EVALUATION OF DESIGN APPLICATION LEVEL FOR ENSURING SUSTAINABLE COMPETITIVENESS: CASE OF LATVIA

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Abstract

Purpose – the increasing importance is given to the new, unfolded sources of competitive advantage of companies in the fast changing business environment. The stage of design application level in business is directly correlated to the greater strategic importance given to design in strategic business management and respective demand of professional design by business management in various industries. The aim of this paper is to evaluate the stage of design application in public and private sectors in Latvia and explore the most crucial factors, which influence its potential.

Design/methodology/approach – Survey-based primary research was conducted in companies providing professional services of design to various organisations in various sectors. By analysing data from 85 respondents or 39 % of companies in design industry, summarised results are applied into Design Ladder framework (DDC, 2003) in order to evaluate whether design and its application in broader sense leading to design thinking is perceived as strategically important source of better organisation performance and competitive advantage.

Findings – the main findings of the study indicate that such concepts as strategic design, design management and design thinking are notably entering business environment by having conceptually new applications. However, due to domination of short-term business models, low public awareness of broader forms of design application, design is mainly considered as a form of art or visual element and there is a very limited place in management practices yet in Latvia. Public awareness, innovation policies, education systems have not yet caught up with these developments and these are the problems for further challenges and subject for research in this emerging area.

Research limitations/implications – the research is based on evaluation of design awareness, forms of applications in business management from perspectives of design industry professionals and their experience of design application in the private and public sectors.

Practical implications – this work is useful for executives, who search for development of new sources of competitive advantage to sustain competitiveness in emerging future.

Originality/Value – this is one of the first studies of design awareness, forms of application in management using Design Ladder framework in Latvia.

Keywords: design, design thinking, sustainable competitiveness, innovation methods, Latvia.

1. Introduction

Over last few decades, business environment has changed dramatically, bringing on surface such factors like globalisation, fluctuations of economy, scarcity of material resources, more demanding customers, severe competition, and shorter product life cycles. These aspects have influenced any company across the industries worldwide. Consequently, existing management practices and thinking models valid in different business environment settings can't bring expected business performance results in fast changing emerging future thus creating rapidly growing needs for seeking for new sources of innovation and competitive advantage. Many of these new methods and tools appropriate for new conditions are not sufficiently recognised yet by managers and there are still a lot of unfolded areas, like application of design in a broader sense and understanding the essence and role of design thinking in strategic management of business.

Design as a form of art or slight visual differentiator of a product is a traditional role of design in business what brings limited economic benefits to the company for a relatively short period of time (Verganti, 2009). However, design and design thinking as integrative part of company's processes, innovation and strategy are new sources of organisations capabilities, bringing potential ability to create

higher added value, to improve company's performance results, to increase export perspectives and competitiveness in these turbulent market conditions. In this aspect, Tony Blair claimed: "Good design is not simply about aesthetics or making a product easier to use. It is a central part of the business process, adding value to products, and creating new markets (Design Council, UK and CBI, 2002).

The aim of this paper is to analyse awareness level of design and its broader application in strategic management of business, to evaluate the stage of design application in various sectors in Latvia and explore the most crucial factors which influence its potentials.

2. Theoretical background

2.1 Design as a new source of competitive advantage

Over last few years, there is increased attention in business and research literature about design as a new powerful driver of competitive advantage in the changing business landscape. Hirschman (1982) recognises that product innovations come from two independent sources - technology (tangible) and symbolism (intangible) resource. Accordingly to Verganti (2009), symbolism or symbolic innovations are related to social meaning of product, while technological innovations "spring from the addition or alteration of tangible features in a product, helping distinguish it from prior models". Furthermore, in a sense of a source for innovation, many researchers underlined the importance of design and designers in successful companies (Krippendorff, 1989; Gotzsch, 2000; Lloyd and Snelders, 2003; Verganti 2003, 2006, 2009; Bertola and Texeira, 2003; Austin and Devin, 2010; Sunley, Pinch and Macmillen, 2010) to create higher added value along with economic value to sustain competitive advantage in the market.

In terms of design, many authors have used different descriptions of "product's communicative qualities" (Verganti, 2009). For example, "emotional domain" and "soft function" is used by McDonagh-Philp and Lebbon (2000), "product soul" is called by Durgee (2001) and "product experience" is named by Marzano (2000), "aesthetic coherence" is a term used by Austin and Devin (2010). However, as it is claimed by Verganti (2009), these are semantic meaning of the products and this let companies to innovate in a new direction what is based on socio-cultural model. In a traditional business approach relevant to Industrial economy stage of development the high priority in innovation is given to modification of functions or technological features of a product. Nevertheless, as a sole focused approach to technological features might lead to a version of the product which is not "user friendly" and thus giving full satisfaction of customers. In other words, functionality tries to satisfy user's practical needs, while product meanings or design helps to solve emotional and socio-cultural requirements (Margolin and Buchanan, 1995; Verganti, 2009). A lot of studies identify that these aspects are of growing significant importance for customers whether these are goods or services (Schmitt and Simonson, 1997; Postrel, 2001, 2003; Bloch, 2003; Crilly, 2004, Fraser, 2007; Kess, Belt, Harkonen, 2009). Furthermore, dialectic of "function vs form" is developed by Verganti (2003) in a framework suggesting that symbolic and emotional values of a product is in addition to its functionality and this is a powerful source of creating also radical meanings of the product in "design-driven innovation".

2.2 Evaluation of design application level

As a business activity, design is not only a tool to modify form and function of the products but "directly influences commercial constraints such as manufacturability, safety, and marketability. By creating new concepts, simplifying process to reduce cost, streamlining product function, or transforming business practice, designers create new experiences, add value, and sometimes give birth to new markets"(Heskett, 2004). Design activities, linked to the objectives, form three major design usage levels: "design as a product, design as a process and design as a transformation" (Friis, 2006). Very similar formulation of design application stages in the companies is used by Danish design Centre in their framework "Design Ladder" (DDC, 2003). The principal role of the framework is to measure design maturity level and usage in the companies. The higher a company is up the ladder, the greater strategic importance and economic benefits design brings to the company. In the 1st step design is a negligible part of the product development and there is no need for services of professional designer; 2nd step design is seen only in the final physical form of the product in terms of styling or visual decorations. This step basically relates to mature industries when design is a decorative element with a purpose to differentiation in some way the product from rival products. There are no any long-lasting economic benefits of design in this level. This might be work of designer, but more frequently this "improvement" is performed by other employees of the company. Design thinking is used in very basic aspects with no integrative approach to the entire product portfolio. The 3rd step is considered not as a result but "as a method that is integrated early on in the development process" (SVID, 2004). In the top of "Design ladder" is a 4th step in which design is integrated into organisation in the strategic sets of

direction and as a renewal of the business concepts leading to necessary preconditions for innovation and competitive advantage. It is claimed by Le Masson (2006) in regard of core assumption that design leads to the next level in the organisation towards a better understanding of innovation itself. In the highest steps of "Design ladder" there is a substantial need of design thinking from business strategic management perspective. "Design is the bridge between the consumer questing for the experiential and the company trying to meet that appetite with an offer that presents the new in a user-friendly and innovative way. It is at the core of the knowledge economy, and one of the coping stones of an innovation system" (Hutton, 2010).

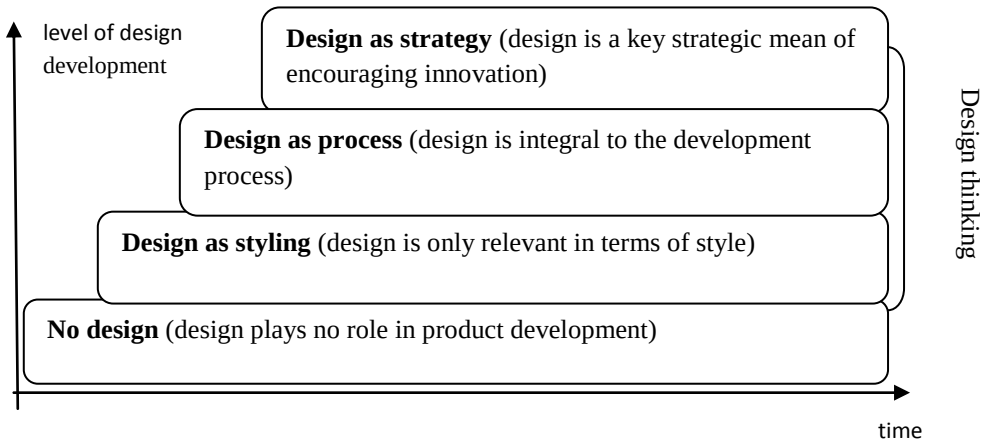

Figure 1. "Design Ladder" framework
Source: adapted by authors (2011) from framework developed by Danish Design Centre (2003)

In business, political and academic arenas design is increasingly considered as a tool to ensure innovative business solutions and a vital source of distinctive competencies in the rapidly changing environment, the role of designer in a close cooperation with all stakeholders providing necessary input becomes increasingly crucial for the future of any organisation. As it is stated in the recent political guidelines of European Commission (COM (2010) 2020), "to remain competitive in this challenging global environment, it needs to put in place right conditions for creativity and innovation to flourish in a new entrepreneurial culture". Therefore, it is particularly important to find out the factors and conditions preventing design development to the levels of integrative forms in organisations that this new source of innovation and competitive advantage can bring economic added value for the companies and competitiveness and wealth for the region.

2.3 Design application perspectives

Many studies (DDC, (2003 and 2007); DIP, 2008, SVID, (2004); Design Council, UK (2007),) prove that extent of design application in business is directly correlated with a level of creativity and innovation of the company and consequently with better business performance results, increased export and competitiveness. These studies indicate the following patterns:

- companies investing in design have increase in profit of 22% compare with ones which don't invest (DDC, 2003),
- companies which both employ in-house designers and outsource design services export 40% of their turnover while other companies export only 18% of their turnover (SVID, 2004),
- companies which actively make use of design in their processes had twice the level of innovation of other companies, across all business sectors and four times as many design users applied for patent protection, compared with companies which don't use design in their innovation processes (Norwegian Design council, DIP (2008),
- more than half of the UK companies are looking for design as a way out of downturn to maintain competitiveness in the severe economic climate and the same number of companies strongly agreed that design is integral part of country's future economic performance (UK Design council, 2010).

  The European Union survey Innobarometer (2007) presents the following results of their studies in the EU context:
  - innovative companies across the EU considered that design staff had been a major source of ideas for their innovative activities, what is slightly ahead of RD staff (25%),

- in more than 50% of the innovative companies the innovation process comes from non-RD functions; moreover, as a common sign is that non-technological innovation enterprises are smaller in sizes, with limited resources of investments (basically these are SMEs) and non-technological innovations tend to develop at the same rate as technological innovations.

All these indicated studies tend to confirm that the principal role of design is not merely a form of art or visual decoration of particular products in matured markets, but lead to confirmation that the principal role of design is to create an economic value to organisations. "Applied efficiently, design does more than improve the single product or service. Design is a strategic development process, and it is a way of seeing problems and their solutions" (Mollerup Designlab, 2004).

3. Research process and methodology

The authors' research is based on the survey method. The aim of the survey was to analyse the design application level in Latvia and identify main drivers and obstacles of the broader usage of design as a strategic tool and integrative part in organisational processes. For this purpose, the extended questionnaire was designed consisting of 19 different questions to identify current business models in companies, strategic management thinking patters, attitude towards design and its usage, awareness of design in broader application perspective as a strategic tool in order to unfold organisations' capabilities to create a higher added value, innovations, to ensure sustainable profitability and overall competitiveness. Companies providing professional design services in Latvia were taken as target group of the survey, and respondents were representatives of these companies. According to the Enterprise Register represented in Lursoft database (2011), there are 218 companies which provide design services to public and private sectors, e.g. free-lancers, design consultancies, digital, multimedia, interior, product, fashion and industrial designers. The valid survey data were received from 85 respondents or 39% of the total sample size. This let us generalise the received findings about current situation of design awareness, application forms and factors influencing potential development of broader design usage in companies' processes and strategy from professional designers perspective. Further, the results of survey are applied in Design Ladder framework described in the previous paragraph to evaluate economic benefits what design application brings to Latvia.

4. Research results

As previously mentioned paper aims to analyse the application of design as a new, unfolded source of competitive advantage of the companies in the fast changing business environment, explore design usage level in Latvia and determine the most crucial factors which influence its potentials. This paragraph is structured in three parts grouped according to main research questions previously described: 1) identification of the current main forms of business model in the companies; 2) design application awareness in the society and entrepreneurs; 3) design development preventing factors for broader application perspective as a strategic tool.

4.1 Main forms of business model in Latvia

In order to explore the design application perspectives in Latvia, we focused some of the questions in our questionnaire on identification of what is business model in companies across multiple industries in public and private sectors. As it is seen in Figure 2, vast majority or 82.5% of respondents identified that current business model is focused on short-term business problem solutions and the primary goal is to find ways of further cost reductions in the production process of mass products.

Nevertheless, 12,7% of design industry representing respondents marked that the business model of their clients is based on a long-term vision for their company along with seeking the ways of high-value creation, usage of good quality materials, qualified workforce and design is an integral part of their business process; this kind of business model also joined 4,8% of respondents which identified trend that long-term business concepts overtakes a short-term business model approach in the companies. Nevertheless, even summarising these two groups of respondents, it is less than 1/5 of the companies searching systematically new ways of competitive advantage through value creation what would be based on their vision of the company and long-term business concept.

4.2 Awareness stage of design application in Latvia

The next series of questions were aimed to evaluate a design in a broader understanding by society in Latvia treating design not only as a pure aesthetical decoration, but also as a crucial element of their everyday life and recognise perspectives that design gives to society in terms of socio-cultural aspects of products equally important as technological and functional characteristics (Verganti, 2009). This attitude

gives a potential birth for design innovations and sustainable competitiveness in the changing economic conditions.

Based on multiple-choice questions mentioned in Figure 3, the respondents have identified that 29.7% of the general society and entrepreneurs see design as an element of luxury goods. It follows by 37.5% of respondents, who identify the level of design awareness and perception in a form of visual element with decoration purpose of the product, for example, in packaging. Summarising these both forms of replies, 67.2% of respondents indicate that society and entrepreneurs in Latvia see design only in a very basic level of design application, when design is considered as unimportant in the business processes as the integrative part, and consequently design is not seen as a tool of innovation and value creation.

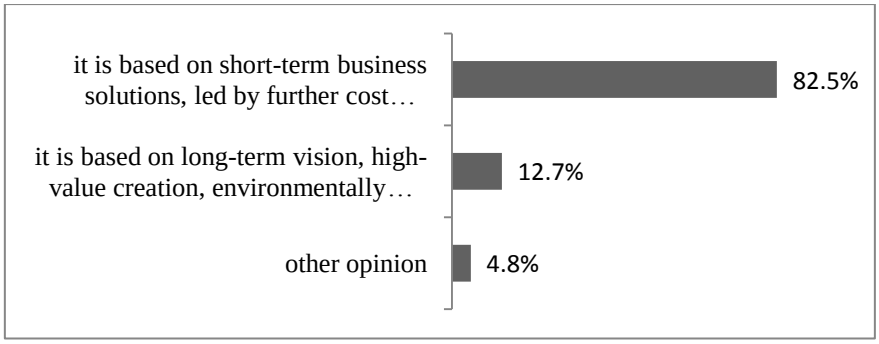

Figure 2. Structure of business models in Latvia

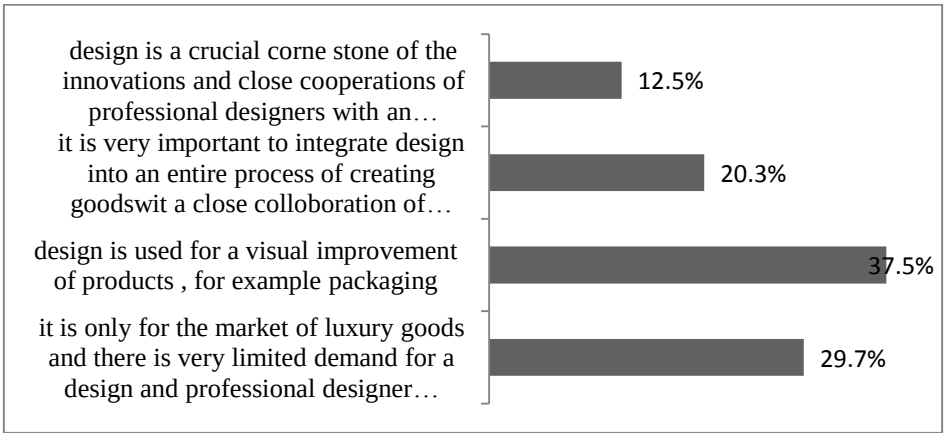

Figure 3. Design application awareness in Latvia

Althgough so numerous amount of respondents identified low understanding of design application, almost 25% of received replies figured out that society and entrepreneurs are aware of design usage perspectives and see it as a crucial part of their process of creating products and a crucial factor in innovation. 20.3% of respondents identified that there is a growing potential of colloboration between professional designers and business management in order to place design into the entire product development process. Moreover, 12.5% of respondents recognised that design is considered as a powerful tool of innovation in the organisation to ensure sustainable competitiveness of business. This significant part of reponses let us think that a considerable part of society realises the crucial role of design in product development and innovation, however, the majority is still seeing it as a "form of art" in the limited scope of application.

4.3 Identification of main factos preventing design broader application forms

Further research was focused on identification of factors influencing design usage in a broader scope in the business processes, model and innovation.

We have identified six major aspects, which directly affect the design application: traditional business thinking model, level of design policies in the country, education of designers, business management education, network development level of designers and general public awareness of design usage. Figure 4 identifies relative strength of these factors. As the most significant barriers to design broader usage in public and private sectors the respondents have mentioned limited public awareness of design as a vital source of improvement of their life through innovation instead of narrow application in the form of art and traditional management thinking model, this was stated in almost 70% and over 60% of responses, respectively. In our

opinion, this is related to the fact that for so many decades the industrial era with the requirement of pure efficiency measures were recognised as a single driver of any business to competitiveness and this heritage in education and management practice is still cultivated in the current era of innovation, when the drivers are creativity and all sources of innovation, including non-technological forms as design (Hamel 2007, Verganti 2009). In innovation society people require fundamentaly new thinking, competencies and skills to generate creative and innovative results, not limited by excellency in certain function, but in the ability to design better products and provide even breakthough results (Gray, 2010)

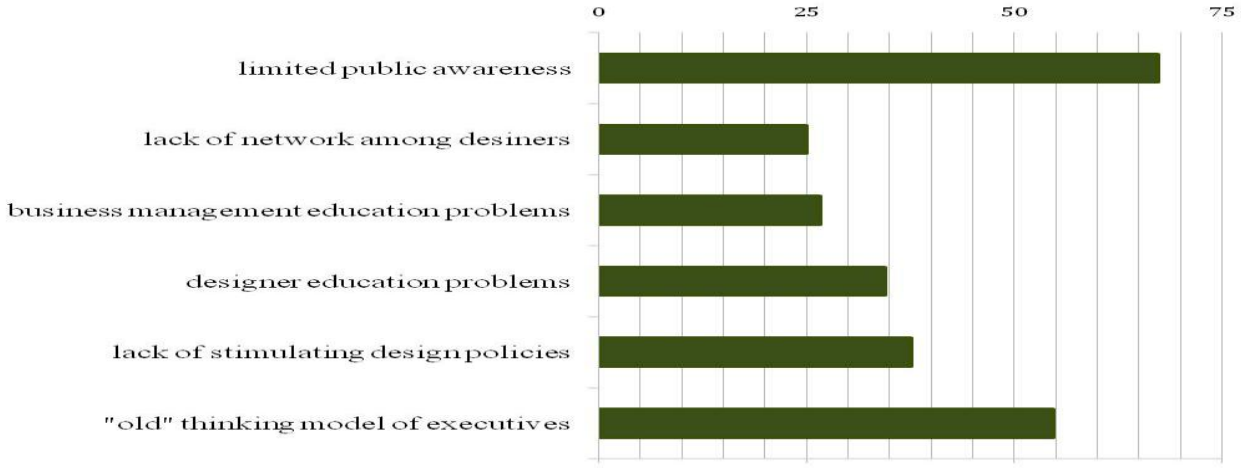

Figure 4. Main factors preventing broader application of design.

Creativity, design and invention are still considered as a function separated from the entire business process and not understood as an integrative part of the organisation's strategic management. "We [business people] expect that designers, inventors and creative people "go into the room with a goal" and will come out with creative solutions (Gray et al., 2010). However, complex and dynamic innovation economy requires different approach that these qualities first of all are a part of management thinking further fostering to open powerful gateway in the processes of any organisation thus creating sustainable competitive advantage of the organisation. The business model based on single analytical data considerations of the past events does not provide crucial insights in the future business perspectives and can lead to short-term business problem solutions, but not enhance competitiveness in the long-term (Hamel, 2007). That is why it is increasingly crucial to recognise new tools and means in the management practice to create an economic value to products, services and organisations.

5. Conclusions

In order to evaluate design application level and potential economic benefits to the organisations, we have applied our research data to the framework of Design Ladder (DDC, 2003). This gave us the summarised view that design in Latvia is in the first, early development stages (Figure 1) and design is mostly applied as a styling, solely for the final physical form of the product, but not yet entering the next stages of the Design Ladder with design as a process and design as innovation in an organisation. This leads to think that there is no strategic importance of design seen in the business management practice in Latvia and thus design does not bring sustainable economic benefit to the companies. These are potentials to be unfolded and applied in a broad sense through renewal of existing business models, design thinking and modification of entire organisation culture to enhance multi-functional activities, capabilities of flexible adoption to specific external factors along with unique inputs of tacit knowledge of social-cultural trends brought by professional designers would give organisations sustainable competitive advantage for emerging future. The current economic downturn has emphasised even more crucial necessities for these changes, identifying hidden weaknesses and problems of the organisations. "21st-century challenges are testing the design limits of organisations around the world and are exposing the limitations of a management model that has failed to keep pace with the times" (Hamel, 2007) and this is primarily related to the industrial economy's thinking model, when business was mainly driven by optimisation of existing resources. External environment have changed dramatically in the last decades, however the existing management practices are still lagging behind. Such concepts as strategic design, design management, design thinking and design driven innovations are notably entering business environment providing new gateways to enhancement of

competitive advantage of the companies. Innovation policies, design education, management education and practical management have not yet caught up with these changes in Latvia and these are the areas of further research in the emerging fields.

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