BOTTOM-UP STRATEGIES IN CONSUMER-LED MARKETS

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Abstract

Future studies are traditionally based on a top-down approach, but in consumer-led markets - where it is subtle innovation features that make the difference between success and failure - managers experience that the approach is counter-productive. The managers are expected to define a strategy to frame the innovation efforts, but in practice it is the emerging insights and innovations from those efforts that set the base for the development of a strategy.

Managers need to fully acknowledge the power of emerging innovations that transcend the strategic framework and proactively pursue them. Future emerging innovations can be fermented and investigated using a bottom-up approach which is similar to the top-down scenario process used for strategic planning. However, the nature of the bottom-up approach is different and needs to be relevant to explore future innovations opportunities, rather than oriented towards decision and policy making.

An analysis of future trends suggest that the bottom-up approach is in a favourable position to serve the future needs of companies in consumer-led markets and a model is presented which integrates the top-down and the bottom-up approach into one innovation focused framework.

A new toolbox is needed for the framework and future-oriented technology analysis FTA is in a strong position to take the lead in collaboration with other research areas, such as ethnology, socio-technical analysis and design studies. However, other agencies are already active in the field and FTA need to act soon, if they want to be a player in the future business context.

Keywords:

Bottom-up, user value, market paradigm, innovation opportunities, experience economy, heuristic experimentation, future-oriented technology analysis, innovation map.

1 Introduction

For many decades the top-down strategic planning process has been the dominant logic in a business context, but an emerging market paradigm is changing the balance. The new paradigm favours a consumer-led bottom-up process and it is gaining ground in the circles of innovative companies and consultancies.

Future studies continues to focus on services that fit the old top-down logic, but will soon have to rethink its position, if it wants to remain a relevant actor in a modern business context.

2 The New Market Paradigm

Traditionally the role of future studies in business context is to support business managers in decision and policy-making. The standard procedure is to conduct a future-oriented macro-level analysis, which by means of a reductionistic process leads to a limited amount of scenarios, which define the strategic choices of the company's top management. Once a strategy is formulated it is passed down the organisational hierarchy and gradually broken into operational goals. Within this framework of top-down planning the R&D department's main purpose is to develop products that fit the strategic framework.

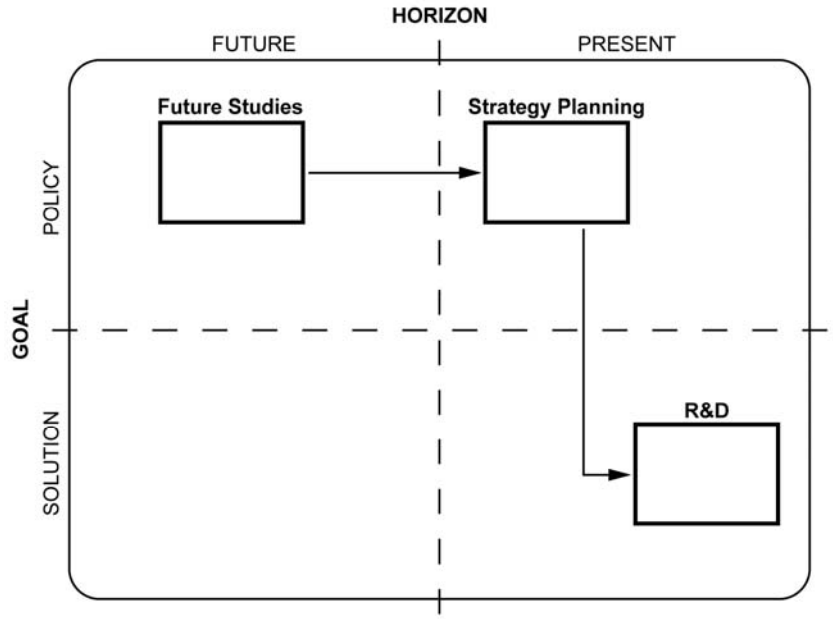

Figure 1: The traditional top-down process.

This business model assumes that “industry structure is relatively stable” [Porter 1985:7, “competitive advantage”] and a company's main challenge is to select a strategic position that fits the organization and competitive situation in the industry.

In the last decade free trade agreements and information technology has intensified competition dramatically and changed the dynamics of the markets profoundly.

The company strategy is no longer the structure that shapes the companies. A long term strategy which focuses on only one possible trajectory is rigid and limiting, not to say naïve considering the complexity and ambiguity of the market.

Today's core assumption is that markets are in rapid and unpredictable change. Change is pervasive and ”the challenge is to react quickly, anticipate when possible, and lead change where appropriate” [Brown 1998, p.243]. Companies need to gain the “edges” and improvise, making ad-hoc strategies and follow emerging opportunities.

To match the external diversity and complexity the companies need to be agile and alert, so they can continuously reinvent themselves and produce a continuous flow of advantages in collaboration with their network of innovation partners [Nordstrom 2000, Brown 1998].

The new paradigm is not just some new business hype. Consultancies are reporting that their client projects are increasingly “fuzzy” and they need to work and navigate in new ways because the paths are not known in advance [Friis 2005]. “Instead of asking the consultant to 'design this new widget for me,' where the widget is already identified, a client might ask, 'Should we be designing a new widget, a new widget and service bundle, or something else altogether?'" [Weiss 2002]

The times of the war and sports game metaphors are over. The world is no longer predictable in the way it used to be and metaphors about improvisation and navigation describe more adequately the situation of modern companies.

3 Innovation Opportunities

The new market paradigm assumes that companies face a saturated marketplace with commoditised products, where innovation is the only sustainable way to differentiate your business and save yourself from the painful competition on cost and price.

All “purposeful innovation begins with the analysis of opportunities" [Drucker 1985], so your future success depends on your capability to understand innovation opportunities across all horizons [Tsoukas 2004, p.66].

It is not enough to look within your existing business area. “The key to growth is to evaluate opportunities with an open mind,” [Bagai 1999] and to look for opportunities outside their company in partnership with other companies, -so called “open innovation” [Chesbrough 2003]. Especially radical innovations can secure a long-term competitive advantage, so the capacity of a business to consistently deliver radical innovation is a key factor for its success. Incremental improvement, which only add and not create new value, will clearly not be enough to survive in emerging and shifting markets. When facing disruptive innovation by markets and technologies, incremental improvement is like the famous re-arranging of the chairs on the deck of the Titanic.

The new business mantra – which demand a continuous flow of radical innovation – is a tough nut to crack for many companies. In the following we will have a brief look into some of the initiatives that have been undertaken to generate radical innovation.

4 Future Labs and Strategic Design

In the last decade many innovative market leaders have set up future labs, concept labs, vision labs etc. to provide radical innovations. The future labs are detached from the main organization to create an environment that is optimal for innovations.

The main problem with the traditional organizational hierarchy is that internal cultures and pressures often push efforts toward more low risk, immediate reward, and incremental projects. The hierarchy impose a top-down decision process which suppresses emerging radical innovation which originates with the front-line workers.

The idea of a Future Lab is inspired by the insight that radical innovation often emerge from the front-line workers tacit contextual knowledge and daily experimentation. Such experimentation investigates parts in detail with out knowing the overall system, and allow for out-of-the-box insights to emerge that can led to radical innovation and a redefinition of previously established frameworks and strategies.

The labs are effectively short-cutting the middle layers of the main organization, so top managers can interact directly and learn from front-line workers. “The reason is that amongst all of the decisions, those which appear secondary at the moment they are made may later transpire to be as crucial as those thought to be strategic” [Akrich 2002, p.193].

The future labs are therefore a practical solution to the dilemma of on the one hand having a disciplined and focused core organisation and on the other hand leaving space for an open mind and creative exploration of innovation opportunities. "In order to bring about frame-breaking change they have to remain outside existing paradigms and resist corruption by established interests" [Rieple 2005, p.51].

4.1 Future Labs Characteristics

The three fundamental principles in future labs' innovation process is a grounding in contextual observation, an objective of human-centred frameworks, and a bias toward rapid prototyping [Coughlan 2004, p.188].

The future labs are characterized by their focus on micro-level qualitative insights with the user-context at the very centre. Especially the lifestyle, behaviour and values of the user are of interest. Sometimes these factors are related to or co-evolve with new technologies and changing markets the scope is widened accordingly.

People typically work in multi-disciplinary teams to share and transform their tacit knowledge into contextual insights. Much tacit knowledge about the user-context and how the artefact and technology interact with the user context is embedded with the front-line workers, - the marketing people, the developers, the engineers etc. [Nonaka 1995]. So-called “boundary-spanners” facilitate the process by translating the requirements of each into language and behaviour that is understandable by the other [Rieple 2005, p.49].

Heuristic experimentation is an integral part of the process in future labs and a key activity is to leave room for ideas to emerge. In a sense, they build to think and the spiral of knowledge creation is speeded up by prototyping and simulation instead of learning by doing in real life.

4.2 Bottom-Up Versus Top-Down

The characteristics mentioned above associate easily with the term “bottom-up”. The micro-level is at the bottom, insights emerge from the bottom, front-line workers are at the bottom of the organisational hierarchy etc. The approach will therefore in the following be named the “bottom-up” approach. It stands in contrast to the “top-down” approach which is already an established term, and refer to the deductive approach where an overview of a system is formulated and subsequently the sub-systems.

Table 1: Comparison of the bottom-up and top-down innovation approaches.

	BOTTOM-UP	TOP-DOWN
LEVEL OF ANALYSIS	Micro-level	Macro-level
FACTORS	User-context, lifestyle, behaviour, values and enabling technologies.	Political, environmental, social, technological, economic and demographical.
TYPE OF KNOWLEDGE	Tacit and emerging	Eksplicit and Quantitative
ANALYSIS	Context-based	Trend-based
TYPE OF INNOVATION	Radical	Incremental
ORIENTATION	Solution- and action-oriented	Decision- and policy-oriented
MAIN ACTORS	Front-line workers	Top managers

4.3 Alternative Constructions

Even though the bottom-up approach has primarily been developed in future labs and design consultancies, it is useful in other constructions where the main goal is to develop radical innovations. For example could the partners in an innovation networks form a hybrid organization, so that a larger company manages current customers and operations, while a smaller company offers breakthrough ideas [Rieple 2005].

However, the biggest challenge is to integrate the top-down and bottom-up approach in one and the same organization. It is not because the two approaches are incompatible. On the contrary they are two sides of the same coin, and the natural process is to oscillate between the two.

Interestingly, the reputable Design Management Institute is this year hosting a conference on design leadership and focusing work on strategic design. Behind the two terms is not only a recognition of the bottom-up approach as a potential frame-breaker, but they also say that bottom-up approach should be the one that defines frames. The initiative shows how far management has come to recognize the bottom-up approach as an worthy opponent to the top-down approach, or even the dominate one of the two.

4.4 The Future of Bottom-Up

As it is now the bottom-up approach is making good progress in the world. It is being adopted by companies in future labs, hybrid organisations and as an integral part of the innovation process in the main organisation.

The success may be contributed to any one or all the characteristics of the process, but at the end of the day it is being measured on the ability to deliver radical innovation. However, radical innovation will only provide a sustainable competitive advantage if you target those values that have extra-ordinary impact.

There is little doubt the key value today is user value. Prahalad (2005) says that “companies must create innovations that are "value-oriented" from the consumer's perspective”, or in the words of Cagan (2002, p.54); “Breakthrough products are driven by a complex combination of value attributes that connect with people's lifestyles”.

The popularity of the bottom-up approach coincides with emergence of user values as the main driver of innovation, so its ability to deal with user context may have been an important argument for organisations to embrace the bottom-up approach. In consequence the future of the bottom-up approach is directly influenced by the characteristics of the future key value.

5 Emerging Value

Currently the epoch of service economy is running out, basically due to its own success. Goods and services are now ubiquitous and commoditised, so customers seek differentiation on a higher level.

According to Pine and Gilmore (1999) products can be placed on a continuum from undifferentiated (commoditised) to highly differentiated. Consumers who are facing fairly similar offerings will differentiate the offerings at higher levels. Proceeding to the next stage more or less requires business to give away products at the more commodified level.

Just as services build on goods which in turn build on the commodities, so experiences build on services. In the hierarchy of value – which share many commonalities with Maslow's “Pyramid of Needs”– experiences are a superior offering because it not only offer the advantages of services, but also are memorable and personal.

The impact of the collective orientation for value is so omnipotent in the society, that it shapes the economy, and Pine and Gilmore (1999) argue the affluent countries are entering the experience economy, because services has been commoditised.

5.1 The Experience Economy

In the long view the economy is making a shift from material industrial production to immaterial cultural production. More and more cutting-edge commerce in the future will involve the marketing of a vast array of cultural experiences rather than of just traditional industrial-based goods and services. “Concepts, ideas, and images – not things – are the real items of value in the new economy,” [Rifkin 2000, p.5]

Decisions are made on the grounds of emotional and not rational thinking and future product will have to appeal to our hearts, not to our heads. Jensen (1999, p.vii) calls it the “dream society”. “Your competitive advantages does not weigh more than a butterflies dreams” [Nordstrom 2000, p.31], so the best test of your competitive advantages is to drop them on your toes. If it hurts, you are doing something wrong!

To excel in the experience economy you need to let go of the belief that there is an underlying logic structure and shift from old time's left-brain linear and analytical thinking to right-brain associative and emotional thinking. It is the rise of the creative class as Florida (2004) has predicted.

Pink (2006) further elaborates the skills needed in the “New World”. He calls the skills “High Concept” and “High Touch”:

"High Concept involves the capacity to detect patterns and opportunities, create artistic and emotional beauty, craft a satisfying narrative, and combine seemingly unrelated ideas into something new.

High Touch involves the ability to empathize with others, understand the subtleties of human interaction, find joy in one's self and to elicit in others, stretch beyond the quotidian in pursuit of purpose and meaning" [Pink 2006, p.9].

Many companies have already entered the era of the experience economy. They aspire to the values of the consumers by making simple, sense-making or open standards. They revitalize long forgotten brands and capture out imagination with stories about the good old days or claim to meet the highest standards of social and environmental responsibility to honour the noble values of their customers and employees.

There are other models for interpretation of modern Western society of which the "Knowledge Society" paradigm is the most popular. Like the experience economy, it constitutes "a value shift from the material towards the immaterial" [Drucker 1993]. The essential difference lays with their view on which kind of knowledge that will add value in the future. The knowledge society descent from the information society and has a bias towards hard facts, intellectual properties etc. In contrast the experience economy deals with soft human side of knowledge, the emotional intelligence. With regard to innovation, knowledge is not an end in itself and we therefore think that the experience economy is the most relevant proposition for the future of the consumer market.

Anyway, the transition from one economy to the other is a slow process which filters through different sectors with different speeds in the coming decades. Just as when the service economy emerged from the industrial economy. The economies of services, experiences - and the following economy of "transformations" [Pine and Gilmore 1999] – will co-exist for a long time to come, but the balance is surely changing.

5.2 The Nature of Experience

Experience is a very dynamic, complex and subjective phenomenon. It can mean the "look and feel" of an artefact, how it is useful in a user's life or the emotions that it evokes [Buchenau 2000].

Cagan and Vogel (2002) have developed a value opportunity analysis that breaks down user value opportunities into seven categories: emotions, aesthetics, identity, ergonomics, impact, core technology and quality [Kim 2006]. The category "emotions" is exemplified by sense of adventure, feeling of independence, sensuality, confidence, power etc.

The elusive nature of an experience is problematic to deal with in a logically minded business culture, because it may be subtle innovation features that make the difference between one experience and the other, success or failure.

Furthermore, experiences are highly contextual so the complexity increases manifold, when we include the contextual factors. However, context cannot be ignored. Cagan and Vogel (2002) say that, context - "The time and place for value opportunities" - is key. "Water is life to the dehydrated, yet death to the drowning".

The contextual and elusive user values are not only difficult to design into an offering, but also prompt a question whether it really is possible to inscribe meaning and design experiences. Even with strong empathy and conceptualization skills you cannot be sure that the collective will

receive it the way it was intended. It is important to take into account that users have the creative freedom to “make culture” in the practice of consumption, as well as their dependence on industries because they provide the means and the conditions of cultural creativity. In effect consumers are “cultural experts” who appropriate consumer goods to perform identities, which may transgress established social divisions [du Gay et al. 1997, p.104].

Although a multiplicity of expected uses and meanings are posited during the development of an offering, it is not until a product has been experienced that the use (and abuse) or alternative patterns of use that was not anticipated, can be comprehensively analysed. “Consumers participate in shaping, adoption, adaptation, and modification of the products and services that they consume” [Cooper 2006, p.73].

However, once you get a grip on the user values you will find that they are durable over time. “The one thing that seems to remain relatively stable even in times of great change – human behaviour” [Coughlan 2004, p.188]. Cooper (2006, p.72) confirms that “while technologies often change at breathtaking speeds, people's needs change much more slowly”. More importantly user values do not evolve in a linear and progressive manner like technology, but jump from stage to stage, so understanding user needs, context and experiences can ensure that offerings will resonate with consumers in the future.

5.3 Business

In the experience economy businesses need to ”... understand what qualities matter to the people we are designing for and the ways that design can enhance their experiences. Designers need to be more broadly aware of people's goals, aspirations, rituals and values; personal, social, cultural and ecological contexts; the processes and interrelationships between different features, elements and objects within these contexts” [Suri 2003, p.41].

{Figure 2: People and their experiences are at the centre of attention for radical innovation in the experience economy [Suri 2003].}

Empathy, storytelling and cultural understanding are the skills most needed by business as they try to create products and brands that have meaning – functional, cultural, mythical, symbolic, and ethical meaning – around the world” [Pink 2003; Gagliardi 2001, p.38].

It does not necessarily mean that companies can forget about commodities, goods and services. The point is that the radical innovations will take place in the domain of experiences, but in order to implement the offering, the other levels have to support it. You might not be able to make money on a service, but you need that service as an integral part of the experience.

It is also important to understand that different paradigms co-exist in the same market and that user value is not the only influential factor. A sound principle to keep in mind is that “it takes desirability, viability and feasibility to make a successful innovation” [Weiss 2004] and the new inspiration for innovation can come from both the social, economical and technical domains.

However, we cannot ignore the strong evidence that user values - and in particular user experiences - will be the dominant key values in future markets. Those key values should be at the very centre of the innovation process and the organisation must create an environment that supports innovation in these values. That will require that business have to embrace the bottom-up approach and integrate it into the innovation process, on its own conditions.

6 An Innovation Map

The top-down and the bottom-up approaches aim at supporting a company with innovation, but they are based on very different levels of analysis. The top-down approach aims for analysing trends and predicting the future developments at a macro-level in society, markets, industries etc., while the bottom-up approach starts with the user-context.

My proposal is to acknowledge both approaches as valuable in mapping future innovation opportunities and should be integrated into one framework.

The connecting point for the framework could be a knowledge platform, an "Innovation Map", which integrates insights about innovation opportunities over all horizons. The map should integrate thought provoking analyses, a comprehensive set of scenarios and compelling visions that capture the imagination of customers and partners in innovation.

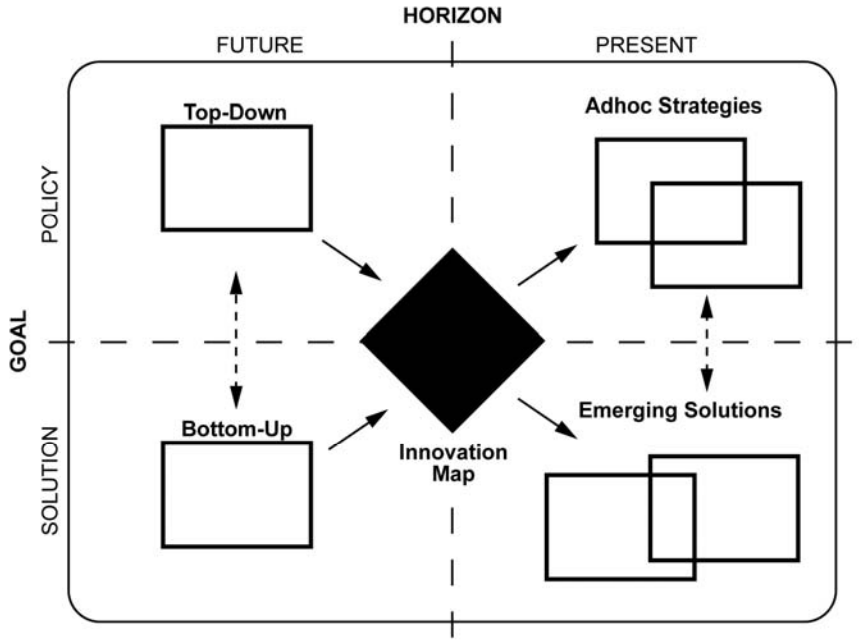

Figure 2: The Innovation Map and the framework around it.

The future-oriented top-down and bottom-up approach may run in parallel and be integrated in knowledge platform. The mixture of strategic market insights and visionary solutions will surely complement and inspire both approaches, so ideally the two processes should have several touch point during the process, so the innovation map could be the point of reference for all strategic decisions and operational activities in the company.

As mentioned earlier companies need to be alert and agile, follow ad-hoc strategies and adapt to emerging opportunities, so the innovation map could be the platform which enable the company to master the complexity of the environment without loosing its way.

The framework is meant to ensure full flexibility, so emerging solutions and strategic insights are crossing all ways in the strategic/solution and the future/present domains.

It would serve as navigational map, which provide a point of reference in stormy waters and an understanding of the patterns and significance below the chaotic surface of information. Visions

- or lighthouses - would guide the companies toward strong visions with enduring relevance and competitive advantage to win the competitive edge.

To fill this role as the overall framework for the innovation process, it must be comprehensive, visionary and relevant in its scope, so it can build synergies internally and with the partners in the innovation network. Furthermore it is important that it is transparent so people can gain a deeper understanding of the dynamics and that it can adapt to new insights in a fluid manner, so it always provide an updated overview.

Ideally, it integrates various key areas of innovation on all horizons, because it has to "be multi-period, multi-level, multi-context, multi-actor and multi-disciplinary; if it has to catch reality that is in flight." [Chakravarthy 2003, p.xv].

Much of these intentions are already integrated into existing tools and methods, so the main point is that the exploration and management of innovation opportunities is the main reference for all company activities on all levels.

7 FTA Challenges

Future-oriented Technology Analysis (FTA) faces two main challenges. First of all, the current macro-level output has to be made directly relevant to the innovation process in business context. The strategy-oriented foresight methods must be reframed and refocused so it delivers innovation relevant information. It is important that it represents an inclusive and contextual picture of the macro-level information that can easily be integrated with other approaches - such as the bottom-up approach - and be shared with non-specialists.

Secondly, FTA has to face the potential threat posed by specialists in the bottom-up approach who might broaden their scope of action to the macro-level future-oriented analysis that is the bread and butter of FTA.

The international design consultancy IDEO, which is a dedicated follower of the bottom-up philosophy, is already heading for the market of FTA. In a recent job advertisement it read: "You bring... a holistic approach to process: Formulating cultural and user insights, mapping opportunity spaces through strategic frameworks, and expressing compelling solutions."

The lines between bottom-up design consultancies and top-down strategic consultancies are blurring, because their clients ask for the same product: an overview of innovation opportunities.

Chances are that these consultancies will develop an integrated micro- and macro-level methodology to map future innovation opportunities.

In that case FTA will have great trouble defending its current role in business context. A proactive attitude has to be taken. Not only should the importance of the micro-level bottom-up approach be recognised. FTA also need to enter the domain, either by seeking a partner, who is a specialist bottom-up approach or by developing the skills and tools themselves. Alternatively FTA will gradually be marginalized as the bottom-up approach gain momentum in the experience economy.

However, FTA's impressive toolbox [Porter 2004] and many years of experience working with industry put them in a unique position to develop an integrated micro- and macro-level approach to map future innovation opportunities.

7.1 Outline of Theory for Bottom-up Approach

From a FTA point of view the bottom-up approach may seem like a very different place, then the world they usually deal with. However, a re-focused scenario process could very well be the underlying framework that drives the overall process and pulls in a variety of tools from a toolbox, whenever they are needed.

Designers and ethnologists are currently experimenting with new tools to analyse user context and explore future innovation opportunities in a practical and efficient way, but there is no overall framework.

Tools from ethnology, future-oriented technology analysis (FTA), socio-technical analysis and design studies may all be relevant to include in a new toolbox, but they will have to combined, modified and integrated before they will work in practice.

In relation to the bottom-up approach it must also be understood that there are no cookie-cutter recipes for getting results. “Innovation by definition is created by instability, by unpredictability which no method, however refined, will manage to master entirely.” [Akrich 2002, p.195] An open and flexible framework and toolbox is an essential requirement, because one cannot plan the “deliverable” before it happens; this is the work of discovery.

8 Conclusion

The markets are undergoing a fundamental change of paradigm; focus goes from strategy to innovation opportunities. User values and experiences are becoming the centre of value creation, while technology is only considered an enablers that can not sustain competitive advantage in the long run. The coming years will most likely lead to a further commoditation of the basic aspect of user value and companies has to excel on a even more advanced levels of user value; such as experiences.

Companies are changing structure, process and skills to adapt to the new paradigm. Ironically the FTA is ill prepared for the future business context and continues to see strategy making as the focal point of their interaction with industry. The design and strategic consultancies are quickly adjusting their services to fill the new needs of companies. Their close contact with the business needs will put them in a favorable position as intermediaries between FTA and companies, - or simply take over the role of FTA. The prospects are bleak for FTA in business context, if not action is taken to meet the challenge.

The FTA has a strong position from many years of experience in collaboration with industries, and a rich toolbox which can be a good starting point for developing new tools an services that fit the new market paradigm. However, it will also require an positive attitude towards the bottom-up approach, a preparedness to enter the shoes of the customers and appetite for a world full of emotions and experiences.

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