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A Cognitive Creative Approach to Marketing Management

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Introduction

Marketing management is engaged with planning and executing marketing action (Alderson, 1957). Later additions (e.g. Kotler, 2000) have added little to the basic concepts, but the organizational embeddedness has changed markedly. Originally, marketing management was a profession or semi-profession confined to marketing departments, but it has increasingly become a managerial approach (Homburg et al., 2002). It is increasingly conducted by cross-disciplinary teams crossing departmental borders. Marketing has typically been promoting an analytical process based on analyzes and problem solving. This assumes that the marketing manager is able to perform these analyzes, based on data collection, problem finding and formalization of actionable alternatives. In particular in innovative pursuits, marketing managers work with designers, engineers, human relations people, lawyers and sometimes psychologists (e.g. Kelley, 2001). The cross-disciplinary nature may cause a communication problem. Could marketing management benefit from a new approach that could facilitate a situational approach to accommodate the challenges of shorter product and market life cycles, constantly updated information basis and structures that are constant emerging? If this is possible, what could be the leading metaphor or model for marketing?

The article is organized as follows. The next section reviews the content of marketing management. Then section 3 reviews recent approaches to embodied cognition, a quite new and innovative approach to marketing. The fourth section analyzes what this could mean to the marketing management process as it unfolds. The fifth section deals with implications and the issue of a novel metaphor for marketing management.

Marketing management

Marketing management has references back to the 1930s, but the real invention of the term came with Wroe Alderson and his book *Marketing Behaviour and Executive Action* from 1957. Alderson's theory was intimately related to the value chain, which he labeled "the marketing system", enacting that system in a modern terminology. Marketing according to him was a process of improving the "bundle of goods" held by the parties of the vertical chain by negotiation and the exchanges of goods. One could impute the image of a "merchant", which is the go-between between supplier, middle trade and the end consumers. Actually all transformations in the primary value chains as in Porters (1980) value chain models need such facilitation. The assumption made was that the function of the marketing executive – today called a marketing manager was to "sort and mix" already existing goods. The "merchants" (now marketing manager's) task was to identify the demands of the consumers and match it as well as possible with the suppliers at hand. Porter (1980) showed how this becomes increasingly complex as there are an increasing number of transitions between inbound logistics and outbound logistics and consumer services. The aim would remain as the matching between supply and demand. The focus on the negotiation between buyer and seller has more recently been strengthened in the so-called "relational marketing" concepts, where the long-term relations have been in focus. But none of these have introduced material realism. Also, marketing has rarely been conceived as a creative process, although in practice the element of differentiation offers and competitive behavior seems inevitable.

The work of the marketing manager is not limited to "sorting and mixing" already preexisting goods, (Alderson, 1957) but to a large extent to engage in innovative pursuit to develop new products and services. This is creative work for anyone involved. For marketing, it deals with both the product, and also the market. Just as shorter product lifecycles, also markets have shorter lifecycles, despite a lot of efforts to sustain them. It is the marketing managers' responsibility to create

both products and markets. What links products and markets is the demand situation. The market represents the whole opportunity set for the marketer and a product is always the current response to that. There is rarely a total match and the product is usually confined to a segment of the market.

This is to a very large degree a creative process, because neither supplier, nor customers and end-users are always good at expressing their offers and needs. To accomplish this, the marketing manager must use ingenuity and creativity. To a large extent this is developing new concepts, such as metaphors and metonym (Lakoff and Johnson, 1999).

Cognitive processes

In a sense, the processes resemble that of a design processes. This should, however, be dealt with using caution. There are many different ways to conceive of design. The most general terms are found in e.g. Webster's dictionaries and Herbert Simons (1997) definition, "anyone who devices a plan of action aiming at changing existing states into preferred one's". This is so general that few scholars will dispute the expression. On the other hand it says nothing of how the preferred states are accomplished. Some designers believe they are artists, others that they follow a scientific process. Our response is closer to the latter, keeping the creative elements of the process. The early cognitive scientists, e.g. Newell and Simon (1973) and Simon (1997) pursued the aim of developing a metaphor resembling a computer metaphor (Varela Thompson and Rosch, 1991). Although this research was successful for many years, criticism has recently emerged claiming that the research program ignored the context and the human nature of cognition (Hurley, 1998; Dupuy, 2000). The modern approach to cognition assumes integration between cognition and emotion, as well as taking into consideration, that it all takes place within a physical, social and cultural context. The importance of that was already stressed by developmental psychologists in the 1930s, e.g. Vygotsky (1962). Situated cognition happens "on-line" when challenges are met and action is taken. This does not mean that planning and reflection are not happening or that they are not very important. It means that even when the best planning has been conducted, the reality of the situation is a direct force that must be accommodated in real time and with complex feedback. Hurley (1998) uses the following metaphor for situatedness:

"...the circus performer who puts the handle of a dagger in her mouth, tips her head back, balances a sword by its point on the point of the dagger, and with the whole kit balanced above her head magisterially climbs a ladder, swings her legs over the top rung, and climbs back down the other side of the ladder. Each move she makes is both the source of and exquisitely dependent on multiple internal and external channels of sensory and motor-signal feedback, the complex calibrations of which have been honed by years of practice. An only slightly less intricate structure of dynamic feedback relations knits the nervous system of a normally active organism into its environment" (Hurley, 1998, p. 2).

In this example it is evident, that no time for analysis is possible at the time of execution. No doubt, in order to perform at such a virtuous level, hours, days and years of analysis, training, practicing were necessary to reach the level. That is the same in marketing; it must be studied both theoretically and practically to become a skill.

As Homburg et al. (2002) have emphasized, companies where marketing is not placed in a single department, but diffused to multiple business functions as a general approach to business show better financial result than when marketing is restricted to the marketing department. A company may not even have a marketing department to excel in marketing, provided that marketing is a general orientation. This is what "the marketing concept" stipulates. Marketing is increasingly conceived as a process of allocating resources, managing flows of equity, processes of negotiation and other cross functionally forms of communication, all aiming at keeping the overall view of satisfying customers more effectively and efficient by than the competitors. The question then becomes more complex than the sketching of the plan. Such processes are distributed among a number of actors and therefore labeled "distributed cognition" (Hutchins, 1995).

The cognitive process may bring new knowledge, that is, previously unrelated elements of knowledge that are synthesized bring new insight through a mental process. There seems to be four sub-processes, “layered” into each other, which connect with each other in a variety of ways. The processes are: Value creation processes, scaffolding, imagination and materialization processes. Textbooks on marketing management, following the Alderson tradition acknowledge the importance of value creation, but seem to downplay scaffolding, imagination and materialization.

Value creation processes

Value creation penetrates the whole process as the goal of marketing management. Briefly, value is being created when the transaction brings both a surplus to the consumer and a profit to the company, both parties see themselves as in a better position than before the transaction. A critical element of innovation in business companies (Christensen, 1997) is that the process takes place in close cooperation with the value chains of the company. An innovation is a reconfiguration of value chains and if innovations are detached, i.e. done independently of implementation, implementation may jeopardize the innovation and no new value or exploitation will be realized. The value creation process happens in a sequence of sketching and modeling. A tradition of mathematical and econometric models has been applied to decision making in marketing (e.g. Urban and Hauser, 1992). The models are usually developed as decision support in order to test the consequences of marketing decisions. It seems possible to enact such models in various stages through the process.

Scaffolding

“Scaffolding” means that a cognitive process is supported. The idea comes from the Soviet developmental psychologist Lev Vygotsky (1962) who emphasized the gradual or proximal learning of children as well as the instrumental utility, that came from adults such as parents and teachers (Vygotsky, 1962). Later cognitive researchers (e.g. Clark, 1997) have expanded the idea and labeled it “scaffolding” or “jigs” (Kirsh, 1995) to include pen and pencil, physical structures within a context of space (Kirsh, 1995), navigation tools (Hutchins, 1995), computer tools, people as information sources (experts) and information structures (Reddy et al., 2000) e.g. bulletin boards and computer screens. Scaffolding usually takes place in the beginning of the problem solving processes in order to support the subsequent processes. Cognitive processes are “embodied, environmentally embedded” (Clark, 2001), which means that there is an agent who is a part of a social organization. We use the term concept to mean an artifact that materializes the knowledge at a particular stage of the process. Successive stages of models become increasingly realistic and enable the designer to incorporate issues of production, distribution, users and other contextual issues. Such models can take the form of prototypes. There are several techniques from mock-up models made in cheap material to the use of advanced computer based rapid prototyping. A model (Dupuy, 2000) or concept (Rosch, 1999) is a simulation or categorization of an aspect of salient qualities of the environment. Clearly models of the kind the designer makes can also be used by the marketing manager, for instance a mock-up or prototype (Kelley, 2001). The advantage is that such models can serve as means for communication with other business functions and consumer testing. In cases where there is no physical model of the product other concepts can work such as visual scenarios, flow-descriptions, input-output models, Gantt-diagrams and information boards (Reddy, Dourish and Pratt, 2003).

One particular advantage of designing is the use of multiple models. Each model is a matter of a distinct solution, which may be communicated and negotiated with other business functions. A model is then more than a mathematical relationship between a limited number of variables, but can serve as a rich description where forms, function, choice of materials, user-interfaces, production mode, distribution are embedded in a concentrated physical form.

Humans move metaphorically around in the “creative space” much like we move around in a landscape. When this happens, the process is “perceptual rehearsal” again following the gradual approach to develop the concept as devised by Vygotsky (1961), Ippolitto & Tweency (1995). This process also involves a narrative element, based on the needs and wants of the consumer. To

understand what a product may be, it is essential to frame the needs and wants of the consumer. Although this can be done at least partly by analytical means, the narrative or story telling is also required, as the case is in art (Nussbaum, 2001). The gradual process includes and blends seamless with imagination, which accommodates changes in concepts and adopts new ones. This is the matter of imagining new states with new offers and new markets which then can be materialized.

The scaffolded environments support the creative processes. They do that by supporting the participants' memory, by affording an information structure and giving workspace that. Therefore, the environment scaffolding the process is a critical issue (Kristensen, 2004). To facilitate a good creative scaffolding environment the design of these surroundings becomes a pertinent design issue by itself.

Haugeland (1995, p. 236) specifically asks whether the context embodies the information and knowledge created in cognitive tools as integral to a laboratory. Any studio or laboratory scaffolds its specific activities to match their ways of creative working (Kelley, 2001). Modern design companies devote many resources and skills to this area.

Imagination

In the creative processes the imagination is sought, which did not exist before. Imagination is concerned with new insights. In a creative process, imagination may be intense, but with short duration. The concept imagination (Johnson, 1987; Brann, 1991) stands for the integration of knowledge into coherent and unified representations over time. These should be in the form of "schemata", stylized patterns of behavior, that mediate between abstract concepts, contents of sensory experiences and the creative, free, open-ended activities by which we achieve new ways of experiencing and accommodating the exiting structure of knowledge to integrate new knowledge. This is obvious if the outcome is a physical object, but even a service or system must be documented e.g. using visual and verbal descriptions (Horn, 1998). Also, as explained above, the story-telling or narrative explaining the purpose and rationale for the innovation are required (Nussbaum, 2001).

Imagination is the representation of what does not yet exist materially, but in people's minds. To imagine is to envision or create. Imagination is a major human capability and a way for changes (Brann, 1991). Imagination, as the word's etymological origin suggests, is having a picture in the "mind's eye". Some of the definitions include abstracting or extracting from multiple ideas and compounding them into one or 'the human capability to find analogies'. Lakoff and Johnson (1999) bring metaphors; cross-domain mappings, to the foreground of imagination. According to them, creativity is the recombination of existing elements of knowledge or symbolic representations.

Imagination leads to new concepts in the mind of the marketing manager, but it is only when these concept becomes material.

Materialization

Finally, the materialization process transforms concepts into material objects. Concepts must be made to sensory experiences. A doctrine held high in the IDEO Product Development Company is "rush to prototypes" (Kelley, 2001). It means whenever possible an idea or concept should be materialized. This is in accordance with the embodied cognitive theory (Clark, 1997). The environment facilitates a cognitive process, where workspace enables the marketing manager (often in teams with others) enacts models, objects, artifacts that are manifestations of the intended outcome. Some cognitive processes are sometimes only possible when externalized, that is conducted in a practical way rather than as a pure intellectual pursuit. The lack of visual clues reduces the memory capacity (Miller, 1956), although memory techniques may facilitate it. Brann (1991) claims that memory is facilitated by using space – and by internalizing experiences in a spatial-temporal setting. Memory is sometimes facilitated by the impressions of a particular place. This could be due to different sensory impressions. Many people, when they forget something head back to the last place they could remember what it was about. We can generalize from this and use the environment systematically to stimulate memory creativity. A simple way of materializing is sketching and using diagrammatic methods, visual models and tangible objects. Therefore, avail-

ability of tools for prototyping and models is important. Some companies rent design studios for the purpose of immediate availability of workshop facilities.

Work space may become problem space in the sense of organizing relevant parts, artifacts and objects in ways that facilitate problem solving. Anyone who has assembled a bicycle knows how it makes things easier to put the screws, wheels, rubber etc. in a pattern that allows one to find the right part at the right time. This is the same logic that applies in creative pursuits. While it was not Newell and Simon's (1973) intention to connect workspace and problem space, we make the connection because the two are natural extensions of each other when we consider embodied and embedded cognition. In particular, when we consider space for design work and research laboratories, this makes sense. Creative people externalize the mental constructs in order to work better with them. Other studies (Kirsh, 1995, 2001) also account for the importance of physical space in work processes. In the end, value creation must be material to be implemented in production, whether products or services.

Creative processes

A creative individual is somebody who actively seeks new knowledge, who is motivated by curiosity and who wants to achieve something. Creative individuals are also able to sustain ambiguity and stay in a "fluid" situation of "indecision" for longer time than others. A risk-taking attitude may also be found. While these characteristics may be true, they should not be exaggerated. Csikszentmihaly's (1996) interviews with over a hundred people, especially selected for achievements at Nobel Prize level, indicate lifestyle and being in the right place at the right time play a major role in creativity. To know when and where the right time and place indicates that factors outside the creative individual are at play.

The "field" refers to the community of people dealing with the specific area and their assessments of what is considered good, creative, novel etc. The field is the societal selection mechanism by which creative ideas and contributions are selected. The field will always judge a novel idea. "Domain" refers to the body of knowledge upon which creativity is applied. Domain is characterized by the particulars of the problem's definition and by the tools available. A creative process is open-ended; it is not possible to foresee what the results will be. In general terms, the literature explains creative processes.

Wallas (1926) introduced a phase model, which has been used and referred to as an anchor point of creativity ever since (Csikszentmihaly & Sawyer, 1995). The model serves as a good guideline for how a creative process may consist of different phases. In the phase model, the first phase is *preparation*, the second is *incubation* followed by *insight* and finally *elaboration and evaluation*. We will inspect these, before describing relations between the creative processes and the spatial dimensions.

The preparation stage

The general issue of this stage is to facilitate data and information for the process. In addition, it is vital for team members to exchange frameworks, to set the goals and stage the remaining process. It seems that there are few limits for how much information the teams can absorb in this phase. So the spatial arrangement must support as much information flow and absorption as possible to each member. Communal space seems important. Sometimes a private space is essential for analysis. The length of this phase can vary depending on when the team reaches a barrier, fatigue or leaves the assignment.

The incubation stage

At the incubation stage, the cognitive processes seem to be essentially a personal or private affair. Incubation can happen when people change to other assignments or simply relax from a previous one, but the cognitive process of problem solving goes on implicitly. The literature on incubation only refers to individual cognitive processes (Dorfman *et al.*, 1997). Despite this, it seems likely that "distributed cognition" happens because perceptual clues are shared among team

members (Hutchins, 1995). In such cases, the team members need a medium of communication e.g. a bulletin board (Reddy, 2002) or any other cognitive artifact (Gedenryd, 1998). Some creative people are best left to themselves at the incubation stage, while others seek company. Incubation is an implicit cognitive process, but perceptual clues may facilitate the process. Staying in the room where all the information from the preparation stage is kept may facilitate such implicit perception as a process of “priming”.

There has been debate about the length of the incubation process in design contexts (Kelley, 2001), the claim has been to “rush to prototypes”. Yet cognitive psychologist responds that this may be a smart action when only marginal innovations are needed. On the other hand radical innovations take a longer time (Christensen, 2005). Radical innovations and the related processes require a lot of cognitive work, also when the process is unconscious.

The insight stage

Insight (or illumination) is a “flash” that occurs when the winning concept cuts across the barriers of consciousness. It is therefore also when the incubation process stops. Accounts of insights are often reported as idiosyncratic and it may take place far from where the value creation takes place. The importance seems to be attributed to the unconscious process that suddenly breaks the surface of consciousness in a flash of the insight.

Elaboration and evaluation

We shall compare the results with the goals of the preparation stage where the value creation is at the center. In this context, thorough analysis and evaluation are necessary in order to see if the desired goals and values are met. Contextually, this stage must resemble the preparation stage, as the operations are similar. While the preparation stage starts with a briefing, the elaboration and evaluation stages end with a debriefing and implementation. While we can assume how space may increase creativity, there are no aspects of this in the theories.

The benefits of using cognitive tools in marketing management

The benefits for marketing by using the methods of design can be summarized as a focus on materialization of concepts in the form of models and visual tools. Using models and visual tools provides marketing with better tools to communicate and analyze them. Bringing a “design studio” metaphor to marketing scaffolds the processes in ways that can support the embodied cognition. This metaphor also indicates less order and less linearity in the processes. While marketing textbooks usually teach orderly linear processes the reality is often different. There are reiterations, confusion, and change of direction. It is valuable to teach reality rather than an idealized way of doing business.

The use of multiple models enable the marketer and other decision makers to comprehend complexities of the organizational processes as they become embedded in the models’ characteristics and are able to see in a condensed way the possible futures such a stipulated product can have. This increases the flow of information, including knowledge, which is tacit to the maker, because it becomes embedded in the object. It is possible to identify ostensibly and needs not be formulated verbally.

The issue that a process needs not be thought of in full detail allows a gradual development that materializes as increasing information is built into the models. This is probably where designing takes the most material turn and probably where the process faces the most direct challenges. Professional designers are experienced to consider designs in various degree of finishing without assuming that an inter-mediate model is the final result. Yet, this view of viewing sequential models from the sketching stage through refinements into the final stage where everything is taken into consideration can be learned.

Marketing management as shown in this paper cannot be learned solely by reading textbooks and dealing with case studies. It must be learned in real or seemingly real situations. One example can be cross-disciplinary team based education where marketing students, engineers, de-

sign students and other work together to develop plans and products for companies, real or imagined. Experiences in many countries show that such an approach has given valuable experience and knowledge to all disciplines who participate.

According to the recent "Cox report" in the UK creativity in all aspects of business is the key to the business future in all aspects not only restricted to design issues.

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