacts, the author was not surprised to find a lack of Danish as well as international research on architectural service firms that had attempted to undertake this further stage of internationalization; During the course of her pilot study readings, she found only one (not particularly outstanding) work (Kleckers *et al.*:1989, a paper written by a group of bachelor level international business students in their senior year of their studies) that had actually discussed the hypothesis (*ibid.*:41, 51) that *contacts to and interactions with potential customers* is a key success factor with regard to potential Danish architectural services exports to Spain²⁰. Therefore it seemed to the author to be highly interesting and relevant to study several relatively successful Danish architectural service firms' contacts to and interactions with customers and potential customers on German market in the 1990s.

A.2. Exclusion of Other Marketing/Economics Perspectives from the Research Focus.

In choosing to focus on interactions and contacts as the focus of her study, the author inevitably has chosen not to focus on other factors that also could have played a role in relation to Danish architectural firms' attempts to export to Germany in the 1990s. Other factors that could have played a role include:

- the technical competency of the Danish firms
- the macro-economic dynamics of the German architectural services and construction industries and their micro-economic implications for individual firms operating on the German market

Concerning the issue of technical competency, the author chose at the very beginning of her study not to include this topic from her pilot study research because she knew that she did not have sufficient knowledge of the technical aspects of the field of architecture to study it. However, as hinted in the previous subsection and is evident when one reads subsections A.3. - A.5., she did explore some micro-macro-economic dynamics of the Danish, German, and European construction and architectural service industries to some extent before also delimiting these factors from her study.

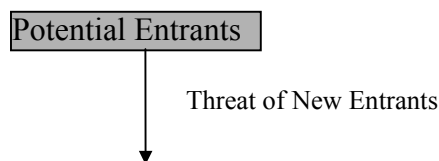
²⁰ Some of the literature the author read contained themes tangent to this hypothesis. In their practitioner-oriented book, the American architects Harrigan and Neel (1996) write that understanding customers' needs is a general precondition for designing buildings that will satisfy customer needs and lead to useful references. Additionally, they offer some suggestions for achieving rapport in conversations with (American) customers about projects. The Swedish works Östnäs and Svensson (1986) and Svensson (1990) deal with the practical skills architects use in their daily work, including human relations skills.

In the following the author will briefly describe some of the perspectives from the business economics subfields of industrial economics and marketing that she first examined, then rejected as being relevant for her study. These include industry and firm analysis from the Porterian perspective (see e.g. Porter, 1980 and 1985, as well as Winch and Schneider, 1993, for Porterian strategies for architects), Wroe Alderson's transvection chain concept (Alderson, 1957; Priem, Rasheed, and Amirani, 1997), and Storper's and Salais's seminal work (1997) on the action frameworks of the economy.

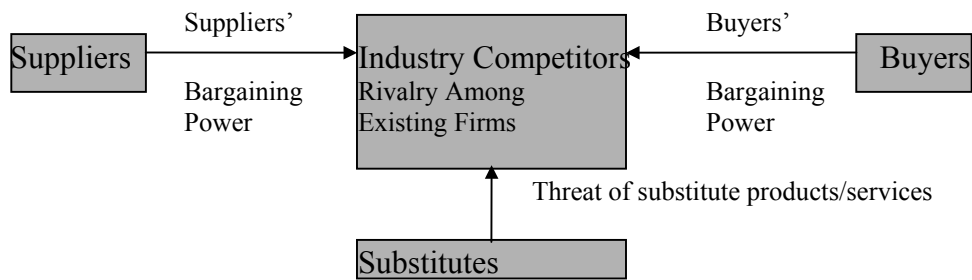
As for the Porterian framework, it must be noted that most renowned works of Harvard Business School Professor Michael Porter, his industry and firm analysis frameworks (Porter, 1980 and 1985) are normative in character and thus not cannot be used by themselves as the foundations of further scholarly theory building unless one subscribes to the instrumentalist view of economic theory.²¹ However, in his very successful academic career, Michael Porter has written a huge number of scientific works for e.g. (mainly English language) academic journals, and he has most certainly drawn upon insights from his academic research in these books, although he does not explicitly explain the connection between his academic research and Porter (1980 and 1985) in these books. This, among other things, has lead some authors to point out that there is some conceptual fuzziness in Porter's renowned works for practitioners (see e.g. Priem, Rasheed, Amirani, 1997:153).

However, despite these weaknesses, the author found some aspects of Porter's industry and firm level frameworks of analysis quite helpful in obtaining an initial understanding of the broader dynamics of the construction industry and the architectural services industry as a subindustry within the construction industry. In this connection, Porter's so-called "Five Forces Model" of industry analysis was an especially useful "simple and powerful model".

Figure A.1 Porter's "Five Forces Driving Industry Competition"



²¹ Proponents of the instrumentalist view of economic theory argue that economic theories should only be judged by their abilities to make predictions and not by correctness of the assumptions upon which they have been built. This view was at one time propagated by, among others, the American economist and Nobel Prize winner Milton Friedman and other members of the Chicago School of Economists. (Andersen, 1988:103-105; Easton, 1995a:427-428).



Source: Porter, 1980:4.

However, studying architectural services using the “Five Forces Model” had its limitations as well. The most serious limitation of the model is its failure to incorporate the potential complexity caused by possibility that the boundaries between companies involved in construction projects (including, among others, architectural firms) might change or be changing. An example of a changing boundary is e.g. the emergence of the so-called “design-and-build” contracting firms with in-house design services (see Huovinen and Kiiras, 1998, for IMP Group research about this phenomenon). More generally speaking, several leading researchers including Finnish Karin Holstius and the Italians Bonaccorsi, Pammolli, and Tani (1996) believe the boundary issue is especially important with regard to the field project business, which of course includes construction and architectural service projects. Holstius (1989:11) stated the following in a project marketing study:

“Strategic behaviour is not explainable by a systems approach with fixed boundaries and invariable interconnections. In effect, the essence of strategic work is to transform interconnections and to change the system’s boundaries.”

With regard to the level of the firm, the author was quick to eliminate the prescriptive suggestions of Porter at this level as she found them much less applicable to her research project. The reason for this is related to two of Porter’s (implicit) key assumptions in both of his well-known books (Porter, 1980 and 1985), namely the assumptions that firms face homogeneous markets of customers and that these markets can/should be segmented. In Porterian terms, the customer is depicted as an anonymous and substitutable entity because of these assumptions.

The architects described in the works the author read about architectural practice (Albertsen, 1996; Blau, 1984; Gerkan, 1995; Harrigan and Neel, 1996; Östnäs and Svensson, 1986; and Svensson, 1990) did not describe the customer as being an anonymous and/or substitutable. Instead, these contributions described both the interactions between representatives of architectural firms and individual clients and the resulting architectural projects as being unique and containing at least

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some non- standardized elements. Thus the author chose to eliminate Porter's frameworks from her study in April 1998. In her subsequent pilot study interviews, the results of which are briefly mentioned in Subsection A.4., the Danish architects interviewed said they offered customized solutions for individual customers, thus confirming the author's hunch that architects' customers are not anonymous or substitutable. These responses also eliminated the possibility of economies of scale.

In contrast to Porter, the late renowned American marketing scholar Wroe Alderson's initial assumption is one of heterogeneous markets (Priem, Rasheed, Amirani, 1997:147; Håkansson and Johansson, 1984:10). However, Alderson's theoretical framework was also problematic with regard to the author's empirical data because it contains an implicit normative preference for the homogenizing of heterogeneous markets by the creating standardized offerings (Priem, Rasheed, and Amirani (1997:149-50:

“In heterogeneous markets, the matching between differentiated segments of supply and differentiated segments of demand is effected through a series of sorts and transformations. Sorting is the physical process through which goods, materials, or components are assigned to appropriate segments of demand. Once a sort is completed, it cannot be reversed without some risk of demand... A transvection is the outcome of a series of transactions, sorts, and transformations that creates meaningful homogeneity from meaningless heterogeneity.”

On the basis of the above, Alderson's perspective was also eliminated on the grounds that Danish architectural firms have not standardized their offerings for anonymous and substitutable customers.

Returning now to industry-level analysis, the author found Storper's and Salais' (1997) work a helpful supplement to Porter's work because their work includes descriptions of industry dynamics concerning firms that offer non-standardized products as well as a treatment of the issue of changing system and company boundaries.

The groundbreaking work of Storper and Salais (1997) is probably the most well-known description of “socialized”, “pragmatized” macro-economic dynamics to date. They describe their contribution in this way:

“we define four possible worlds of production, frameworks of action in which producers and users of products are inscribed and which permit them to coordinate their activities in an economically successful way. In the process of producing and exchanging, each

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person confronts uncertainty with respect to his or her own actions and those of others. This uncertainty takes radically different forms for each type of product, posing different dilemmas for actors with respect to others, but it must be resolved for production to succeed. This means that, for a given type of product, each actor must have the particular competence and resources needed to get around uncertainty by acting in ways expected and understood by others involved in the same productive effort. The result is a process of economic coordination.

In more concrete terms, each world of production is distinguished by fundamentally different routines for abating uncertainty; hence each world is organized according to different principles of optimization, as in orthodox theory. This framework of action is not necessarily a shared set of interests: we can differ in interests but still expect others to act in a certain way and can ourselves act according to mutually established guidelines in meeting their expectations.

Notice that we do not define a world in terms of the standard trade-off between structure and action, but as both the observable routines and the cognitive framework; this is because each world is continuously evaluated, interpreted, and reconstructed by its actors. [...] We call certain worlds “possible” because they are ideal types of coherent action frameworks for the basic kinds of products found in a modern industrial economy. By ideal types, we mean that they express, in theoretical terms, the pragmatic coherence sought by actors themselves. We identify only four such worlds, and not five, six, or an infinity, because the basic dimensions of production pragmatics yield these four basic situations for economic actors.” (*ibid.*:26-7)

With regard to the Porterian and Aldersonian theoretical frameworks, these fit best on firms that belong to the action framework that Storper and Salais call the *Market World*:

“The Market World is that of standardized but now differentiated (what we call “dedicated”) products. The user (that is, buyer) defines his particular needs in the universalizing language of standardization, so these needs can be translated into objective, codified norms. Competition between those producers who can respond to the demand, often relatively few in number, turns on price and rapidity of response.[...] The contemporary restructured and flexible firm is close to this possible world today” (*ibid.*:20-1).

On the other hand, architectural services, as performed in and delivered by today’s Danish and German architectural service firms, can be classified as a part of the *Interpersonal World*:

“The Interpersonal World is one of specialized and dedicated products, that is, products made according to the desires of the buyers. In this world, relationships between buyers and producers rest on conventions of confidence, reputation, and specificity of image; competition between producers centers on product quality.” (*ibid.*:20)

In later sections of their work (e.g. *ibid.*:189-205), Storper and Salais describe the tensions and selection mechanisms of the four possible worlds of production that lead to either (a) periods of

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(temporary) stability or (b) transformation in the boundaries and relations between firms that belong to the different worlds of production.

These tensions exist in all industries, including the architectural services and construction industries. As a case in point, although Danish architects produce customized services of the interpersonal world, far from all buildings built in Denmark today are designed by architects (see e.g. Kleckers *et al.*, 1989:51 or Madsen, 1991:43). In some cases, especially in the private housing sector, buildings are conceived by various other actors in the construction process (*ibid.*). Over and beyond that, a few types of buildings have been produced in series (e.g. some apartment house types, emergency housing for refugees), and there is a growing number of standardized components which can be used and a growing number of computer programs that allow potential builders to create simulations of buildings they might be considering building (Eurostat, 1995:24-39). These factors, some of which will be treated in more detail in the following three subsections, all point toward a scenario in which today's architects are experiencing increasing pressure from another of the Storper and Salais' world of production, namely the aforementioned Market World: The construction industry firms of the Market World are increasingly producing construction solutions which may be substitutes for the services of the Interpersonal World of the Danish architectural service firms. This danger is, in the author's opinion, also present on the German and other EU markets, although legal requirements stipulation that architects must complete certain tasks in the construction process (see Oliver-Taylor, 1993:35-37) do offer some immediate protection on the German market.

However, as previously mentioned, the author will eliminate possible transformations of worlds of production of architectural and construction services from her studies, as she will be completing historical case studies of Danish architectural service firms' selling and networking on the German market in the 1990s. She finds this omission permissible because both her pilot study data and the initial data from her main study unequivocally point to a scenario in which Danish firms in the 1990's have attempted to market their services in Germany according to the pragmatic action framework that corresponds to Storper and Salais' "Interpersonal World".

A.3. The Danish Architectural Service and Construction Industry.

A.3.1. Danish Architects and Their Organizations.

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The Danish market is currently characterized by an abundance of architects. According to Hansen *et al.*, 1994:34, in 1994 Denmark had a total 5900 academically trained architects, and approximately 1000 of these were unemployed. However, the total number of persons working or seeking work as architects is somewhat higher than these figures indicate, as the title of "architect" is not reserved by Danish law for persons who have an academic degree in architecture. Seen in relation to the general population, in Denmark there are 961 architects per 1,000,000 persons (Erhvervsfremmestyrelsen, 1993:107-8).

Concerning companies, according to the statistics of JB Business Information A/S, there were 524 private Danish architectural service firms in April 1997 (JB Business Information, 1997/1:v).²²

Because both persons with and without specific architectural training work as architects in Denmark, Danish architects are organized in a number of organizations and umbrella organizations, which will be described briefly below.

The National Organization of Danish Architects (DAL, *Danske Arkitekters Landsforbund*) is an umbrella organization for students of architecture and academically educated architects who have studied architecture at the Academy of Fine Arts in Copenhagen (*Kunstakademiets Arkitektskole*) or the Århus School of Architecture, the only two schools in Denmark that offer academic degrees in architecture. On August 5, 1998 DAL had a total of 6165 members, including 492 student members (telephone conversation with Hanne Hansen, DAL). However, because of the economic problems which many Danish architectural service firms have experienced in recent years, the National Organization of Danish Architects (DAL) is not a strong participant in the Danish political debate about the future of architecture (Hansen *et al.*, 1994:36).

Academically educated architects who have worked in private architectural service firms for a number of years as owners or partners can also join the Council of Practicing Architects (PAR, *Praktiserende Arkitekters Råd*), if both they and the firm they own or are a partner in meet the eligibility requirements. This organization works to safeguard the special interests of architectural service firms. 692 members of DAL were also members of PAR on August 5, 1998 (Hanne Hansen, DAL).

²² JB Business Information's statistics may be incomplete, because they are not always able to track down companies with personal liability due to the fact that these companies are not required to make public financial statements. Additionally, companies undergoing i.e. bankruptcy proceedings are not included in this figure (JB Business Information, 1997/1:viii).

Academically educated architects who are employed by the public or private sector are organized in the Council of Employed Architects (AAR, *Ansatte Arkitekters Råd*), which had 3851 members on August 5, 1998 (*ibid.*).

The Society of Associated Danish Architects (ADA) was created in the Spring of 1992, when two previous organizations, *Arkitekt-sammenslutning M.A.S.* and *Danske Praktiserende Arkitekter (DPA)*, merged. This umbrella organization admits owners of architectural drawing offices who have completed an apprenticeship education (e.g. as carpenter, plumber) in the Danish construction industry and who have been educated by a certified school of construction (*byggeteknisk højskole*) as constructing architects (*bygningskonstruktører*). To become a member, one must have worked as an architect for at least 5 years. ADA had 120 members on August 5, 1998 (source: ADA).

A.3.2. Role of the Architect in the Danish Construction Process

In Denmark, the architect was previously involved in the following four phases of the building process (Kleckers *et al.*, 1989:51):

1. General proposal.
2. Detailed proposal.
3. Pre-construction phase.
4. Construction.

Until the late fifties, all four areas were undisputedly his or hers (Hansen *et al.*, 1994:33). Today, however, the contractor often takes over after phases two or three (Kleckers *et al.*, 1989:51) and in many projects, engineers often are used in all four phases (Madsen, 1991:54) to the detriment of architects.

The reasons for this development are to be found in the vast changes that the construction sector has undergone in the past four decades (see Hansen *et al.*, 1994: 33-4): Where construction work used to mean custom-made installations of a few traditional building materials, today's industrialized building process is very specialized. There are almost 100,000 different potential components as well as new methods of building that include assembly line and logistical planning methods.

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Architects lost terrain because they did not have the educational resources to deal with the wide variety of new tasks. Additionally, new types of tendering for the *entire* construction project (including the building design) have further marginalized architects (*ibid.*).

In Denmark of today, because of the above-mentioned factors, academically educated architects working in private architectural service firms compete with the following groups for projects (Kleckers *et al.*, 1989:159):

1. Architects without an academic education.
2. Construction companies who engage in upstream integration.
3. Engineers.

This competition is the cause of some rivalries and prejudices. According to Madsen (1991:55), Danish architects' typical stereotype of engineers as project leaders is as follows:

"Engineers think in too much in static dimensions and tend to stick to conservative work routines to too great of an extent. They do not feel at home in relation to unclear goals." (translation: Maria Anne Skaates)

Danish engineers, on the other hand, are of the opinion that architects mainly have artistic ambitions and do not pay enough attention to economic aspects. This opinion is also present in the minds of some Danish private building owners to be (*ibid.*).

Some Danish engineers also believe that Danish architects are less skilled at solve technical construction problems than previously. However, Danish architects often employ specialists to work out technical details in relation to their projects (*ibid.*: 62).

Professor Boje Lundgaard from the Academy of Fine Art's School of Architecture in Copenhagen agrees that the lost terrain is a problem for Danish architects. He commented the lost market share in relation to e.g. engineers in this way (*Arkitekt- og byggebladet*, November 1992:31):

"Architects must prepare to fight to regain some of their 'old jobs'. An architect is not just a decorator [...], but a person who because of his overview of everything - the construction process as well as the final result - is able to forge links so that everything functions well. Many of these functions have been taken over by others, but they do not do a better job. Only the architect can be the entrepreneur's impartial advisor.

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Effort must be made to bring disciplines such as technological, economic, and logistical control back to architecture again. Otherwise architecture as a profession has lost. [...] Because of his work, an architect must also be interested in societal mechanisms (economics, structures, functions) as a whole, because the architect's basic advantage is that he is the only one who can coordinate and see the big picture. This requires profound knowledge of society and the construction sector both as organic units and as bundles of single functions and details." (translation: Maria Anne Skaates)

However, the Danish architectural service firms seem not to be at the head of technical development with regards to e.g. computer technology:

"The problem of the construction sector is that none of the involved parties work to create a systematic foundation for rationalization which can be achieved by integrating data and communication of data. [...] Because of the way that the construction sector is structured today, the foundation for communication of data and digital trade must be laid by the architects who draw the projects, yet it will be utilized by the firms that produce and deliver parts and by those who construct the building." (*Arkitekt- og byggebladet*, November 1992:34, translation: Maria Anne Skaates)

A.3.3. Degree of Competition and Cooperation between Danish Architects

In Denmark, the architectural industry has traditionally been built up around an ideal of mutual trust which comes from knowing or knowing of one's competitors/colleagues. Advertisements for architectural service firms are very rare as there is an unwritten rule that discourages advertising (Kleckers *et al.*, 1989:33, 52), even though rules about marketing were liberalized to some degree in 1979. Approaching journalists with information about current or coming projects is, on the other hand, accepted (*ibid.*).

Price competition has also been quite hidden and not very strong until the late 1980s. However since that time, and especially since the building crisis in the early 1990s when total turnover declined in current value terms (Albertsen, 1996:14), this situation has changed completely. The implementation of the EU Public Services Directive into Danish law in the early nineties reduced average fees substantially - perhaps by as much as 50% (*Arkitekt- og byggebladet*, January 1992: 12-4). In addition, Danish architectural service firms have begun to rationalize their time for specific parts of projects and to itemize their bills to clients to an extent that they never previously had done (interview with Associate Professor Niels Albertsen, March 6, 1998).

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A.3.4. The Competitiveness of the Danish Construction Industry as a Whole.

A report compiled by the Danish Agency for Trade and Industry (*Erhvervsfremmestyrelsen*) in 1993 was relatively pessimistic about Danish construction export success. The report claimed that the Danish construction industry is marked by a low degree of internationalization, too low productivity, and an obsolete structure (*Arkitekten*, 1994/2:72) but that if the Danish government were to invest up to DKK 500,000,000 per year in an active construction sector business policy, Danish construction firms might be able to survive competition on international markets (*ibid.*). This money was to be, among other things, invested in improving education. With regard to architects, the report suggested that the Danish architectural education should be strengthened to include more knowledge of building processes, cash flow management, and managing construction projects (*ibid.*, *Erhvervsfremmestyrelsen*, 1993:109).

A.4. Structure of the German Architectural Services Industry

A.4.1. Number of Architects and Architects' Organizations in Germany

The number of architects in the general populations of the Germany is nearly the same as for Denmark. In Denmark there are 961 architects per 1,000,000 persons. The figure for Germany is 985, whereas the EU average is 952 (*Erhvervsfremmestyrelsen*, 1993:107-8).

Privately employed architects in Germany as well as owners and partners in German architectural service firms may be invited to become full members of the *Bund deutscher Architekten (BDA)*. BDA had in 1997 approximately 4,500 full members as well as ca. 450 extraordinary or guest members (BDA: 1997: 30), which means that less than 10 % of German university educated architects are members of BDA (own calculations). It is therefore difficult to assess how well BDA represents the interests of the majority of German architects. BDA is, however, seeks to play an active role in political discussions concerning the construction industry, housing prices, new regulations etc (see BDA: 1997 for statements concerning the organization's policy).

Because Germany is a federal country, many of the legal regulations concerning building construction are stipulated by the German federal states (or *Länder*). Therefore BDA is federally

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organized, which branches in each of the German federal states and an umbrella organization at the national level (*ibid.*).

A.4.2. Role of the Architect in the German Construction Industry in Comparison with the Danish Construction Industry.

Generally speaking, there are major differences in the routines and competences of architects between the EU member states. Denmark and Germany are no exception to this rule. The impediments which are relevant for Danish architects working in Germany include the following (based on OECD, 1996:88-9):

1. Germany, in contrast to Denmark, requires licenses to practice architecture; architects must apply for a license at the *Architektenkammer* of a German *Land*. In order to receive such a license, one must have two years of practical architectural experience as well as a degree in architecture.
2. In Germany, architects receive extensive engineering training, which often creates problems concerning professional liability for Danish architects who have not experienced such extensive training.
3. Differences in construction and urban planning regulations and regulation traditions.
4. Factors related to social and cultural context.

With regards to point two, the technical side of German architectural training is more demanding than in other EU countries. This means that many building design and construction tasks may be carried out by either engineers or architects educated in Germany. (Button and Fleming, 1992:411). Danish architects stand especially weak in relation to Germans with regards to technical skills, as their education does not focus on this aspect.

Moreover, with regards to point three, German architects carry out more site supervision and management administration than most of their colleagues in other EU countries. (Button and Fleming, 1992:411, Oliver-Taylor, 1993:37). This makes the German market comparatively less attractive for Danish engineers (Hartung, 1997), yet the main problem with relation to Danish architects is the fact that architects in Germany also carry legal responsibility for these supervision and management administration tasks, as will be seen in the table below.

Fejl! Ukendt argument for parameter.

These vast areas of responsibility also have consequences for the organization of German architectural firms, as compared with Danish architectural companies:

"Architectural practices in Germany are [...] generally multidisciplinary including specialist technicians and provide a comprehensive design and project management service." (Button and Fleming, 1992:411).

Last, but not least, architects working in Germany must have compulsory indemnity insurance (Button and Fleming, 1992:410), due to their large areas of responsibility.

The differences in the areas of legal responsibility of actors in the German and Danish construction processes give a good overall picture of the difference in the roles that Danish and German architects typically play in the construction process as depicted in Table A1 on the next page.

In contrast to Denmark, the German market is full of interesting potential projects for Danish architects that are larger, more interesting, and more complex than anything that can be found in Denmark, with the exception of the greater Copenhagen area with its international airport, large soccer stadium and large trade fair center (*Arkitekten*: 1993/5: 180).

It is also important to note that Denmark's largest contracting companies are smaller than the largest constructors in e.g. Sweden and Germany (Galkowski *et al.*, 1997:51-3). Danish companies may

Table A1. Normal Allocation of Legal Responsibility in the Construction of Buildings.

| Area of Responsibility | Denmark | Germany |
|-------------------------|--------------|-----------------|
| Ground | Contractor | Arch. + Engin. |
| Stability calculation | Contractor | Engineer |
| Bill of quantities | Contractor | Architect |
| Design | Contractor | Architect |
| Inspection of materials | Contractor | Arch. + Contra. |
| Direction of the works | Contractor | Architect |
| Final acceptance | Both parties | Architect |

Source: Oliver-Taylor, 1993:25,35.

therefore not be interested in bidding on the largest projects in Germany. In the architectural services industry, on the other hand, Denmark had in 1994 6 architectural service firms on the list of the largest 100 architectural design firms in the world, whereas Germany has none (*Arkitekten*, 1994/8:284).

A.4.3. Degree of Competition and Cooperation between Architects working on the German Market

With regard to the German architectural services market, the German market is very similar to the way the Danish market previously was in the sense that overt fee competition is almost nonexistent:

"In Germany an agreed scale of fees is laid down in HOAI (*Honorarordnung für Architekten und Ingenieure*) which was adopted into law by the federal government in 1971" (Button and Fleming, 1992:412).

The *Länder* then make their own supplementary rules, but they are not permitted to alter substantially with the fee scale (Oliver-Taylor, 1993:34).

The price level in Germany for construction was, in a report compiled by the British "Business Round Table" the lowest in Europe (*Arkitekten*: 1995/1:369). Architects fees are, however, high in comparison with other countries as they are based on a percentage of the total cost of the building that is constructed (Oliver-Taylor, 1993:35).

Fejl! Ukendt argument for parameter.

With regards to furthering the interests of Danish firms in Germany, the Danish Ministry of Housing has an annual budget of approx. DKK 20 million to promote Danish architectural and construction industry exports. The Ministry uses the money to achieve construction industry related cooperation agreements with foreign countries or federal states (in federally organized countries such as Germany or Austria) and to publish manuals with relevant information about the construction industries of foreign countries. Additionally, the Minister of Housing visits foreign countries or German federal states to promote Danish exports.

According to the former Construction Attaché at the Danish Consulate General in Berlin, Germany, Christian Lerche, Danish construction firms do not compete on "Danish quality". Instead they compete on the ability to build more quickly and more inexpensively than the Germans due to the fact that they make greater use of prefabricated construction elements (*Arkitekt- og byggebladet*, February 1994: 30). Some sources claim that incorporating industrialized house building elements in the construction process is 10-15 % less expensive than traditional German building methods (Oliver-Taylor, 1993:28).

These prefabricated elements can be used in building renovation projects as well as in the German *Fertighausbau*, i.e. partially prefabricated standardized residential housing construction (Danish Ministry of Foreign Affairs, 1995:42-3). However, not all prefabricated environmental elements allowed in Denmark are acceptable to German contractors. Due to the fact that the EU's Maastricht and Amsterdam Treaties contain an "Environmental Guarantee", individual EU member states may make stricter regulations concerning environmental standards for construction materials than the EU minimum standards. This has resulted in different countries having vastly varied environmental requirements and rating systems. Whereas the Nordic countries have to some extent coordinated efforts in this area, Germany has its own regulations. Over and beyond that, it can be expected that some German contractors will be even more demanding than the regulations require or in principle skeptical towards prefabricated elements from foreign suppliers that they do not know.

A.5. Some Remarks on European-wide Dynamics

Looking at Europe as a whole, the total number of architectural firms has decreased in the past decade, with small firms vying for large firms. (Eurostat, 1995:24-38). There are several reasons for this (*ibid.*):

"First, a substantial increase in the number of new graduates each year, contrasted with the sharp decline of activity in the building industry during the recent recession has deterred architects from going into business on their own. The next factor is the growing dominance of the commercialization of supply in the building sector, which encourages working as a salaried member of a staff. Finally, the scale and complexity of some new building projects no longer require the services of small architectural firms."

After the European-wide harmonization of rules concerning the labeling of building components, there are a huge number of components available in Europe (approx. 100,000). No single person can be knowledgeable about the entire selection of components. Additionally, because of changes in production methods caused by the introduction of programmable machines that enable more flexible production runs, it is today possible to produce many types of components in small series or even "made to order", in accordance with the requirements of the buyer. Over and beyond that, many producers have developed CAD-design programs that include their components to promote their product lines. These developments all present major challenges for architects' position in the construction value chain.

In Europe as a whole the "Danish" tendency to use architects less and less in construction projects is also to be found, except in countries such as Spain and Germany that have legal stipulations that require that architects do certain tasks. The Architects' Council of Europe (ACE) commented this development in the following way:

"[o]ne of the most pronounced tendencies in the demand circuit for construction is that the course of this demand is increasingly going directly 'from the consumer to the producer', with 'designers' being passed by. In other words, to start a project, customers tend to consult less with an architect and instead turn to a general contractor who can provide them with all the services leading up to the construction of a building.

Therefore, the self-employed architect is increasingly induced to offer services which will make him/her better able to meet cost requirements and time schedules, whatever the size of the commission involved. The 'project manager' aspect is taking precedence over the demand for unique, personalized designs. This trend of

Fejl! Ukendt argument for parameter.

customer demand has forced the architect to equip himself with computerized means of tracking price fluctuations, planning the design work and even executing it.

This increased technological capacity has been supplemented by an extraordinary improvement in computer-aided design facilities. These techniques are becoming common in medium-sized firms and even more so in big ones. The high performance of such technology opens up prospects which were previously unimaginable.

However, methods still need to be perfected for transmitting data between the demand from clients and the architect's design and then between the latter and the demand for implementation. These integrated systems would not only lead to gains as regards performance and cost, but also would enable the reliability of such communication itself to be improved.

Such prospects shed a positive light on the architect's strategic position in the economic process of construction by preserving his/her creative role as designer and his/her active role as coordinator. This necessarily presupposes a sufficiently independent position to safeguard the architect's credibility in the eyes of those who seek his services." (Eurostat, 1995: 24-39)

Similar to the role Danish architects have played in Germany, the above passage emphasized the way in which prefabrication building components and their complementary computer-aided design facilities are changing the field of architectural work. Danish architects have already long been parts of construction projects where computerized designs depicting prefabricated parts have been used (see e.g. *Arkitekt- og Byggebladet*, February 1994:30, May 1992:38, and *Arkitekten*, 1994/7:256).

However, the diminishing importance placed on unique, personalized designs leads some observers to fear that the development in Western Europe will not stop with prefabricated construction elements, but that we at some time in the future may also see an increase in prefabricated building constructions, as is the case in the United States and Japan. If this scenario comes true, European architects will see their role in the construction process diminish further. The Architects' Council of Europe has made the following statement on this topic:

"Statistics suggest that the industrialisation of the building sector in the US and Japan is much more advanced than it is in Europe. This is attributed in part to the highly sophisticated prefabrication of residential buildings which exist there. It is still generally accepted that a real demand for 'products' of this type does not yet exist in Western Europe. However, if the economic slump were to persist, offering a well-prepared supply of such products could succeed in resolving the problem of dwindling resources and time available and increasing needs to some extent.

EU architects are no more open than producers or consumers to taking such a step, which would call into question the specific architectural features which characterise

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most of the Member States. Nevertheless, even if the single internal market were to remain insensitive to the search for effective ways of responding quickly to a housing demand that requires a minimum degree of comfort and also affordability (such needs are still immense: 1.5 million new dwellings in ten years are planned for Germany alone), designers and building firms would still be able to offer their services and products to many other regions of the world where housing needs are even more acute (e.g. Eastern Europe)." (Eurostat: 1995:24-38)

A.6. The Qualitative Pilot Study Interviews.

A.6.1. Relected Responses of Respondents.

In this section, the author will list a few important pieces of information that she received from her pilot study repondents:

- Most Danish architectural service firms are oriented towards their home market only. They consider export difficult and cumbersome and embark upon it only when they feel they are forced to because of a depressed Danish market.
- Most of the Danish architectural service firms that attempted export to Germany in the early 1990s were export novices; therefore their export attempts were marked by "learning-by-doing" efforts. Many firms lost money on their export attempts.
- Most respondents believe there are only approximately 15 Danish architectural service firms that are aiming for, or have already achieved, a continuous export profile and a large degree of internationalization.
- Danish architectural service firms that export have traditionally been "nomadic exporters", i.e. they have wandered from one export market to another, trying their luck on the booming markets, yet leaving quickly when these same markets began to wane. This is also true of the majority of the "most internationalized" Danish architectural service firms.
- Most respondents agreed that the EU Public Service Directive offers more advantages than disadvantages for Danish architects. With the exception of competition from the other Scandinavian countries and competition concerning the biggest Danish projects, the respondents generally did not expects firms from other countries to be very interested in bidding on Danish projects because of the small size of the Danish market. Danish architects will bid on projects on other European markets to a much greater extent.
- Respondents believed that only a small number of Danish architectural service firms regularly inform themselves about public tendering offers in other EU countries.
- Some respondents mentioned that they believed that actors in the construction industries of Northern Europe are increasingly competing on the ability to design and build buildings with long-term low maintenance and low energy costs.
- Most respondents believed that consumers in different areas of Europe have different preferences for buildings and will continue to have these in the future due to climatic and geological

Fejl! Ukendt argument for parameter.

differences as well as cultural and legal differences. Cultural differences influence e.g. basement construction, the position of the kitchen in the house, the size of children's bedrooms, the size and construction of office space, etc.

- Many weaknesses and a few strengths of the Danish architectural education were discussed. Respondents did not believe that the Danish architectural education was less or more international than architects' education in other EU countries.
- Respondents believed that their personal contacts are very important with regards to receiving project orders or being invited to compete in competitions. Many respondents believed that certain circles in the construction industry are relatively closed and difficult to enter because the parties involved know each other, trust each other and will continue to work with each other.
- Competitions and public procurement procedures in both Denmark and Germany were criticized for not being open and impartial by some respondents.

A.6.2. Criticism of Pilot Study Method and Results.

In relation to the author's choice of pilot study respondents (see Subsection A.1. for further details), two weaknesses may be noted:

- 1.) She spoke with relatively few respondents who could be considered as representatives of the most internationalized Danish architectural firms.
- 2.) She did not speak with any German actors at all.

In a telephone conversation in relation to a paper the author wrote for Ph.D. course on qualitative methods in January 1998, Associate Professor Erik Maaløe of the Århus School of Business had warned her that not including German respondents in her pilot study might give her a somewhat one-sided picture of the strengths and weaknesses of Danish efforts to export architectural services to Germany and might lead her to choose the wrong theoretical framework. The author admits that her results were mildly biased because she only included Danish architectural perspectives on exporting to Germany; however, to her knowledge this has not affected her main study research negatively as of yet.

Concerning the first weakness, its consequences have been more serious: only interviewing two persons who represented an "internationalized" Danish architectural service firms gave the author little or none pre-main study knowledge about international network relations and acquiring contacts on architectural export markets. This was one of the reasons that the author has still been working on the revision of her main study questions in the Autumn of 1998.

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Appendix B. On Social Science Paradigms.

In his article concerning "alternative paradigm dialog", Guba (1990) defines four different views on science that are prevalent in today's world of social science: positivism, postpositivism, critical theory, and constructivism. Positivism is essentially the position of the French philosopher Auguste Comte, i.e. the scientific belief in a "reality driven by immutable natural laws and mechanisms" (Guba, 1990: 20) that can be observed by an observer who adopts "a distant, noninteractive posture" (*ibid.*) with which he or she can test hypotheses empirically. Thus "the basic belief system of positivism is rooted in a *realist* ontology, that is, the belief that there exists a reality out there, driven by immutable natural laws" and therefore "the positivist is constrained to practice an *objectivist* epistemology" (Guba, 1996: 19).

Postpositivism is a modified version of positivism that is often termed *critical realism* (*ibid.*: 20).²³ The postpositivist holds the ontological position that "a real world driven by real natural causes exists" (*ibid.*), but that it is epistemologically impossible for a human observer to be purely objectivist in his or her observations. According to Guba (1996: 21):

"To overcome these problems postpositivists counsel a modified objectivity, hewing to objectivity as a 'regulatory ideal' but recognizing that it cannot be achieved in any absolute sense. It *can* be achieved *reasonably closely*, by striving to be as neutral as possible; by 'coming clean' about one's own predispositions [...] so that the reader can make whatever adjustments to the proffered interpretations of findings that seem appropriate; by relying on 'critical tradition', that is, requiring the reports of any inquiry to be consistent with the existing scholarly tradition of the field; and by subjecting every inquiry to the judgement of peers in the 'critical community'."

Critical theorists usually share the critical realist ontology with postpositivists (Guba, 1996:23). However, they do not subscribe to the epistemological position that striving towards value-free inquiry is desirable (*ibid.*, Alvesson and Deetz, 1996: 194-5). Instead they insist that nature is observed through a partially subjective, value-laden perspective and one must accommodate for this problem in one's scientific inquiry. Acknowledgment of the value-related aspects of scientific research becomes paramount at the methodological level:

²³ Symons' (1996) realist position is also a postpositivist position.

"Critical theorists [...] take a dialogic approach that seeks to eliminate false consciousness and rally participants around a common [...] point of view. In this process, features of the real world are apprehended and judgements are made about which of them can be altered. The result of effective, concerted action is transformation." (Guba, 1996: 24).

In contrast to the first three positions, constructivism, or radical constructivism, as I will call this last position in the rest of this paper²⁴, is not based upon a realist ontology. Instead, radical constructivists subscribe to the following beliefs (Guba, 1996: 25-6):

1. "Facts" are dependent upon the theories that are used to collect these facts and are thus only "facts" within a certain theoretical framework.
2. No theory can ever be verified because induction can never insure that all possible factors and specimens have been accounted for by the theory. Additionally, there will always in principle be more than one theory that can "explain" a given set of "facts". Thus it is not possible to create an unequivocal explanation.
3. "Facts" do not exist independently of values. This means that "reality" is not only theory-laden; it is also value-laden.
4. It is not possible to observe the world from an "objective" outside position. Results of an inquiry are always contingent upon the interaction between the inquirer and the inquired into; thus knowledge is a human construction and can never be ultimately true. Therefore, radical constructivists do not aim to come as close to the truth as possible (as postpositivists and critical theorists do).

In giving up the search for truth or truthful science, the ontology-epistemology-methodology hierarchy is also abandoned by radical constructivists, as these levels lose their relevance as a consequence of the fourth belief.

Concerning the relationship between Guba's four scientific beliefs and the terms modernity and postmodernity, positivism, postpositivism, and critical theory are considered to be modern schools of scientific thought that emphasize the importance of maintaining coherent ontological and

²⁴ I will use the term *radical constructivism* to refer to constructivist approaches that take a postmodern view of ontology, epistemology, and methodology. By doing so, I attempt to distinguish this particular form of constructivism from other, less radical forms of constructivism. This is in keeping with the terminology of e.g. Schmidt (1987).

epistemological beliefs as previously mentioned on page seven.²⁵ Radical constructivism, on the other hand, is the essence of postmodern philosophical approaches to science.²⁶

Common postmodern assumptions include the absence of any fixed underlying meaning (Schultz, 1992: 22), the presence of "superficial multiplicity, difference, and discontinuity in which the notion of verified truth has lost its meaning to notions of successful and seductive 'truths' competing in the postmodern marketplace" (*ibid.*: 16), the constructed nature of people and reality (Alverson and Deetz, 1996: 192), and language use as a system of distinctions central to the construction process itself (*ibid.*).

However, it must be mentioned that radical constructivism is not the only constructivist approach. Less radical positions also exist - i.e. positions that recognize that research published in academic journals is influenced *both* by an intersubjectively agreed upon reality *and* more partisan/socially constructed factors. Both postpositivism and critical theory must, in my opinion, therefore, be considered constructivist, if only reluctantly so, because they rely upon humanly constructed intersubjectivity for verification or falsification. To make this point, Symons (1996: 167) cites Russell:

"The common world in which we believe ourselves to live is a construction..., and if this view is accepted, it also seems logical to accept Weber's contention that: in order to gain insight into the real *wirklich* causal connections, we construct unreal ones."

²⁵ Reflexive sociologists such as Bourdieu (see Skaates, 1997: 12) and Giddens also see themselves as modernists. Giddens (1994: 80-7) uses the term "reflexive modernization" to explain his particular brand of postpositivism.

²⁶ I emphasize the philosophical approaches dimension here because the term "postmodern" has actually also been used in other ways by social scientists, e.g. to describe a social mood or the current historical period (Alverson and Deetz, 1996: 192). For instance, when postpositivist political scientists researching voter behavior speak of postmodern cleavages in an electorate, they are most often using the term "postmodern" as a synonym for "postmaterialist".