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Cannabidiol (CBD) & The Confused Consumer: How a Lack of Leadership and Education is Stunting CBD Growth

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Abstract

This paper expands upon previous research conducted to observe and determine the impact and relationships of factors like knowledge, trust, and intent to purchase for controversial products among consumers. Cannabidiol (CBD) is the primary controversial product further explored in this paper. The objective of this paper is to analyze the results in this research and how they relate to the question *would clearer regulations, more standardization, legal guidelines, and general knowledge enhancement impact overall product trust and purchase intent of products?* In addition to this primary research objective, analysis of sources and factors that impact and threaten the level of knowledge of CBD products among consumers are discussed. Results demonstrate a significant relationship between factors of controversial consumerism and high levels of consumer confusion. Discussion on how this can be combatted by retailers and consumers is included.

Introduction

The concept of controversial consumerism, defined as the collection of people who purchase and adopt products or services that are considered socially questionable, legally restrictive, harmful, unhealthy or addictive for the purpose of personal consumption and how it has related to cannabidiol (CBD) products, has been a critical topic of interest in research since the passage of the 2018 Farm Bill (Katsanis, 1994; Jones and Middleton, 2007; Shao and Hill, 1994a; 1994b; Kusuma, 2014; Cavusgil, Zou, and Naidu, 1993; Campbell and Zwanka, 2023). This legislation federally legalized hemp-derived products but allowed states to interpret this in terms of state-level regulation. Prior to 2018, academic and consumer research primarily targeted legal, ethical, and medical ramifications related to the consumption of CBD products (Campbell and Zwanka, 2023). As a result of widespread legalization and growth in the cannabidiol market, research importance has shifted to consumer behavior and purchase decision drivers for retailers, suppliers, and consumers alike.

In preliminary studies related to this topic of controversial consumerism, factors like attitudes, subjective norms, perceived risk, and knowledge were studied to determine their impact on consumer trust of CBD product. From there, the research focused upon how trust builds intent and willingness to buy. From these studies, it was determined there is a positive relationship between all factors and trust besides the perceived risk factor. These studies found knowledge had a significant relationship with trust ($p=.002$) but did not over index factors like friends and family ($p=<.001$) and personal attitudes towards products ($p=<.001$) (Campbell and Zwanka, 2023). For the purpose of this project, we will focus primarily upon the knowledge factor and how it interacts with trust. We specifically seek to answer the following research question and R1:

RQ: The question to be addressed in this study is if clearer regulations, more standardization, legal guidelines, and general knowledge enhancement impact overall product trust and purchase intent of related products?

R1: If general knowledge among consumers is enhanced, would consumer trust in CBD be impacted?

Literature Review

Throughout the secondary research process, a variety of sources were reviewed for the purpose of determining the current state of the CBD industry and identifying the factors that influence and threaten consumer knowledge level.

When first looking to understand the current environment in the CBD industry, it's important to understand that legalities across state borders are extremely varied in the United States. As explained further by Dr. Russell Zwanka in his book *The ABC's of THC and CBD*, currently most CBD products sold in natural and organic food retailers, natural health and beauty stores, dispensaries and smoke shops, gas stations, and even Amazon.com (Zwanka, 2020). Large format consumer package goods (CPG) companies have steered away from embracing the legalized substance for fears of its damaging their reputation. Some larger retailers, like Walgreens, Wegmans, Publix, and CVS stores have started to carry products; but only with limited assortments, mainly focused on topical products (LaVito, 2019). In addition to hesitancy from large retailers, food distributor intricacies and confusing FDA regulation have also caused complexities throughout the CBD retail industry.

After considering the state of the industry, secondary research focus shifted to the knowledge of consumers. What consumers know and understand about CBD is influenced by several factors capable of altering consumer willingness to purchase products.

Age

One of the factors researched was the relationship between age and knowledge level among consumers. Age has been found in several studies to have a significant role in how the consumer perceives CBD. In a study conducted by Dr. Russell Zwanka with approximately 100 respondents, knowledge level was found to have been significantly different among various age groups, with respondents over 35 having less overall awareness and knowledge than those under 35 (Zwanka, 2023). In another study, specifically targeting college students and their knowledge of CBD found that over half of 148 respondents (53.7%) were aware of CBD (Zwanka, 2019).

Research & Evidence

Another factor that has been found to impact consumer knowledge is research and evidence conducted on CBD. As further explained by Jordyn Taylor in her article titled "What is CBD? Here's What to Know About Cannabidiol", scientific and consumer research on cannabidiol and its effectiveness among humans can be used to aid consumers in understanding CBD and its uses. Furthermore, research and evidence from studies and projects can ultimately guide consumers when deciding whether they would consider trusting and trying the products themselves (Taylor, 2018). Not only does research and evidence of CBD directly benefit consumer knowledge, but it also allows for clearer and more defined safety knowledge of related products per the U.S. Food and Drug Administration (Hahn, 2021). As a result of this increased widespread, science-backed knowledge, rules on how products are regulated in the market by the FDA are directly impacted as well.

Food Safety Information

In addition to the factors of age and research, food safety information and regulations also impact the level of knowledge consumers have on CBD. These factors tend to go together with research and evidence. How safe consumers perceive CBD products has a large weight on the point-of-purchase (POP) decision-making process and can change depending upon the quality and quantity of knowledge sources consumers. In a study focused on determining the role food safety information plays when it comes to purchasing and consuming controversial products, researchers found that food safety attitude among consumers has the potential to alter how they acknowledge new information (Waldman, Kerr, 2017). Food safety information's weight of influence can also significantly vary from person to person, based upon where it lies in terms of significance to the consumer versus other factors like preconceived notions, attitudes, and taste preferences when consumers are making decisions (Waldman, Kerr, 2017).

Endorsements

Another factor that has potential to be utilized more to further spread information about CBD products and their benefits to consumers to increase overall knowledge level is via celebrity and athlete endorsements (Cadena, 2018). These partnerships have the power to persuade consumers to trial CBD products and can potentially impact overall consumer trust among CBD (Cadena, 2018). These endorsements could eventually resemble the same kind of influence as seen with other trends like fashion and diets as more trusted figures become advocates for products.

First-Hand Effectiveness

A final factor that can influence consumer trust of CBD products is product effectiveness itself. Eventually, consumers can believe they have enough secondary knowledge related to CBD and feel confident enough to trust products and try them. How they respond to consumption of the cannabidiol product itself will significantly impact their perception and willingness to repurchase and recommend to others (Zwanka, 2019).

Other Potential Influencing Factors

Additional factors that were thought to have potential impact on knowledge are the legal status of markets and labelling on packaging. However, according to a study focused on understanding knowledge levels of cannabis consumers in both the U.S. and Canada, researchers found there to be similar, low knowledge levels in both legal and illegal states and found that labelling had limited impact on knowledge of those surveyed (n=28,471) (Hammond, Goodman, 2022).

After researching the factors that influence knowledge, secondary research moved to looking at threats to consumer perception and knowledge. Threats to consumer knowledge include unclear differentiation between sourcing and effects of using tetrahydrocannabinol (THC) and cannabidiol (CBD) (Zwanka, 2019); the negative stigma associated with cannabis, hemp, and marijuana (Zwanka, 2019); heuristics and perceptions of friends/family (Cadena, 2018); and unknowledgeable physicians (Skinner et al., 2019). All of these have potential to overshadow knowledge with a negative connotation for CBD products and impact trust and purchase intent.

It was also important that secondary research also covered sources of consumer knowledge. According to a study completed to better understand young adults' knowledge and perception of CBD, young adults received their information of CBD from a variety of sources that include friends and family, retailer products/advertisements, online advertisements, specialty CBD stores, and on social media (Wysota et al., 2022).

It is important to consider what influential factors, threats, and sources of knowledge are due to their increasingly important role in educating the consumer. As regulations become clearer and acceptance and usage increases, understanding consumer knowledge will ultimately be a pivotal piece in guiding widescale marketing and merchandising strategies for CBD in retail.

Problem Definition

With so many different influences, threats, and sources that can sway consumer perception and level of knowledge, the impact knowledge has on trust and purchase intent is unclear, but an important concept to understand given the evolving nature of the CBD market.

Understanding there is an impact on trust and intent, the problem presents itself as whether enhanced general knowledge increases trust among consumers and if a lack of knowledge creates confusion and ultimately a decreased level of trust.

Research Objectives

To determine whether increased knowledge translates to higher levels of trust among consumers, we will compare levels of agreement on how consumers feel their knowledge on controversial products allows them to understand the benefits and drawbacks of products; empower them to

choose products correctly; determine if the products are safe or not; and allow them to understand the use of these products. These comparisons all relate back to our initial research question focus: **R1: If general knowledge among consumers is enhanced, would consumer trust in CBD be impacted?** With these objectives and our research question in mind, our hypotheses include the following:

> *Null Hypothesis (H1)* – If consumers have more knowledge on cannabidiol (CBD) it will not lead to lower levels of confusion.

> *Null Hypothesis (H2)* – If consumers have less confusion, they will not have an increased trust and purchase intent.

> *Alternative Hypothesis (H3)* – If consumers have more knowledge on cannabidiol (CBD) will lead to lower levels of confusion.

> *Alternative Hypothesis (H4)* – If consumers have less confusion, they will have increased trust and purchase intent.

Research Design and Methodology

To test research questions and associated hypotheses, a survey of 23 questions was conducted to determine how various elements like Attitudes, Subjective Norms, Preconceived Risk, and Knowledge impact trust, word-of-mouth, and purchase intent among consumers. For this project, we will only focus on the element of knowledge and the related questions that were asked referencing the element (Campbell and Zwanka, 2023). These questions included the following:

> *Please indicate your level of disagreement or agreement with the following statements regarding controversial products:*

> - *"I have enough knowledge about the benefits and drawbacks of these products"*
> - *"I have enough knowledge to know whether these products are safe or not"*
> - *"I do not have enough knowledge about how to choose these products correctly"*

Our survey collected responses over the span of three months through Qualtrics. We collected over 1,500 responses, with 614 (n=614) responses being complete (40.3% completion rate). Of these responses, respondents had to have been over 18 years old and live in the United States. Of our completed responses, the majority of respondents were between the ages of 25-34 (n=127) and 55-64 years old (n=123). Our respondents were predominantly female (n=422) and white (approximately 74%). Additionally, the majority of respondents had completed some college, but lacked a degree (65%), and most reported being currently employed full-time (n=239). In terms of marital status, there was a fairly even split between those who were married (40.7%) and those who were never married (32.6%). Finally, most respondents reported making less than $69,999 in annual income (n=483).

Results

Before testing our specific hypotheses focused on knowledge, we do want to acknowledge that through our initial, broad analysis of our survey results, we found that there were significant relationships between Knowledge and Trust (p=.0002), as well as Trust and Purchase Intent (p=<.001) (Campbell and Zwanka, 2023). These relationships were determined by using a two-step structural equations model to test for significant relationships between factors (Anderson and Gerbing, 1998).

Parameter Relationship	Standardized Estimate	Standard Error	t-value	p-value
Knowledge → Trust	.122	.033	3.131	.002*
Trust → Intentions	.706	.062	5.709	<.001*

(χ^2 =1205.79, df =443, χ^2/df = 2.72, CFI = .94, RMSEA = .05)
*Significant @ p < .001; **NS

To test our hypotheses, we utilized a qualitative methodology to measure levels of consumer confusion among respondents. We defined the presence of confusion among survey respondents by comparing the percentage difference between respondents who showed any level of agreement (responded "Agree", "Somewhat Agree", or "Strongly Agree") to those who showed any level of disagreement or who answered neutrally (responded "Disagree", "Somewhat Disagree", "strongly Disagree", or "Neither Agree or Disagree"). We determined if the difference between these two percentages was not statistically significant at the 99% confidence level, we could conclude there was confusion present among our population. We used this rationalization method for all three of the identified questions of interest from the survey.

For all three questions we analyzed, we found each question's respondents slightly leaned more favorably to having answered with any level or disagreement/answered neutrally. Despite this, we found there to be no significant difference between the two respondent groups at a 99% confidence level for either of the three questions we analyzed.

Based on this observation and the previously discovered significant relationships outlined in this survey, we can statistically accept our alternative hypotheses (H3, H4). We would expect to observe that an increase in general knowledge among consumers of controversial products like cannabidiol (CBD) would lead to lower levels of confusion (a significant difference between the two respondent groups) and as a result would increase overall trust and purchase intent among consumers.

Implications for CBD in Retail

Considering our secondary and primary research, educating the consumer, and working to break down preconceived notions while not feeding the associated negative stigma at both the retail and consumer levels will be key. Current FDA regulations make the CBD category a grey space for retailers when it comes to carrying, marketing, and helping consumers with CBD products. To navigate this and capitalize on the business and consumer benefits, retailers should consider the following tactics when it comes to carrying CBD products:

Carry a Variety of Products

      Retailers should aim to offer a wide, but narrow assortment, meaning they should aim to offer a variety of types of products, but not as many options of a specific type. This will allow retailers to differentiate themselves from big-box retailers who fail to carry different types of CBD products past basic topicals, but also keep their assortment manageable and not confuse consumers further as they make their purchase decisions.

Prioritize and Partner with a Few Key Suppliers

      By working closely with a few key suppliers, retailers can not only offer a more efficient and rationalized assortment but will also be able to partner with their suppliers to educate their employees and consumers more clearly. Working with a smaller group of suppliers will present opportunities to train employees and implement on-shelf marketing tactics that are consistent across the category.

<u>*Utilize Creative Tactics to Educate Customers*</u>

Using QR codes both on-shelf and on-package allow for retailers to be more transparent about sourcing/batching, product effectiveness, and recommendations for usage. The FDA heavily regulates how CBD products are marketed, so by using a QR code, information can constantly be updated to fit guidelines and can act as a loophole to provide further product information that can't necessarily be advertised on-shelf.

These basic considerations are important for retailers to keep in mind as they expand their business into the CBD category. It is also important to note for those retailers on the fence about carrying the products that CBD is not going away any time soon, and those that don't carry CBD products are missing a serious revenue opportunity. It is better to be a leader in a natural space like this rather than a fast follower once further regulation comes into fruition.

Limitations and Future Research

For future research, we would suggest laddering research to further analyze the relationship between consumer knowledge and cannabidiol (CBD). While this survey did consider CBD in its questions, it was not the only product considered, which could product slightly varied results. Future research should also consider drilling down further the specific areas consumers feel they need the most knowledge on to determine what suppliers and retailers can do to combat confusion in-stores. Eventually, more research around federal regulation clarity and product standardization as outlined by our initial research objectives in addition to this study would help us better understand the holistic view on how consumer knowledge impacts the CBD trust and purchase intent for consumers.

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