HIGH SCHOOL EDITION
Journal of Student Research

Volume 12 Issue 3 (2023)

Evaluating the Economic Impact of Changes in Consumer Behavior

Krish Saraf[1] and Chloe O'Malley[1#]

[1]Morris County School of Technology
[#]Advisor

ABSTRACT

Consumer behavior refers to the methodology used by individuals or organizations when purchasing, using, and disposing of a product or service. Consumer behavior is dependent on five main factors. Those five factors are psychological, social, cultural, personal, and economic influence. Consumer behavior allows producers to determine how to fix or enhance their product to meet the needs of the basic consumer. Marketers primarily study consumer behavior with the idea of understanding consumer thinking when the consumer is purchasing the product. Marketers can then use this information to make advertisements specifically targeted to a common demographic, also known as market segmentation, which then results in more interest built up in this specific consumer base. As mentioned before, consumer behavior relies on the psychological makeup of the person. A consumer generally makes the decision to buy a product by thinking about their need for the product and if they can purchase the product. In a stable economy, consumers have the confidence to buy a product because they have the means to do so. But what if that were to change in the time of crisis? In this paper, my research will talk about how consumer behavior has altered throughout the pandemic and the impact the pandemic has had not just on the economy but the consumer itself.

Introduction

Consumer confidence refers to a statistical measure that is designed to indicate the degree of optimism consumers have in the overall economy. The Consumer Confidence Index (CCI) is most used to record how consumers are currently feeling about the economy and where they believe it is heading. This factor allows economists to determine if the economy is stable or if loss in confidence could mean something worse. "Consumer confidence, like investor confidence, is very sensitive to planned increases in future taxes or signs of unemployment. Even a whiff of impending tax increases or indications of impending or actual layoffs causes consumer confidence to be adversely affected" (Langdana, 2009). Consumer confidence is a main economic driving force that is one factor of a country's economic output. It is a huge part of a successful economy where consumers can put their trust into the markets with the expectation of receiving something in return, also known as the "good."

Herd Behavior

This leads into the mentality known as "herd behavior." Like when animals make decisions in groups, humans base their decisions on what everyone else is doing. This idea of conformity forces people to stay in their comfort zone and not do anything different than what would be considered the so-called "norm." In a more economical outlook, herd behavior, for instance, can compel consumers to invest in a particular good or market over the common problem of missing out on a potential profit. These consumers only invest because they have heard positive things about this certain stock but have not taken the time to research and understand the stock. This pushes prices to unsustainable levels and can lead asset bubbles to ultimately pop, such as the 2008 housing crisis. Another huge part of herd behavior, that is more relevant to the time, is social media. The rise of social media has convinced many people to believe this certain thing or buy this certain product. The way this system works is that, for example, if some celebrity begins talking about how a drink, they have is increasing their productivity, that celebrity's fan base will begin to put their money into that drink. And as more and more people buy this drink, other consumers will begin to feel that they need this drink because they see these other people buying the drink. This sets off a "chain reaction" causing many people to have more confidence in this good.

The Pandemic's Influence

Let's look at the recent Covid-19 pandemic. Consumer confidence fell to all-time lows as millions of people across the world were forced to work in a new environment, their homes. Some were forced to stop working entirely and many people were laid off or had to stop running their businesses. But some industries began to thrive even more, even during this uncertain time. Take the so-called Toilet Paper Crisis of 2020. Somehow, people across the world began to stock up on toilet paper and other common necessities because they were led to believe that they had to. Consumer confidence in products such as these began to rise, because more and more people were ultimately purchasing these products. Essentially more of these non-discretionary product markets began to thrive because consumers wanted more goods that they needed compared to the goods that they wanted. Hence, grocery stores were always running low on certain goods. Hardware stores such as Home Depot began to thrive because consumers felt more inclined to get home improvements. Consumers shifted their economic desires more towards their needs compared to their wants. They put their money into the markets that would guarantee them the most return. Hence, that is why places such as grocery stores, furniture stores, and other types of stores thrived.

The interesting thing about this pandemic was the government stimulus checks. People received government money as compensation for the fact that they were now unemployed. People began to rely too much on those stimulus checks, and this resulted in a dramatic decrease in the labor market. The resulting shortage of labor directly impacted the production lines causing declines in output. The current production output was not able to match the growing consumer demand. In addition to the stimulus checks, the government increased unemployment compensation that Americans were receiving when they were in between jobs. As a result, the total income (unemployment plus stimulus checks) Americans were obtaining was higher than what they were making when working entry-level jobs. The biggest market to be affected by this were the retail markets. The labor loss in the transportation industry leading to lack of drivers, grocery stores began to have supply shortages. Consumer confidence shifted so much to these markets, that shelves were being emptied day by day. People did not want to work because of the capital they had and now companies were willing to pay more money to potential employees. The government stimulus checks decreased the labor market but the demand for non-discretionary goods was still increasing. Consumer confidence in this scenario became so high within a select few industries, that the economy could not handle this instability.

Uncertainty Variable

During the pandemic and even after the pandemic, there was this degree of uncertainty that consumers began to have. They did not have as much confidence in certain industries because they had that fear that the pandemic or something like the pandemic could come back on them. So, coming out of the pandemic, people were essentially panicking where they wanted to put their cash into the things, they enjoyed so that **if** a new issue arose, they would have already satisfied their economic needs and wants. Uncertainty plays a big role in consumer confidence because it forces consumers to put all their money and hedge their bets in the economy. This can drastically change the markets and shift the overall consumer confidence into the markets of choice and economic safety. Hence, I would like to propose the variable of **U** to model the degree of uncertainty within the markets. As the **U** value increases, uncertainty within the markets would lead to more panic spending because of an expectation of a future collapse. Though when consumers are unsure about where the economy could be heading, the $\underline{\mathbf{U}}$ value could decrease as people may begin saving more money rather than spending that money, lowering economic output within the economy. This uncertainty boils down to the behavior of the consumer. It reflects expectation and belief in the economy.

Consumption Function Model

$$C= \underline{C} + bY + dW$$

This equation is used as a consumption function expression in which it numerically details the overall consumption within different parts of the economy. "C = private consumption expenditure; $\underline{C}$ = The autonomous component of consumption, "autonomous" in that this term is independent of income (Y). $\underline{C}$ will also be the term that includes tastes and preferences and, most important, $\underline{C}$ will be the term that captures consumer expectations" (Langdana, 2009). Private consumption or personal consumption refers to household spending on goods and services. Many private expenditures are generally carried out by individuals and businesses that are not owned by the government. Hence, when there is an economic decline in consumer confidence the C value tends to decrease. This C value can be delicate to any economic issue and even the slightest change can devalue private consumption expenditure. The autonomous component of consumption or the $\underline{C}$ value is constant where even if people have no disposable income, these expenditures end up being carried out. The b value represents the marginal propensity to consume or MPC. For example, "A value of b=0.90 for the US means that if average national income were to increase by $1, consumers would spend 90 cents of this increase in income and save 20 cents" (Langdana, 2009). Taking the bigger picture, if the MPC is gradually increasing then it can suggest that there is a boost in government spending which will in turn increase consumer income. More consumer income will lead to more consumer spending. In cases where the MPC is increasing, people will tend to spend more and save less.

Another important aspect of this equation is the W value. The W value represents National wealth holdings. This refers to stock market portfolios and types of similar assets. This falls under what is known as the "wealth effect." Put simply, the wealth effect happens when an individual's stock market portfolio increases and stock options lead to an increase of the holdings of the W value. When consumers expect that their stock value will increase, they tend to spend more money than what their current income allows. This expectation creates the idea that consumers will begin to increase their consumption using these so-called "future earnings." Taking the 2008 financial crisis into consideration, for example, this wealth effect may take a negative return as seen with the housing bubble burst. Because of the expectation of this housing crisis, the housing market saw a decline in housing consumption.

Impact of Inflation

Holistically speaking, another change in consumer behavior is the impact of inflation. Inflation is the general increase in price levels of various goods. The Federal Reserve Bank combats inflation by increasing the interest rates. This will essentially make borrowing money much more expensive, which will hurt the cash flows of many companies. The result of this is that companies then begin to lose money, with some even potentially going bankrupt. Since there is not enough money to go around, employees will get laid off which will further increase the unemployment rate. Due to this, people will be more cautious with their money and the economy will begin to slow down. Consumers may begin to buy inferior goods to cut costs, compared to originally buying normal goods in a normal economy. Consumer spending generally decreases because of this lack of cash and many industries begin to suffer the consequences.

However, something interesting has occurred within this current and post-pandemic period of inflation. Instead of decreasing confidence by the consumer side of the market, there has been more of an adaptation to the market. "With the price of goods continuously creeping up, consumer behavior has been surprisingly adaptive in response. During times of inflation, it's expected that consumers will switch to cheaper alternatives and stop spending on items deemed non-essential. More surprising, however, is that higher-income households are in this tightening-of-belt pursuit of value to quite a similar degree as their lower-earning counterparts. In a CNBC report, Walmart CFO John David Rainey said the company is attracting more middle- and high-income shoppers. Seventy-five percent of the company's market share gains came from customers with an annual household income of $100,000 or more. He told CNBC that inflation-strapped shoppers are trading down in quality and quantity" (Tileva, 2022). With this current market change, consumers who have a relatively stable income are looking more at the value of the product rather than the price. Consumers who are currently facing tough financial times are the ones switching to the lower value products. But the consumers who have that purchasing power are still supporting the cash flow and are contributing to a growing increase within overall consumer confidence. This idea of getting the best use out of a product has helped many industries thrive in these uncertain times and is creating a divergence within the consumer spending markets.

The common misconception with inflation is that consumers will have more fear with spending or rather be more cautious with where they place their money. But, as mentioned before, consumers will start to spend money where they most need it. Looking at the previous examples, stores like Walmart and Costco will thrive even within this inflationary era. Consumers need the goods that these stores produce because of the value and necessity of the product. Firms such as these can also change their product line to suit the markets if consumer confidence decreases and this can inversely increase consumer confidence within that firm. Pharmacies such as CVS or Target, for instance, will be able to introduce lower value brands if the more premium brands are not selling. This builds a safety bubble for many consumers and builds more confidence in spending. Firms such as Costco are also finding more unique ways to create an increase in consumer demand. "One very clever thing Costco does is to offer a few cents discount on gas. People hate to pay for gas, so when gas prices go up a lot, they go to Costco more and end up buying a lot of other stuff" (Dhar, 2022). In times where people cannot afford to spend as much money, firms such as Costco have incentivized more spending using revised prices. And in this case, people who have more trust in Costco due to these lower prices tend to spend more and increase their purchasing power which increases the economy's confidence.

Most economists want the economy in these cases to have a soft landing. The difference between a soft landing and a hard landing is that in a soft landing, there is generally growth then slow growth then, finally, flat growth. As the term implies, the economy slows down in a more slow-paced manner. On the other hand, a hard landing is one where the economy suddenly begins to drop even though there has been a period of economic growth and stability. If something like this were to happen, industries would begin to fall, and that economic productivity and output would fall in larger margins as well. Basically speaking, it is best to move away from a hard landing because of the various economic consequences that it holds. But with this new type of "adaptive spending," consumers are adapting to the markets and helping to keep the economy alive. Too much of this "adaptive spending" would not be so good for the economy because it would increase the odds of a hard landing, and with it, an economic collapse as well.

Conclusion

Overall, consumer confidence within the economy is dependent on several factors. For instance, events such as Covid-19 or increases in inflation can deter consumers from purchasing more goods or change a consumer's preference for a good. Price, quality, and other common attributes of a good will also be factored into consumer thinking and will change the consumer's confidence within the product. Additionally, the idea of uncertainty about where the economy is heading is also a part of consumer confidence. The expectation that the economy may eventually begin to fall could lead to not just an increase in spending but an increase in the non-discretionary good markets. Consumer confidence relies heavily on what the current market situation is and is a direct reflection of that. With the consumption function equation, it details how increases in income would give more leeway for consumers and allow them to purchase more goods, thus helping the economy become more productive.

Acknowledgements

I would like to thank Professor Farrokh Langdana of the Rutgers Business School for the valuable insight provided to me on this topic.

References

Baddeley, Michelle. "Herding, Social Influence and Economic Decision-Making: Socio-Psychological and Neuroscientific Analyses." *Philosophical Transactions of the Royal Society of London. Series B, Biological Sciences*, 27 Jan. 2010, www.ncbi.nlm.nih.gov/pmc/articles/PMC2827453/.

Charm, Tamara, et al. "The Great Uncertainty: US Consumer Confidence and Behavior during Inflationary Times." *McKinsey & Company*, 16 Aug. 2022, www.mckinsey.com/capabilities/growth-marketing-and-sales/our-insights/the-great-uncertainty-us-consumer-confidence-and-behavior-during-inflationary-times.

Dhar, Ravi. "How Does Inflation Change Consumer Behavior?" *Yale Insights*, 22 Aug. 2022, insights.som.yale.edu/insights/how-does-inflation-change-consumer-behavior.

Langdana, Farrokh. *Macroeconomic Policy Demystifying Monetary and Fiscal Policy.* Springer, 2009.

Tileva, Toni. "Consumer Behavior during Times of Inflation-and How to Save." *Home*, 3 Oct. 2022, kogod.american.edu/news/consumer-behavior-during-times-of-inflation-and-how-to-save#:~:text=During%20times%20of%20inflation%2C%20it%27s,on%20items%20deemed%20non%2Dessential.