Chapter 7
Pattern Thinking:
Understanding the Mind of the Consumer

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ABSTRACT

Consumers experience retail environments through the encounters they have. Out of these, the oft-repeated ones become part of the way they experience the world, which lay down and solidify neural connections and firing patterns leading to sight, hearing, feeling, and doing. This 'doing' shapes consumer experiences. The foundation for such experiences is the fact that human brains are geared towards recognizing patterns and interruptions in patterns. To their benefit, retailers use information about the brain identifying patterns of experience and anomalies in those patterns. This knowledge makes sales promotions so fundamental for engaging buyers. Their visit to their favorite store is interrupted by a sudden discount or an alluring offer, which retailers are forever carrying out to seduce buyers. This chapter explores the neuroscience theories that equip the retailers to send out signals to entice buyers and covers applications of such theories in real retail encounters, including the role of dopamine and the brain, impulse buying, and the thrill of hunting deals.

INTRODUCTION

the mind and world are themselves nothing but pattern – patterns among patterns, patterns within patterns... (Goertzel, 2006).

Around 80% of products that are launched are found to fail within three years of introduction (Martin, 2008), resulting in huge economic losses. Till date, traditional market research has been relying heavily on explicit consumer response, failing to capture the role of the subconscious (Calvert & Brammer,

2012). However, with the advancement and diversification of the use of technology from studying clinical sample to understanding the functioning of the normal brain, the use of fMRI, EEG and other brain activation measuring tools have helped in understanding pattern recognition in the areas of new product campaign, brand extension research, product development etc.

This chapter is subtly segmented into two lines of thought – theoretical perspective and marketing applications. The initial subsections cater to the understanding of brain functioning in terms of pattern thinking. These subsections are namely, 'Brain as a pattern recognizer', 'Information exchange - the pattern recognition', and Human cognition and pattern thinking' aimed at developing an understanding of the concept of pattern thinking. The chapter then transitions into unfolding the application of pattern thinking in the field of marketing. This is the second track in the chapter and includes sections titled 'Marketing - pattern formation', 'Pattern thinking in consumers', 'Pattern-based prediction', 'Persuasion: Pattern or lack of it', 'Pattern processing and brands', 'Response to persuasion', and 'Marketers' use of patterns'. The chapter concludes by identifying the future directions of research and the overall conclusion.

THE BRAIN AS A PATTERN RECOGNIZER

Over time, the human brain has developed to recognize patterns more than any function. The brain may be making calculations, remembering facts, or processing logic, but pattern recognition has been its deep core capability. Problem solving behavior in humans has been recognized as a pattern processing problem rather than a data processing problem (Yegnanarayana, 1994).

Our brain works through the process of analyzing patterns and in this process, creates several hypotheses that are often conflicting. (Mumford, 1992). The neocortex has made progress in performing this activity. It has a folded sheath of tissue covering the brain, making up to approximately 80% of its weight. Neocortex governs reasoning formed out of spatial orientation, recognition of objects- visual to abstract, sensory perception, movement control, reason and logic, language, etc. In other words, it takes care of all activities regarded as cognitive thought processes. All of these, are in fact, embodied in the frontal lobes. Goertzel (2006) asserts that this patternist philosophy is not about a fixed number of axioms and conclusions, but rather "…it's a fluid and shifting set of interlocking ideas – most of all, it's a *way of thinking* about the mind."

The structure of a pattern recognizer (henceforth, PR) consists of: **the input, the name,** and **the output.** When the dendrite comes from other pattern recognizers and signals the presence of lower-level patterns, it comprises of the input. For example, when one sees two diagonal lines crisscrossing each other, it triggers the inputs for a higher-level pattern (in this case, the letter "X"). This shape acts as the "input" to that specific PR dedicated to recognizing the letter "X." The next is the "name" of the PR, which is the specific pattern the PR is programmed to detect. PRs are not limited to recognizing language through words and letters, but identifying colors, shapes, sensations, feelings – basically, everything that we can think of, learn, predict, act upon or recognize.

With respect to the example above, "X" is the name of the PR designated to identify the alphabet X. The output is the next part of the PR. When the inputs exceed a certain threshold, the receiving PR triggers a nerve impulse, known as 'firing' of the PR to the higher-level PRs to which it is connected. This is essentially the "X" PR indicating that it has been able to identify the letter "X". The firing of a PR for the letter "X" (a lower-level concept) serves as an input to a higher-level concept, such as the word "Xylophone." Extending it further, the fired PR for "Xylophone" may act as the input for an even

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