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Consultancy designer involvement in new product development in mature product categories:

Who leads, the designer or the marketer?

Abstract

This research sets out to uncover how design is contributing more intensively to new product development. More precisely, it aims to understand the growing involvement of designers, and in particular consultancy designers, in NPD in mature product categories. The study seeks to build on recent evidence of design taking a greater leadership and strategic role in new product development, particularly in embracing the theory and praxis of the discipline of marketing.

The research methodology involved a quasi-ethnographic case study within a medium-size, internationally focused design consultancy undergoing significant transition. Three key areas/themes mediating designer involvement in new product development emerged in the findings: (1) a broadened designer remit, (2) the importance of consultancy-client relationships, and (3) a performance-design tension. If design consultancies take greater leadership in NPD, new marketing-related competencies will have to be adopted by designers, designers will have to be more sensitised and knowledgeable about the types and intensities of consultancy-client relationships, and designers and managers will have to actively manage the sometimes contradictory tensions between design integrity and commercial hard sell.

Keywords

New product development; design strategy; design process; consultancy design

Product design has its roots in industry (e.g. Heskett, 2001; Sparke, 1983), yet the role of design and designers in new product development (NPD) has always been problematic and complex in its approach, and in the extent of its involvement (Jevnaker, 1998; Leenders et al., 2007; Murray and O'Driscoll, 1996; Veryzer and Borja de Mozota, 2005). Recent evidence from the literature suggests that the role of designers in NPD is becoming more strategic and that design is taking a leadership role (Perks et al., 2005). That reorientation is the focus of attention of this article.

Design involvement in NPD

The integration of industrial design in business practice has been empirically examined extensively, especially over the last decade, in a range of domains: for example, (1) its impact on company performance (e.g. Gemser and Leenders, 2001; Hertenstein et al., 2001, 2005; Olson et al., 1998), (2) international performance (e.g. Ughanwa and Baker, 1989; Walsh et al., 1992), (3) management of (e.g. Borja de Mozota, 2003; Cooper et al., 2003; Leenders et al., 2007), (4) as strategy (Liedtka, 2000), and (5) its link to other functions (e.g. Bruce and Daly, 2007; Jevnaker, 2005; Martin, 2007). Of particular note is Jevnaker's (2005) study of 'outlying' design-business relationships in innovative companies whose success is concluded to owe much to their championing of design. These studies drive to understand the contribution of design to business: all point towards design as a 'strategic tool' (Kotler and Rath, 1984) of increasing value.

Despite these credentials, the disconnect between the design and business pairing runs deep (Martin, 2009), partly down to design's interest in the future and the unknown, versus the preference for predictability and logic in the commercial context. However, it has been suggested that the couple are more convergent than divergent (Borja de Mozota, 1998) – both are concerned by people, and must creatively solve 'wicked' problems (Rittle and Webber, 1973). Their methodological approaches, however, are fundamentally different. Designers generally work intuitively, while managers seek systematic logic and minimisation of costly NPD risk. A recent trend has championed the harnessing of design skills ('design thinking') for business (Boland and Collopy, 2004; Brown, 2008; Martin, 2009).

While the product development and design management literature remain divided between 'systematic' and 'intuitive' approaches to design, neither the systematic nor intuitive paradigms alone are responsive to the requirements of designer and manager alike. Martin (2007; 2009) suggests the optimum solution is a 50/50 balance between managerial 'reliability' (consistent, replicable outcomes founded on methodological rigour with the goal of risk minimisation), and designer 'validity' (meeting the objectives of the future, using judgment and bias in order to produce relevant products).

As design becomes more prevalent, organisations are increasingly turning to it to add value to the basic product offering. It is not novel that design can add value at levels greater than solely product aesthetics (Cooper and Press, 1995; Murray and O'Driscoll, 1996), yet few organisations are adopting a product strategy which integrates design from the outset of NPD.

Since paths of NPD are underpinned by firm focus and strategy, this focus determines who has the definitive input in NPD: the designer or the marketer. In 'evolutionary' firms (Borja de Mozota, 1998) a traditional genre of business leaders are dominant, and consider design an 'add-on' to existing practices, even despite the modes of integrative NPD fashionable during the 1990s (e.g. Hart and Baker, 1994). In the quest for reliability, design expenditure must be justified to eliminate risk. In contrast, in 'revolutionary' firms, design is wholly recognised and integrated. Design processes are

less quantifiably rigorous, and more dependent on designer intuition. A review of the literature suggests two polar modes of NPD: marketing/business-led NPD, and design-led NPD (Table 1). This classification develops Borja de Mozota's (1998) distinction between the evolutionary and the revolutionary organisation.

Table 1: Polarity in NPD

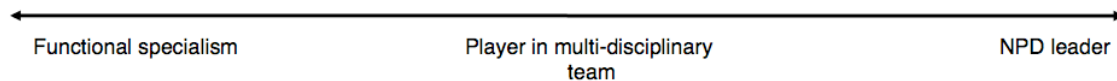
Marketing led / business led NPD	Design led NPD
Systematic approach	Intuitive approach
Design as a functional specialism	Design in leadership role
Designer is a 'small' player in a multidisciplinary team	Designer has pre-eminent role in a multi-disciplinary team
Idea sourced from consideration of business issue/emergent technology on behalf of trained designers	Idea generated from unknown depths of designer mind
Combined effort of team of specialists in a range of fields	Design has final say
Product functionality is key	Functionality and aesthetics balanced
Planned structured process	Intuitive, serendipitous discovery path
Solution emerges from problem definition	Co-evolution of problem and solution
Detailed market research	Serendipitous, experiential research
Later designer engagement to solve pre-determined problem	Early design engagement
Limited designer involvement	High designer involvement

Source: Developed by the authors from relevant literature

Both NPD and modern day industrial design are extremely complex and multifaceted, involving increasingly large numbers of stakeholders. While a recent study describes a move from marketing led to design led NPD (Perks et al., 2005), there is shortcoming as to design's role in the NPD and design management literature. Jevnaker's (2005) research laid the foundations of comprehending how designers work for manufacturing firms and identified relational and activity-based capabilities embedded in the firm side. However, empirical data on how design plays a role in NPD remains limited (Kim and Kang, 2008).

Perks et al. (2005) suggest that industrial design is gravitating to the role of NPD leader. Whilst traditionally design is a final, surface-deep NPD add-on, since the 1990s design has transitioned to player in a multidisciplinary NPD process. Moreover, a handful of companies, the authors suggest, are becoming led by design from the outset of NPD. This can be mapped on a continuum (Figure 1). This research, therefore, seeks to better contextualise the developing right side of the continuum. To understand the nature and level of changing design and designer involvement in NPD, the research focuses on the design side involvement.

Figure 1: Design involvement continuum



Source: adapted from Perks et al. (2005)

NPD in mature product categories

Processes of NPD differ depending on the type of product category being created (Trott, 2001; Veryzer, 2005). Classifications of product categories have been offered by, for example, Ansoff, 1965; Booz et al., 1982; Hart and Baker, 1999; Johne, 1995; and Trott, 2005. The Booz, Allen and Hamilton (1982) classification proposing six grades of product development is widely accepted in the NPD literature: just one of the six categories – new to the world products – involves radical innovation. Trott (2001) identifies ‘discontinuous’ (high-tech, innovative and radical products) and ‘continuous’ (additions and repositioning of mature products), and notes that only ten percent of all products can be considered discontinuous and technologically innovative. Hence, the majority of product development that takes place is not ‘new’, but falls into continuous, mature classifications.

The development of continuous products requires the revision of existing products, or replication of an existing technology (Veryzer 1998). Unlike high levels of risk in discontinuous NPD, due to sudden leaps of intelligence (Kim and Mauborgne, 2005) and the collaboration of a range of disciplines (Veryzer and Borja de Mozota, 2005), continuous NPD is the result of incremental progression, and gradual accrual of market research and intelligence. Development of these products is less reliant on frame-breaking technological innovation and scientific know-how, and more so on marketing and design, and the interactions between these disciplines. Thus, this research focuses on the role of design and designers’ involvement in NPD in mature, continuous product categories, rather than in discontinuous ones.

Consultancy design and NPD

In-house versus outsourced

When it comes to the role of design in NPD, such design activity can be carried out in-house, or it can be outsourced, or a combination of both (Bruce and Morris, 1995). The choice of approach has been suggested to affect courses of NPD and product success. Outsourced design, external to the firm, is the most common approach (Press and Cooper, 2003), and can occur where a lack of resources or belief prevents investment in design (Walsh et al., 1992). However, the outsourced approach is generally considered to be more dynamic: consultants external to the firm have the ability to continually input fresh ideas (Bruce and Morris, 1998a; Lorenz, 1990; Walsh et al., 1992).

In contrast, although in-house design connotes top management support, buy-in and design recognition, specialised design teams can be weak, bureaucratic, and suffer from stagnation (Bruce and Morris, 1998a). Internal design usually exists attached to R&D and engineering teams: where many disciplines have input, NPD can be complex and problematic (Veryzer and Borja de Mozota, 2005). However, analysis of external consultancy design offers the potential to isolate the richness of interplay between the design and marketing functions. This isolation of the design-marketing interface makes for a more interesting dynamic which is rapidly evolving since consultancy designers must pitch for new work.

Types of exchange

Evidence from the literature suggests a spectrum of types of consultancy-client exchanges. For example, the relationship between client and consultancy can be enduring and close (a 'family' approach), more distant ('arms-length') or one-off (Bruce and Docherty, 1993). Bruce and Morris (1998) distinguish types of client-designer relationships based on duration and proximity variables. Since proliferation of many small, specialised design consultancies (Press and Cooper, 2003) has extended the reach of design expertise, firm focus can determine the use of one-off exchanges with a range of suppliers, or the construction of a more enduring partnership with one consultancy. Issues of trust affect the client-designer relationship: the withholding of sensitive information on the part of the client affects the course of NPD (Bruce and Morris, 1998b). However, where partnerships and trust build over several projects, research suggests that switching costs can become high. That long-term relationships evolve on a 'learning by doing' basis (Jevnaker, 1998) means that long-lived exchanges can become a competitive advantage (Bruce and Morris, 1998a).

This research, in focusing on consultancy designer involvement in NPD, gives the potential to look at a range of design situations, and design-client interactions, and renders it a rich and valid context in which to explore the role of design and designers in NPD. Jevnaker's (2005) influential research, cited earlier, of the design-business relationship, studied companies using consultancy design. This research therefore focuses on the involvement of consultancy designers in NPD in mature product categories.

Methodology

That empirical evidence on this phenomenon is limited has implications for the research methodology. Since extant research is thin, an interpretivist, discovery-driven approach was necessary (Brannick and Roche, 1997) to be able to address the research issue (Easterby-Smith et al., 2002). The interpretivist paradigm, it is suggested, is more applicable to the discovery-driven research aims of the study in hand: its focus lies in being to understand what is happening in a given context (Carson et al., 2001). As such, a case study, with its naturalistic setting, quasi-ethnographic stance, and ability to offer contextual richness (Yin, 2003), was considered the best methodological approach for this exploratory research: the case approach enables an evolutionary development over time (Carson et al., 2001). It also holds the capacity to build theory (Eisenhardt, 1989), and therefore to enhance research contribution. The collection of context-rich, empirical evidence can assist in improving design practice (Tzortzopoulos et al., 2006).

An industrial design consultancy, Design Partners, was selected as the central research site. The consultancy was known to be in an interesting time of transition as it sought to reorient itself in the challenging economic climate of the post-Celtic Tiger. Established over 25 years, and employing 30 design professionals, the consultancy is the largest of its type in Ireland. It has prototyping and workshop facilities on-site, as well as office and meeting space. The consultancy works with a range of well-known international clients in consumer products, including Palm, Terrillon and Logitech. Designers often travel internationally to meet with clients, prospective and existing, as well as to suppliers and manufacturing facilities.

The lead researcher spent six weeks embedded in the firm in summer 2009, carrying out quasi-ethnographic observation and semi-structured interviews with designers and management. A rich qualitative dataset was collected from the case notes and diary kept by the researcher. It is based on quasi-ethnographic observation, informal conversations, and attendance at company and client meetings. Eleven interviews with staff were recorded and transcribed. Interview topics were accounts of participation in recently completed projects, liaison with clients and colleagues, and changes in job description. The firm was found to be in an interesting period of transition, between marketing led and design led. A studio in this position has yet to be empirically examined in the literature.

Findings

The consultancy was found to be in a period of significant flux, moving from a situation where the client 'called the shots', often based on uni-dimensional market research, towards one where the design studio sought to win greater involvement in NPD. Reorientation from a passive, and often late, role in NPD towards one of fuller leadership and greater input is a central feature of this research, and marks the shift from 'evolutionary' to 'revolutionary' (Borja de Mozota, 1998), and from marketing led NPD to design led NPD.

The findings corroborate Perks et al.'s (2005) proposition of the increasingly influential role of design in NPD. In charting the shift from designers as followers to designers as leaders, three major themes emerged steering the transition: (1), the broadened remit of designers, (2) the impact of client-consultant relationships, and (3) the design-performance tension. The effects of each of these are described.

Broadened designer remit

A significant amount of conventional design work was gravitating towards business analysis and marketing conceptualisation. To that end, the consultancy team, previously comprising only design and administrative staff, was tentatively recruiting marketing and business development personnel. The company's new mantra was to "manifest our clients' brand through great product design", signifying an underlying business-driven purpose.

This shift in direction marks the movement from the designer's role as a mere service provider to one of design authority. As such, the remit of the designer was broadening to encompass a complex cross-fertilisation of the activities of design and marketing.

The designer-marketer

Designers were *au fait* with the language and craft of business, and in particular marketing. In a number of ways, the designers used this accruing expertise to strategically take a greater degree of responsibility for the development process. This meant that design roles were greater than just the functional and the aesthetic: designers also imbued commercial and strategic value in concepts and products.

The reorientation towards strategic, conceptual, analytical work was evident in many ways. Designers commonly dissociated their work from simply product form, adamant that their task was more than just having ideas; or as one junior designer put it: "our job isn't just to draw pretty pictures" (D2:7). Rather, all design concepts were accompanied by 'stories'. Stories were the marketing propositions around which the design became valid in its commercial context. A senior designer described his job as being to create a tangible marketing vision:

we're being asked for the emotion and the spirit and the big story, and the strategy to link much more with marketing so that the vision that marketing have for a product, that doesn't exist yet, is embodied when the designer starts to make the product tangible (D6:11)

In conceiving a story, designers engaged in a high level of analysis on product, user and brand, and in doing so, again exhibited the skills and tasks normally adopted by the

marketer. Moreover, that the designers themselves undertook research enabled further immersion in the project. Presentations showed that brainstorming normally yielded around four keywords which designers used to encapsulate the 'spirit' of the project. This meant that all concepts followed a specified set of values, and this was important for designers.

Identification of customer segments and their needs was another area for which designers took responsibility in concept development. These studies were so in-depth that clients listened as designers explained their propositions. Target user groups and their motivations to purchase were dissected, accompanied secondarily by design ideas and sketches. In this approach, the designer's natural instinct to create directly according to user needs is enhanced by an entrepreneurial approach to product development. In the quest for relevant product design, the designer's attention to market segmentation extends the traditional scope of design training.

Designers manoeuvred strategically to guide clients. At concept selection, guidance was offered by tactical selection and ordering of the presented ideas. For example, 'sacrificial concepts' were included to emphasise relevance and features in other ideas. By having identified and created a vision for the product, concepts were so honed that rarely were more than six presented. Noticeable also was the reliance upon verbal communications in 'selling' the vision encapsulated in each concept – models and sketches were only an aid in convincing the client.

However, that strategic manoeuvring was required at all was down to the design-marketing disconnect. Designers usually possessed intimate knowledge of the client brand, having participated in its creation. However, where advice based on sound judgement was rejected, designers were left frustrated. In some cases, client preference for hard data, choice, and extra research resulted in reluctance to buy-in to 'spin'. Tensions arose when the designer felt he/she was merely fulfilling a service providing role, rather than being considered an authority on design, design process and brand.

By embracing, and adopting the culture, language and activities of marketing, the designer attempted to foresee and combat this disconnect. For instance, that no sketches were produced without having a marketing story was intended to assert, and make palatable for the client, the product's market relevance. Designers still found hardship in justifying gut-instinct, and this was often frustrating.

However, the strategic, tactical and analytical aspects to the role, described here, show that designers are assuming extra responsibility in product development, and are fulfilling part of the traditional role of marketing. Ironically, the consultancy's embracing of the culture of business was enabling the clients' NPD processes to become more 'design-led'. By default, designers have an enlarged sphere of influence, and move roles from service provider to design authority.

Consultant-client relationships

The consultancy has two significant, global clients with whom the relationship had begun in the 1980s, along with a number of smaller, newer international and local clients. The extent to which extra responsibility, leadership, could be successfully assumed depended, in a large part, on the relationship between designer and client. These relationships were tailor-made, and determined the extent and timing of involvement of designers in NPD. Different types and intensities of relationships were observed.

Importance of 'chemistry'

That a firm is only as strong as its people is a philosophy resonant at the consultancy. Great caution was exercised to ensure that the 'right' designers were assigned to the 'right' projects. Personalities and chemistry clearly influenced the course of product development, corroborating the research by Bruce and Morris (1998a). Designers were all client facing, even those most junior members of staff.

The consultancy's approach to business was transparent and honest, built on warm personal relations – a 'family' approach (Bruce and Docherty, 1993). The consultancy 'courted' its clients by, for example, organising extended business trips for bonding. This fostered repeat business, and positive recommendations, and had allowed the business to grow. Relationships were 'marriages', one manager pointing out that the clients 'love' the consultancy for its approach: for the client, a smooth, efficient development process is as memorable as a successful product outcome. The designers' quest for 'great' product design ultimately underpinned their goals for relationship formation. For them, relationship quality was linked to the product outcome. The closer the ties, the easier the process of communications, the better the product outcome.

Relationship asymmetry

Relationships were of paramount importance due to the typical closeness of collaboration. However, relationship intensity had the capacity to blur the boundaries between design teams and client teams, and the parties became interdependent. This had repercussions for the nature of the collaboration: in some ways, designers were more liberated to take control of the design process. For example, where relationships were intense, warm and enduring, designers understood the client brand so intimately that it was not uncommon that briefs were written by the consultancy to be vetted by the client.

However, the symbiosis was, on occasion, asymmetric: the consultancy was treated as an in house resource by significant clients, and in this instance, was taken for granted. For instance, the consultancy regularly undertook extra work for the same fee, agreed to unfeasible deadlines, and designers were always available by telephone or IM (instant message) contact.

Naturally, the development process was affected by these relationships - some designers considered that these blurred boundaries produced the best design results. However this considerate, honourable and respectful approach exposed a sense of ambiguity within the consultancy. That design was 'selling' was regularly reinforced by management at company meetings, yet relationship asymmetry prevented greater self-assertion on the part of the consultancy design team. This was often a source of internal tension.

The design-performance tension

The extension and increasing complexity in the role of the designer is accompanied by a set of designer and consultancy tensions. Designers acknowledged and actively embraced their adoption of the role of marketing. However, the consultancy's state of ambiguity – service provider versus design authority – caused tension.

Designers were meticulous, almost to the point of being pedantic, about the miniscule detail of their designs. One senior designer confided that his colleagues "really care about what they're doing, and they love what they're doing" (D4:12-13). Designers managed their own time and budgets and were therefore responsible that projects came in on time and on budget, and this work-integrity meant that working hours regularly stretched beyond 6pm, sometimes into the night. Compromise of design ideals therefore becomes a dimension of the job.

Necessity of compromise meant that the ingrained passion and quest for 'great' design appeared to only to last so long. For some, often more senior, designers, there was little attachment to the hundreds of designs churned out. One senior admitted to not owning anything he had designed. In contrast, for those more junior, projects and completed products were compared to offspring.

Designer salesman

As previously noted, designers sought to convince clients of concept validity, and models and sketches were only one tool in achieving this objective. More and more, the idea of the sales aspect of design was becoming of paramount importance. The 'sales pitch' was a performance, crystallised during client contact. One junior designer described his job as equivalent to sales:

basically what we do every day is sell our insights, sell our thoughts, our designs our sketches, our renderings and our skills (D2:14)

To that end, designers were savvy about the world of business. Many spoke in the language of the marketer, and demonstrated an acute understanding of the hierarchies

and political processes common in large corporations. Yet the job was regularly compared to artistic performance - musical, sporting and theatrical. The nature of the design performance is troubled in its paradoxical quest to marry, by process, a fusion of the irrational aesthetic and functional, with the rational business objectives.

Tension and disillusion

Recognition of the client quest for increased revenue from design resulted in an uneasy tension between the business of design, and the creative, liberal, right-brain attitude of designers passionate about the work that they do. A senior designer was disillusioned about the notion of being 'design-led':

Sit in on client meetings and you'll see interaction of how things become design-led...but it's actually money led (case diary, 9/4)

Frustration regarding compromise and short client reins resulted in jadedness and intense disappointment, not in their current positions, but in the nature of the profession as a whole. It manifested in the realisation that clients recruit them not for the sake of 'great' design, but for the purpose of revenue and increased profit margins. The bottom line was that design is business.

That the individual is responsible and personally attached to the work is a characteristic of the service provider. However, the firm sought to meld, depending on client, both service providing activities and exercise authority as a consultancy, which brought a lack of clarity in internal and external perceptions. In some ways, designers were essentially service providers, and engaged in an elaborate performance, orchestrated to convince the client of validity of propositions. However, in other regards, the designer was a consultant, and acted with authority, guiding the client based on respected expertise.

Conclusions

This research seeks to examine the growing involvement of consultancy designers in NPD in mature product categories. The paper's subtitle asks who leads this new development process – designer or marketer. In an era when design, its uses, its tools and its organisation are taking on an increasing complexity, there is emerging evidence of design embracing a greater leadership role in new product development. Three important areas mediating designer involvement emerged in this study.

First, across the NPD process, designers regularly undertook tasks beyond the traditional realm of design, in line with the conclusions of Perks et al. (2005). More and more, however, they encroached upon the role of the marketer. By adopting these tasks, designers assumed a crucial role in NPD, and extended their responsibility: designers guided clients, and this meant increased control of NPD. Such was the scope of change in the remit of the job, designer competencies had to evolve in line. Fluency

in communication and management skills were becoming a necessary complement to traditional design training.

Second, the constellation of the consultant-client relationship emerged as a significant factor mediating designer involvement in product development, developing research by Bruce and Docherty (1993). This chemistry also had the scope to influence quality of the design outcome. Relationships of varying closeness and intensity were observed, and in some cases, an asymmetry – where the relationship became overbearing and ambiguous – left the consultancy in a weakened position.

Third, the reorientation often left designers frustrated, even disillusioned, as they struggled to come to terms with their new role. Designers were required to at once provide a service, and exercise design authority. As they sought to pander to the client's business sense, the personal goal for 'great' design was compromised. This brought tension, especially for those more experienced, in the new direction of the profession.

The seemingly contradictory opposites in the designer's remit – design versus marketing; synthesis versus analysis; doing versus thinking; leading versus following – indicated the challenges to the discipline in its state of flux. While paradox is often interpreted as imposing a simple 'either-or' choice between polar opposites, a more inclusive notion posits that, in a 'both-and' approach, we can acknowledge and better cope with the ambiguous, complex and diverse nature of business and organisations (O'Driscoll, 2008). For design, with its multitude of facets and new challenges, this is a valuable proposition. The early embracing of the language and craft of marketing has enabled designers to reorient themselves into a more powerful and increasingly knowledgeable position, and in doing so, they have assumed a degree of ownership and responsibility outside of the traditional sphere of influence.

However, to fully utilise the potential of this transition, to assume greater credibility and recognition in business and NPD – for example, design representation at board level – these tensions need to be fully addressed, managed, and resolved. Where relationships are crucial, where designers are marketers, the researchers suggest an urgent and widespread need for designer (re)training to be able cope with new and increased demands. As the design-thinking literature suggests, the discipline has a widespread applicability, and potential (Borja de Mozota, 1998; Martin, 2009), and the task now is to educate and enhance its reach. Further research – charting greater designerly contribution to NPD, comprehending how designers may have a more holistic impact upon both product strategy and product function, and exploring how design activity may be more usefully integrated into organisations – is required.

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