Introduction to Behavioral Analysis

for Improving ROI

A WHITE PAPER PRESENTED BY:

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Abstract

Advances in technology offer businesses new, innovative ways of conducting consumer analysis to understand the market and improve processes for the most efficient operations and fastest return on investment. One of the most cutting edge strategies is the application of behavioral science. By collecting business data, from call audio to account information, an in-depth analysis of consumer behavior can be achieved allowing businesses to reshape processes and effectively predict the outcome of consumer interactions. This paper will offer an overview of the science behind behavioral analysis and discuss how it can be applied.

Part One: Intro to Behavioral Analysis

Behavioral analysis is a subcategory of behavioral science and derived from the theories of behaviorism. Behaviorism, in general, looks at human behavior with the assumption that no act is random; that is, all behavior is a response to outside stimuli, environmental, social, or otherwise (1). This science employs data from a variety of sources, demographical and empirical, to develop an understanding of not only human actions, but also habits and intentions. With the growing stores of data that modern businesses collect, behavioral analysis is getting new attention for the insights it can provide in terms of tracking and predicting consumer behavior.

School of Thought

Behaviorism was derived from the work of three individual theorists. Each theorist contributed a revelation about behavior that continues to be used today in fields of psychology, counseling, education and now modern business. These concepts are at the core of any strategy which seeks to reshape consumer behavior.

Ivan Pavlov
Pavlov is likely the most well known of all three theorists for his experiments with dogs. In his experiments he presented the animals with stimulus (a ringing bell) prior to feeding them, and through this process he discovered that over time, when presented with the same stimulus (the bell) the dogs developed a conditioned response; they would salivate in anticipation of food (2). This became Pavlov's theory of **classical conditioning**. Behavioral responses can be shaped through the conditioned association of two different stimuli (3).

John B. Watson
Watson adapted Pavlov's theory to the study of humans; his work in psychology greatly contributed to the field of behaviorism today. Watson famously extended Pavlov style experimentation to a small child. In a greatly criticized method, Watson would create a loud noise and frighten the child every time it was presented with a white rat, eventually conditioning a fear response at the sight of anything largely white, thus proving that emotional responses could be conditioned (4).

B. F. Skinner
Skinner's theory is the most widely applied to behavior modification. Skinner believed that all behavior was a result of conditioning and tested the concept of positive and negative reinforcement (5). Through a series of controlled experiments he tested the effects of the consequences of actions rather than what precedes them like Pavlov or Watson's theories. Skinner's findings are now known as **operant conditioning**; the enforcing or diminishing of behavior based upon the consequence of reward, withholding, or punishment (6).

Part Two: Applying Behavioral Analysis

There are a variety of tested methods for applying behavioral analysis. The fields of psychology and counseling have the most developed strategies for modifying behavior, and these practices are commonly used in parenting as well as therapy for persons with psychological disorders (7). Though the study of consumer behavior has been popular for many years, the application of behavioral analysis to consumer behavior is a fairly new endeavor. The capability of modern technology to utilize big data has propelled the interest in applying behavioral analysis to business processes forward, redefining the concept of consumer engagement. While the aim of applied behavioral analysis for therapy and business may be drastically different, the processes and core principals remain very much the same.

Thinking like a Behavioral Analyst

For businesses, thinking like a Behavior Analyst is the first step to developing effective methods for utilizing their analysis data. By definition, applied behavioral analysis is the science of developing procedures that generate meaningful change in behavior (8). The following three key principles of applied behavioral analysis can be adapted for in depth consumer analysis.

1. Measuring Data

In order to preform effective analysis, the behavior must be observable and measureable. For many businesses, this takes the form of big data derived from a variety of sources such as consumer feedback, social media channels and even accounts information; however, new technology such as speech analytics offers a more direct analysis of consumer behavior by processing the content of their interactions with the business. Regardless of source, consumer data must be collected and organized in a quantitative way in order to provide a baseline to measure changes against.

2. Functions of Behavior

The key to understanding consumer behavior is to recognize what motivates it. There are a variety of theories concerning motivation but they all can be categorized into two primary functions: getting something or avoiding something. The simplest explanations for these functions are often used in reference to children's behavior. If a child doesn't want to go to bed, they may act out or throw a tantrum in order to avoid (or prolong) the inevitable. Likewise they may act out in order to get attention from a parent, or chose to participate in other behaviors that they know will produce a desired result; such as finishing all of their dinner to get desert. This underlying principle of the functions of human behavior is directly tied to the actions necessary to produce change.

3. Techniques for Change

Based upon the findings of Pavlov, Watson and Skinner, a distinctive set of techniques have been developed for modifying behavior. The system behind each technique can be applied when developing strategies and experiments for changing consumer behaviors or business procedures to yield a more desirable result. *Shaping* and *chaining* are techniques of operant conditioning. *Shaping* is the process of slowly modifying behavior though a series of small steps, while *chaining* is the linking of minor behaviors to form a larger more complex behavioral outcomes (9). Prompting involves a cue that initiates the desired response like the classical conditioning preformed in Pavlov's experiments (1). Additionally, positive and negative reinforcement as well as punishment are effective techniques which shouldn't be overlooked.

Part Three: Consumer Behavior

In addition to understanding methods of behavioral analysis, businesses should take advantage of the wealth of information already available on consumer behavior. Consumer research and the study of consumer behavior were popularized in the 1950s and the field continues to expand today thanks to the availability of data and new technological tools (10). By combining the concepts of behaviorism and the extensive amount of research available on consumer habits, a business can easily formulate new strategies for getting the most out of their consumer interactions.

Consumer Behavior Basics

The study of consumer behavior focuses greatly on the attitudes towards specific brands and the reasons consumers make the buying choices that they do. Studies indicate that consumers' buying decisions are shaped by three primary factors; personal, psychological and social (11). Personal factors are influenced by demographical information, psychological factors by personal perceptions, and social factors by the consumer's peer group, class, income, or education level (11). All of these factors contribute to the motivation behind consumer decisions.

Consumer Decision Process

The Whys (Identifying Motivations)

In order to create targeted strategies for reshaping consumer behavior, the motivations must be identified. There are a variety of theories about what motivates consumers to spend; typically however, they can be categorized as either rational or emotional (12). Understanding what inspires particular consumers to spend allows businesses to frame their offerings and optimize marketing efforts to be most effective. For example, brand attachment would be categorized as emotional, while value would be rational. Getting at the "whys" goes beyond just identifying rational or emotional decision makers.

Consumer motivations can be further segmented by additional motivation types. For example, incentive theory (similar to operant behavior) identifies a consumer group that is motivated by external rewards; these consumers are likely to be motivated by loyalty programs or gifts with purchase (13). This is a widely excepted marketing tactic though no theory has proven to be a one-size-fits-all. Likewise, consumers can be segmented by the specifics of the business. For example, a business may be able to segment their consumers by purchase upgrades, satisfaction levels, or even by the frequency they call for assistance.

Grouping Consumer 'Types'

Grouping consumers into types is essential if a business is going to modify processes for improved consumer relations or ROI. Once grouped by behavior type, the consumers' data can offer more comprehensive insights into attitudes and decision motivations. At this level, trend data begins to clearly emerge making it easier to narrow down strategies with the most potential. Common grouping types include purchasing habits, frequency, loyalty, and timing; however, thanks to advances in technology, businesses have new opportunities for grouping and analysis. For example, contact centers can analyze call audio for emotional components, group consumers into categories such as satisfaction level or even personality type based upon the combinat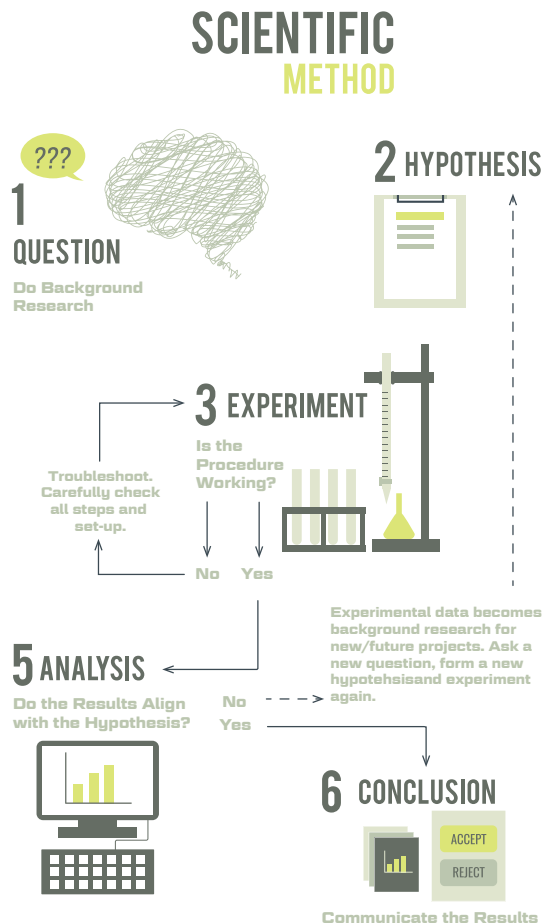ion of language and emotional data. This kind of in depth analysis offers businesses opportunities to accommodate consumers like never before, and thereby tailoring the consumer experience to each individual ensuring the best possible result.

Reshaping Processes

With a comprehensive understanding of consumer behavior, businesses can begin to tailor processes and optimize their efforts. There are a variety of ways a business' individual consumer analysis can be used to reshape processes. For example, neuroeconomic theory identifies three types of buyers: the tightwad, spendthrift and average spender (14). Each buyer type is motivated differently. A tightwad's decision making can be categorized as rational and they have a negative attitude towards spending money. A car saleserson attempting to appeal to the tightwad's emotions, telling them how great they would look in the car or that they "deserve it", is likely to fail. But a saleserson that appeals to their rational tendencies by providing detailed car facts, statistical safety data and that highlights the value of the purchase has a good chance of success. Utilizing the business' data for analysis, consumer types like these can be easily identified, making successful strategies easy to identify. Consumer behavior research has already done the hard work; businesses just need to recognize their consumer types.

The Scientific Method

SCIENTIFIC METHOD

1 QUESTION
Do Background Research

???

2 HYPOTHESIS

3 EXPERIMENT
Is the Procedure Working?

Troubleshoot. Carefully check all steps and set-up.

No   Yes

Experimental data becomes background research for new/future projects. Ask a new question, form a new hypotehsisand experiment again.

5 ANALYSIS
Do the Results Align with the Hypothesis?

No   Yes

6 CONCLUSION

ACCEPT

REJECT

Communicate the Results

Once a business has segmented their consumers into types and started collecting behavioral data associated with those groups, they can begin experimenting with new strategies. This is conducted simply through the process of the scientific method. The data provided by the continued consumer analysis will quickly show results offering businesses a chance to curtail strategies that are ineffective, thereby minimizing time and effort spent on experimentation. The quick turnaround also means businesses can capitalize on new strategies right away that are producing the desired results.

Through the process of experimentation and applied behavioral science, businesses can continuously build on results while honing their processes, tactics, and offerings to be the most effective possible.

From communicating with the consumer in their preferred style, to matching them with employee personalities that have the greatest potential for success, the possible application of behavioral analysis in business is limitless.

Conclusion

There are a wealth of consumer insights hidden in every business' data. One of the most cutting-edge strategies employed by modern business is the application of analytic technology to consumer behavior. Applying concepts of behavioral science to consumer engagement is changing the way the world does business, giving businesses the ability to: tailor the consumer experience, meet their changing demands, and predict the outcome of interactions for the best possible results. The key to staying competitive in the future will be the ability to understand the consumer market and modify processes for the most efficient operations and fastest return on investment. Currently, the few businesses that are leveraging behavioral science successfully have a huge competitive advantage; soon it will be a core process for every business.

Afterword

VOIZTRAIL®

KG Hawes offers a variety of services and ready-made product solutions.

VoizTrail® Communication and Compliance Suite offers scalable services and solutions that assist businesses in bridging the gaps in their performance potential and is the first of its kind to offer a dedicated module for **behavioral analysis**. The module provides a simple platform for consumer and client analysis making it easy to begin experimenting with new strategies for modifying consumer behavior.

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