OUTSOURCED DESIGN MANAGEMENT IMPLEMENTATIONS: A STUDY CONDUCTED WITH FIRMS AND DESIGN CONSULTANCIES IN TURKEY

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ABSTRACT

OUTSOURCED DESIGN MANAGEMENT IMPLEMENTATIONS: A STUDY CONDUCTED WITH FIRMS AND DESIGN CONSULTANCIES IN TURKEY

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This study aims to investigate the outsourced design management implementations along the alliances that are established between firms and design consultancies in Turkey, which have been analysed in a limited sense in the past. Within this context; information on, 'why and how design is outsourced' and 'how the design process is managed' are derived through semi-structured interviews in conjunction with structured questionnaire conducted with managers from a sample selection of design and manufacturing firms with the aim of comparing the expectations and offerings of the parties that engaged the alliances in Turkey. The findings of the field study indicate that design management implementations in their current form of application exhibit several issues to discuss. Context of outsourced design service, corporate level strategic utilization of the design expertise, evaluation of final outputs, business initiation practices and design process management practices are important factors to consider in management of design alliances.

Keywords: design management, design outsourcing, process management

ÖZ

DIŞ KAYNAK TASARIM YÖNETİMİ UYGULAMALARI: TÜRKİYE'DE FİMALAR VE TASARIM DANIŞMANLARI İLE YÜRÜTÜLEN BİR ÇALIŞMA

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Bu çalışma genel olarak Türk endüstrisinde gerçekleşen tasarım işbirliklerinin yönetimi konusunda mevcut uygulamaları incelemeyi amaçlamaktadır. Bu kapsamda; tasarımda dış kaynak kullanımının nedenleri, işbirliği yapılacak dış kaynağın seçilmesi ve tasarım süreç yönetimi uygulamalarının neler olduğu konuları, yapılan saha çalışmasının sonuçları üzerinden incelenmektedir. Bu incelemeler; dışarıdan alınan tasarım hizmeti yönetimi konusunda mevcut uyglamalarının tartışılması gereken alanlarına dikkat çekmektedir; dış kaynak tasarım hizmetinin içeriği, hizmetin firma düzeyindeki stratejik hedeflerin belirlenmesine katkıları, süreç çıktılarının değerlendirilmesi, işbirliği yapacak firmanın seçimi ve tasarım süreç yönetimi uygulamaları dikkate alınması gereken önemli konular arasındadır.

Anahtar Kelimeler: Tasarım Yönetimi, Tasarım Hizmetinde Dış Kaynak Kullanımı, Tasarım Süreç Yönetimi

To My Family

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CHAPTER 1

INTRODUCTION

It has been commonly noted in the literature concerning innovation and industrial design that the trend for hiring experts to do an organization's design work has accelerated in recent years in industrialized countries. Large-scale and design-oriented organizations like Apple, HP, ALESSI and Herman Miller, serve as an example with their increased number of external sourced researches. That trend's new appearance also found place in significant number of studies about newly industrialized countries.

With the success at some major international design competitions and fairs in recent years, Turkey indicates a bright future about developing innovative products. Some large-scale Turkish manufacturers are following their global predecessors' steps and following that new trend by integrating the needed design service regardless of the limited consciousness.

Certain integration systems in order to achieve innovative ideas have been developed by leading companies from different industries coming from industrialized countries. Being a more recent practice, studies regarding the use of outsourced design in the Turkish manufacturing industry have been scrutinized in a limited sense, hence constituting the reason for this study to be conducted.

Generally, three types of design integration have been discussed throughout the literature review. These are; integrating design as “in-house”, “outsourced” or the combination of in-house and outsourced resources. This study mainly contains the external design resources that organizations make use of.

The literature review evidently shown that; collaborating with the external design resources for organizations has some indisputable contributions regarding the business performance. It has been noted that external or outsourced design capabilities – as it is addressed in this study – have certain advantages such as receiving right kind of creative expertise in a cost efficient way, compared to in-house design groups. However, how to integrate an external organism; in particular, how to select the external resource that is most convenient for the organizational intentions, what to expect from the service and how to manage the process, are matters of debate. Thus, it is believed that these issues are worthwhile to investigate due to the short history of the design consultancies in Turkey; tentative nature of the process has been investigated and experienced in a limited sense.

1.1 Definition of the Terms

Main subject of this study is the usage of external design experts by organizations. There are some conceptual terms in the study based on Bruce and Jevnaker’s works. For example “design alliances” is taken from their 1998 published book with the same title. Moreover, the term “Design partnership” also taken from Bruce and Jevnaker. Another term used in the study is “out-of-housing” that is used by Bruce and Morris (1998).

As a general reminder, the concept of hiring design capabilities from external means will be referred as “outsourcing design” for that study since it has been widely used in literature as a subject this concept.

In management jargon, the term “outsourcing” is used when manufacturing of products is dealt by outside suppliers to lower production costs.

In order to achieve specific goals like differentiation, awareness or a competitive edge for market success, companies transfer shares of work to external design sources, can be named as design services, rather then performing it within themself. That concept of work is called as “outsourcing design” in the literature review.

1.2 Aim and Scope of the Study

This study aims to provide information about convergent and divergent validity of design management implementations that are currently used through design alliances in the Turkish industry. Outsourcing design has become a surprisingly important for the Turkish manufacturing industry during last decade. However, as mentioned before, concept of the outsourcing design is covered poorly in the studies even it requires a wider approach.

Therefore, the study sets out to explore the current design management implementations by making comparisons between designer and non-designer parties’ perspectives on the three main subjects of these interest which are, outsourced design service content, initiation of alliances and process management practices.

In order to investigate these subjects of interest, a population of design firms have been selected from METU (Middle East Technical University) Department of Industrial Design database and manufacturing organization population has been generated through client recommendations of these design firms. Since the aim of the study was covered by the outsourced design management implementations in Turkey, manufacturing organizations that have not collaborated with external design resource were excluded. Therefore, the scope of the investigation consists of manufacturing organizations, which utilize industrial design as an external resource, and the design firms, which provided the design service to these manufacturers as an external resource. Within this scope, information on why and how design is outsourced and how the design process is managed in Turkey are derived through comparing the expectations and offerings of the parties that engaged the alliances.

In the light of the aim and scope of the study, the goal is to investigate beneficiaries' expectations(1), procedures of hiring product design services(2) and comparing these expectations with service providers' offerings(3) in order to derive implications about convergent and divergent validity of design management implementations that are currently applied in Turkish industry.

1.3 Research Questions

Initial research questions regarding management of outsourced design have been set. In order to obtain data from the literature on this subject that would form a basis for further research to be conducted on the Turkish manufacturing industry. The literature is reviewed to understand;

- To which extent beneficiaries' expectations from outsource design service correspond with the service providers' offerings.
- To which extent service providers' promotion activities are influencing beneficiaries' service procurement decisions.
- To which extent beneficiaries' process management expectations correspond with the process management practices offered by service providers.

After reviewing the literature with the guidance of the listed questions above, a main research question has been set to understand the state of outsourcing design in the Turkish industry.

- How is outsourced design managed along the alliances that are established between manufacturers and design firms in Turkey?

The following sub-research questions are formulated with the intention of revealing how outsourced design is managed along the alliances that are established between manufacturers and design firms in Turkey:

- What are the service aspects offered within the product design and development service by industrial design firms in Turkey?
- What are the expectations of Turkish manufacturers regarding the product design and development service content?
- How do the Turkish manufacturers utilize the external design expertise when building the organizational level strategies?
- How the success of a project is evaluated by both parties?
- How do Turkish manufacturing organizations select the design firms to be collaborated with?
- How do the design firms promoting their business?
- How do the design firms manage the design process?

- What are the expectations of manufacturers from design process management?

1.4 Methodology

The research plan consists of two main sections. The initial investigation takes place in the form of a literature review, where academic research material and data on the issue of outsourcing design have been collected from acclaimed design journals, doctoral dissertations, internet databases and from the news. Second part of the investigation was carried out as a field study that was consisted of a semi-structured interview in conjunction with a structured questionnaire.

Literature review:

This study aims to demonstrate the outsourcing resources process done in companies in industrial countries. Therefore in the literature review, there is an important part of studies which are published as documented data based on experience, forming a background for the subject of outsourcing design. Preparations for the analysis of Turkish manufacturing industry about that concept, are based on the gathered data about the processes and management practices of outsourcing design, from those documents

Field survey:

In light of the findings from the literature review and a former pilot study conducted by the author, an investigation that subjected design management implementations in Turkish manufacturing industry has been conducted by utilizing a semi-structured interview in conjunction with a structured

questionnaire. Twenty-four respondents from eighteen industrial design firms and twenty-two respondents from manufacturing firms participated in the study.

Since the implementations to be investigated are embedded in goal-oriented and company-specific operations, this study attempted to collect comprehensive information through semi-structured interviews. On the other hand, taking into consideration the aim of the study and the research questions posed, to ensure the validity of qualitative study and enrich the comprehension of the empirical manifestation while increasing the reliability of findings, a quantitative approach, Likert-type scaled questionnaire, also adopted by the researcher. Consequently, a semi-structured interview in conjunction with a Likert-type scaled questionnaire was applied as the data collection method to the managers of manufacturer and design consultancy firms.

1.5 Structure of the Thesis

This chapter addresses the starting point and significance of pursuing such a study. An introduction to the aim of the study, which is attended to investigate the convergent and divergent validity of design management implementations that is currently used in the design alliances in Turkish industry, has been presented with a guide of the route taken in terms of research methodology.

Second chapter constitutes a research of the literature regarding outsourced design management, enabling to from an understanding on how external design resources are managed and exploited by manufacturing companies within the business performance context, which will later be used as a foundation for the field study that revealed in third chapter. Academic papers, news and design related journals provided a basis for an initial perspective on design resources displaying an emphasis on outsourcing design capabilities. How design services

are contacted and obtained explained in the following sections in order to examine the reasons and the development of outsourcing design. Design experts' offerings, expectations of client organizations and evaluation of the motives and barriers about maximizing the profits of external design resources are the other topics covered in that section. Moreover, success stories about the client-consultant relationship are used to explicate the management of the entire process.

In Chapter 3, design and conduct of the field study, especially data collection method, population, sampling, analysis of the collected data and results of the field study are submitted. Results of the pilot study conducted on the subject, containing the gathered data from the interview and questionnaire questions are also took place on that chapter. Moreover, special comments are made about the preparation process of the field study and a literature review on employed methods is added.

Final section of this chapter is focused on to the outcomes of the fieldwork. In this section, main arguments are discussed based on the displayed results of the field study and some important specified issues. The final chapter puts up the conclusions of the study based on the general outcomes of the literature review and analysis corresponding to the research questions chosen for the investigation. In the last part of the chapter, limitations of the study are described and potential areas for future research stated.

CHAPTER 2

LITERATURE REVIEW

There can be different interpretations of design practice in a specific time fragment and in a specific culture. These various interpretations are not necessarily exclusive, but they are partial views of a complex set of related. Design is seen as a discrete activity, as a total process or in terms of its tangible outcome. It is also seen as a part of management, a cultural phenomenon or a self-progressive industry. It has also a value adding function and a potential for changing social and political values. Considering such different perspectives or definitions of design, it becomes difficult to discuss the nature and functions of design in industrial and social contexts.

2.1 Interpretations and Constructions of Design

Cooper and Press (1995) introduces several interpretations and constructions of design, which was also used as a framework for discussions throughout this study:

"Design as Art." Design has had an artistic image in the contemporary culture. This image was manifested with stylistic diversity, artists' products and contemporary arts and craft goods. Verganti (2003) interpreted such a perception was created as a marketing strategy that products are being promoted especially with aesthetical and artistic values, other than its functions and performance. Hence, such products became symbols of taste and fashion in different lifestyles, which were also created for increasing the market volume.

"Design as Problem Solving." Archer (1974) basically defined design practice as a goal directed problem-solving activity. From this perspective, design as the choice and configuration of elements, which generally involves a synthesis of aesthetics and function, gives the product particular attributes of performance, appearance, ease of use, or method of manufacture, Gorb (1990) defined industrial design as the activity that varies in a large-scale of actions from realization brand new product concepts to developing/restyling an existing concept by concerning the qualities such as aesthetic, ergonomics, functionality and manufacturability. IDSA (Industrial Designers Society of America), defines industrial design as "…the professional service of creating and developing concepts and specifications that optimize the function, value and appearance of products and systems for the mutual benefit of both user and manufacturer" IDSA (2010).

***"Design as a Creative Act*."** Sir Terence Conran describes the relationship between design and creativity as "Design is 98% common sense and 2% that mystical ingredient that you might call creativity. But it's that thing that makes a perfectly decent object into something really special, really desirable that people want as much as they might want a Picasso on the wall." (Cooper & Press, 1995, p.19). The design practice requires a combination of analytical and intuitive thinking as it is implied in design education. Thus, professionals trained in such a way, designers tend to contribute to the corporate environment, in which their talents are an appropriate complement to the management as well. As Walker (1989) emphasized, "Managers are good at dissection, cutting through irrelevancies, getting to hard facts and the basic structure of problems. They are very problem-oriented. Designers by contrast are good at assembling, bringing unlikely things together. They work by leaping to detailed end-results" (p. 152).

"Design as a Family of Professions." Another critical definition of design is "making something, distinguishing it by a sign, giving it significance, designating

its relation to other things, owners, users or gods. Based on this original meaning, one could say: design is making sense (of things)" (Krippendorff, 1989, p.9). In this definition, design involves a multi-disciplinary approach. These disciplines can be listed as architecture, fashion design, interior design, graphic design, industrial design and engineering design (Walsh, 1996). David Walker (1989) illustrates "The Design Family Tree" to provide a better understanding the full scope and interrelationships between design disciplines (as cited in Cooper & Press, 1995, p.27).

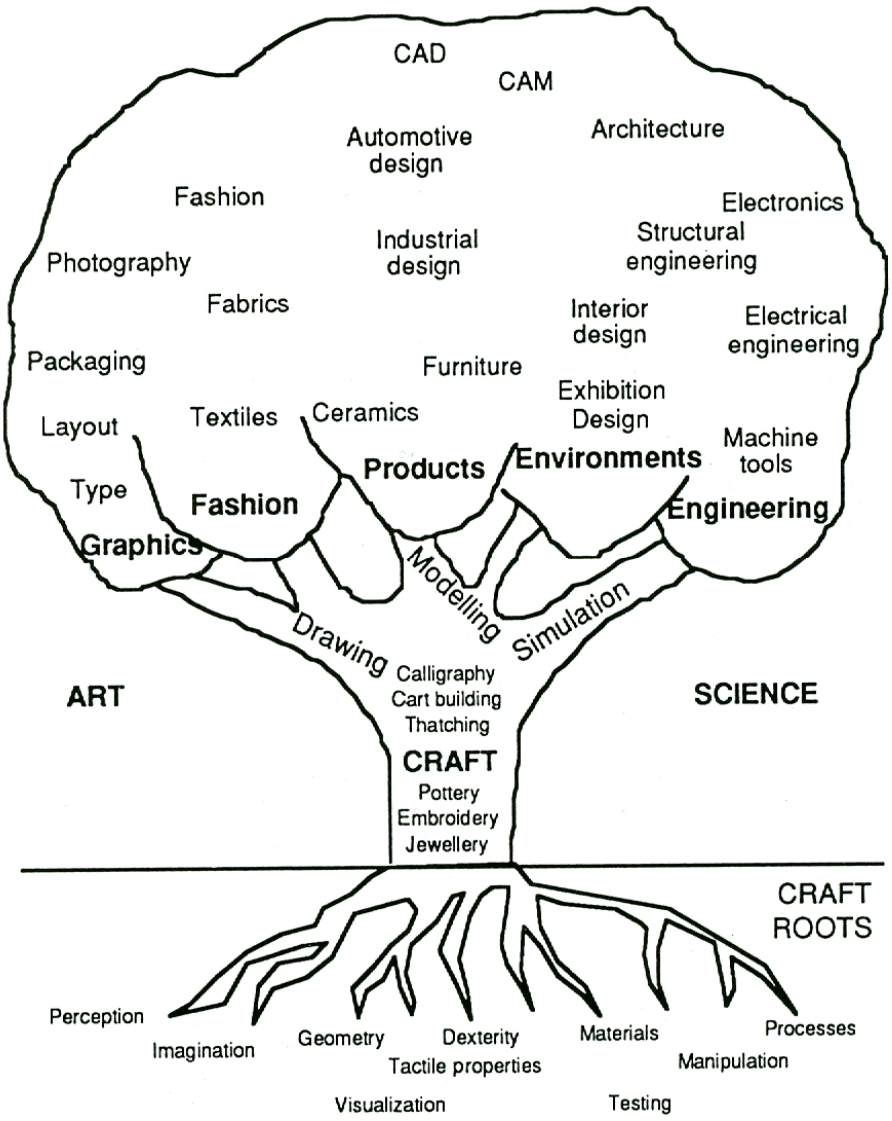


Figure 2. 1 The Design Family Tree (Walker 1989 p.27)

Design encompasses a broad range of activities, in other words a family of professions, that are on one side it borders with art, while on the other it borders with science that share common craft traditions (Figure 2.1). Considering design as a generic term covering a range of specialized disciplines, it is easier to understand what different types of designers do and how they can contribute to a company's activities.

"Design as an Industry." Design has evolved as an industry in the last century. While the use of design expertise by companies grew significantly by the pioneering American industrial designers of the 1930s, such as Raymond Lowey and Walter Dorwin Teague, they were far more reliant upon the use of designers as external consultants than employing them as in-house designers (Cooper & Press, 1995). Pilditch (1989) explained the positive role for the outside consultant as; "people from outside a company bring with them a new perspective. …They want to see progress, to complete the project and move on to the next one. So they hasten the measured tread of many companies, …they may be highly imaginative, able to look at opportunities in a new way" (p.144). Designers' contribution became more recognized by the industry, which was also reinforced by a government policy that placed its emphasis on promoting design as a consultancy service to transform the usage of design rather than the view of a buy-in commodity into an integrated resource in 1980s. Von Stamm (2004) stated, "Design is about doing things consciously, not because they have always been done in a certain way or because it is the easiest option. Design is about building on ideas, trying things out, comparing alternatives, exploring opportunities to finally select the best possible solution." (p.12).

"Design as a Process." The nature of design has evolved in relation to changes in the mode of production and with the cultural and social development. The Ministry of International Trade and Industry of Japan defined design as a decision-making process, which involves the manifestation of objects considering

their economical, technological and cultural dimensions (Pilditch, 1989, p.136). Most recently, the emphasis on the perception and meaning of the design has shifted to the business context due to its improving importance for the world, in which consumers' demographic characteristics are changing massively and their sophistication is not settling with solely functional product qualities. Moreover, customers' demand for products that takes the impact on the environment into account and highlights greater emphasis on the 'ease of use' –user friendliness– considerably increased. From another perspective, it is a world that companies' growing need for differentiation is a matter of survival since the competition on the global basis is increased. All these definitions above pose challenges that can only be addressed through the systematic application of design.

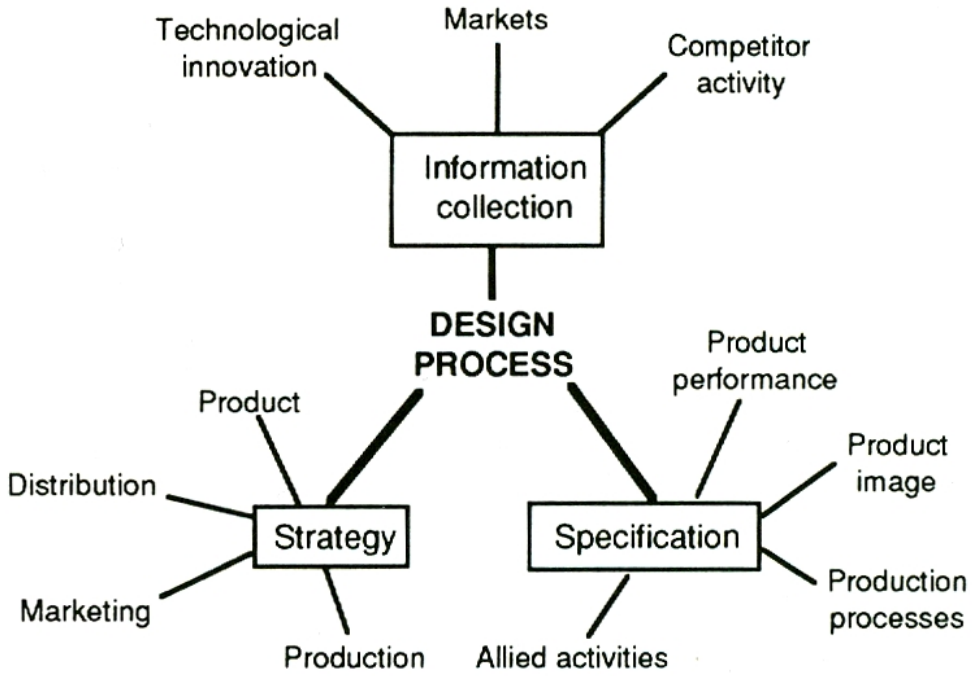


Figure 2. 2 Design as a planning process (Cooper & Press, 1995, p. 41)

As mentioned in Figure 2.2, After Fairhead (1987) describes the design process as the strategic planning of products (as cited in Cooper & Press, 1995). It is a process, which collects information on markets, technological innovation and

competitor activity, develops strategic planning on new product development and specifies product performance characteristics, product image, production processes and allied activities. Design certainly is a creative process, the challenge for management is to appreciate that in the new physics of industry, and "…design is both a particle and wave". (Cooper and Press 1995; p.42)

2.2 Design in the Context of Business Performance

The former part of the study identified design as a multi-disciplinary creative problem solving and planning process, linking the needs of the markets to the potentials of production, producing goods and services that consumers desire. This part mostly explores design in detail, to find out how design adds and expresses value. Design can also be considered as a business tool, which creates commercial values to industrial products. Therefore, it becomes significant to explore the economical and managerial features of design, which has been studied by numerous researchers in the design management literature.

Since early 80's, the attention to the relationship between design activity and business performance was increased to get a better understanding of how to obtain or/and ensure competitive organizational position. Kotler & Rath (1984) manifested that "design is a potent strategic tool that companies can use to gain a sustainable competitive advantage, yet most companies neglect design as a strategic tool. What they don't realize is that good design can enhance products, environment, communications, and corporate identity" (p.18). In other words, design has a potential to assemble strategic market intentions of organizations and consumer demands into physical products to create both consumer satisfaction and organizational competence.

Moreover, according to Roy (1997), despite a general agreement on their importance, the precise roles of design and innovation in improving the competitiveness of an organization remain a complex issue. As he illustrated, the complexity arises because design and innovation can be used for improving product competitiveness in a number of ways. For instance, design can be used for reducing costs, increasing performance, improving quality, differentiating from rival products or offering a completely new product. The author also highlighted, that the competitiveness of a manufactured product can be improved by product design, product innovation and production process improvements. As introduced in Table 2.1, product design affects both price competition through design for economic manufacture and low life-cycle costs and, non-price competition through the technical design of the product itself to improve performance, appearance, quality etc. or by taking into account associated service- related non-price factors such as product advertising, packaging and display and designing for ease of servicing and repair (Roy, 1997).

Table 2. 1 Price and Non-Price Factors in Competition (After Walsh et al., 1992, p.66)

Factor	Example
Price factors	Sales price, discount, financial arrangements for purchase, trade-in allowances, depreciation, running costs, servicing costs, parts costs
Non- price "technical" factors (embodied in the product)	Specification and performance, build quality, appearance and image, innovativeness, technological sophistication, ease of use and maintenance, reliability and durability, compatibility with other products, flexibility and adaptability, ergonomics, portability, safety, comfort
Non- price "service" factors (dependent on organizational arrangements of servicing, production and distribution)	Delivery time, after-sales service, user training, packaging, distribution networks, availability of spare parts, technical back-up, upgrades, user-friendly manuals, advertising

Lorenz (1986) carried out six case studies with Olivetti, Sony, John Deere, Ford, Philips, and Baker Perkins to exemplify, how enabling designers' involvement became an essential issue for gaining competitive advantage in decision-making process, product development and marketing. The author stated, "industrial designers seem to be acting not only as an invaluable source of ideas, but also as facilitator, coordinator, evaluator and completer" (p.7).

Recent studies exposed how design practice generates different dimensions for the performance of a company in a more systematic way. Walsh et al. (1996) had conducted two studies to compare company performance on several performance indicants among "award-winning firms" and randomly selected "typical firms", which are competing in the same business area in Great Britain. In both studies, the performance of "award-winning firms", which has the 'good design' qualities, resulted substantially better performance indicators such as *turnover* and *profit growth* in comparison to the random selection of "typical firms". (Walsh, 1996).

Another study by Open University's Design Innovation Group discussed Walsh et al. (1992) in detail, examining the contribution made by design in industry. The study involved surveys conducted with 221 small and medium sized companies with the use of design 'debt-to-income' grants. The main objective was to indicate the percentage of income, which was provided by benefits and costs of investment design. The sampled firms were broadly representative of the structure of British industry. The study concluded that at an average cost of £60.000, 90% of design projects made a profit with an average payback period of 15 months. In comparison with the previous products, it was possible to indicate that sales increased on average by 41%, new home markets were opened up in 25% of cases, with 13% of projects securing new or increasing export markets. In total, the projects examined earned £500 million in export earnings over 6 years.

These results indicated that design investment is beneficial as it improves financial performance, retains and regains market share, enhances exports and affects the competitiveness (Walsh et al., 1992).

Table 2. 2 The Role of Design in Competitiveness (Roy, 1990, p.49)

Factor in competitiveness	Influence of design
Price	
Sales price	Is product designed for economic manufacture?
Life cycle costs	Is product designed taking into account costs of use and maintenance?
Non-price: product-related	
Product specification and quality	Design affects product performance, uniqueness, appearance, materials, finish, reliability, durability, safety, ease of use, etc.
Non-price: company-related	
Company image and sales promotion	Product presentation, packaging and display affects image and promotion
Delivery to time	Is product designed for ease of development and to meet delivery schedules?
After-sales service	Is product designed for ease of service and repair?

Also; Gemser & Leenders (2001) asked 'how' and 'when' the design activity could be integrated to the product development process to improve a company's competitive position. The authors collected data from two types of Dutch manufacturing fields and concluded that the extent to which involved the design process of a new product had visible benefits on a company's performances such as profit margins, profit growth and turnover growth.

Other research by Perks, Cooper & Jones (2005) conducted throughout a design process of a newly launching product. The study shed light on identifying design practice within the organization by the means of scope and type of the tasks that

designers encounter. Besides, the study also exposed the crucial circumstantial elements that influencing the general development of a company's performance. The result was the commercial organizations where design was considered as an indispensible element for designing a new product and/or an impulsive drive for innovation resulted with a noticeable increase on an organization's performance level.

Furthermore, Marsili and Salter (2006) studied with Dutch manufacturing firms on the correlation between expenditures depending on design activities and the innovation performance measures such as sales of newly launching products and re-designed products. The study was resulted with the expenditures depending on design and innovation performances of the organizations are directly interrelated.

Thus, design awareness and its potential on competitive advantage among the organizations have positive impact on business performance, however, the issue of strategic use of design and constituting an organizational structure based on design driven competence is long-term, difficult to construct and/or sustain company policy (Bruce & Morris, 1998). This issue enabled the emergence of the term 'Design Management', which was first introduced by Peter Gorb (1990) to manifest "the effective deployment by line managers of the design resources available to an organization in the pursuance of its corporate objectives" (p.23).

Design as a means of managed contribution, becomes crucial in the competitive markets as it helps to determine consumers' perception of value-for-money. Although design cannot be able to guarantee success, it is necessary for competitiveness. Management competence and success of an organization depends on the opportunity of the overall corporate strategy to existing market conditions and also it depends on how the organization integrates effective design with other activities (Potter et al., 1991).

2.3 Design in the Context of Management

Having mentioned that product design plays a key role in competitiveness of most manufacturing companies and forms a central plank of their strategies along with production, marketing and sales. Yet, design is also considered as a crucial factor in a company's performance. At this very point one can ask why do many firms give design such relatively low status and priority, while others make the achievement of good design one of their corporate goals? The answer lies in management doctrine of organizations. The importance of design is directly linked with how managers use it. As Walker (1990) cited from the letter of UK's Design Council in 1987:

> *"It is important to argue that design must be managed and can be managed. There is considerable misunderstanding on both points. Some managers believe that design is something outside normal business practice and does not benefit from being managed but due to creativity and other uncertainties is regrettably unmanageable. In fact design has to be managed just as much as anything else and the uncertainties that are involved are no more serious or disruptive than the uncertainties inherent in any other task within industry that has to be managed, for example, commissioning a new factory or exploiting a new market."* (p.145)

Potential contribution of the strategic usage of design to the business performance is mostly limited with some specific management-oriented abilities of the company, such as design illiteracy of managers, cost constraints, tradition-bound behavior and risk aversion, internal design policies etc. (Kotler & Rath, 1984). These abilities arose from the level of organizational infrastructure of human resources that are personal skills and interpersonal qualifications of managerial staff.

Walker (1990) has explained the conclusive underlying reasons of such management conflicts as the 'anthropological' contrast between designers and managers by illustrating that "…two different tribes who have grown up in different parts of the jungle" (p.146). In detail, the divergence between

managers and designers can be detected in personality traits, in habits of thought and practice, as well as in educational background. The familiar medium of communication are verbal and visual languages; thinking styles are linear or lateral, convergent or divergent; personality traits are towards adaption or innovation; decision-making divides between analysis of problems and solution-led leaps.

Table 2. 3 Manager – Designer Polarities (Walker, 1990, p.152)

Characteristics	Managers	Designers
Aims	Long term	Short term
	Profits/returns	Product/service quality
	Survival	Reform
	Growth	Prestige
	Organizational durability	Career building
Focus	People Systems	Things
		Environments
Education	Accountancy	Crafts Art Visual
	Engineering Verbal	Geometric
	Numerical	
Thinking styles	Serialist Linear Analysis	Holist Lateral Synthesis
	Problem oriented	Solution led
Behaviour	Pessimistic	Optimistic Innovative
	Adaptive	
Culture	Conformity	Diversity Experimental
	Cautious	

Walker (1990) also argues that managers and designers have different perceptions, aptitudes, skills and processes, they can still mutually benefit each other. For example, even the best designers would not be able to perform their best while working on poorly managed projects. Projects could fail because budgets were exceeded or because deadlines were missed; the supervision of the projects was poor. On the other hand, successful processes can also result with a failure, because of an unqualified designer, or because of a non-

conforming design problem; because of incompetent project management. (Oakley, 1990)

To increment the deployment of creativity and to stimulate the consolidation of design act at a strategic level in organizations, scholars have drawn attention to an organizational position called 'design manager', who is assigned to organize communication flow between designer and manager parties to maintain the convergence and collaboration between the parties. (Gorb, 1990; Bernsen, 1990; Borja de Mozota, 2002). The design manager is generally required for establishing and maintaining control over design process, which needs to be involved the integration of, and uplifted standards in, key issues and stages of design management activity. Thus, to get a better understanding on design management process and design manager qualifications, there is a need to define (1) key issues encompassed by design management and (2) generalized stages of design management process to implement the act in practice.

(1) Allan Topalian (1984) answers the ultimate question of design management: "what is the scope of design management?" He argues that the answer can be mapped out by examining the management of design at two interrelated levels, which are corporate design management level, and the design project management level.

Table 2.4 below, illustrates at the lower project management level, the issues derive essentially from the shorter-term, relatively confined problems encountered during the administration of design projects. In corporate design management, the issues focus on the longer-term implications of the relationship between an organization and its environment, and the contribution that design skills and activities given to this relationship.

Table 2. 4 Key Issues Encompassed by Design Management (Oakley, 1990, p.121)

At the corporate level	At the product level
• The contribution of design skills to corporate profitability	• The nature of the design process and different types of design project
• Design policy and strategy formulation	• Design project proposals and the briefing process
• Design responsibility and leadership	• Selection of designers
• Positioning and integrating the design resource within organizations	• Bringing together and managing design project teams
• Devising and introducing corporate design management systems	• Planning and administering design projects
• Establishing and maintaining corporate design standards	• Costing design work and drawing up budgets
• Corporate design and design managements audits	• Project documentation and control systems

(2) Acquiring the advantages of the design expertise, as Whyte, Bessant, and Neely (2005) stated, ultimately depends on manipulating the design process in an integrated and systematic manner by converging the divergent aspects of the creative design activity. Disregarded from the size of the organization, structuring sustainable competitive advantage via design activity is exclusively pertinent process, which is strongly dependent to the ability of creating new ideas and forming them into successful results repeatedly.

In order to achieve constant successful outcomes, three general steps of design process and sub-steps were derived from the literature. The model was not aimed at outlining a standardized one-dimensional process, besides, generalizing a framework, which could proceed back and forth depending on design complexity or timescale variations.

"Planning step": Initial idea creation, formation and development stage. This step involves information gathering to generate a design

brief from the analysis of the specific strategies of the company, current technical and market conditions, and feasibility estimation. The sub-steps can be listed as:

- *"Stimulus/trigger"*: New idea/process launch emerging from technical and/or market possibilities, identified need for a new design, or strategically planned development to an existing one.
- *"Concept generation"*: Analysis of the new idea in terms of production capabilities, cost issues, market expectations and other feasibility considerations.
- *"Project planning"*: If the feasibility outcomes meets the company's strategic goals, further planning phase kick starts to manifest a formal 'design brief' by clarifying objectives, allocating resources, establishing timescales and budgets.
- *"Sourcing design skills"*: Depending on to the project variations, sourcing the professional design expertise, which meets the project requirements best and informing them by sharing design brief

"Development step": Detailed technical and market research, conceptual design, prototyping and testing phases and detailed design and production engineering. The sub-steps can be listed as:

- *"Conceptual design"*: Early stage of the expression of the design idea by using verbal or visual methods such as notes, drawings, sketches, basic models etc, to move the outline of the design a step forward and to achieve a elaborated design concept.
- *"Development of conceptual design*": Refinement of the design concept by specifying key points and researching to explore strategic market and technical information.

- *"Prototype and testing":* Late stage of expressing the design idea by using physical representation methods such as making mock-ups and models or some other mature form of the earlier stage, which can be evaluated, tested and finally developed.

"Production and marketing step": production and sales provision, tooling, proof manufacturing, trial marketing, mass production, market launch, after sales services. The sub-steps can be listed as:

- *"Detailed design"*: After determining the design concept, this is the stage of detailing the model for production and running proof manufacturing for final trails.
- *"Technical development"*: Final adjustments on technical issues of the design such as manufacturability improvements, "de-bugging", cost reduction etc.
- *"Market development"*: Involves problem defining and solving processes in the market such as user needs, expectations and demands.
- *"Launch"*: The Launch of a product mostly refers to the end of the design process when the product is ready to be in the market.
- *"Evaluation"*: An analysis involving the outcome of the process and the process itself weather to check if the design, timescale and budget goals achieved, also analysis for after-lunch reflections of the design such as consumer reactions and financial success etc.
- *"Support and extension"*: after product launch has been done, providing after-sales support to create close relation to the users and their feedback on the product and/or service.

This framework did not tend to dictate or define a standardized set of stages; conversely, it is more like drawing a general path that can be

used when managing the uncertainty of the design process. As Whyte, Bessant, & Neely (2005) illustrates, “it moves design from being a gamble to a managed set of risks.” (p.17)

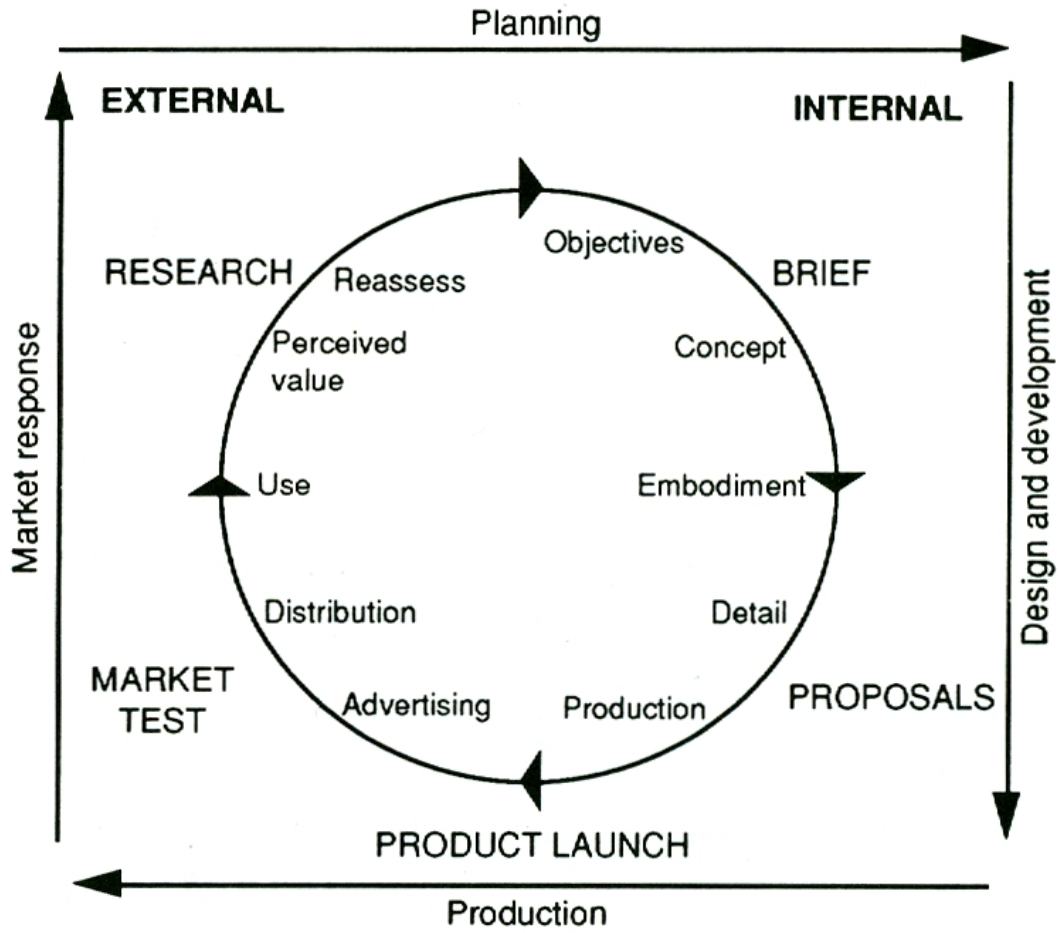


Figure 2. 3 Total process of design (Walker, 1989, p.39)

As previous framework revealed, the reviewing suitability and availability of design resources is a critical and early planning issue of management process. To cope with such obscurity, the detailed explanation about types of design assets, which are available to hiring, needs to be addressed to identify the best sources of supply.

2.4 Different Approaches of Utilizing Design Assets

The previous framework revealed that acquiring design expertise, which fits best to organizational strategies, is a critical management issue to create satisfying outcomes for organizations. Thus, there is also a need to identify the different approaches of utilizing design assets through the literature review. As explained by Bruce and Morris (1998), "design expertise may be located as an 'in-house' resource (1), outsourced (2), or organized through various combinations of internal and external expertise (3)" (p.44)

(1) The case of developing organizational design capabilities 'in-house': where design facilities are located as an internal asset, which is most commonly located within marketing or R&D departments also, can be structured as an independent department. The decision determinants about the location of the facility are influenced by several factors such as; scale of the organization, market strategies, competitive position, frequency of the need for design act, existing workload and timetable, need for a specific expertise etc. The factors also affect the number of employed 'design staff' and also the need for multi-disciplinary employees within the department (Von Stamm, 1998).

(2) The case of meeting the organizational design requirements by outsourcing the design expertise from an external asset. Outsourcing can be defined as a business relationship between a company and its design resource, which is collaborative and interactive. Furthermore, it is also a voluntary relationship between independent partners that is a co-operative strategy. These partners are mutually dependent to each other in terms of inputs, co-production and rewards. However, they are also independent in terms of ownership and equity (Jevnaker 1998). Similar to the previous case; situational factors, project and organization

characteristics can enable the demand for hiring temporary engagement from a consultancy or by means of external design professional.

Design consultancies basically provide an access to specialists' expertise for organizations. Especially in small organizations, which have limited financial allowance for employing an in-house design expertise, it can be feasible to take advantage of outsourced design expertise. In this case of scenario, usually a designated liaison officer preferably a design manager who is capable of evaluating design work and performing design is responsible from the communication flow to ensure that the process handled, as it should be.

(3) The case of developing organizational design capabilities by using the combination of in-house and outsourced resources. The design capabilities are utilized as a blend of internal and external design assets to narrow each other's vulnerabilities by the means of supporting capabilities of current staff, acquiring new inspirations and exploring different possibilities etc. However; in this case of scenario, coordination between design resources and involving managerial staff to keep up design intentions and organizational strategies correlated might be a management issue, which is difficult to handle.

About different approaches of utilizing design assets; several scholars like Von Stamm (1998), Oakley (1990), Bauhain (1990), Jevnaker (1998) confirm that each way has own advantages and disadvantages when facing the decision on using internal or external design resources. As Sparrow (1987) summarized, "no one way is 'best', it all depends on what you want" (p.28).

Table 2. 5 Subcontracting or Integrating Design (Bauhain, 1990, p. 362)

	Subcontracting	**Integration**
From the firm's viewpoint		
Advantages	Lower cost if few products to be designed Possibility of changing designer employed	Lower cost if many products to be designed Easier coordination with other departments in the firm Designer's greater knowledge of the firm Possibility of subcontracting to induce sense of competition
Disadvantages	Lack of continuity in work if designer employed is changed Higher cost if much work involved Greater difficulty of coordination with other departments in the firm	Lack of creativity
From the designer's viewpoint		
Advantages	Variety of work Preservation of creativity High degree of autonomy in relation to client	Security of employment Continuity of work More means at designer's disposal
Disadvantages	Greater commercial risk	Status often ill-defined Lack of power in relation to other departments in the firm Routine, restricted sphere of operations

Table 2.5 above, reveals an evaluation of in-house versus external design resources according to their advantages and disadvantages. It can be seen from the table that in-house resources have easy-to-manage related advantages of being accessible, easy to control and familiar to company specific issues enhancing their ability to tracing and solving problems quickly.

Coles et al (1997), based on the findings of their study of the UK textile industry, described the tradeoff between internal and external design activities as one between greater control and design protection on the one hand versus access to a wider range of ideas on the other. On the other hand, there is the risk of the in-house group becoming less creative due to exceedingly overwhelming company specific matters as well as losing their touch with external developments. Outsourced design means new blood, and by that, an input of creativity, know-how and speed is introduced to the organization, only when certain managerial barriers have been annihilated, such as; the absence of qualified human resources to evaluate the design work, lack of familiarity of company specific issues or problems regarding the location of the design and development facilities which may cause probability of losing control over the design process, as well as coordination difficulties with in-house departments.

An example for successful external design utilization is given by Dell'era and Dell'Era et al. (2011). The Apple iMac G3 (1998) can be a good example since it introduced a new design language for the computer industry by using translucent colored plastics, which was used widely in other industries. The use of the translucent plastic and the colors was quite common household products in the early 1990s. Therefore, iMac G3 created a new object language in computer design by promoting the product as one of the other household products. Steve Jobs worked with Jonathan Ive, who was an independent design consultant operated mainly in the bathroom and plumbing industries, to consolidate the new design language design speak a friendly language of modern household products rather than the cold, remote language of business and offices. As an external design resource, Ive gave Apple the opportunity of combining different product languages to propose breakthrough product meanings for capturing and integrating knowledge about different socio-cultural contexts and industry settings; for this case, the world of household meanings and languages unknown to any other computer company.

2.5 Outsource Motives and Offerings

More than a decade ago, companies have started to outsource their activities once carried out in-house. Companies mastered their outsourcing experience in manufacturing field due to the opportunity of cost reduction provided by outsourcing, and more recently, they started to learn the way to outsource the intellectual expertise such as design. The motivation behind the outsourcing design expertise may vary in reason and it substantially depends on the company characteristics, market strategies, financial intentions, managerial doctrines, which are eventually related to the awareness of what design can bring to an organization (Anderson, Davis-Blake, & Parker, 2007).

Jevnaker (1998) emphasized that, growth of organizational design capabilities may be fed by multiple sources and eventually, possessing matured design abilities will be allowing corporations to create a coherent corporate identity which can differentiate the firm among the others and may provide market improvement by strengthening perceived brand image which is recognized and preferred by the costumer, dealer etc. Author also argues that; since the design is acknowledged as a critical tool that significantly contributes to the overall interactions and communications of internal and external corporate relationships, it should also be feeding by the external resources. The reason as author suggested lies in the nature of external design expertise that is offering a crucial potential by enabling the way to get in touch with way-out, fresh, diverse and inspirational design perspectives. On the subject of external design expertise offerings, Tennity (2003) underlined the benefits of collaborating with consultancies as external design resources as below.

"accessibility". The 'design knowledge' depends on human experience, ethnography, and product-user interaction, which need to be updated by time. Since developing such know-how internally requires considerable financial

investment and time for nurturing it into a certain matured level, utilizing an external design resource is probably the most feasible option to obtaining already matured, functional and qualified design knowledge for relatively small organizations.

"Flexibility". If the frequency of organizational need for design is not requires an in-house design resource, in short terms, when employing an internal design department is not feasible; broad selection of collaboration options become apparent in order to access to qualified design expertise, which is best for company specific issues. Another 'flexibility' opportunity of outsourcing design expertise appears when internal design assets lost touch with technological developments, processes or any other external design related improvements or when suffer from atrophy of creativity due to becoming too familiar to the existing processes and technologies; utilizing external design expertise may assist the new idea generation process by stimulating creative flow. In addition, when the internal design assets that currently owned is not able to handle the existing workload or stick with the intended deadlines, hiring temporary external resources is most efficient way to maintain the control over the process.

Likewise, outsourced design expertise also provides the flexibility of shared risk and uncertainty management opportunity which related with relatively radical or innovative design projects and new business investments especially when the investment expected to benefit a design related business opportunity is large in volume and the delivery of the payment last too long or delayed. In situation like this, splitting costs and obligations within a design partnership may reduce the risks arisen from uncertainties. Besides, especially when having difficulties on specifying or managing the needs in uncertain conditions and making strategically critical decisions; organizations can adopt the mechanism of critical problem solving, in other terms 'design-thinking', through establishing long-term outsourced design partnerships. Therefore, long-term collaborative

establishments offer the advantage of accessing ready-to-use human resource with high familiarity to client's needs and company specific issues.

Consequently, Jevnaker highlighted that there are two conditions needs to be combined. These are (1) being a highly talented designer and (2) being highly familiar with the conditions and abilities of the client. Working with a design consultancy who fulfills these conditions is the best chance for creating innovative and successful products, which contemporaneously fit to the organizational strategies.

Furthermore, design knowledge is one of the key elements in the knowledge-oriented era where the critical resources are shifted to intangible assets that materialized in products/services such as idea or concept instead of physical assets such as facilities, estates or raw materials. Design expertise is a specialized value creation activity, which shapes aesthetic, symbolic and semiotic qualities of the product to build a connection between product and user, briefly the ability of manipulation of the perceived product character and personality. The skill of coordinating and combining some virtual 'visualization' sub-tools such as sketching, rendering, modeling and animating during the selection of the technical features or materials is crucial to determine the focus of that connection, especially when the critical design decision has to be made.

From a different point of view, Lindahl (2011) addressed the benefit of collaborating with a renowned design consultancy is also a consideration taken into account in design contracting. Proven reputation and brand image of the consultant may positively affect the commercial success of the project and corporate image of the client organization. The study that author conducted with six Swedish furniture companies to define the underlying motivations on outsourced design contracting tendencies by using the dimensions of consultant

reputation, familiarity of the consultant and contracting number is illustrated below in Table 2.6.

Table 2. 6 Three Dimensions of sourcing practices and the studied companies' underlying motives (Lindhal, 2011, p.11).

	Low	**High**
The designer's level of recognition on the market	- Search for innovative design ideas - Possibility to "shape" the designer - No effects from co-branding with the designer	- Attention drawing - Lower quality risks - Positive co-branding effects
Familiarity	Seeking for new talents Avoid lock-in effects	Searching for consistency in design Lower quality risk
Number of contracted designers	Searching for consistency in design Lower quality risk	Attention drawing Constant search for new talent Seeking innovativeness

From another perspective on the subject of design outsourcing, Verganti (2008) stated that; a company's capability of comprehending, foreseeing and creating new product meanings and languages is influenced from its ability of understanding the existed and emergent socio-cultural models and behaviors. Designers as "language brokers" are rendering, investigating, experimenting, sharing and internalizing these models and behaviors to produce brand new product languages and steer the transition in socio-cultural habits.

According to author, managing design means first creating a wide range of "language broker" network and then managing their interactions with the socio-cultural regime. Therefore, as author stated, companies and manufacturers that have been capable of refreshing and restructuring the network of designers

constantly are survived critical transitions thanks to the diversity of their interprets in terms of age, gender, nationality or professional background.

An example, Alessi -leading Italian manufacturer - is carrying out major research activities in a regular basis to identify new designers, therefore, to discover new product languages: “It is easy to make a list of the top ten designers of the past ten years. But I’m virtually certain that fewer than half of them will be among the top ten designers of the next ten years” (as cited in Verganti, 2008, p.28).

Furthermore, Dell’Era and Verganti (2010) suggest that; diversity in collaborations with external resources which implies a wider range of expertise and a variety of insight will possibly result as improved collective judgment and more creative outputs since the diversity in knowledge is enabling the possibility of increased recombination probability and the opportunities for new approaches.

Similarly, Apilo (2004) pointed out that; accessing a diverse and complementary outsource network assures handling the capability needed for reacting instantly to the market and technology transitions while giving the opportunity of focusing on the core business. According to the example given by Vakil (2005); leading electronics manufacturer HP is withstanding the risks caused by uncertainty issues almost on a daily basis.

In the current competition conditions of electronics industry, products become outmoded in months after their lunch, as author called “clock-speed”. To cope with the situation and re-appropriate the focus of the company into developing higher value-added products, HP is using several different external design resources for PCs, printers, MP3 players and digital cameras and as company’s vice president of global operations, Dick Conrad, stated; “it now takes 60% less time to get a new concept to market” (as cited in Vakil 2005, p.28)

2.6 Barriers of Using External Designers

As mentioned in previous sections; the design process comprises a variety of company specific activities, which is determined by the management through the conditions of industry, competitive environment and product characteristics. Hence, using design as a strategic tool in these conditions is directly related with how design is valued, treated or perceived within the company.

A Study conducted by Walsh et al (1992) revealed that managerial staff even that has any particular design related qualification would often tend to influence the design activities, which are called by the author as “silent designers”. These are the people whose decisions have a critical impact on how design is utilized and exploited but also the people are who would not consider themselves as designers or they are actually making design decisions.

Managing strategic usage of design is same as being aware of what design is offering for an organization, and, internal consistency of design consciousness is the determinant for the way in how design resources are utilized. Fairhead (1988) illustrated the different understanding levels of design in Figure X. (as cited in Von Stamm, 1998, p.43).

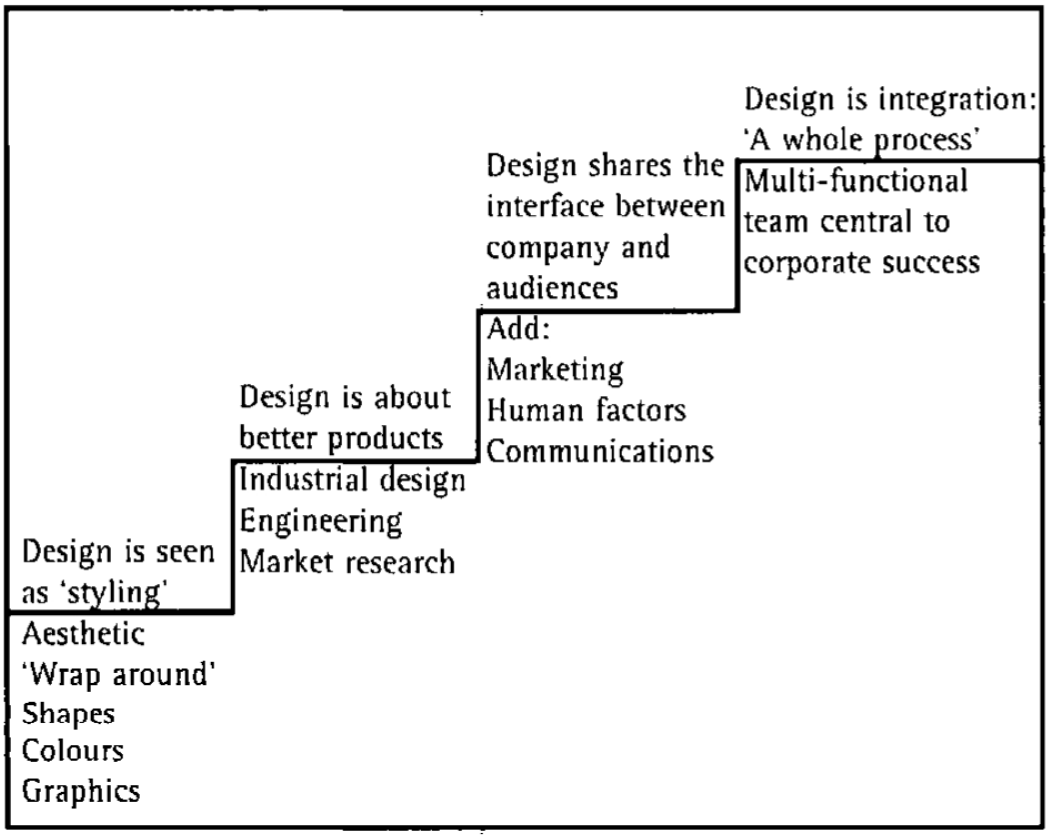


Figure 2. 4 Design – the world is growing (Von Stamm, 1998, p.43)

Foote (2003) focuses on different perspectives about outsource design expertise on the subject of design consciousness, common perceptions and the drawbacks of the clients and he pointed out four major mental barriers:

"*Client's risk perspective*". As author stated; the process and the context of design is a mystery for clients. Weather the first time out or existed long-term alliance is the subject; the client can be concerned about the success of the project and can be uneasy about working with the external design resources. Which particularly originates from, specifications of the design are not precise compared to all other sort of purchases in business due to the subjective nature of design process and uncertain long-term outcomes of the process.

"Client's budget perspective". In regular business practice, clients want to be precise about how much the service will cost, but the pricing a creative efforts may seem arbitrary from their perspective. On the other hand, clients usually had a preliminary idea about what design service should cost. Thus, the expectations of the clients are usually not correlated with the price offered by the consultant due to the prejudgment that design is perceived as a luxury effort to invest (Von Stamm, 1998).

"*Client's design perspective".* As a professional expertise, clients hire design professionals to exploit the design skill, which the client is not capable of. However, clients also abstain that the objectives are misunderstood or not appropriately prioritized by the consultant. While consultants tend to exhibit a design masterpiece, the client manager rather tends to produce commercially successful bottom-line results. Hence, most clients orient an attitude that concerned marketing consistency when the consultant's best interest is design brilliance and the contradiction of the state-of-mind between the parties constitutes a barrier for clients.

"*Client's service perspective".* The design process is requires for constant refining and developing due to the nature of the creative process. Anyhow, the idea is not familiar to the clients. From their perspective, ideal service should be providing the most accurate results in the first time, otherwise, anything less may cause the perception of ineffectiveness, incapableness or time padding.

As shown in the Table 2.7, Von Stamm (1998) revealed the mental barriers that reflect the point of view held by many manufacturers, particularly SMEs. About two-thirds of the participants thought that hiring external design consultancy was too expensive, which is confirming the statement mentioned before that design is a luxury. Anyhow, around one-third of the participants suffered from

identifying the design consultancy that would be understand the business related concerns of the SMEs and convenient for their company.

Table 2. 7 Barriers to Using External Designers (Von Stamm, 1998, p.44.)

Barrier	Frequency	% of respondents (n= 52)
Too expensive	34	65
Too difficult to identify the design organization with the right skills	18	35
Might not understand business concerns	15	29
Too difficult to know where to start looking for a design organization	10	19
Would not understand specific needs	8	15
Problems with on-time delivery	7	13

2.7 Managerial Implications: Managing Outsourced Design

As discussed earlier, the importance of design management of outsourced design is vital in terms of attaining successfully resulted project as many author emphasized in related literature. One of them; Ravashi et al. (2008) suggested that benefits of design are widely acknowledged, however, they also highlighted that there is less evidence about how business firms and design professionals may actually steer a cooperation between each other, which is aimed to produce mutually satisfactory results. The conducted study is investigating the significant differences between design companies considered as "top performers" and rest of the sample. The implications, which are derived from the critical distinctions of these firms, are listed as follows:

- *"Focus on innovation and commerce, and high emphasis on awards:"* the findings have shown that 'top performers' are measuring the project

success with innovation and financial outcomes of a project. Additionally, they tend to place substantially higher importance on design awards. The emphasis that they place on the "respect of the design brief" and "client satisfaction" relatively lowers compared to the responses of other companies.

- *"Higher attention to strategic issues:"* The results also show that 'top performer' design companies putting less effort on getting to know about technical issues like client's production and technological abilities compared to the rest of the sample. Instead, these companies are putting significantly higher emphasis on company specific strategic issues such as corporate goals, competitive environment, positioning etc. for successfully project results, distinctively, rest of the sample designated lower importance on such strategically issues.

- *"More intense and formal relationships:"* 'Top performers' seem intended to interact with their clients in a more formal way than others by the means of scheduled regular conference calls, formal face-to-face meetings and formal documentation of the process. Additionally, 'top performers' take into account to having chance of direct access significantly important to all related information sources such as marketing and/or manufacturing departments even in the early stages of the process compared to rest of the design companies.

- *"More active collaboration with their counterparts:"* The last observation from the authors expresses that 'top performers' tend to formulate a relationship with the client contact person which can be characterized mutually interactive in terms of active involvement of contact person to the whole design process. In addition, when the process concluded, 'top performers' tend to organize a final presentation, which includes company-wide attending, where they often benefit from the support of

> their counterpart. Many authors from management literature similarly emphasize the necessity of a connection gateway to facilitate communicational and organizational relations between the client and consultant alliances to eliminate negative effects arise from cultural and educational diversities. Bruce and Morris (1998) define the gateway as "design manager", who is assigned to organize client consultant relations on a strategic decision maker level. Likewise, Buchner, et al. (2000) define the gateway as "asset manager" who is considered as an client-oriented design manager to integrate inside and outside operations which are needed during the design process. Reiple, Haberberg and Gander (2005) define the gateway as "Boundary spanners, or bridges, as they are sometimes described, are people who move between both organizations, translating the norms of each into language and behavior that are acceptable to, and understandable by, the other" (p.53).

Similarly; Perks, Cooper and Jones (2005) illustrated case studies to trace relation between innovation in product development and management of design. According to the authors, the networking abilities of designers to acquire information on user demands and market needs, afterwards, combining these inputs with new material and manufacturing techniques to create novel concepts is the most critical issue to facilitate.

Besides, managing outsourced design requires extra efforts on inalterable qualities, principals and conditions like quality standards or manufacturing capabilities considering the unfamiliarity of the designer, which needs an additional management effort to orchestrate the designer and all other stakeholders to create an environment all related information is acquired and coded into both tangible and intangible terms in a measurable and auditable manner. Briefly, managing all qualities of the design is fundamentally about getting a better understanding on essential requirements and strategically locating right process, human resource and support technology to fulfill the pre-

determined requirements. A flexible and transparent “process protocol” must be set in order to drive creative, technological and technical skills into successful results.

From another point of view, Foote (2003) associates the success of design business for consultants with establishing and managing a reliable business relationship, which mainly refers to focusing on the needs of the client. In detail, the author underlines that business success for design professionals is not about “doing great work, but having happy clients.” As he stated, clients needs to be assured about designer comprehends the unique difficulties, problems that client encounters, also the possibilities and opportunities that possibly take advantage of. To manage that kind of delicate relationship, author suggests that modifying the operational procedures as listed may significantly beneficial:

“Review your positioning.” The image or message that conveyed to the client through meetings, presentations and promotional materials should be underlining that consultant offering a mutually beneficial strategic partnering by stressing goals, strategies and results as in “We will help you to decide what is best, then accomplish it for you.” instead of conveyin the image of “We’ll do whatever you desire”.

“Broaden your interests.” Spending extra time on ascertaining about the issues that client deals with and, as the result of the effort, having satisfactory insight beyond the clients’ both real and perceived needs will be resulted as confidence on consultants’ professional expertise.

“Take the initiative.” Since the clients hiring the design firm as a professional service to deal with encountered difficulties and to generate new opportunities, consultants should be taking the initiative to demonstrate they are in control in by making the most of arrangements, adjustments and determinations, leaving

to the client solely the most compelling ones. “Remember—the more you do, the less they have to.”

“Treat their money as if it were your money.” The clients, even the biggest organizations are tend to use the funds they are managing strictly. Their intentions are about receiving the best service with best price. “No project is so small, no client so large, that a consultancy can afford to be cavalier about client money.”

“Keep them in the light.” It should be the best interest for the consultancies that keeping client up-to-date during the process especially in case of significant changes, such as changes about delivery time and price, occurred. It is also important that being clear and precise about planning the process and being informative about what and when things going to be occur. Afterwards, spearing some time for documenting both process and changes; sharing them with client, also, assigning a person as author called “project manager, traffic manager, account person” will guarantee the information flow between client and consultant.

“Give credit generously.” Consultant account and/or project manager should also be responsible from assisting counterparts in meetings and presentations, crediting them on awards, applauding them to the client top management to have significant leverage in getting future work.

“Remember the little things.” Consultancies should perceive their clients as “brand-new client” regardless of how much time ago the collaboration started. In the business pragmatism, ensuring client feeling that their creative contributions are appreciated, expressing the gratitude of being in coloration with them, is going to make feel the client essential and welcomed.

"Cement the relationship." Making investment to be acquainted with client often creates a chance to establish a formal business relationship with continuity. For example, "If your activities are mostly project-based, propose a retainer arrangement. If the work involves advertising placements, propose an agency agreement".

"Cultivate the best." Clients also show a wide range of diversity in terms of the business potential they posses. Some clients can be more complex, less interesting or more cooperative compared to others. As a suggestion from author; while focusing on some high potential organizations and industries, on the other hand, getting to know about small and middle sized organizations in developing industries will also be the interested, accepted and accessible business partners to establish strategic alliances.

CHAPTER 3

DESIGN AND CONDUCT OF THE FIELD STUDY

This chapter outlines the design of the fieldwork, the data collection and analysis processes, and the findings. Since previously mentioned; the study was carried out with the desire of extending and enriching the understanding on the management of design alliances in Turkey, through obtaining elaborated responses from both manufacturer and designer parties' by investigating currently used design management implementations. Accordingly, study attempted to specify the objectives as;

- identifying beneficiaries' expectations from outsourced design consultancies and comparing these expectations with service providers' offerings in order to discuss the convergent and divergent validity of the offered service content
- exposing manufacturers' design sourcing procedures and designers' service promotion practices to discuss about intentional consistency of business initiation implementations
- identifying the design process management expectations of both parties' in order to derive implications about convergent and divergent validity of the implementations currently in use.

3.1 Design of the Field Study

Since the implementations that aimed to investigate are embedded in goal-oriented and company-specific operations, this study attempted to collect comprehensive information through semi-structured interviews. The semi-structured interview is one of the most commonly used technique in qualitative

data gathering. The open-ended questions used in semi-structured interviews are enabling both interviewer and interviewee to express detailed information about predetermined topics without restriction or manipulation of fixed wording or question order, while preventing the risk of losing the focus by encouraging the respondents to talk entirely free.

On the other hand; taking into consideration the aim of the study and the research questions posed, to ensure the validity of qualitative study and enrich the comprehension of the empirical manifestation while increasing the reliability of findings, a quantitative approach, Likert-type scaled questionnaire, also adopted by the author. Consequently, a semi-structured interview in conjunction with a Likert-type scaled questionnaire was applied as the data collection method to the managers from manufacturer and design consultancy firms.

3.1.1 Pilot Study

First of all, a semi-structured interview was developed through the literature review findings. Then a series of semi-structured interviews were conducted with design managers from three different design consultancy firms to gather contextual information about offered service content, process management operations and its extent in terms of tendencies, practices, procedures etc. All the interviews were audio-recorded by the researcher. After conducting the pilot study, the results were analyzed to generate the framework of preliminary interview question format for both designer and manufacturer respondents.

The preliminary interviews aimed to gather information in three main section; (1) pre-project management practices (usage of promotion instruments, ways of contacting the clients, formal/legal and informal documents needed etc.) , (2) along-project stages and management practices (design process phases, design service content details, process planning, scheduling, documentation, ways of

information sharing etc.) and (3) post-project management practices (documentation, achieving, after-service support activities etc.). Again, all the interviews were audio-recorded by the researcher and analyzed. The analyses were performed by decoding the auditory data in order to develop main interview questions. In the light of preliminary interviews, semi-structured interview questions (one for manufacturer and one for design consultancy) and structured-questionnaire questions (one for manufacturer and one for design consultancy) were developed.

Finally, the semi-structured interviews and structured-questionnaires were applied to three different manufacturers and design consultancies to get feedback before the all forms took final shape.

3.1.2 Population and Sampling

The study was intended to include two respondent groups. First group included the managers of manufacturer firms and marketing agencies that are currently active in Turkish industry who previously experienced outsourced design collaboration at least one time. Second group included the managers of profit-oriented, industrial design firms that are currently providing design service for the manufacturers from Turkish industry.

To identify the manufacturers that fulfill the above-mentioned presets, it was decided to identify designer firms and utilize their client portfolios and references. Thus, the need for generating a designer population was emerged. With the aim of generating the designer population, a variety of databases were investigated. These were;

- The design professionals database of the Middle East Technical University Department of Industrial Design

- The members database of Industrial Designers Society of Turkey,
- Web portals, online design portfolios, firm web-sites

The investigation of the listed databases resulted that twenty-six of product design firms were identified for sampling.

Hence, availability sampling was employed as sampling method and a descriptive e-mail request that are containing information about aim and the scope of the study, notification about privacy assurance and author's contact information was sent to twenty-six product design firms. Eighteen of design firms returned the request. Those who agreed to participate to the study were contacted by telephone to reach the managerial staff that is responsible from design management related functions for explaining the details of the process and setting appointments. At the six of eighteen firms, two managerial stuff for each firm have accepted to participate the study.

Also, contact information of three manufacturer firms from different industry orbits, which previously collaborated with, were asked from each design firms to create the manufacturer firm population. After receiving all the contact information that shared by designer participants; a similar sampling process was followed. A descriptive e-mail request that contains information about aim and the scope of the study, notification about privacy assurance and author's contact information was sent to fifty-four manufacturer firms and twenty two of them returned the request. Those who agreed to participate the study were contacted by telephone to reach the managerial staff that is responsible from design management related functions for explaining the details of the process and setting appointments. In total, appointments with twenty-four participants from designer population and twenty-two participants from manufacturer population were set.

3.2 Conduct of the Study

As explained in section 3.1 a semi-structured interview in conjunction with a structured questionnaire was applied to acquire knowledge about design and process management implementations from the perspective of both designer and manufacturer groups. All question forms, (A) 'manufacturers' interview form', (B) 'manufacturers' questionnaire form', (C) 'design professionals' interview form' and (D) 'design professionals' questionnaire form', are outlined below. The complete and the original versions of question forms can be found in Appendix A and B.

(A) Manufacturers' interview form was structured with the aim of focusing on the design management process to gather conclusive information about;

1. Expectations from design service, expected benefits, procurement motives
   - **a.** Product-level, design related expectations
   - **b.** State of design expertise utilization in firm-level strategies
   - **c.** project success evaluation measures

2. Sourcing procedures, factors influencing sourcing decisions

3. Design process management expectations
   - **a.** Preparation, negotiation and approach of design brief
   - **b.** Process planning, preferred interaction methods and frequency

(B) The manufacturers' questionnaire form was consisted of eighty-one questions, each scored on a one to five scale severity, to acquire information about manufacturers' tendencies on the subjects of;

1. expectations of manufacturers regarding the product design and development service content

2. State of design expertise utilization in firm-level strategies

3. Criteria that taken into account in the selection process of external design resources

4. Design process management requirements

- **a.** At the beginning of the project
- **b.** In the course of the project

5. Preparation, negotiation and approach of design brief

6. Evaluation measures of project success

(C) The design professionals' interview form was structured with the aim of focusing on the design management process to gather conclusive information about;

1. Design service extent, offerings, commitments etc.

- **a.** Product development phases
- **b.** Potential contributions of design expertise in firm level strategies
- **c.** project success evaluation measures

2. Promotion strategies, methods and efforts

3. Design process management implementations

- **a.** Negotiation and approach of design brief
- **b.** Process planning, preferred interaction methods and frequency

(D) The design professionals' questionnaire form was consisted of eighty-one questions, each scored on a one to five scale severity, to acquire information about design professionals' tendencies on the subjects of;

1. offered aspects within the product design and development service scope

2. design expertise contribution to the firm level strategies

3. Promotion strategies, intentions and methods
4. Design process management requirements
    a. At the beginning of the project
    b. In the course of the project
5. Preparation, negotiation and approach of design brief
6. Evaluation measures of project success

3.3 Data Collection

All studies were carried out as face-to-face interview sessions in participants meeting rooms and private offices located in their facilities. All sessions were audio recorded and average duration of a session was fourty-two and a half minutes. Before the each session started, all respondents were notified that the session would be recorded with a sound recorder to ensure that the accuracy of the data collected is preserved for further analysis. The recordings and the personal information of the participants declared to be kept confidential and used only for the research purposes.

After consent taken for audio recording, a copy of question form that included both interview and questionnaire questions was given to the respondents. Respondents were instructed about the aim and scope of the study. Audio recorder were kept working also during the questionnaire session in case of that a new subject of interest is emerged or the response given to the previous interview question is extended.

3.4 Analysis of the Data

In order to analyze the collected data, content analysis method for qualitative gatherings and statistical analysis method for quantitative data were employed. Both methods were discussed in following sections in detail

3.4.1 Qualitative Data Analysis

After all interviews were conducted, a structured qualitative data display flow was systematized. As the qualitative data analysis method, content analysis was employed to analyze the data collected through interview sessions. The content analysis method is one of the most commonly used technique that used for deriving inferences from raw interview materials in qualitative data analysis. In order to make inferences from collected data, a classification process was carried out for generating clusters of similar conceptual categories and entities, which was consequently aimed to achieve dependable patterns, variable correlations or themes. Therefore, the auditory interview data is transcribed into impartial textual data by using Microsoft Windows Office Word 2007. Afterwards, the verbatim transcripts were coded by assigning each sentence in transcripts with one or more categories that described in the hierarchical coding tree, shown in the Table 3.1 below. Afterwards, the verbatim transcripts were coded by assigning each sentence in transcripts to at least one code that described in the hierarchical coding tree. By giving each text unit a number to relate units with a pre-determined theme, all text units were identified with at least one thematic code.

Table 3. 1 The Data Coding Tree

Manufacturers' interview coding tree	**Design professionals' interview coding tree**
(1) firmbaseinfo (fbi)	(1) firmbaseinfo (fbi)
(11) fbi/respondent	(11) fbi/respondent
(12) fbi/firm structure	(12) fbi/firm structure
(2) hiring motives (hm)	(2) design service content (dsc)
(21) hm/ service expectations(eps)	(21) dsc/offerings (off)
(211) hm/eps/firm level	(211) dsc/off/firm level
(212) hm/eps/project level	(212) dsc/off/project level
(22) hm/project outcome measures (pom)	(22) dsc/project outcome measures (pom)
(221) hm/pom/ success measures	(221) dsc/pom/ success measures
(222) hm/pom/ failure measures	(222) dsc/pom/ failure measures
(3) outsourcing process (osp)	(3) getting contacted efforts (gce)
(31) osp/existed procedure (ep)	(31) gce/promotion activities (er)
(4) process management (prom)	(4) process management (prom)
(41) prom/existed procedures (exp)	(41) prom/existed procedures (exp)
(411) prom/exp/design brief	(411) prom/exp/design brief
(5) other	(5) other
(51) other/relevant	(51) other/relevant
(52) other/not relevant	(52) other/not relevant

Finally, a case-level data (Appendix E) was developed to cluster the coded textual data under corresponded questionnaire question. In this phase, data reduction and interpretation were made by summarizing the coded text units, which also included quoted statements and researcher's field observations. The qualitative data analysis flow were illustrated in figure 3.1 below. The data sheets constituted a coherent formation to perform cross-case comparison analysis and the data flow was enabled back-trace auditing by matching coding-tree numbers with text-unit numbers.

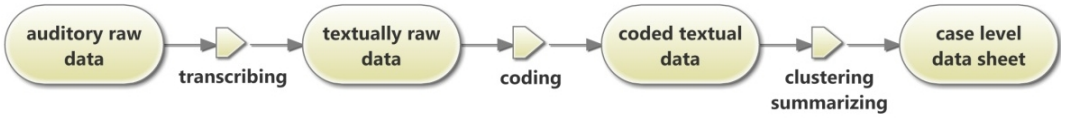


Figure 3. 1 Data analysis flow

The qualitative study was performed with the aim of penetrating in-depth knowledge in case that pre-determined quantitative statements are insufficient in scope to cover the subject of interest. Thus, the results of the qualitative study was presented to extend or explain the quantitative results through emergent and divergent responses that arisen during the interviews.

3.4.2 Quantitative Data Analysis

To analyze the quantitative data, conventional statistical analyses were applied to Likert-type scaled statements. Each question scaled 1 to 5 i.e. '1' is none and '5' is always. the questions and the numerical responses transferred to the Microsoft Excel 2007 document for the analysis.

Table 3. 2 Quantitative Data Analysis

Ratings	Values	Examples of average value calculations
Always	5	A1 = Average value calculation of manufacturer responses on "analysis of market demand" = (Mr1 + Mr2 + Mr3 +……. + Mr23 + Mr28) / (number of respondents)
Mostly	4	
Average	3	
Seldom	2	
None	1	$\bar{n}^{m}$ = average of all manufacturer responses for each question set = (Am1 + Am2 + Am3 + ……. + Am21 + Am22) / (number of questions)

After the analysis conducted, the data reacquired from Likert-type scaled questions were converted into quantifiable results. Therefore, average values were calculated for each question which enabled to illustrate the results in a form that allowing to perform comparison between manufacturer and designer responses. Scoring of the questions and calculation of average value is exampled in Table 3.2 above.

CHAPTER 4

OUTCOMES OF THE FIELD STUDY

This chapter was aimed to present the findings of the field study that acquired through semi-structured interviews in conjunction with structured questionnaires, which applied to the manufacturer and designer respondents. The qualitative and quantitative gatherings, which captured from both respondent groups, were processed with the conclusive intention of achieving the objectives that explained at the beginning of this chapter in detail. Briefly; the study aimed to provide a clearer understanding on the complexities appear during business transactions of design alliances that arisen from ambiguity of design management implementations, perceptive distinctions on the subject of outsourced design service content and, finally, expectative distinctions of collaboration motives.

4.1 Respondent Firm Profiles

Information about the firm profiles were collected through first section of the fieldwork. These warm-up questions are listed as below;

- Renpondent personal information
- Contact information of the respondent
- Company orbit/ major field of activities
- The year of establishment
- The location of headquarter
- Quantity of the employees and designers employed (for manufacturer population)

- Quantity of the employees and non-designer employee (for designer population)

The study was conducted with the participation of twenty-two manufacturer and twenty-four designer respondents. Distribution of manufacturer firm population according to their main field of activities are inspected, there are six companies from electronics industry, three companies from furniture industry, two of them from medical industry, two of them from plastic kitchen-ware industry and the and the rest of them are from various industries such as automotive, lighting and military equipment. The population of designer firms were all comprised of product design firms, thus no variety in field of activities existed. Tables that are displaying the firm profiles, which include geographical distribution and numbers and composition of employees for both designer and manufacturer firms were prepared and presented in Appendix F and G.

4.2 Level of Agreements: Outsourced Design Service Content

Two open-ended interview questions, that accompanied by probes and follow-up questions, and thirty-three Likert-type scaled questionnaire questions, were devoted to collect data from both respondent groups. The aim was achieving the results that enabling to perform comparison between the agreement levels of beneficiaries' expectations and service providers' offerings within the context of outsourced design service.

In the interview sessions, *'What are your design procurement motives?'* and *'what are your expectations from the scope/content of the outsourced design service that service provider should meet'* ware asked to the manufacturer respondents in order to relate the design service utilization motives and the service expectations.

Nineteen of the manufacturer respondents discussed their utilization demands for design service procurement stimulated as the consequence of an emerging external factors that eventually causing for decreased financial income. These factors stated as, introduction of a new product that satisfies market demand by providing advancement in price, function, user-product associations etc.; emergence of a new technology that outdates other products in the market over time, and the change of legal regulations, which consequences as sudden invalidation of current products in the market.

On the other hand, six respondents also described the internal factors that are stimulating the need for design service procurement as; developing a product for satisfying a pre-located market demand, and satisfying a pre-located local market demand with a product that already existed in the global market. As explained; in case of abovementioned transitions are came into existence, type of reaction given by them differs in accordance to their strategic business and market intentions as listed below:

- Market withdrawal
- Acceptance of reduced market share and remaining in the market with same product
- Revision of previous product, at least to remain in the market
- Adoption of a qualified competitor product, at least to remain in the market
- adapting a competitor product by modifying the existed product at least, to increase the market share
- Development of a substantially novel product to dominate the market

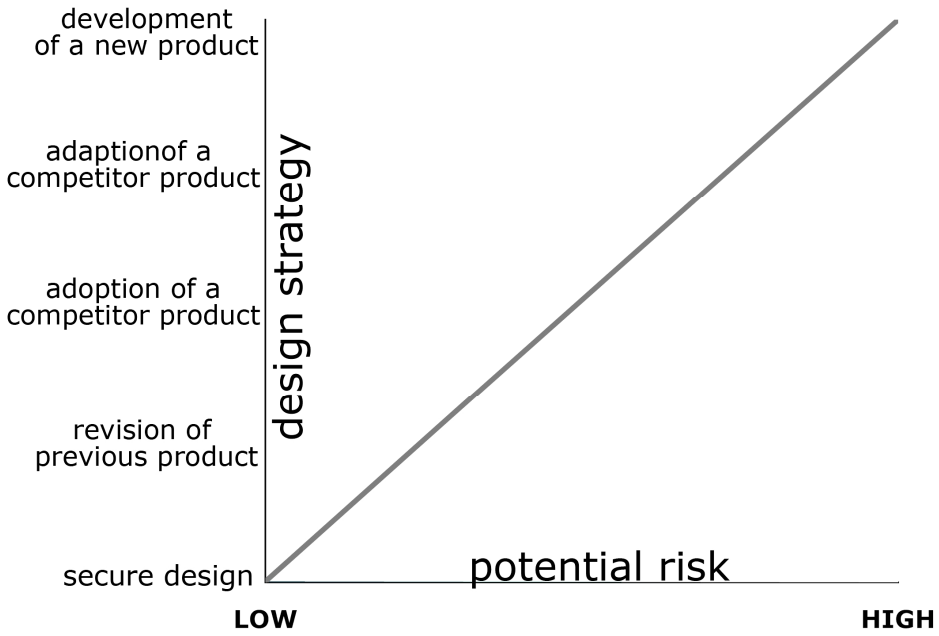
The underlined reactions were indicated by the respondents as the stimulators that leading them to develop new products or modify existed products; consequently in most cases, procure external design service. The expression frequency of respondents was shown that participants are tent to utilize the design service mostly for adaptation of competitor products by modifying the

existed typology through visual and functional improvements. Second most frequently expressed motives were, revision of previous products and adoption of a competitor product that seen qualified for satisfying the user and market demands with minimum modifications. Finally, the lowest response rate acquired for developing a new product to introduce substantial innovation.

The explanation were sought through the expressions that used to define the conceptions of adaptation and innovation made by manufacturer respondents. The Table 4.1 below, generated to indicate the meaning of these conceptions and the biases assigned these conceptions.

Table 4. 1 Conceptions of Adaptation and Innovation

The adaptation	**The innovation**
Interested in solving problems by using current paradigms	Search possible solutions of the problems by disregarding current paradigms
Search for alternative resolutions of the problems in proven and conventional ways	Manipulates the problems, seeks solutions in unsuitable and inconvenient ways
Characterized as reliable, efficient, stable and acquiescence	Characterized by suspicious, undisciplined, ambiguous
Treated as dependable, reliable and safe	Seen as abstract, impracticable; undependable
Liable in realization of objectives, minimizes the risk of failure	Unreliable in pursuing and realizing objectives, maximizes the risk of failure
Maintains high precision in complexity of detailed projects	Incapable of maintaining detailed and complex projects
Cautious, barely challenges to the paradigm	Reckless, constantly challenges paradigm
Indispensible for the functionality and permenance of the organization	Organization encounters to the unexpected crises, if cannot be controlled
Provides the ground for stability and continuity in financial flow	Causes uncertainty about continuity of financial return,
Supplies a safe ground for risk reduction	Increases the potential exposure of risk level



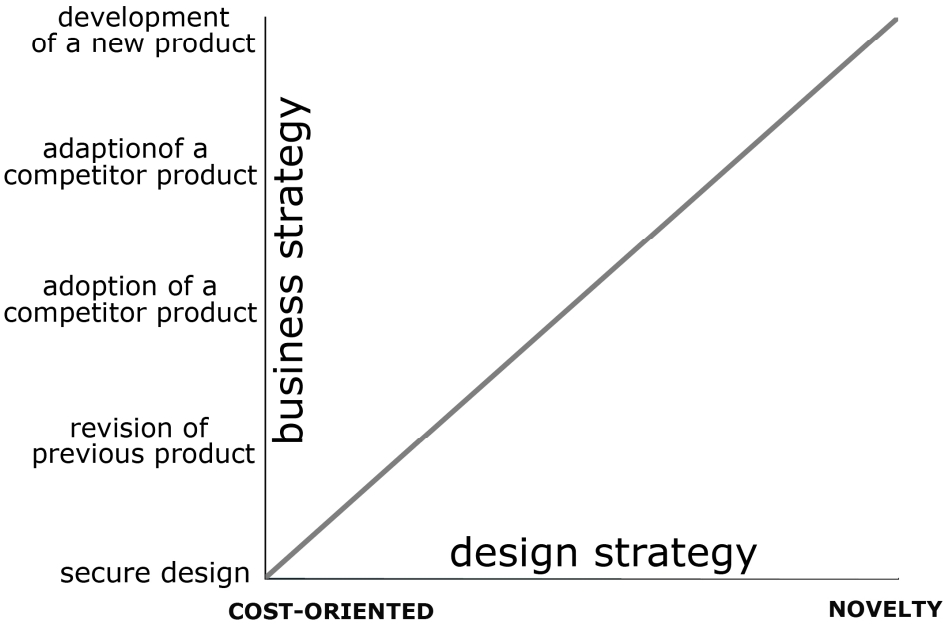


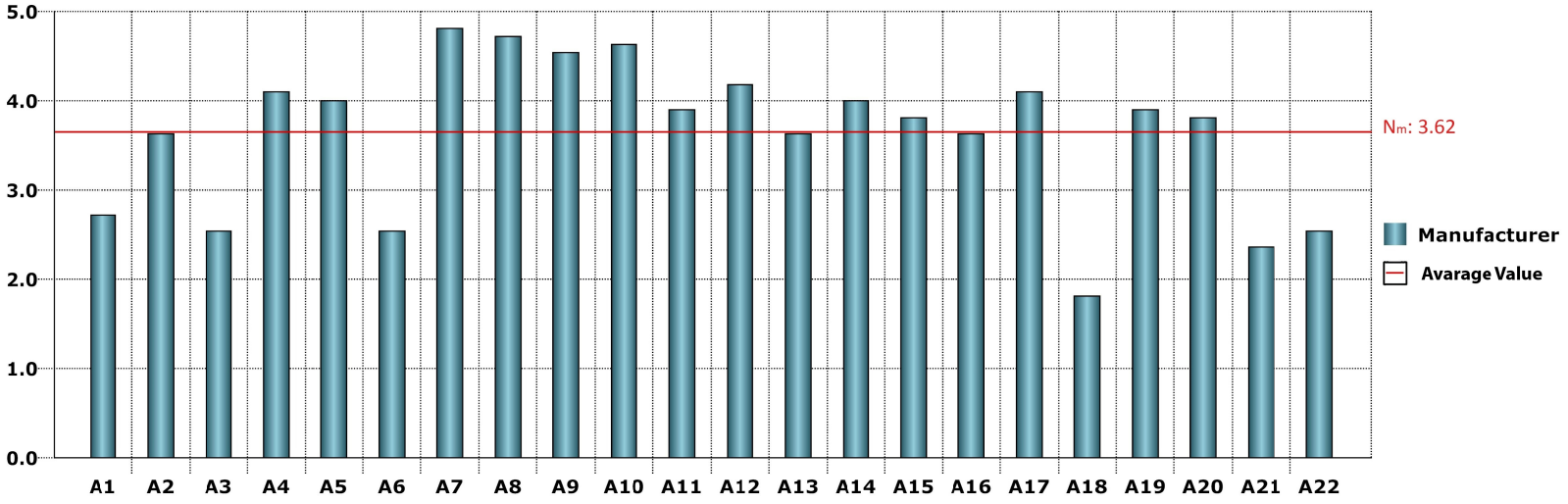
Figure 4. 1 Relationship between business strategy, design strategy and perceived project risk

Companies shape the design strategies according to their business and market strategies. According to the obtained results, the projected design strategies are connected to the expectations about the design service content. It is commonly accepted by the manufacturer participants that, aiming to achieve the 'innovative design' is like "*swimming in the unplumbed waters*". It increases the potential risk level that come from uncertainty.

Both of the two design strategies have their own up and down sides. The 'safe design' strategy, for example, uses known and proven design standards such as change in visual aspects or small improvements on functions or product-user affiliation by design contribution. However, even that business strategy is accepted as reliable, it aims lower market share. On the other hand, innovative design strategy aims to dominate the market share and naturally, financially unreliable. That strategy is based on producing unique products and carries the risk of possible product and end use failures. Respondents stated that, cost-oriented business structures cannot bear that risk. The interview results shown that, design service expectations were mostly expressed by using the expressions that related to the;

- Visual organization of the product appearance: appealingness, desirability, aesthetic, attractiveness, differentiation, distinctiveness, recognizability etc.
- The product-user association aspect: ergonomics, easy to use, easy to operate, comprehensibility etc.
- Utility of the product properties: improved function, usefulness, safety, durability etc.

Results show that, the main factor behind the manufacturer expectations is the risk aversive behavior. Therefore, strategic risk management plays a significant role on the projects of the organizations. Design and business strategies take shape according to design service expectations (Figure 4.1).



A1: market (demand/ opportunity) analysis	**A9:** design focus on manufacturability	**A17:** mass production (assurance)
A2: user (need/expectations) analysis	**A10:** design focus on functionality	**A18:** planning of promotion activities
A3: target cost analysis	**A11:** mechanical (component) design	**A19:** consultancy in technical problems
A4: competition (brand/product) analysis	**A12:** selection of materials	**A20:** planning of assembly
A5: trend (brand/product) analysis	**A13:** selection of manufacturing processes	**A21:** analysis of user feedbacks
A6: research of standards	**A14:** user interface (physical/ graphical)	**A22:** product usability analysis
A7: design focused on visual/aesthetic	**A15:** prototyping (assurance)	
A8: the design focus on ergonomics	**A16:** cost minimization	

Figure 4.2 Level of agreements: Design service expectations - manufacturers' point of view

In questionnaire session, manufacturer respondents were asked to which extent the listed service aspects in Figure 4.2, expected from the design service through Likert-type scaled statements. As seen in the figure 4.2, parallel to the interview results, the questionnaire results of manufacturer respondents shown that, design for 'product appearance', 'ergonomics', 'functionality and the 'manufacturability' are the aspects most expected aspects of outsourced design service.

It is also possible to see that the 'material selection', 'cost minimization', 'trend analyses', 'competition analysis' and 'physical/graphic interface design' are the service aspects that exceeded the average response value ($\bar{n}$: 3.62).

On the other hand, in interview sessions, designer respondents were asked to outline the product development process, stages, activities and practices to acquire detailed information about the service content that currently offered. The responses are presented under nine design stages: 'preparation', 'design goal and research', 'concept development', 'realistic visualization', 'detailing and modeling', 'mechanism and component design', 'assessment and testing' and 'tooling and mass production support'. All eighteen responses were colligated together and illustrated as in Figure 4.3 below.

- **Preparation**

  This phase contains the pre-process preparation activities such as, preparation of the quotation, preparation of legal documents i.e. confidentiality agreement, business contract etc., the determination of the project scope, formation of criterion and necessities, and the scheduling the whole process in a daily basis.

- **Design Goal and Research**

Market research of the product, analysis of effective brands and products, examining the changing user trends, analyzing the design brief and other information provided by client, investigating potential production techniques and the most suitable material are made to redefine the design problem.

- **Concept Development**

The ideas about possible solutions are composed once the definition of the problem and the research results have been analyzed. These ideas become different alternatives through brainstorming processes and quick sketches.

- **Realistic Visualization**

Once the concepts reach a level of certain maturity on paper, these alternatives are transferred to the computer where the ideas can be visualized more realistically through 3D/CAD modeling.

- **Detailing and Modeling**

At this point, where usually one alternative is chosen among the 3D modeled concept ideas and selected alternative is detailed concerning the production capabilities. General dimensions of aesthetics, ergonomics, material decisions and production techniques are taken into account; mock-up and modeling processes are operated to test the design decisions that have been made so far.

- **Mechanism and Component Design**

Solid surfacing and component analysis are performed via the use of CAD/CAM programs, mechanism animation and simulation processes are completed to make the design ready for the prototyping stage.

- **Prototyping**

At the prototyping stage, the 3D data of the design are used to produce outputs that are very similar to the final outputs, since the actual materials decided for the production are used at prototyping for evaluation of the components and the assembly details, but also for performing usage trials.

- **Assessment and Testing**

The stage where the tests for receiving necessary certificates about the product's endurance and manufacturability are conducted before deciding on production. Feedback about the product is collected and the necessary changes are made.

- **Tooling and Mass Production Support**

Most of the design firms provide the necessary support for the mold production via their national and international business partnerships to offer technical support and process control.

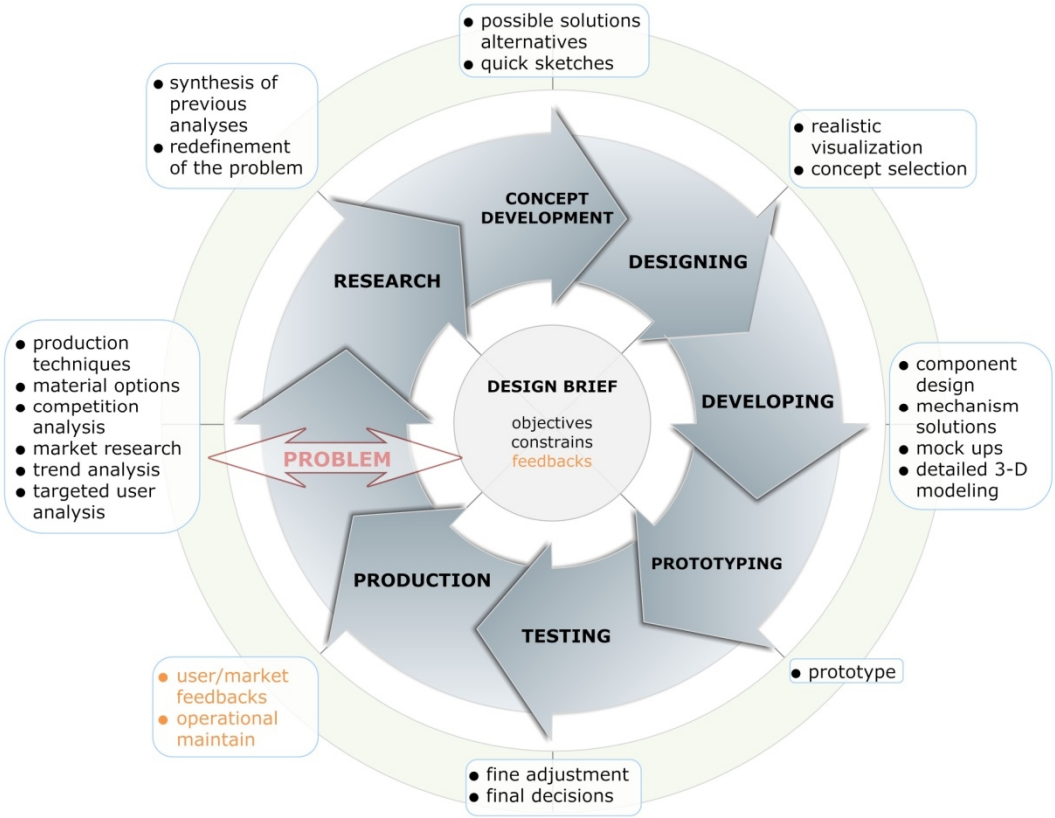
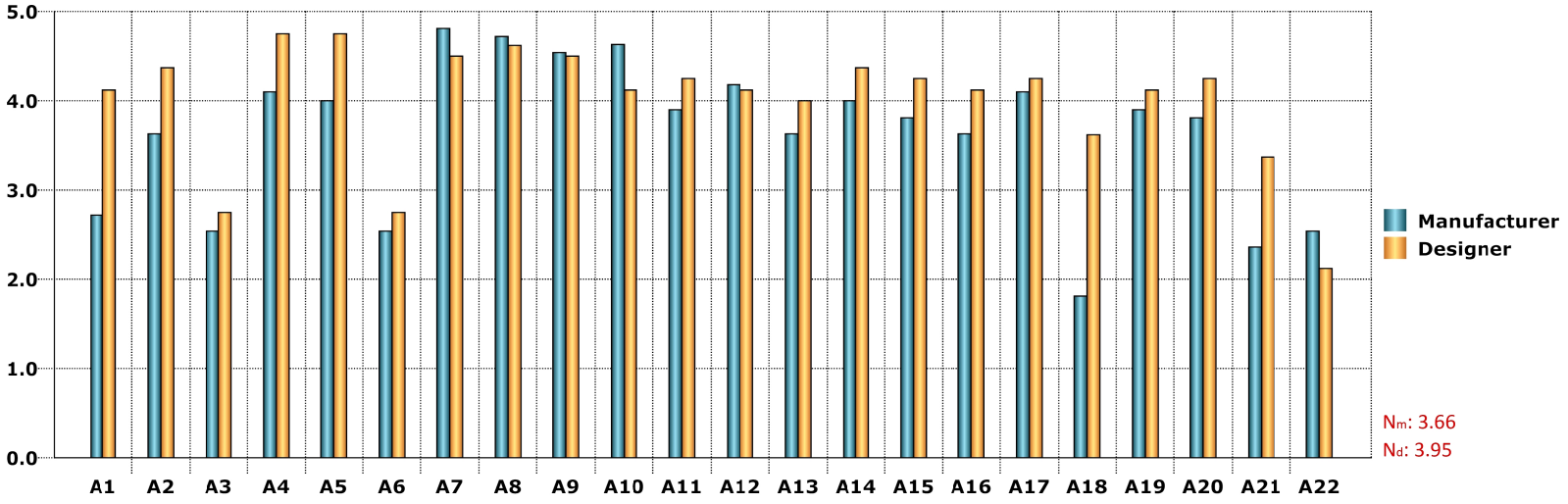


Figure 4. 3 Product development process



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A8: the design focus on ergonomics	**A16:** cost minimization	

Figure 4.4 Level of agreements: The scope and extent of the offered service, comparison chart

In questionnaire session, twenty-two close-ended Likert-type scaled questions were asked to both manufacturer and designer respondents in order to compare respondents' level of agreements within the context of outsourced design service content. Each response was scored one to five (1: none to 5: always) and average value calculated for each statement. Figure 4.4 below, presents the comparative results between manufacturer and designer responses.

It can be seen in Figure 4.4; average value of expectations ($\bar{n}$: 3.66) have shown quite difference in comparison with service providers' offerings average value ($\bar{n}$: 3.95) in overall results. Especially; level of agreements on analysis of market opportunities, analysis of user demands, trend and competition analyses, planning of promotional activities and analysis of user feedbacks are shown fundamental divergences in opinion. The interview results indicated that, the divergence may be arisen by that the manufacturer respondents were regarded themselves competent in performing such analyses and fulfilling all other design development requirements besides, aesthetics, ergonomics and functional demands of market.

Also in Figure 4.4, usability analysis was expected to be offered in extent of the service by the manufacturer respondents, yet as can be seen that the designer respondents put lower importance on providing the service aspect. Reason can be explained through interview results. While outlining design development stages, designer respondents considered that the usability analysis is a specialized service, which requires specialized human resources and even specialized equipment to practice. Since there were no design firms or employees specialized on the subject among the population, the score for usability analyses service aspect may be resulted as the expectation of manufacturers' on the subject is not met.

4.3 Level of Agreements: Design Service Utilization in Firm-Level Strategies

One open-ended interview question, that accompanied by probes and follow-up questions, and Eleven close-ended Likert-type scaled questions were asked to both manufacturer and designer respondents in order to compare respondents' level of agreements within the context of the design service utilization in corporate level strategy building. Each response was scored one to five (1: none to 5: always) to calculate the average value for each statement.

First, through the interview sessions, subject for any consultancy utilization to specify the strategic business aims of client organizations is searched. In the industrial orbit, critical factors for an organization is its shape and size, or in other words, the source and the funding of an organization and the financial return demanded by the shareholders. This study investigates the profit-oriented organizations therefore it shows that the main goal of the companies is the maximizing the market value of the company. Very few number of non-financial business objectives also noted from some companies as well. Hence, the all stated corporate level business aims that may require utilizing an external expert are listed below;

- maximization of income
- maximization of profit
- maximization of growth
    - market share, investments, physical assets, number of employees, number of products, number of brands
- minimizing levels of business debt
- community aims
    - laborer benefits and care, managers wellbeing, customer relationships
- environmental aims
- operational efficiencies

- marketing and promotional aims
    - strengthening brand identity, brand image, positioning.
- personal aspirations of managers

Following respondents were asked, 'to which extent these stated strategic business aims are specified by contribution of design consultancy utilization?' All of the of the manufacturer respondents biased about the conception of design expertise definition as *'it is about giving shape to create the ultimate reason for influencing the consumers' purchasing decision while providing better usage and functionality'.* Designers as the *"shape givers"* were not seen as authorities or valuable sources to contribute the corporate level issues such as investment, growth, profitability, efficiency and marketing strategies.

Otherwise in interview results, all of the designer respondents expressed that as a *"rational and creative problem solving method"*, design thinking can contribute strategic planning and decision making processes in corporate level by its *'rational, systematic and visionary'* approach.

> *…Working on different projects from different industries at the same time, keeps us updated about all kind of technical and technological developments, regulations, standards, trends, entrepreneurial practices and so on. …I mean we have all the ingredients needed. As the chef; if a client wants me to cook the meal for their consumers, employees or for him, it is all okay for me…*

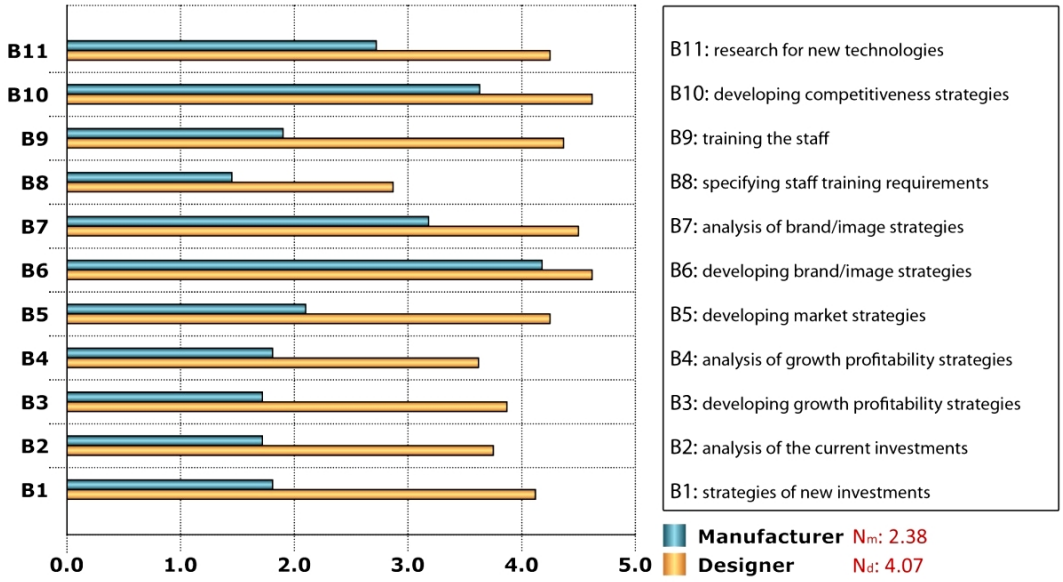

Figure 4. 5 Level of agreements within the context of the design service utilization in corporate level strategy building

Figure 4.5 above presents the comparative results between manufacturer and designer responses. As it can be seen in the figure, manufacturer respondents ($\bar{n}$: 2.38) are tend to utilize external design expertise when specifying the strategies and objectives related to the brand image and business competitiveness. Therefore, designer respondents were regarded themselves qualified to contribute in all stated conditions except in 'identifying the training needs of client employees' ($\bar{n}$: 4.07).

4.4 Project Success: Evaluation Measures

One open-ended interview question, that accompanied by probes and follow-up questions and seven close-ended Likert-type scaled questions were asked to both manufacturer and designer respondents in order to compare respondents' level of agreements on the subject of evaluation measures of project success.

The interview results shown that, conceptions about 'success of a project' were significantly differed in meaning for manufacturer and designer respondent groups as illustrated in Figure 4.6 below. The almost all of the manufacturer participants defined the project success pragmatically by "satisfying business objectives" in a commercial bias, i.e. increased financial return, sales and market share as the result of consumer satisfaction and accomplishment in budget and time-schedule goals.

On the other hand, designer respondents judged the project success by "achieving excellence in design dimensions" i.e. meaning, satisfactory function, user interaction, efficiency in technical issues and environmental sensitivity. For all designer participants, excellence in design was expresses as the most crucial success measure by the respondents. Then, they expressed the project success measures from the business perspective, as satisfying client's business objectives, punctuality in project delivery and following the financial constrains. Respondents from both parties agreed on that, the distinction on the conception of project success, which is indirectly influencing decisions of strategic objectives, caused dissensions on design alliances.

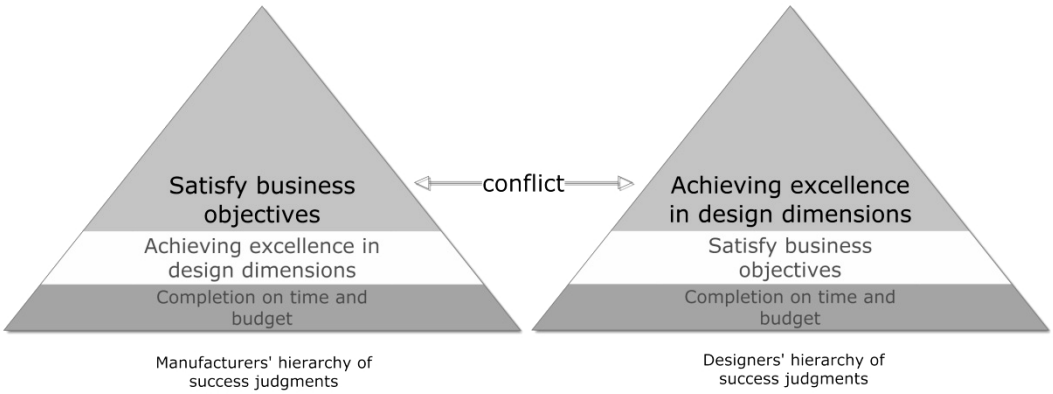

Figure 4. 6 Hierarchy of success judgments

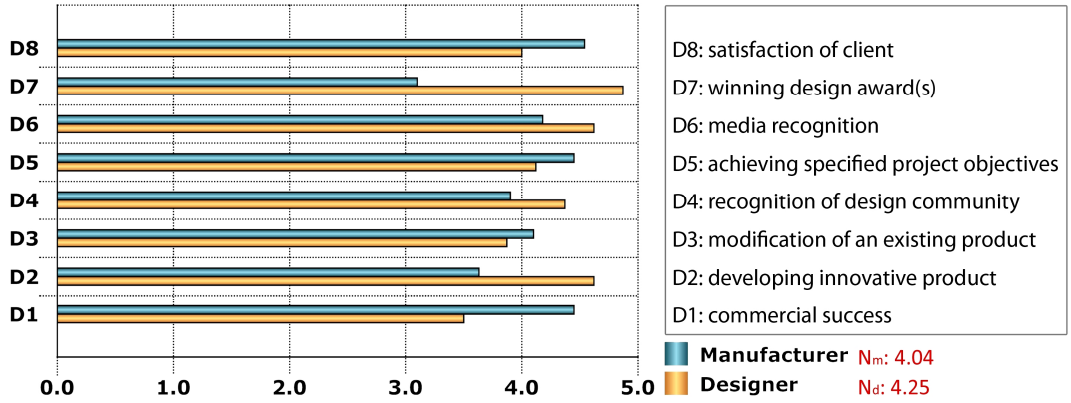

Figure 4. 7 Level of agreements: evaluation measures of project success

Figure 4.7 presents the comparative questionnaire results between manufacturer and designer answers ($\bar{n}^{m}$:4.04; $\bar{n}^{d}$:4.25). The comparison analysis shown that, manufacturer respondents seemed to evaluate the success of a project quite pragmatically by satisfaction of top management and commercial success of the project. Achievement of specified project objectives, media recognition and significant modification in an existing product typology were the following responses exceed the average rating value that rated as essential aspects of project success assessment by manufacturer participants.

Much lower ratings were assigned by manufacturers to winning design awards and developing substantially innovative products. Conversely, designer participants were rated innovativeness of the product, wining design awards, media recognition and recognition of the community as the most significant considerations of project success assessment. Designer respondents put lowest weight on the on the project success to commercial success of the project, satisfaction of the client and product modification. Success measures of parties show most significant contrast on the aspects of commercial success and satisfaction of client.

4.5 Design Alliances: Contact Methods vs. Promotion Methods

One open-ended interview question accompanied by probes and follow-up questions and nine close-ended Likert-type scaled questions were asked to both manufacturer and designer respondents in order to compare respondents' level of agreements on the subjects of networking and business development practices. Each response was scored one to five (1: none to 5: always) to calculate average value for each statement.

In interview sessions, manufacturer respondents asked that *'Is there a standard procedure followed through in selection of outsourced design partner in your company?'* Only one firm had a systematized procedure (see in Figure 4.10 below) that used in selection of external design source. Respondent were requested to explain the procedure step by step in detail. The steps of the selection procedure are presented as follows;

- **Generating a Designers Database**

  To generate a database, an extensive web-search is carried out with the aim of setting out as much as possible design firm options without any elimination.

- **Preliminary Elimination**

  a. **Defining the evaluation measures for pre-elimination**

     In pre-elimination stage, each firm's web site is scanned to define measures for developing a quantifiable pre-elimination system. The evaluation measures are defined through the features of that design firms highlighted about themselves in their websites i.e. awards, client portfolio, product portfolio, experience in the field, staff background etc.

b. Scoring/Performing the pre-elimination

The measures that defined in previous stage are used to prepare a score sheet as exampled below in figure 4.8 below.

Criteria	Design Firms (1:poor, 2:fair, 3:strong)														
	A			B			C			D			E		
	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3
Creativity of designs															
design awards															
experience															
staff background															
locational advantage															
Specialization in field															
client portfolio															
product portfolio															
Total															

Figure 4. 8 Pre-elimination score sheet example

Afterwards, each design firm is scored by four different project managers through the identified evaluation measures. For each firm, average score is calculated and eight design firms that graded highest are selected for major elimination phase.

- **Major Elimination**

a. Preparation of design brief

The design problem, objectives, restrictions and project schedule is prepared in order to begin the major elimination process.

b. Defining Assessment measures of major elimination

Assessment measures of major elimination process are defined through the design objectives prepared in prior stage and each measure is assigned numbers to be used in scoring the projects similar to the pre-elimination stage.

c. Group meeting

The design firms that succeed to pass the pre-elimination stage are contacted via e-mail which containing general information about intention of the process and a meeting invitation that aimed to explain the project and process details. The firms who were agreed to participate to the process are met in a half-day session and design brief is shared.

d. Project presentations

After group meeting, the design firms that were accepted to proceed to the elimination process are asked to prepare a design solution and perform a final presentation for their designs.

e. Scoring and elimination

The firm presentations are performed individually and each firm's design presentation scored according to pre-determined assessment measures as exampled below in Figure 4.9. Four highest scored companies are requested to prepare a quotation for three-year service.

f. Contracting

Top-five scorer design firms are negotiated individually on the service price and three design firms that offered the best price for their service are sourced and contracted for three years.

Criteria	Design Firms (1:poor, 10:strong)				
	A	B	C	D	E
brief/ design objectives are understood					
Design assesment Conceptual approach Creativity of the solution Aesthetics/visual Workability Manufacturability/ realizability					
Presentation assesment Variety of presentation tools Communication skills Presentation skills					
Management assesment Budget management Time management Targeted cost proximity					
Total					

Figure 4. 9 Assessment form example of design presentations

g. Introduction of Design Official Partners to The Company

A booklet is prepared that including the general information about official design partners such as, contact information, design awards, specialized features, featured designs etc. The booklets are delivered to all departments in order to be used when the product service is needed.

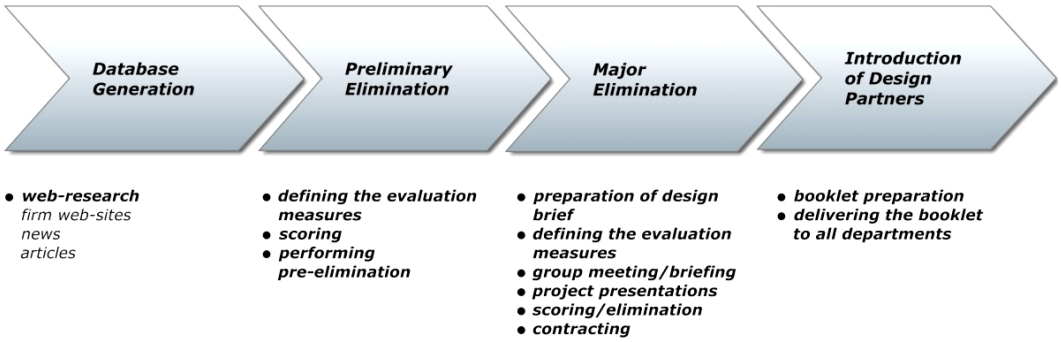

Figure 4. 10 Outline of design outsourcing procedure

In questionnaire session, manufacturer respondents were asked to which extent the listed factors in Figure 4.11 below, influencing their judgments when selecting the design firm that is collaborated with.

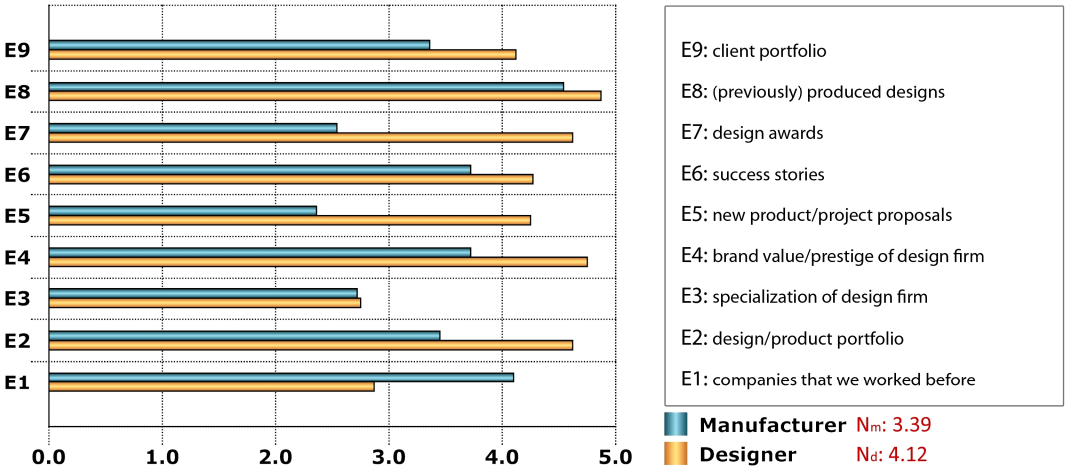

Figure 4. 11 Level of agreements: procurement influentials

As it can be seen in the Figure 4.11 ($\bar{n}^{m}$:3.39; $\bar{n}^{d}$:4.12), manufacturer respondents rated the design firm's produced products as the most influential factor in selection processes. It should be noted that; according the interview results, all

manufacturer respondents were also expressed the price that required for the service is the most influential factor in outsourced design procurement.

Figure 4.11 also shown that, participants are relying on their prior collaborations, brand value of the design firm and the success stories that created by design firms' previous collaborations. Otherwise, manufacturer respondents were rated the unintended project proposals, the design awards won by the design firms and the specialized service less effective on their judgmental decisions.

On the other hand, designer respondents were asked to which extent the listed factors constitute their focal intentions in promotional activities currently performed. As seen in the Figure 4.11, designer participants rated the promotion activities that emphasizing the previously realized products, the design awards won, prestige of their brand as the most preferred activities. However, the respondents showed less interest on the promotional activities that targeting previous clients and stressing their area of expertise. According to the figure, the promotion activities based on the design award and proposing unintended project proposals seemed to be most frequently used but less effective methods.

4.6 Design Process Management: Expectations vs. Offerings

One open-ended interview question accompanied by probes and follow-up questions and ten close-ended Likert-type scaled questions were asked to both manufacturer and designer respondents in order to compare respondents' level of agreements on the subject of design process management implementations. Each questionnaire response was scored one to five (1: none to 5: always) to calculate average value for each statement.

Interview results on the subject of process management showed that, all designer and manufacturer respondents are accepted that, even with a poorly

managed design process, it is possible to gain successful design solutions despite the fact that, in that kind of situation, results would most probably be dissatisfactory and precious resources and opportunities would be wasted. The design process is combination of the business vision and design vision, put into a single project vision. Therefore, reaching the desired objectives requires careful preservation and conduction of the visionary information. Base on the information discussed in the previous chapters and intentional differences, keeping order between the parties is another vital aspect of the process management. Interview suggested that, the role of design process management (Figure 4.12) should be included the simultaneous coordination of;

- **"process progression and control"** When situations happen between designers and clients, like, the details of the objectives are obscure or client organizations conflicting in interdepartmental goals, it is the issue of being the interface between design and design brief.
- **"orchestrating the designer skills"** Without ignoring the design objectives, it is the issue of managing the creative, stylistic and technical knowledge and abilities to perform problem identification, problem solving, physical planning, or realization solutions etc.
- **"financial control"** Regarding to the design objectives, it is the planning of cost and expenses and also monitoring and reporting the status in a regular basis.
- **"information flow"** All project contributors needs a contact between designer and client for consistent incorporation. It is the management of that essential two-way flow of information.

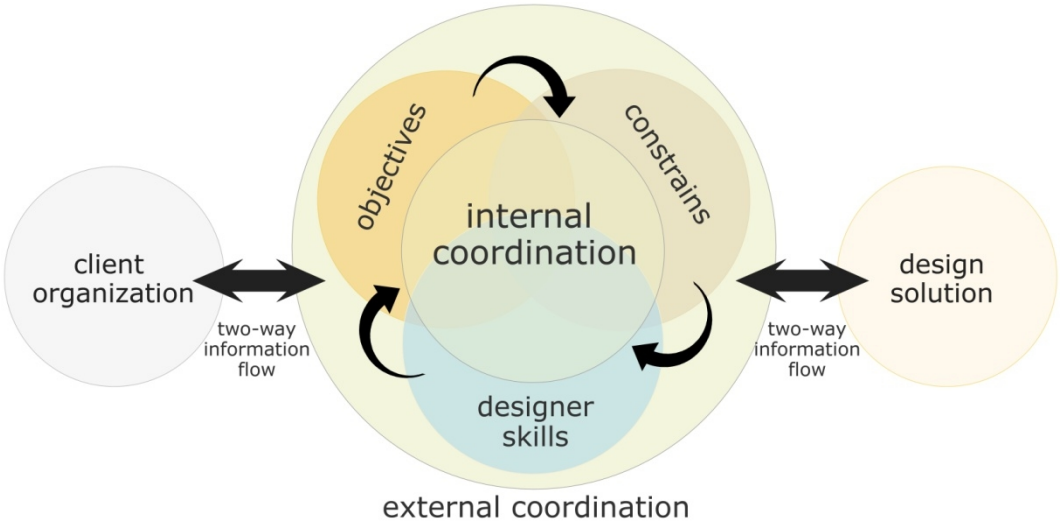

Figure 4. 12 Role of design process management in collaborations

The other main subject of interest about the process management was to identify the documentation requirements of the design process. Both respondents' interview results were colligated together to identify the documentation requirements of an effective client-oriented design management process. The early-process documentation requirements listed as the preparation of project brief, which is discussed in the next section in detail, preparation of a project plan that contains information about stages, deliverables and timeframe. It was also stated that preparing progress reports and sharing them in a regular basis enables monitoring the progress for all contributors. In addition, preparing meeting reports to prevent the information loss and keep track of the agenda was identified as an essential documentation requirement during the process.

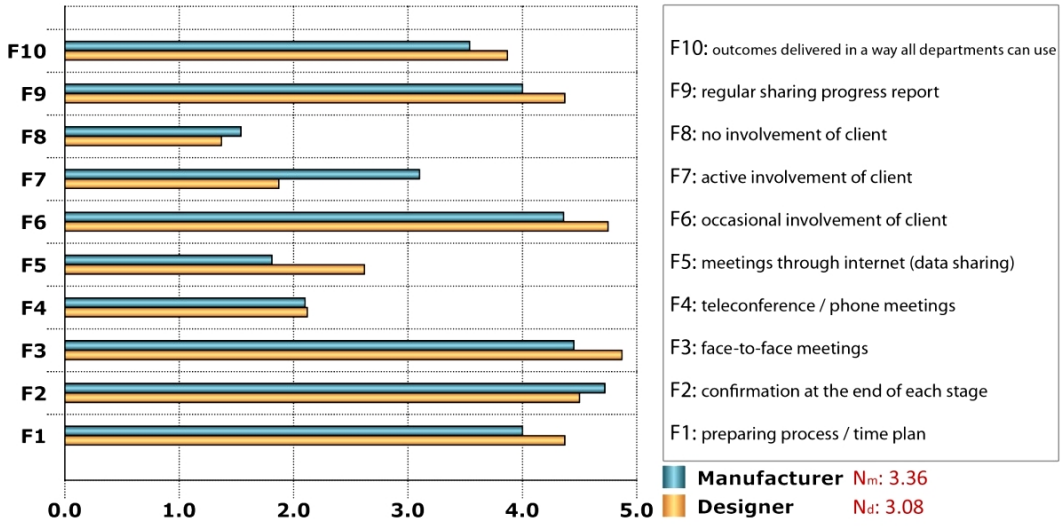

Figure 4. 13 Level of agreements: design process management implementations

Figure 4.13 presents the comparative results between manufacturer and designer answers ($\bar{n}_m$:3.36; $\bar{n}_d$:3.08). As the figure 4.13 shown that, the manufacturer respondents asked to which extent the listed conditions expected to be fulfilled by the service provider.

The manufacturer participants rated the meetings conducted during the design process should preferentially be face to face instead of conducting teleconference meetings or communicating over internet data transferring channels. Participants' ratings also shown that, they prefer to involve the process as long as requested.

However, the high expectations on the aspects of project planning, confirmation request at the end of each stage and regularly shared progress report indicated that they expect to be informed in every stage of the process in a periodic basis.

Correlatively, designer respondents were rated their design process management implementations in accordance with the manufacturer expectations in all aspects for this set of questions except that the active

involvement of the client to the design process seen less essential by the designer participants.

4.7 Design Process Management: Preparation and Negotiation of Design Brief

One open-ended interview question accompanied by probes and follow-up questions and nine close-ended Likert-type scaled questions were asked to both manufacturer and designer respondents in order to compare respondents' level of agreements on the subject of design brief preparation and negotiation implementations. Each response was scored one to five (1: none to 5: always) to calculate average value for each statement.

During the interview sessions, all respondents from both parties were asked the role and importance of the design brief in collaborations and ideally, which information should a design brief be contained. The importance of design brief was seemed to be undertaken by the manufacturer respondents, however emphasized by the designer respondents due to its fundamental role in design and project management process. As stated, a proper brief;

- defines the project objectives
- defines the specific business opportunity that must be differentiated through meeting the project objectives
- defines the scope for radius of creative act
- facilitates the control over the final outcome of a design project for both clients and designers by articulating the new business idea, the operational business framework within which the objectives aimed to be achieved also financial and non-financial resources that are available.

Briefly, according to the respondents' opinions, design brief guides all contributors during the process while simplifying the process to be controlled while focusing on the aimed qualitative and quantitative objectives.

Following list is made to outline a template that could guide the preparation of a project/client specific design brief (Figure 4.14). List consist all the given answers about 'information that an ideal design brief should be contained of' (Figure 4.14).

1. **Brief information about client organization:** general information about customer foundation
   - **Major field of activities:**, information about the core business of the client, products/services, client profile and the facilities etc.
   - **Project Background:** a brief background information about the circumstances that led the client to procure design service
   - **Human resources:** brief information related to the existed team structure that assigned for the project

2. **Definition of the project:** clearly stated, structured information of the project that included the details on aim and scope of the project
   - **Existing situation:** information about studies, researches and efforts performed so far
   - **Objectives and scope:** information about the purposes aimed to be obtain and margin of the project in general terms

   - **Design criteria:** general information about the intellectual, operative and technical design standards, details on the expected design requirements
   - **Priorities:** explanation about the design requirements that needed to be paid extra attention

- **Regulations and standards:** information about legal regulations and standards that needed to be taken into account during the design process

3. **Definition of sub-services needed:** brief explanation about the outputs and sub-services that expected to be accomplished i.e. visualization, animation, design concepts, engineering, prototyping etc.

4. **Process planning:** settlement of the roles, obligations that are expected to be accomplished and adjustment of the time schedule to be followed

    - **Timetable:** Specification of critical dates, deadlines and formation of a timeframe
    - **Phasing:** specification of process phases, mid and final deliverables
    - **Budget:** overview about the financial parameters and upper limits that allocated for the project
    - **Source of funds:** appropriate information about the fund sources i.e. equity capital, government supported funds etc.

5. **Liaison information:** contact information of the staff that is responsible from the project.

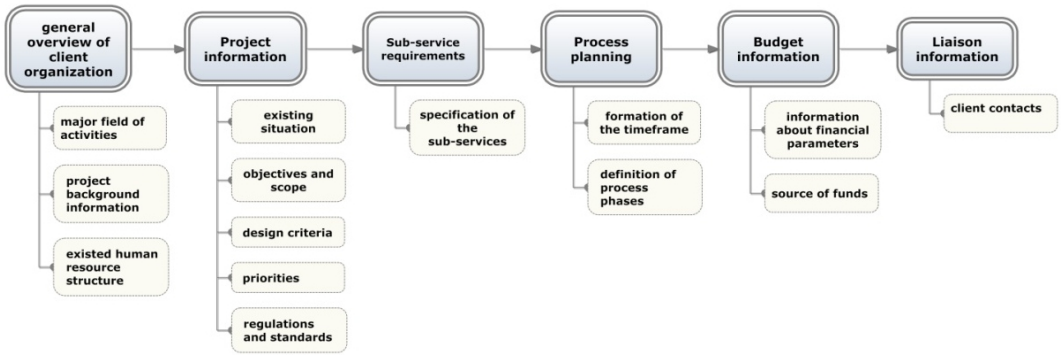

Figure 4. 14 Design brief preparation outline

Figure 4.15 presents the comparative results between manufacturer and designer answers ($\bar{n}^{m}$:2.91; $\bar{n}^{d}$:3.01). As it can be seen in the figure 4.15 below, both responded groups agreed that general outline of the project objectives should be designated by the manufacturers as clients, and the project brief should be finalized through the contributions of the designers.

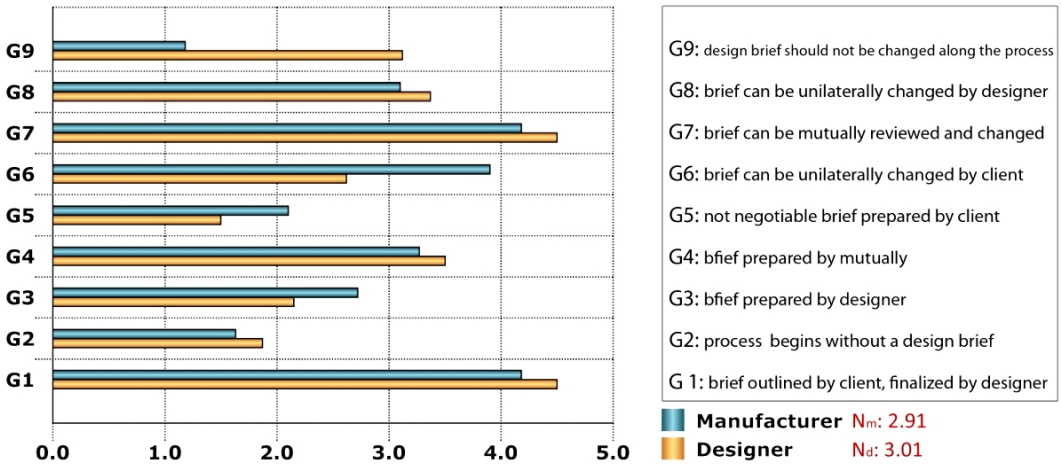

Figure 4. 15 Level of agreements: Preparation and Negotiation of Design Brief

Furthermore, according to the figure 4.15, both respondent groups agreed on that the necessary changes on the design brief along the process should be

negotiated and changed mutually, instead of changing unilaterally by one side. Additionally, the designer respondents were rated that the design brief should not be changed along the process, significantly higher in comparison with the manufacturer respondents.

4.8 Analysis of the Findings

This study was aimed to explain and demystify design management implementations of design alliances through the data collected from the parties who engage the process on a managerial level. Since the study was aimed to compare the perspectives of these groups while outlining non-standardized applications of the design process, it was important to carry out qualitative and quantitative data on the subject of interests.

The design process is not totally linear. In order to describe a simplified overview for admitting discussion frequentative aspects of the product development process, it was presented in a linear fashion as shown in figure 4.16 below.

The figure outlines the process with a wider approach to bring forward a more unified screening of the results that discussed in previous section. According to the participant statements, when a business or other need is exposed, several ideas meeting that need is proposed. Main criteria for the proposals are that each of them must have an appropriate solution to suit need in response to the external conditions. Then a single idea is picked and development process of the idea starts in order to complete and make ready to use. The importance of this early stage is pretty obvious since it has a significant influence on the all later stages in both positive and negative manner. Therefore, it requires constant control and evaluation of decision through the process.

The designer respondents emphasized the desired results of the design authorized by the client to the success of the overall design process which is called, 'design brief.' In the section 4.1.6 the process is discussed in detail. It is stated that, design brief creates an agreement about all contributors' future actions to the design process. Design brief provides a problem-solving guidance based on the need for the project however, the key aspect is determining the problem itself. *"In design, as with many things in life, correct answer will only ever emerge in response to the correct question."*

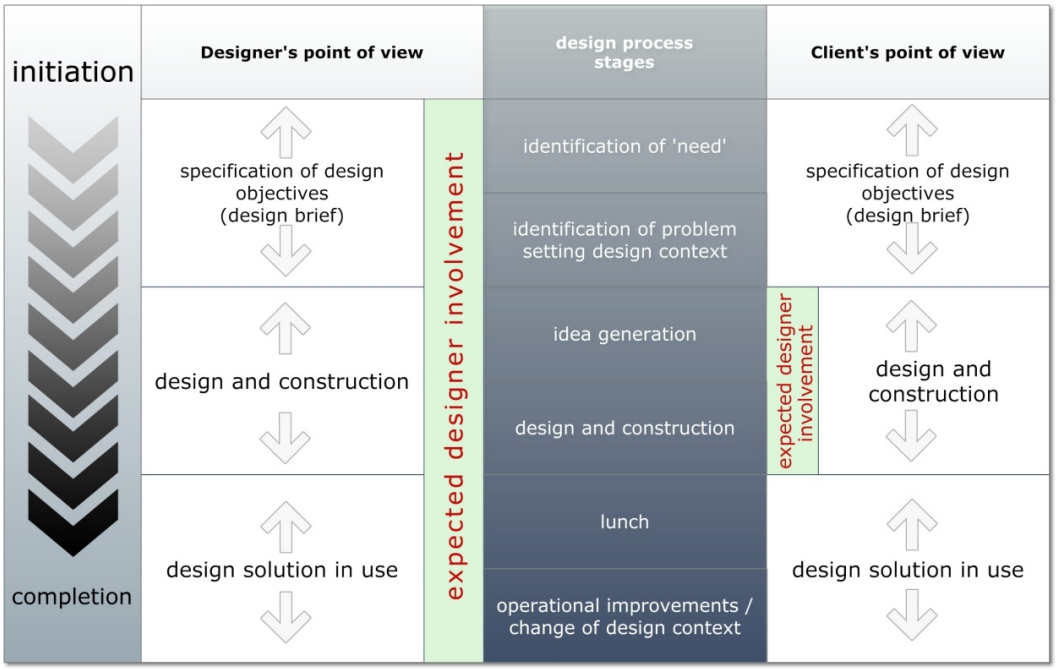

Figure 4. 16 Design process from designer and client points of view

An iterative design process never truly stops (illustrated in Figure 4.3 as cycle-loop) even the individual projects have an exact timescale. Main reason of that system is that, it is very easy to response to the changes from either internal or external influences and constrains. For example, from observations regarding materials, function, ergonomics, economics of manufacture, improvements to a

design may become distinct in use. These improvements show operational improvements which influenced by internal factors, therefore, the defined need, objectives and the design brief remain unchanged. On the other hand, the changes that based on the external influences, such as changing demands of user over time with regards to the new technologies or materials, and constrains like new design parameters produced by competitor companies. In that case, simply changing the design context creates a “new need.” Then a new design brief and design is prepared to fulfill the new need.

It should be noted that, through the early stages of the design process, all contributes and stakeholders involving to the project contacts each other and share their analysis of the business functions in order to extensively aid the process. Designer respondents stated that, unlike the manufacturer respondents’ general tendency (shown in Figure 4.16 above); the ability to listen, carry out detailed analysis, afterwards, communicating the analyses to the design objectives, requires designer association in each decision-making process

By looking back on the literature research, concerning the content of outsourced design service in matured industries, certain responses can be attained on the task of finding answers to the research questions of the study. The first major research question regarding the literature review and field study was, ‘what does the outsourced design should be offering as a professional service’. The answer was sought through acknowledging the design as an industry in its own right and an integrated resource that recognized by the industries. The second major subject of interest was the business initiation practices of client and designer parties. Finally, design process management practices were inspected through literature review and field study. To address these three major subjects of interest, following sub-questions were reviewed.

4.8.1 What Does Outsourced Design Means for the Industry?

The literature review has shown that scholarly attention has been focused on the relation between design and its contribution to the business performance since 80's. Considering design as a strategic tool that can be exploited to achieve competitive advantage; its potential contribution that enhancing both price and non-price qualities from product (micro) level to organizational (macro) level strategies is emphasized by many authors.

Such wide area of influence that provided through design came to attention as the selection of components, materials, processes and technologies to reduce the manufacturing, logistics and after-sales service costs. It is also emphasized that design is utilized for improving product performance and quality dimensions. It is indicated that integrating design to organizational level strategic decision-making processes for increasing overall competitiveness is essential to maintain the organizational existence in a progressive and sustainable manner.

Especially, the external design resources are temporarily offering their experience; creative expertise and the ability of accessing the up-to-date information about all kind of design related functions i.e. market opportunities, user prospects, competitive tendencies and technological developments. These offerings are utilized by the organizations that aim to achieve the competitiveness by developing products within their strategic intentions. Particularly, when it is not feasible to develop an internal design capability due to frequency of the need for the service or, when the prestige of the designer brand is the matter of success utilizing an external design resource becomes efficient option for organizations.

In situations like a design related business opportunity is large in volume with an indefinite delivery of the payment, it is better to use external design resources

since they provide the advantage of sharing the risks and managing the uncertainties. Royalty agreements are used when sharing the workload, risks and costs as well as the income.

However, the literature review suggested that, in spite of the potential contributions provided by design are substantial for the business; the strategic utilization of design is limited to the management capabilities of the organizations. Design illiteracy of managers, both risk aversive and tradition-bound behaviors are the conditions that forming the internal design policies while limiting the potential positive business performance contributions.

4.8.2 What Does Outsourced Design Means for Turkish Industries?

In the interview sessions, questions of *'considering the previous experiences; what are your expectations from the scope/content of the outsourced design service?'*, and basically, *'why do you need for outsourced design service?*' were asked to the manufacturer respondents. The interview results were addressed that the Turkish industry tends to utilize the design service for;

(1) revising an out-dated product that is currently on the market,
(2) adopting a competitor product that is considered as qualified to satisfy the market demand with minimum modifications,
(3) adapting a competitor product by modifying the existed typology with visual and functional contributions,
(4) developing a product to introduce substantial innovation.

These four categories are identified to form an insight about the intentions that forming the internal design policies and objectives of organizations. It was observed that the 'innovative' phrase is highly associated with radical design

solutions that neglect to consider strategies and objectives specified to reduce potential risks. Therefore, the general tendency of the population on the subject of new product development intentions was adapting a competitor product; in all means, upgrading it into a product that suited better for local market by minor visual and functional modifications. The reason may be explained as, functional modification, differentiation in visual aspects and product-user associations by design contribution were adopted as the fundamental risk management strategy to prevent potential failure risks arisen by uncertainty of novel developments.

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4.8.3 Level of Agreements: Design Related Service Content

In this section of the study, it was aimed to achieve the results that enabling to perform comparison between the agreement levels of beneficiaries' expectations and service providers' offerings within the context of outsourced design service.

The questionnaire results has shown that, in spite of the fact that design professionals seem interested on offering market analysis, analysis of user demands, trend and competition analyses, planning of promotional activities and analysis of user feedbacks; antithetically, the industry's expectations mostly focused on the aspects that related to the 'product appearance', 'ergonomics', 'functionality' and the 'manufacturability' of the products. The reason may be lying under the general behavior that tends to adopt the risk aversive design strategy and/or the bias about the design profession that causing to consider themselves as the designers with lacking stylistic skills.

The other subject of interest within the context of service content was attempting to compare the project success conceptions of the parties. Thus,

evaluation measures of a successful project were shown significant distinctions in results. Industry stated much lower interest in defining design awards and innovative products as successful, contrasted with the design professionals' judgments. Additionally, industry defined the project success quite pragmatically by accomplishing business objectives in a commercial bias. On the other hand, designer respondents evaluated the project success by achieving excellence in design dimensions.

These distinctions on the conception of project success, which actually represents the distinctions of the aim that intended to be achieved through the design process, were identified as the main cause for the occurrence of 'better design' vs. 'better profits' struggles in design alliances.

4.8.4 Level of Agreements: Design Service Utilization in Firm-Level Strategies

Result of the study indicated that the state of the corporate level strategic utilization of the design expertise, which referred to the need for design consultancy arisen in a condition that does not require the involvement of product development related services, is very limited in use. The industry tends to utilize non-product related design expertise only when specifying the strategies and objectives related to brand image. Results also indicated that design expertise also utilized while determining the strategies and objectives, which related to business competitiveness. Therefore, the concept of business competitiveness is also covering the issues that related to the competitiveness with product, thereby, product development; so, a potential misunderstanding may be occurred, since the this part of the study was aimed to investigate non-product related competitive strategies i.e. advertising or costumer service strategies.

As discussed earlier, the design profession highly associated with stylistic preferences and identification abilities by the industry, in other words, with giving the products better look. Hence, designers as stylist were not seen as authorities or valuable sources that able to contribute to the issues such as corporate investment, growth, profitability, efficiency and marketing strategies.

On the other hand; design professionals regarded themselves as qualified to contribute in corporate strategic decisions through creative design thinking. Since the external design professionals fed by the experience that originated from working on different projects of different fields simultaniously, it was acclaimed that a certain level of knowledge base is acquired on latest technical and technological developments, regulations, standards, trends, entrepreneurial practices. Therefore, this may imply for the design professionals that expanding the offered service scope by including consultancy services for organizational level strategy building, and emphasizing on these services through business development and promotion activities may provide new business opportunities.

4.8.5 Design Alliances: Contact Methods vs. Promotion Methods

The literature review on the subject of business initiations within the design alliances were scrutinized by Jevnaker (1998) and Von Stamm (1998). Both authors suggested that being previously collaborated, in other words being familiar is considered as the safer and trusted path by the organizations when deciding the design consultant to work with. The reputation of the external design source is the second factor that influencing the organizations' judgments in selection of external design resource.

One main subject of interest of the field study was to outline a recommendatory design outsourcing procedure that used to be followed through in selection

process of outsourced design resource that best fits to the company characteristics (see Figure 4.10).

Supplementary information also acquired through questionnaire results. Corresponding to the Von Stamm and Jevnaker, results of the study suggested that both parties are relying on the familiarity of their prior collaborations and reputation of design firm when initiating a new design alliance. In contrast to this, industry shows less interest on initiating the award winning design firms despite of the design awards are one of the major basis of firm reputation.

4.8.6 Design Process Management: Expectations vs. Offerings

Walker (1984) explaining the conflicts occurred in design alliances between designers and clients with the analogy of *"…two different tribes who have grown up in different parts of the jungle."* The author emphasizes the diversities originated from educational background, The author highlights the diversities between the client and the designer can be a major problem for the project. Diversities are originated from educational background, thinking and working habits, also personality traits. They are even rooted in the usage of language, mimics and thinking styles. Process and the context of design alliances may become a mystery for the clients if there is a difference of the thinking ways, like one side has a linear and solution led style while the other side has analyzing and computing, of the client and the company. A long-term association is in danger as well as a newly formed alliance. Client may be concerned about the success of the project and can be anxious about working with the external design resources (Foote, 2003).

As a result, managing outsourced design requires extra attention. It is essential to create an environment for designer and all the other stakeholders in which all

the related information gathered and recorded into both tangible and intangible terms in a measurable and auditable manner (Cooper Et. al.; 2005). Poorly managed projects will keep even the best designers of the world from putting good results. When the deadlines are missed or budgets of the projects are exceeded, that project is obliged to fail. Likely, with wrong designers or wrong questions, even the most promising opportunities may fail to achieve success (Oakley, 1990).

Through the literature review guidance, one of the main objectives of the field work was set as, identifying industries' expectations and design professionals' current applications on the subject of design process management implementations of outsourced design service. The results indicated that; the most critical issues of process management were identified as the management of information flow while ensuring the precision of the visionary information content and integration of client organization to the design process. To overcome these management drawbacks, following topics were highlighted by both beneficiary and service provider participants;

- presenting a project plan that is containing information about process stages, mediate and final deliverables and timeframe,
- sharing information about the progress in a regular basis,
- preparing meeting reports to prevent the information loss and keep track of the agenda
- conducting face-to-face end of stage meetings to maintain the control over the process,

Despite of it was asserted as the most time consuming way, meetings conducted during the design process preferred to be made face-to-face instead of conducting teleconference meetings or communicating over internet data transferring channels by both parties.

4.8.7 Design Process Management: Preparation and Negotiation of Brief

The importance of design brief came up as the most critical issue due to its fundamental role in design process which;

- defines the project objectives
- defines the specific business opportunity that must be realized through meeting the project objectives
- defines the scope for radius of creative act
- facilitates the control over the final outcome of a design project for both clients and designers by articulating the new business idea, the operational business framework within which the idea must be achieved also financial and non-financial resources that are available.

Briefly, the design brief defines the focus of design purpose, specifies the qualitative and quantitative objectives that are aimed to be achieved and leads all the sharers that involved to the project during the process while aiding them to maintain the control over the process.

It is also appeared that the necessary changes on the design brief along the process should be negotiated and changed mutually, instead of changing unilaterally by one side. Additionally, the designer respondents were clearly stated that the design brief should not be changed along the process.

An additional subject of interest of the field study was to outline a recommendatory design brief preparation template that used to be followed through for stimulating the preparation of a client specific design brief (see Figure 4.14).

This chapter has explained the structure of research phases and analyzing methods, in detail, the outlines of semi-structured interview and structured questionnaire forms, population and sampling phases, the details of data display process that exploited during the analysis process and findings of the study have been presented. In the following chapter, the conclusions of the study are presented in detail.

CHAPTER 5

CONCLUSIONS

This chapter presents the conclusions of the study by combining the research questions, literature review and findings of the field study. This study aimed to clarify design management process also for the non-designer readers. It was attempted to present the fieldwork results by using a step-by-step illustrating and defining methodology for understanding assets of collaboration for developing design service.

5.1 Understanding Collaboration

The ultimate goal of all the questions attempted to be answered within the scope of this study is to gain insight into what the firms- also named 'clients' as called by design professionals- expect from professional design and through what variables these expectations are shaped. Currently, based on the framework specifying internal and external conditions, which have an effect on the cognitive plane where the service anticipation is formed, would create ground for successful execution and completion of design collaboration to be established in the future. The primary field of interest in this study has been determined in order to investigate procurement motives of firms.

It has been seen that the need to develop new product as a response to changing internal and external factors in a firm is realized under four general categories. These responses are revising, adopting, adapting and innovating. With regards to the need of firms examined within this study, to develop a new product, it has

been noticed that they mostly choose to adopt a existed product to meet this need or they adapt an existed product for the target market by making some minor changes on its typology. Considering the underlying reasons behind these responses in terms of the definitions of 'innovation' and 'adaptation' made by the participants in this study; it can be seen that new product development goals which are shaped by the dynamics of the sector, structure of the firm, managerial doctrines, financial capabilities, visionary and corporate goals are essentially employed as a method of 'risk management' or 'risk reduction'. In short, risk management business strategy stands as the most essential tool for formation of design strategy, so does design strategy for formation of design services expectations.

On the other hand, even though it is not demanded by the client-or even it is not desired-, it is the reflex of designers that they tend to design innovative products due to their educational background and they find it more satisfactory in terms of their professional practice. Evaluating this situation with reference to analogy made by Walker (1990), it can be compared to the bottlenecks faced during collaboration by these two different tribes who live in different parts of the forest and have different cultures.

In that case, a sound analysis of any opportunities and goals that current conditions of the client which creates the design service require listening and understanding these conditions by making critical decisions for the product development in the light of this analysis is crucial in terms of successful management of the process and obtaining mutually successful results.

5.2 The Aims of Collaboration

It is necessary to accept the fact that for a obtaining mutually satisfactory results, objectives that aimed to be reached/obtained are need to be shared by both parties. Referring again to the analogy of 'tribes having different cultures', in order to understand how result-oriented aims differ for each tribe, the meaning of the success for each party needs to be inquired. Underlying factor in the success of the project and process that is mentioned by the parties is that a common aim to be reached needs to be specified, and this aim is basis of professional satisfaction. Yet, it has been found out that no matter how similar the aim seem, the definitions of 'professional satisfaction' made by the parties differ in a great extent.

While professional satisfaction is found by the firms to be primarily related with financial gains, it is directly associated by the designers with achieving design excellence. The fact that the aims of the parties differ so much in collaboration is one of the biggest hindrances in successful management of the process. In that case, it becomes a must for each party to build a standard of professionalism for the services provided by designers by putting it separate from their own personal/subjective values. In order to provide this, it is required to specify 'aims' of project/design clearly by mutually negotiating and agreeing on these prior to the process.

5.3 Selecting the Correct Design Service

As mentioned on previous sections, the need for design service is formed by various visionary and business strategies, and service expectation arising out of

the need lead the firms to seek a design service where they can meet their expectations.

Another important result that this study has produced is that the firms participating in this study did not and do not tend to develop a systematical and objective procedure towards determining an external design service with which they would work together. Creative, imaginative and artistic values, which are attributed to design, can be mentioned as the main reasons for this situation. The failure to regard design as a measurable, auditable and controllable process in conventional sense creates a perception that outsourced design cannot be systematized, as well. Consequently, the selection of external design service is left to the subjective evaluation of persons in charge of making this selection. The most trusted method for making the selection, on tangible grounds is to evaluate the previously realized products of the external design agency. No matter how much satisfactory this evaluation is, it is not sufficient alone. The firms should develop a standardized procedure considering their own conditions in order to specify external design services, which have more dominant capabilities with regard to the aspects they need. It is only possible in this way to facilitate the process management and to boost the success of the results.

5.4 Developing an Effective Feedback Mechanism

As mentioned in numerous sections so far, abstract terms profoundly attributed by firms to the discipline of design change the perception that design is a struggle to reach an optimum and rational solution within the limits of opportunities and restrictions, thus cause it to be regarded as a condition of fear and unreliability almost to the degree of 'phobia' if not controlled, hence results of the process would be far from reality and specified objectives. As experienced by every firm once in the past, the fact that while there are unrealized product

development processes as an outcome of their former design collaborations, extremely unqualified products –briefly copied products- are developed without the involvement of a designer. This creates a perception that designer, as an authority, has to be considered generally with caution.

In the light of these, one of the most important functions of a successful design management and process management should be to make the client feel that they are in control of the process. During the course of the process, sharing satisfactory information regularly, and taking important decisions by mutual negotiation should be conducted for the purpose of removing these fears and providing the control over the process. For an effective process of qualified and continuous information flow, it is required to develop new methods and creative solutions.

On the other hand, most vital decisions for new product development process are made in early stages. Design strategy, which is formed in line with the information obtained from many sources such as market, the sector where the firm is positioned, target user, technical, technological and economic means, is also formed in the early stages of the process. In order to guide the process with the assistance of these inputs, and in order to make use of this information throughout the process, it is necessary to define a client/project-specific design brief documentation prior to the process. The structure of the process should be standardized and not allow information pollution. In order to prevent setbacks due to changing decisions during the process and thereby preventing waste of time, and that of human resources and economic resources; documenting the design process accurately, and clear and useful information in a constantly accessible and utilizable format should be considered as the most important component of design process management.

In conclusion, it should be accepted that if the design process is not managed effectively, the degree of professional competence of the contributors taking part in the process does not create any significance. The most critical factors for the success of the process are the sound analysis of client expectations, making the right decisions in the early stages of the process, and mutual awareness that these decisions are abided by throughout the process.

5.5 Limitations of the Study

The fact that the design discipline has not matured in terms of the commonality of commercial design service in our country yet, and that there is not any corporate organization operating in the design-related fields lead to the failure in clarifying the acknowledge of the responsibilities of designer.

The most challenging limit to be faced in a research into this matter is that there is not an inventory made for design business in Turkey, and there are difficulties in finding and accessing to the right sources in sufficient number where one can pose questions with the motive of making research.

As stated before, content analysis method is adopted for analysis of the semi-structured interview gatherings. Although a significant effort was paid on the subject of carrying a sense of accuracy and reliability by employing structured data display process to prevent interviewer bias during the analysis of collected data; the nature of content analysis is highly depend on the subjective inferences made by the researcher.

5.6 Recommendations for Further Study

This study has been made to serve as a basis for the future studies to be made with the purpose of improving design collaboration and design management implementations used in Turkey.

If a database is formed as an inventory of the current design resource in Turkey, which including reliable and accurate information about past and present design alliances can be created to be used for further researches on design management related researches in Turkish industry.

In addition to this, since design management implementations are formed in line with company specific conditions and personal decisions, qualitative analyses into design management practices of design alliances in Turkish industry are required more than quantitative research methods since the management implementations are lies behind the institutional and personal experiences.

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APPENDIX A

THE SCHEDULE FOR INTERVIEWS AND QUESTIONNARIES WITH FIRMS

This study, conducted in the context of a Master's thesis at Middle East Technical University, Department of Industrial Design. Study aims to explore the views of manufacturing organizations in Turkish industry on issues related to 'selection of the consulting firm',' process management in outsourced design service' and 'service expectations'.

Answers and results of this interview will only be used within the thesis, personal information and the name of the company will be kept private.

Thank you for your time.

Hakan Boğazpınar – Tel: 0312 210 .. .. - hbogazpinar@gmail.com

Name – Last Name:	E-mail: Tel:
Scope of your Company:	
Year of Establishment:	Number of employees:
City:	Number of Designers:

1. Evaluation of Service Content Expectations

1) *What are your procurement motives? Why do you hire outsourced design expertise?*
2) *Considering the previous experiences; what are your expectations from the scope/content of the outsourced design service? what are the general activities, tasks and responsibilities that service provider should meet.*
   a. *Activities, tasks and responsibilities in product design context.*
   b. *What are the strategic business aims of your company?*
   c. *Do you benefit from design consultancy service while determining company level strategic goals and objectives?*
   d. *How do you evaluate success of a project? What is successful design project?*

2. Selection of the Design Firm

- *Is there a standard procedure followed for the determination/selection for design outsourcing?*

If there is;	***If there is not;***
a. *Please describe the steps of the procedure in action order.* b. *Considering the previous works carried out, what are the lacking/incorrect aspects of the current procedure?*	a. *what are the factors that influencing the selection of design firm to be outsourced*

3. Management of design process

- *How do you manage the design process of an outsourced design service?*

  a. *Things to do before the process*

  -planning of the stages, work program

  -time planning

  -design brief preparation and negotiation

  b. *Things to do during the process*

  -Process monitoring,

  -Auditing,

  -Information sharing

4. To which extent the following activities of design process expected from service provider during the service process.

	Never	*Seldom*	*Occasionally*	*Usually*	*Always*		*Never*	*Seldom*	*Occasionally*	*Usually*	*Always*
market demand/ opportunity analysis						*selection of materials*					
User need/expectations analysis						*selection of manufacturing processes*					
target cost analysis						*physical/ graphical user interface design*					
competition (brand / product) analysis						*prototyping (assurance)*					
trend analysis						*cost minimization*					
research of national and international standards						*mass production (assurance)*					

design should be focused on visual/aesthetic aspects						*planning of promotion activities*					
the design focus should be on ergonomics aspects						*consultancy in technical problems*					
the design focus should be on manufacturability						*planning of assembly/preparation of assembly guides*					
the design focus should be on functional aspects						*analysis of user feedbacks*					
mechanical/ component design						*product usability analysis*					
Please specify any additional comments.											

5. To which extent the design consultancy service is utilized in conditions that listed below.

	Never	*Seldom*	*Occasionally*	*Usually*	*Always*		*Never*	*Seldom*	*Occasionally*	*Usually*	*Always*
determination of objectives and strategies of new investments						*analysis of existing brand image /positioning strategies*					
analysis of the current investments						*determination of staff training requirements*					
determination of growth/ profitability/ efficiency strategies						*staff training*					
analysis of current growth/ profitability/ efficiency strategies						*enhancing business competitiveness strategies*					

determination of market/market expansion strategies						*research for new technologies*					
determination of goals and strategies for brand image/ positioning						**Please specify any additional comments.**					

6. To which extent do the below listed conditions occur in selection of design firm that is aimed to collaborate with

	Never	*Seldom*	*Occasionally*	*Usually*	*Always*		*Never*	*Seldom*	*Occasionally*	*Usually*	*Always*
We prefer the companies that we worked before						*Success stories of other companies that worked with the design company effects our choices*					
We prefer the companies that impresses us with their portfolio						*We select the companies to collaborate with by evaluating its design awards*					
We select companies according to their specialized field of activities						*We select design firm by evaluating their (previously) produced designs*					
Brand value/prestige of an design firm effect our choices						*We select design firm by evaluating the companies they had previously collaborated with*					
We work with companies that come up with product/project proposals						**Please specify any additional comments.**					

7. Please indicate your expectations related to design process management considering the statements listed below.

	Unimportant	*Little Importance*	*Moderately Important*	*Important*	*Very Important*		*Unimportant*	*Little Importance*	*Moderately Important*	*Important*	*Very Important*

We prefer a pre-planning to be prepared about outputs and stages of process						*We prefer our staff to be involved in design process when requested by the designers*					
We prefer to be requested a confirmation at the end of each stage before proceeding to next one						*We prefer our staff to be actively involved and participate to design process*					
We prefer to meet designers mostly face-to-face during the process						*We prefer to complete the process with minimum interaction possible*					
We prefer to meet designers mainly through teleconferencing/ phone during the process						*We expect progress report to be shared in a regular basis*					
We prefer to meet designers mainly through internet by sharing written and visual documents during the process						*We expect the process, intermediate and final outcomes to be delivered in a way that other departments can use it in long-term*					
Please specify any additional comments.											

8. Please indicate your expectations related to design brief, considering the statements listed below.

	Strongly Disagree	*Disagree*	*Undecided*	*Agree*	*Strongly Agree*		*Strongly Disagree*	*Disagree*	*Undecided*	*Agree*	*Strongly Agree*
Design brief's general outline should be defined by us finalized with designer contribution						*Design brief can be unilaterally changed by us along the process*					
Process should be begin without a design brief						*Design brief can be mutually reviewed and changed along the process*					
Design brief should be defined by the designer after a preliminary discussion/interview						*Design brief can be unilaterally changed by designer along the process*					
Design brief should be prepared mutually with the designer						*Design brief should not be changed even though initial conditions changed*					

Non-negotiable design brief should be prepared by us						**Please specify any additional comments.**

9. Please indicate your expressions related to 'success of a project', considering the statements listed below.

	Strongly Disagree	*Disagree*	*Undecided*	*Agree*	*Strongly Agree*		*Strongly Disagree*	*Disagree*	*Undecided*	*Agree*	*Strongly Agree*
commercial success of the project						*achieving the specified project objectives*					
developing a substantially innovative product						*media recognition of the product (magazines, TV…)*					
Making a significant modification of an existing product						*winning design awards*					
designing a product that is recognized by the design community						*satisfaction of top management*					
Please specify any additional comments.											

APPENDIX B

THE SCHEDULE FOR INTERVIEWS AND QUESTIONNARIES WITH DESIGNERS

This study, conducted in the context of a Master's thesis at Middle East Technical University, Department of Industrial Design aims to explore the views of companies that provide design services on issues related to 'selection of the consulting firm',' process management in outsourced design service' and 'service expectations'.

Inputs and results of this interview will only be used within the thesis, personal information and the name of the company will not be mentioned at its presentation.

Thank you for your time.

Hakan Boğazpınar – Tel: 0312 210 .. .. - hbogazpinar@gmail.com

Name – Last Name:	E-mail: Tel:
Scope of your Company:	
Year of Establishment:	Number of employees:
City:	Number of Designers:

1. Evaluation of Service Content Expectations

- *What is the scope/content of the design services you provide.*
  - *a. General activities, tasks and responsibilities that are offered.*
  - *b. Activities, tasks and responsibilities in product/project context.*
  - *c. Do you think that designers play a positive role on determining strategic goals and decisions for a company?*
  - *d. What do you think a successful project/product is? What are your criteria for a successful project/product?*

2. Selection/Determination of Outsource

Which aspects of your company and by which ways do your current promotional activities aim to highlight? (Skills, areas of expertise, labor, brand image, awards, produced projects, etc ...)

3. Evaluation of Process Management Activities

- *How do you carry out the project process management?*
  - *a. Things to do before the process (planning of the stages, work program, time planning, transfers of project/company information /targets)*
  - *b. Things to do during the process -(Reporting, archiving, communication)*

4. To which extent do you think the following activities of design services are in your responsibility as the service provider?

	Never	*Seldom*	*Occasionally*	*Usually*	*Always*		*Never*	*Seldom*	*Occasionally*	*Usually*	*Always*
market demand/ opportunity analysis						*selection of materials*					
User need/expectations analysis						*selection of manufacturing processes*					
target cost analysis						*physical/ graphical user interface design*					
competition (brand / product) analysis						*prototyping (assurance)*					
trend analysis						*cost minimization*					
research of national and international standards						*mass production (assurance)*					
design should be focused on visual/aesthetic aspects						*planning of promotion activities*					
the design focus should be on ergonomics aspects						*consultancy in technical problems*					
the design focus should be on manufacturability						*planning of assembly/preparation of assembly guides*					

the design focus should be on <u>functional</u> aspects						*analysis of user feedbacks*					
mechanical/ component design						*product usability analysis*					
Please specify any additional comments.											

5. To which extent the design consultancy service should be utilized in conditions that listed below.

	Never	*Seldom*	*Occasionally*	*Usually*	*Always*		*Never*	*Seldom*	*Occasionally*	*Usually*	*Always*
determination of objectives and strategies of new investments						*analysis of existing brand image /positioning strategies*					
analysis of the current investments						*determination of staff training requirements*					
determination of growth/ profitability/ efficiency strategies						*staff training*					
analysis of current growth/ profitability/ efficiency strategies						*enhancing business competitiveness strategies*					
determination of market/market expansion strategies						*research for new technologies*					
determination of goals and strategies for brand image/ positioning						**Please specify any additional comments.**					

6. To which extent do the below listed conditions constitutes the focus of your promotional activities.

	Never	*Seldom*	*Occasionally*	*Usually*	*Always*		*Never*	*Seldom*	*Occasionally*	*Usually*	*Always*
We aim the companies that we worked before						*We carry out promotional activities that focus on success stories of our previous collaborations*					
We carry out design activities that aim our portfolio to reach potential clients						*We carry out promotional activities that focus on awards/awarded products*					
We carry out promotional activites that emphasise our field/sector specialization						*We carry out promotional activities that focus on our produced projects*					
We carry out promotional activities that aim to emphasize the brand value						*We carry out promotional activities that focus on our client prtfolio*					
We carry out promotional activities by offering new product/project proposals						**Please specify any additional comments.**					

7. Please indicate your applications from design management process considering the listed cases below.

	Unimportant	*Little Importance*	*Moderately Important*	*Important*	*Very Important*		*Unimportant*	*Little Importance*	*Moderately Important*	*Important*	*Very Important*
We prepare a pre-planning about output and stages of the process						*We would prefer our client to be involved in design process when we requested*					
We requested confirmation at the end of each process before proceeding to next stage						*We would prefer our client to be actively involved and participate to design process*					

We prefer the meetings done during the process to be mainly face-to-face						*We would prefer to complete the process with as less interaction as possible wtih the client.*					
We prefer the meetings done during the process to be made mainly through teleconferencing /phone						*We share a progress report in a regular basis*					
We would prefer the meetings done mainly through internet by sharing written and visual documents during the process						*We deliver the process, intermediate and final outcomes in a way that other departments can use it in long-term*					
Please specify any additional comments.											

8. Please indicate your expressions related to design brief, considering the statements listed below.

	Strongly Disagree	*Disagree*	*Undecided*	*Agree*	*Strongly Agree*		*Strongly Disagree*	*Disagree*	*Undecided*	*Agree*	*Strongly Agree*
Design brief's general outlines should be determined by the client and finalized with our contribution						*Project brief can be unilaterally changed by the client along the process*					
Project should start without a formal design brief						*Project brief can be mutually reviewed and changed along the process*					
Design brief should be prepared by us after a preliminary discussion/ interview is done						*Project brief can unilaterally be changed by us along the process*					
Design brief should be prepared mutually with the client						*Project brief should not be changed even though initial conditions changed*					
Non-negotiable design brief should be prepared by the client						**Please specify any additional comments.**					

9. Please indicate your expressions related to 'success of a project', considering the statements listed below.

	Strongly Disagree	*Disagree*	*Undecided*	*Agree*	*Strongly Agree*		*Strongly Disagree*	*Disagree*	*Undecided*	*Agree*	*Strongly Agree*
commercial success of the project						*achieving the specified project objectives*					
developing a substantially innovative product						*media recognition of the product (magazines, TV…)*					
Making a significant modification of an existing product						*winning design awards*					
designing a product that is recognized by the design community						*satisfaction of client*					
Please specify any additional comments.											

APPENDIX C

THE SCHEDULE FOR INTERVIEWS AND QUESTIONNARIES WITH FIRMS (IN TURKISH)

Bu çalışma Orta Dogu Teknik Üniversitesi, Endüstri Ürünleri Tasarımı Bölümü'nde yürütülen Yüksek Lisans tezi kapsamında, Türk endüstrisinde tasarım hizmetini firma dısından alan üretici kurulusların; 'danışman firma seçimi', 'dış kaynaktan alınan tasarım hizmetinde süreç yönetimi' ve 'hizmet beklentileri' konularındaki görüşlerini araştırmaktadır.

Görüşmenin cevap ve sonuçları sadece tez kapsamında kullanılacak, tezin sonuçları kisisel bilgilere ve firma ismine deginilmeden sunulacaktır.

Vakit ayırdığınız için teşekkürler.

Hakan Boğazpınar – Tel: 0312 210 .. .. - hbogazpinar@gmail.com

Adınız – Soyadınız:	e-mail: tel:
Firmanızın Faaliyet Alanı:	
Kuruluş Yılı:	Çalışan sayısı:
Şehir:	Tasarımcı Sayısı:

1. Hizmet İçeriği Beklentilerinin Değerlendirilmesi

Tüm süreç göz önüne alındığında; dışarıdan alınan tasarım hizmetinden/ kapsamı/içeriğinden beklentileriniz nelerdir? Hizmet almaya neden ihtiyaç duydunuz?

hizmet sağlayıcının yerine getirmesi gereken genel faaliyetler,görevler ve sorumluluklar

a. *Ürün/proje seviyesinde faaliyetler,görevler ve sorumluluklar*
b. *Firma düzeyinde stratejik hedefleriniz nelerdir?(büyüme, karlılık vs...)*
c. *firma düzeyinde stratejik hedef ve kararların belirlenmesinde tasarım danışmanlığından faydalanıyor musunuz?(yeni yatırım, pazar büyütme, marka imajı vs...)*
d. *Bir projenin başarısını nasıl değerlendirirsiniz? Sizce başarılı proje nedir?*

2. Kullanılacak Dış Kaynağın Seçilmesi/Belirlenmesi

- *(yeni) ürün tasarımı faaliyeti için dış kaynak kullanımına karar verildiğinde; kullanılacak kaynağın seçilmesi/belirlenmesi için izlenen standart bir prosedür var mı?*

Var ise;	***Yok ise;***
a. *Prosedür basamaklarını işlem sırası ile açıklayınız* b. *Daha once yürütülen çalışmalar ve sonuçları düşünüldüğünde, mevcut prosedürün eksik/hatalı bulduğunuz noktaları nelerdir?*	b. *seçiminizde belirleyici olan faktörler nelerdir*

3. Süreç Yönetimi Faaliyetlerinin Değerlendirilmesi

- *Dışarıdan alınan tasarım hizmeti, proje süreç yönetimini nasıl yapıyorsunuz ?*

  a. Süreç öncesinde yapılması gerekenler

  -aşamaların planlanması, iş programı

  -zaman planlaması

  -proje/ firma bilgilerinin/hedeflerinin aktarılması - brief

  b. Süreç sırasında yapılması gerekenler

  -Süreç takibi,

  -Denetim,

  -Bilgi paylaşımı

4. Dışarıdan alınan tasarım hizmeti sürecinde aşağıdaki faaliyetlerden hangisinin ne ölçüde servis sağlayıcının sorumluluğunda olduğunu düşünüyorsunuz.

	hiç	*Az*	*orta*	*Çok*	*tamamen*		*hiç*	*Az*	*orta*	*Çok*	*tamamen*
Pazar ihtiyaç/fırsat analizi						*Uygun malzeme seçimin yapılması*					
Kullanıcı ihtiyaç/beklenti analizi						*Uygun üretim proseslerinin seçimi*					
Ürün hedef maliyet analizi						*fiziksel/grafik arayüzü tasarımı*					
Rakip firma/ürün analizi						*Prototip üretimi/üretim kontrolü*					
Marka trend analizi						*Maliyet düşürücü çözümlerin geliştirilmesi*					

Ulusal ve uluslar arası normların araştırılması						*Seri üretim kontrolü*					
tasarımların görsel, estetik, odaklı olarak yapılması						*Tanıtım lansman faaliyetlerinin planlanması*					
Tasarımların kullanım kolaylığı, ergonomi odaklı olarak yapılması						*Süreç boyunca teknik danışmanlık verilmesi*					
Tasarımların üretilebilirlik odağında yapılması						*Montajın planlaması/montaj şemasının hazırlanması*					
Tasarımların, ürünün yerine getirdiği işlev odağında yapılması						*Tüketici geribildirimlerinin analizinin yapılması*					
Mekanik/detay çözümlerinin yapılması						*Ürün kullanılabilirlik analizlerinin yapılması*					
Eklemek istediğinizi lütfen belirtiniz											

5. Tasarım hizmeti alınacak firmanın belirlenmesi konusundaki faaliyetlerinizi aşağıda listelenen durumlar özelinde değerlendiriniz.

	Hiçbir zaman	*az*	*orta*	*çok*	*her zaman*		*Hiçbir zaman*	*az*	*orta*	*çok*	*her zaman*
Daha önce çalışmış olduğumuz firmaları tercih ediyoruz						*Tasarım firmasıyla çalışmış olan diğer firmaların 'başarı hikayeleri seçimlerimizi belirliyor*					
Portfolio'larını değerlendirerek seçim yapıyoruz						*Çalışacağımız firmayı aldığı ödülleri değerlendirerek belirliyoruz*					

Tasarım firmasının uzmanlaştığı alan/ sektöre göre tercih ediyoruz						*Hizmet alınacak firmanın hayata geçmiş/üretilmiş projelerini değerlendirerek seçimimizi yapıyoruz*					
Hizmet alınacak firmanın, marka değeri/ prestijine göre seçim yapıyoruz						*Hizmet alınacak firmanın daha önce çalışmış olduğu firmaları değerlendirerek seçimimizi yapyoruz.*					
Bize ürün/proje önerileri getiren firmalarla çalışıyoruz						**Eklemek istediğinizi lütfen belirtiniz.**					

6. Tasarım süreç yönetimi konusundaki beklentilerinizi, aşağıda sıralanan durumlar özelinde değerlendiriniz.

	Hiçbir zaman	*az*	*orta*	*çok*	*her zaman*		*Hiçbir zaman*	*az*	*orta*	*çok*	*her zaman*
Ara çıktıların ve aşamaların neler olacağına dair ön-planlama yapılması						*İlgili personelimizin tasarım sürecine, tasarımcı tarafından talep edildikçe dahil olmasını tercih ederiz*					
Süreçteki her aşamanın sonunda, onayımızın alınması ve ardından bir sonraki aşamaya geçilmesi						*İlgili personelimizin tasarım sürecine aktif olarak dahil olması ve tasarım çalışmalarına sürekli katılmasını tercih ederiz*					
Süreçte içerisindeki görüşmelerin, <u>ağırlıklı olarak</u> yüz yüze/ birebir yapılmasını tercih ederiz						*Tasarım firmasının süreci mümkün olduğunca az etkileşimle tamamlamasını tercih ederiz*					
Süreçte yapılan görüşmelerin <u>ağırlıklı olarak</u> telekonferans/ telefon yolu ile yapılmasını tercih ederiz						*Periyodik olarak ilerleme raporu paylaşılmasını bekleriz*					
Süreçte yapılan görüşmelerin <u>ağırlıklı olarak</u>, internet üzerinden yazılı görsel döküman paylaşımı ile yapılmasını tercih ederiz						*Süreç, ara ve son çıktıların; uzun vadede diğer departmanların da kullanabileceği şekilde teslim edilmesini bekleriz*					
Eklemek istediğinizi lütfen belirtiniz.											

7. Proje bilgilendirmesine (Design Brief) dair aşağıdaki koşullardan hangileri ne sıklıkla gerçekleştiğini uygun kutucuğu işaretleyerek belirtiniz.

Süreç öncesinde;	*katılmıyorum*	*az*	*orta*	*çok*	*katılıyorum*	***Süreç sırasında;***	*katılmıyorum*	*az*	*orta*	*çok*	*katılıyorum*
Brief'in, genel hatları bizim tarafımızdan belirlenmeli ve tasarımcı katkılarıyla son şeklini almalıdır						*Koşulların değişmesiyle, brief tek taraflı olarak sadece bizim tarafımızdan değiştirilebilir*					
Tasarımcı brief olmadan sürece başlamalıdır						*Koşulların değişmesiyle, brief karşılıklı gözden geçirilerek değiştirilebilir*					
Design <u>brief;</u> tasarımcının bizlerle yaptığı görüşmeler sonucunda, tasarımcı tarafından hazırlanmalıdır						*Koşulların değişmesiyle, brief sadece tasarımcı tarafından değiştirilebilir*					
Proje brief tasarımcı ile ortaklaşa hazırlanmalıdır						*Koşullar değişse de, brief süreç sırasında değiştirilmemelidir*					
Tüm çerçevesi ve detayları belirlenmiş olan üzerinde değişiklik yapılmayacak bir <u>brief</u> tarafımızdan hazırlanarak tasarımcıya iletilmelidir						**Eklemek istediğinizi lütfen belirtiniz.**					

8. Bir projenin başarılı olarak nitelendirilmesi, aşağıda listelenen kriterlerin hangilerine ve ne ölçüde bağlıdır, belirtiniz.

	Kesinlikle katılmıyorum	*katılmıyorum*	*orta*	*katılıyorum*	*Kesinlikle katılıyorum*		*Kesinlikle katılmıyorum*	*katılmıyorum*	*orta*	*katılıyorum*	*Kesinlikle katılıyorum*
Ürünün ticari/maddi başarısı						*Belirlenen proje hedeflerine ulaşılmış olması*					

sıradışı/farklı/ yenilikçi bir ürün geliştirmiş olmak						*Çeşitli medyalarda yayınlanması (dergi,tv..)*						
Mevcut bir üründe kayda değerbir değişiklik yapmış olmak						*Ürünün ödül(ler) kazanmış olması*						
Projenin sektördeki diğer firmalar tarafından biliniyor olması						*Üst yönetimin memnuniyeti*						
Eklemek istediğinizi lütfen belirtiniz.												

APPENDIX D

THE SCHEDULE FOR INTERVIEWS AND QUESTIONNARIES WITH DESIGNERS (IN TURKISH)

TITLE	
Bu çalışma Orta Dogu Teknik Üniversitesi, Endüstri Ürünleri Tasarımı Bölümü'nde yürütülen Yüksek Lisans tezi kapsamında, Türk endüstrisinde tasarım hizmetini veren kuruluşların; 'iş geliştirme aktiviteleri', 'tasarım hizmeti süreç yönetimi' ve 'hizmet içeriğinin kapsamı' konularındaki görüşlerini araştırmaktadır. *Görüşmenin cevap ve sonuçları sadece tez kapsamında kullanılacak, tezin sonuçları kisisel bilgilere ve firma ismine deginilmeden sunulacaktır.* *Vakit ayırdığınız için teşekkürler.* *Hakan Boğazpınar – Tel: 0312 210 .. .. - hbogazpinar@gmail.com*	
Adınız – Soyadınız:	e-mail: tel:
Firmanızın Faaliyet Alanı:	
Kuruluş Yılı:	Çalışan sayısı:
Şehir:	Tasarımcı Olmayan Personel Sayısı:

1. Hizmet İçeriğinin Değerlendirilmesi

Verilen hizmetin kapsamı/içeriği nedir? Hizmet kapsamında sunduğunuz genel faaliyetler,görevler ve sorumluluklar

a. *Ürün/proje seviyesinde faaliyetler,görevler ve sorumluluklar*
b. *Firma düzeyinde stratejik hedef ve kararların belirlenmesinde tasarımcının olumlu yönde katkısının olacağını düşünüyor musunuz? Nasıl? (yeni yatırım, pazar büyütme, marka imajı vs...)*
c. *Bir projenin başarısını nasıl değerlendirirsiniz? Sizce başarılı proje nedir?*

2. Tanıtım Faaliyetlerinin Değerlendirilmesi

- *Mevcut tanıtım faaliyetleriniz, firmanızın hangi yönlerini, hangi yöntemlerle öne çıkarmayı hedefliyor? (Kalibiyetler, uzmanlık alanları, iş gücü, marka imajı, ödüller, üretilmiş projeler vs...)*

3. Süreç Yönetimi Faaliyetlerinin Değerlendirilmesi

- *proje süreç yönetimi uygulamalarınız nelerdir?*

a.Süreç öncesinde yapılanlar

-aşamaların planlanması, iş programı, zaman planlaması,

-proje/ firma bilgilerininin/hedeflerinin aktarılması (design brief)

b.Süreç sırasında yapılması gerekenler

-bilgilendirme,

-arişvleme,iletişim,

-değerlendirme

4. Dışarıdan alınan tasarım hizmeti sürecinde aşağıdaki faaliyetlerden hangisinin ne ölçüde servis sağlayıcının sorumluluğunda olduğunu düşünüyorsunuz.

	hiç	*Az*	*orta*	*Çok*	*tamamen*		*hiç*	*Az*	*orta*	*Çok*	*tamamen*
Pazar ihtiyaç/fırsat analizi						*Uygun malzeme seçimin yapılması*					
Kullanıcı ihtiyaç/beklenti analizi						*Uygun üretim proseslerinin seçimi*					
Ürün hedef maliyet analizi						*Ürün görsel/grafik arayüzü tasarımı*					
Rakip firma/ürün analizi						*Prototip üretimi/üretim kontrolü*					
Marka trend analizi						*Maliyet düşürücü çözümlerin geliştirilmesi*					
Ulusal ve uluslar arası normların araştırılması						*Seri üretim kontrolü*					
tasarımların görsel, estetik, odaklı olarak yapılması						*Tanıtım lansman faaliyetlerinin planlanması*					
Tasarımların kullanım kolaylığı, ergonomi odaklı olarak yapılması						*Süreç boyunca teknik danışmanlık verilmesi*					
Tasarımların üretilebilirlik odağında yapılması						*Montajın planlaması/montaj şemasının hazırlanması*					

Tasarımların, ürünün verine getirdiği işlev odağında yapılması						*Tüketici geribildirimlerinin analizinin yapılması*					
Mekanik/detay çözümlerinin yapılması						*Ürün kullanılabilirlik analizlerinin yapılması*					
Eklemek istediğinizi lütfen belirtiniz											

5. Aşağıda listelenen faaliyetlerden hangileri için ve ne ölçüde tasarım danışmanlık hizmetinden faydalanıyorsunuz?

	hiçbir zaman	*az*	*orta*	*çok*	*her zaman*		*hiçbir zaman*	*az*	*orta*	*çok*	*her zaman*
Yeni yatırım alanları hedef ve stratejilerinin belirlenmesi						*Mevcut kimlik/marka imajı/marka algısı analizlerinin yapılması*					
Mevcut yatırım kararlarının analizi						*Personel eğitim gerekliliklerinin belirlenmesi*					
Büyüme/karlılık/ verimlilik hedef ve stratejilerinin belirlenmesi						*Personel eğitimlerinin verilmesi*					
Mevcut büyüme/karlılık/ verimlilik analizlerinin yapılması						*Rekabetçiliğin artırılmasına yönelik hedef ve stratefilerin belirlenmesi*					
Yeni pazar/pazar büyütme hedef ve stratejilerinin belirlenmesi						*Yeni teknoloji araştırmalarının yapılması*					
Kimlik/marka imajı/marka konumlandırması hedef ve stratejilerinin belirlenmesi						**Eklemek istediğinizi lütfen belirtiniz**					

6. Tasarım danışmanlığı hizmeti veren endüstriyel tasarımcıların aşağıdaki hangi bilgi ve becerilere ne derece sahip olmaları gereklidir?

	hiç	*az*	*orta*	*çok*	*çok fazla*		*hiç*	*az*	*orta*	*çok*	*çok fazla*
Yaratıcı kavram/fikir geliştirme						*Estetik değeri yüksek ürünler ortaya koyabilme/ tasarlayabilme*					
Gözlem ve deneyime bağlı bilgileri sürece aktarabilme						*Teknik değeri/ verimliliği yüksek ürünler tasarlayabilme (detay,montaj, parça standardizasyonu vs...)*					
İhtisas/sektörel bilgiye ulaşma						*Ergonomik değeri yüksek ürünler tasarlayabilme (kullanım kolaylığı, anlaşılabilirlik vs..)*					
Kayıt tutma /raporlama/ arşivleme						*İşlevsel değerleri yüksek ürünler tasarlayabilme (işlev geliştirme, yeni işlev önerme vs...)*					
Bilgisayar destekli tasarım araçlarına hakim olma						*Üretilebilir tasarım çözümleri geliştirme*					
Sıradışı/yenilikçi çözüm üretebilme						*İşletme, satış, pazarlama gibi firmadaki diğer departmanları ile iletişim kurabilecek yeterli temel bilgiye sahip olma*					
Eklemek istediğinizi lütfen belirtiniz.											

7. Yapmakta olduğunuz tanıtım faaliyetlerinizi, aşağıda listelenen durumlar özelinde değerlendiriniz.

	Hiçbir zaman	*az*	*orta*	*çok*	*her zaman*		*Hiçbir zaman*	*az*	*orta*	*çok*	*her zaman*
Daha önce çalışmış olduğumuz firmaları hedefleyen tanıtım aktiviteleri gerçekleştiriyoruz.						*Tanıtım faaliyetlerimizi daha önceki çalışmalarımız sonucu ortaya çıkan başarı hikayeleri odağında gerçekleştiriyoruz*					

Ürün Portfolio'muzu vurgulayan tanıtım aktiviteleri gerçekleştiriyoruz.						*Tanıtım faaliyetlerimizi aldığımız ödüller/ödüllü tasarımlarımız odağında gerçekleştiriyoruz*					
Uzmanlaştığımız alan/sektör bilgisini vurgulayan tanıtım aktiviteleri gerçekleştiriyoruz.						*Tanıtım faaliyetlerimizi hayata geçmiş/üretilmiş projelerini odağında gerçekleştiriyoruz*					
marka değeri/ prestijini vurgulayan tanıtım aktiviteleri gerçekleştiriyoruz						*Tanıtım faaliyetlerimizi, müşteri portföyümüzdeki firmalar odağında gerçekleştiriyoruz*					
Üretici firmalara yeni ürün/proje önerileri götürerek, tanıtım yapmayı hedefliyoruz						**Eklemek istediğinizi lütfen belirtiniz.**					

8. Tasarım süreç yönetimi konusundaki uygulamalarınızı, aşağıda sıralanan durumlar özelinde değerlendiriniz.

	Hiçbir zaman	*az*	*orta*	*çok*	*her zaman*		*Hiçbir zaman*	*az*	*orta*	*çok*	*her zaman*
Ara çıktıların ve aşamaların neler olacağına dair ön-planlama yapılıyor						*Müşterinin sürece, biz talep ettikçe dahil olmasını tercih ederiz*					
Tamamlanan bir aşamanın sonunda müşteri onayı alınmadan diğer aşamaya geçilmiyor						*Müşterinin sürece aktif olarak dahil olması ve tasarım çalışmalarına sürekli katılmasını tercih ederiz*					
Süreçte içerisindeki görüşmelerin, ağırlıklı olarak yüz yüze/ birebir yapılmasını tercih ederiz						*süreci müşteriyle mümkün olduğunca az etkileşimle tamamlamayı tercih ederiz*					
Süreçte yapılan görüşmelerin ağırlıklı olarak telekonferans/ telefon yolu ile yapılmasını tercih ederiz						*Süreçte, periyodik/düzenli olarak ilerleme raporu paylaşırız*					
Süreçte yapılan görüşmelerin ağırlıklı olarak, internet üzerinden yazılı görsel döküman paylaşımı ile yapılmasını tercih ederiz						*Süreç, ara ve son çıktıların; uzun vadede diğer departmanların da kullanabileceği şekilde teslim ederiz*					
Eklemek istediğinizi lütfen belirtiniz.											

9. proje brief'inin hazırlanması ve değiştirilmesi konusundaki beklentilerinizi, aşağıda sıralanan durumlar özelinde değerlendiriniz.

	katılmıyorum	*az*	*orta*	*çok*	*katılıyorum*		*katılmıyorum*	*az*	*orta*	*çok*	*katılıyorum*
Brief'in, genel hatları müşteri tarafından belirlenmeli ve bizim katkılarımızla son şeklini almalıdır						*Koşulların değişmesiyle, proje brief'i tek taraflı olarak sadece müşteri tarafından değiştirilebilir*					
Yazılı bir brief oluşturulmadan/ formal brief olmadan sürece başlanmalıdır						*Koşulların değişmesiyle, proje brief'i karşılıklı gözden geçirilerek değiştirilebilir*					
Proje brief firmayla yaptığımız görüşmeler sonucunda, bizim tarafımızdan hazırlanmalıdır						*Koşulların değişmesiyle,proje brief sadece bizim tarafımızdan değiştirilebilir*					
Proje brief'i ortaklaşa hazırlanmalıdır						*Koşullar değişse de, proje brief'i süreç sırasında değiştirilmemelidir*					
Tüm çerçevesi ve detayları belirlenmiş olan üzerinde değişiklik yapılmayacak brief, firma tarafından hazırlanarak bize iletilmelidir						**Eklemek istediğinizi lütfen belirtiniz.**					

10. Bir projenin başarılı olarak nitelendirilmesi, aşağıda listelenen kriterlerin hangilerine ve ne ölçüde bağlıdır, belirtiniz.

	Kesinlikle katılmıyorum	*katılmıyorum*	*orta*	*katılıyorum*	*Kesinlikle katılıyorum*		*Kesinlikle katılmıyorum*	*katılmıyorum*	*orta*	*katılıyorum*	*Kesinlikle katılıyorum*
Ürünün ticari/maddi başarısı						*Belirlenen proje hedeflerine ulaşılmış olması*					
sıradışı/farklı/ yenilikçi bir ürün geliştirilmiş olması						*Çeşitli medyalarda yayınlanması (dergi,tv..)*					

Mevcut bir üründe kayda değerbir değişiklik yapılmış olması						*Ürünün ödül(ler) kazanmış olması*					
Projenin sektördeki diğer firmalar tarafından biliniyor olması						*Müşterinin memnuniyeti*					
Eklemek istediğinizi lütfen belirtiniz.												

APPENDIX E

CASE LEVEL DATA SHEET

Case-level Data Sheet – Transcript No:	
	Summary
content of design service - expectations/ offerings (2)	
• **Expectations/offerings (21)**	
• **Project success evaluation measures (22)**	
• **Process evaluation measures (23)**	
Sourcing / getting contacted implementations (3)	
• **Existed procedures/efforts (31)**	
• **variables (32)**	

Process management procedures/ practices and requirements (4)	
• **Existed procedures/stages (41)**	
• **design brief (42)**	
Other information (5)	
• **Relevant (51)**	
• **Irrelevant (52)**	

APPENDIX F

PROFILE CHART OF THE FIRMS

Company Name	Company Orbit/ Major Field of Activities	The Year of Establishment	The Location of headquarter	Quantity of the Employees	
				Non-Designer	Designer
Company 1	Electronics Industry	2002	Ankara	64	-
Company 2		1976	Bursa	76	-
Company 3		1998	Ankara	24	-
Company 4		2010	Ankara	33	1
Company 5		1964	İstanbul	142	-
Company 6		1985	Ankara	18	-
Company 7	Furniture Industry	2005	İnegöl	36	-
Company 8		1958	Ankara	153	2
Company 9		1977	İzmir	278	4
Company 10	Medical Industry	1993	Ankara	26	-
Company 11		2006	Ankara	35	-
Company 12	Plastic Kitchenware	1998	Bursa	65	-
Company 13		1991	İstanbul	83	-
Company 14	Automative Industry	1964	Bursa	827	-
Company 15	Lighting Industry	1996	Ankara	73	1
Company 16	Military Equipment	2000	Ankara	34	-
Company 17	Packaging Industry	1984	İstanbul	88	-
Company 18	Construction Industry	1972	İstanbul	624	1
Company 19	Household Appliances	1989	Bursa	218	-
Company 20	Toy Industry	1994	Kocaeli	73	-
Company 21	POP and Exhibition	2003	İzmir	245	1
Company 22	Promotional Goods	2007	Ankara	26	-

APPENDIX G

PROFILE CHART OF THE CONSULTANTS

Company Name	Company Orbit/ Major Field of Activities	The Year of Establishment	The Location of headquarter	Quantity of the Employees	
				Non-Designer	Designer
Company 1	Industrial Design Consultancy And R&D	2007	Ankara	-	4
Company 2		2011	Ankara	-	3
Company 3		2005	İstanbul	3	8
Company 4		2008	Ankara	-	2
Company 5		2006	Ankara	2	8
Company 6		1994	İzmir	2	2
Company 7		2000	İstanbul	-	3
Company 8		2010	Ankara	-	5
Company 9		2007	İstanbul	1	7
Company 10		2010	Ankara	-	1
Company 11		2011	Ankara	3	2
Company 12		2008	İstanbul	-	3
Company 13		2002	İstanbul	1	5
Company 14		2010	Ankara	-	4
Company 15		2006	İzmir	-	2
Company 16		2010	Ankara	-	4
Company 17		2008	Antalya	1	2
Company 18		2001	İstanbul	1	5