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THE ETHICAL INDEX

by

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A capstone project submitted for Graduation with University Honors

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University Honors

University of California, Riverside

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Abstract:

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This project will compare a company's morality to their profitability, for the purpose of determining whether there is a correlation between these two variables and what sort of relationship they will be sharing. Using the ranking system provided by Just Capital and financial data of the Fortune 500, a sample size of 100 companies will be examined based on different variables such as their ecological footprint, their treatment of workers, and other variables to determine if such things had an influence on their overall profitability. If so, what kind of relationship could be drawn between these variables? If morality could be proven to have a positive relationship with profitability (as hypothesized) or shown to have a negative relationship, it could potentially shift how companies deal with balancing profits and ethical decisions. The end goal of this project is determining if such a relationship exists, and if so finding out how it influences both companies and consumers.

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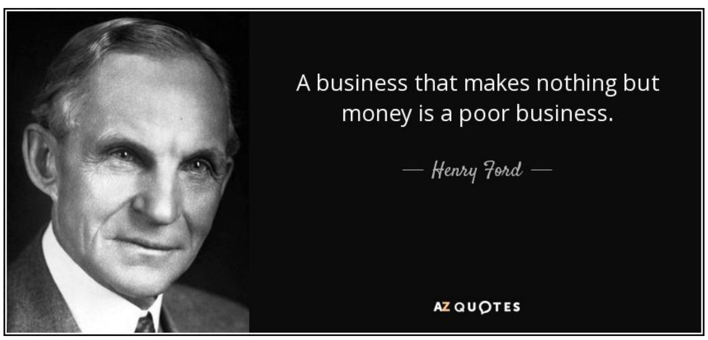
<u>Introduction/Project Purpose</u>

In 2000, an energy company called Enron became one of the most beloved companies by Wall Street, raking in billions [Segal, 2023] from online trade during the rise of the internet. Three years later a corporation called Theranos was founded, which would receive national attention and billions in valuation as their revolutionary one drop blood test [Wetsman, 2021] promised to revolutionize the medical industry. 20 years later, however, these names are held in infamy due to frauds, scams, and lies to their investors and the general public in order to increase profits. Due to their perceived lack of honesty and general morality in their business practices, these companies went bankrupt, and their CEOs faced shame and even potential jail time [Halpert, 2023]. These aren't isolated examples, as morality in business has become an increasingly important factor for CEOs to understand and apply to their practices. With information readily available to the general public and the relationship between employees and their employers constantly discussed, consumers are less and less likely to simply ignore when a corporation acts unethically. With more customers beginning to vote with their wallets, I conducted an experiment to analyze just how much this actually impacted a business.

The purpose of this project is to attempt to quantify and analyze just how much impact business morality will have on a business firm and/or organization's bottom line. In this project I identify several different types of morality and how they influence a business, measure morality and profitability into a standardized form that can be compared against one another, and ultimately determine the kind of influence these two factors have on one another (if any).

Morality, and its place in business

Before measuring morality, it's important to understand what morality is in business and what affect it generally has. The purpose of morality is to ultimately determine the principles that say what is right or wrong for an individual, a society, and specifically for this project: A business organization. It determines how a business interacts with its workers, its consumers, and society as a whole, such as who they do business with and how said business is conducted. For Businesses, an example of their morality would be in their mission/motto or a public statement from a CEO. For example, I want to highlight a quote by Henry Ford: “*A Business that makes nothing, but money is a poor business”. [*Andersen, 2022*]*



Henry Ford is often attributed as the creator of the 5 days a week, 8 hours a day work week, a massive difference compared to the average six-day work week at the time [History.com, n.d]. In addition to this, Ford paid his workers almost double the average wage for auto workers at the time ($5/h) as well as working on several philanthropic projects for the community such as the Henry Ford Hospital and the Greenfield Village History Museum. His quote reflects his managerial style, where business and morality support each other and cause increased levels of growth. Higher wages and lower hours weren’t only for charity, it increased worker retention and loyalty among the auto workers, helping them do more in less time. More than that, workers that had more time off and more excess capital could potentially become *new consumers* for the brand itself. Despite the fears and claims that these new management styles would drive Ford bankrupt (which it did several times), the Ford Motor Company emerged as a massively successful and profitable company that still functions to this day.

In this project, I want to examine the internal and external applications of morality, and if they have a similar impact on other companies as they had on Ford's. These applications of morality could vary between something minor such as a policy regarding extra pay or something enormous such as the ethical *code* of a business. In either scenario, morality is the driving force of the business taking an action that is not required by law. These actions, whether it be from an environmental standpoint or in support of its community, have a definite impact on the overall ability and success of the company both internally and externally.

Business Ethics:

While morality in business has thousands of potential variables, it can be mostly classified into external and internal influencers. Internal business morality, also known as Business Ethics, focuses on ethics/morality *within* the firm. Emerging as an academic field around the height of the Civil Rights Era [Santa Clara University, 2015], Business Ethics as a practice goes back all the way to the concept of doing business. Being truthful while doing business, upholding one's end of the bargain, all involve applying some form of morality to one's business. However, following the release of Upton Sinclair's *The Jungle* and World War II, corporations became more aware of the notion of Business Ethics. This involves the corporation determining what action they should take, and how it would affect the firm itself. Does it match their mission statement? Does it correspond with the ultimate nature of the firm and of the market? How would this correspond with their reputation as a brand? This form of morality is shown in each firm by the principles that *they themselves* set out to represent. This representation could come in the form of a mission statement, a motto, a dedication to a specific virtue beyond what the law specifically entails, or even just a dedication to their workers. An example of internal business ethics would be Chobani, a world-famous yogurt manufacturer. A key tenant of Chobani's personal ethics (from their CEO Hamdi Ulukaya specifically) was "Humanity First" [Alesci, 2018], supporting people who have been displaced and harmed. To this end Chobani has made an effort to hire refugees and immigrants, making up roughly 30% of their workforce [Alesci, 2018].

Besides helping clarify the intents and purposes of the business, Business Ethics also helps the business succeed internally. If an employee supports their employer's actions and goals, truly believing that they're doing the right thing in working at this specific company, it has been proven that they work at a higher level of creativity and dedication. Research Scientist Zorana Ivcevic of Yale found that after surveying 15,000 people [Horton, 2022], employees who were happier under their managers saw more opportunities for growth within the company and were more creative as a whole. On the other hand, workers that were unsatisfied with the companies or disagreed with them were more willing to leave despite higher pay and benefits at their current position. By practicing ethics internally at a business, employers are more likely to keep their employees happy and thus keep their workforce.

Corporate Social Responsibility:

On the other hand, Corporate Social Responsibility (CSR) reflects a firm's social responsibility to their consumers or the local community, and how their morality affects their *external* interactions. The concept of CSR is based on the idea of the inherent *Social Contract*, a philosophical idea that all who exist in a society have a duty to act in it, with the people and the government both providing benefits to each other. In 1970, the Committee for Economic Development (A non-profit think tank) somewhat solidified this idea as how it applied to business [ACCP, 2022], detailing three major pillars for CSR. Specifically: A business must provide jobs, run business fairly, and become involved in their local community. How well they would adhere to these pillars would in theory influence how their consumers see them and how the local and the global community perceive the organization. Today, how corporately responsible a firm is perceived is often influenced by how a customer perceives an employer's treatment of their workers, of their contribution to the community, and, increasingly relevant, is *how environmentally sustainable* the corporation is. This could be by using recyclable materials over non-recyclable materials or taking extra precautions when building a site to ensure safety. CSR is arguably one of the *most important* things for a corporation to be aware of, as its reputation is difficult to build up and very easy to lose. See Enron for example, as a multinational and multibillion dollar corporation lost almost everything merely weeks [Segal, 2023] after the truth about how they lied about their financial ability and status. Customers felt betrayed and lied to by a company they believed in, and as a result the stock dropped *dramatically*, with the company going bankrupt less than a year after the scandal. CSR not only affects how the company is perceived morally but is also a factor in how successful a company is in bringing in customers and *keeping* them as long term customers.

A company that is perceived as socially responsible is able to enjoy many benefits, as consumers would rather support a company that supports their beliefs than one that does not. A survey conducted by Nielsen Global found that more than 50% of customers would be willing to pay *more* for the same product if they knew that a company would give back. Indeed, 43% claim to have *actually* gone out of their way to buy from companies they perceive as socially responsible [Hower, 2013]. When faced with two identical products, but from different companies, people will often choose the product from a company they see as more socially responsible. The survey also references previous studies which showed the willingness of customers to pay more at 38%, showing a clear increase in the importance of CSR and ultimately appealing through the customers by being responsible and sustainable. This trend of customers becoming increasingly likely to vote with their wallet comes during a period of never-before-seen information availability. As the internet makes information more accessible than ever and consumers are becoming more informed about the products they consume, Companies need to be increasingly aware of how they are perceived through the lens of Corporate Responsibility. In less than a day, rumors could spread globally through sites such as Twitter and Facebook. In order to keep up with the ever-faster news cycle, companies have stepped up engagement with consumers, using tools such as social media and influencer marketing to reach out to a wider audience. Social Media provides countless channels of feedback and information that a company can draw from in order to understand what's trending and what's not. In fact, over 97% of Fortune 500 companies [Porteous, 2021] use at least one form of social media in order to better understand the needs and wants of their customers. By appealing to customers as a responsible business, they are able to draw more customers who are willing to pay more for their products.

Through Business Ethics and Corporate Social Responsibility, there are clear internal and external benefits to running a business with a focus on morality, rather than only focusing on the sheer profitability of the business. But while there are benefits, just how much of a difference does it make by the numbers? This study will determine what difference, if any, exists between morality and profitability, and if so how much.

<u>Methodology</u>

In conducting this study, the main measurements I had to look for was a way to measure a company's overall profitability as well as its overall morality. Once I had a system that could be applied to every company, I would give each company a score/rank based on these variables and compare their ranking in profitability to their ranking in morality. By graphing and running a regression on the correlation between these two variables, one would be able to get a general sense of how much of an impact morality has on profitability.

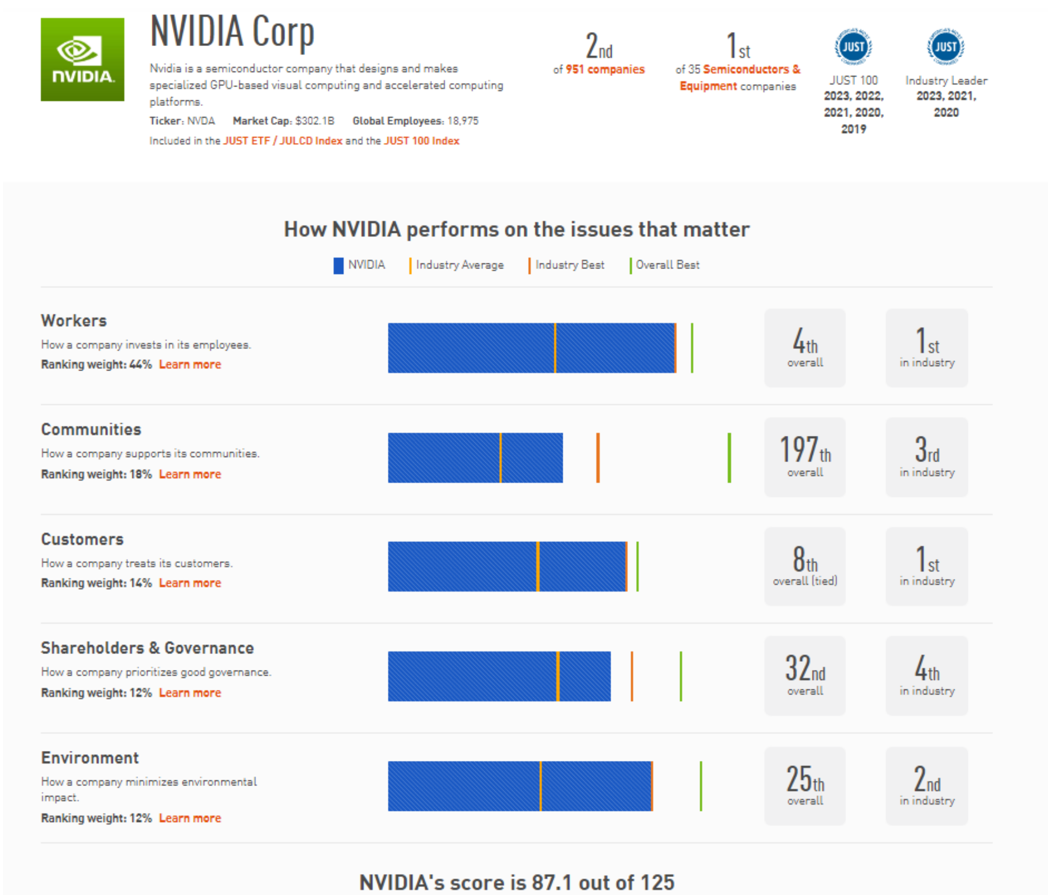
When measuring profitability, I chose to look at a company's yearly profits and revenue for the year 2022. While this is far from a complete picture of a company's financial state, it gives a basic snapshot of their overall profitability for the year that we can use to compare it to other firms. For the sake of this experiment, we will assume that for all intents and purposes: A higher profit = a more successful company. For this data and to determine the companies that I would be using, I used data provided by the Fortune 500 [Fortune, 2022] (A list of the 500 most profitable companies compiled by Fortune Magazine). This list as seen on the following page provides (among other things) a company's yearly revenue, profits, and overall assets for the 2022 year. Each company on this list is one of the largest American companies, with all data coming from the company's own self-reported means [Fortune, 2022]. This list provides the financial aspect of the project, which will be our *dependent* variable.

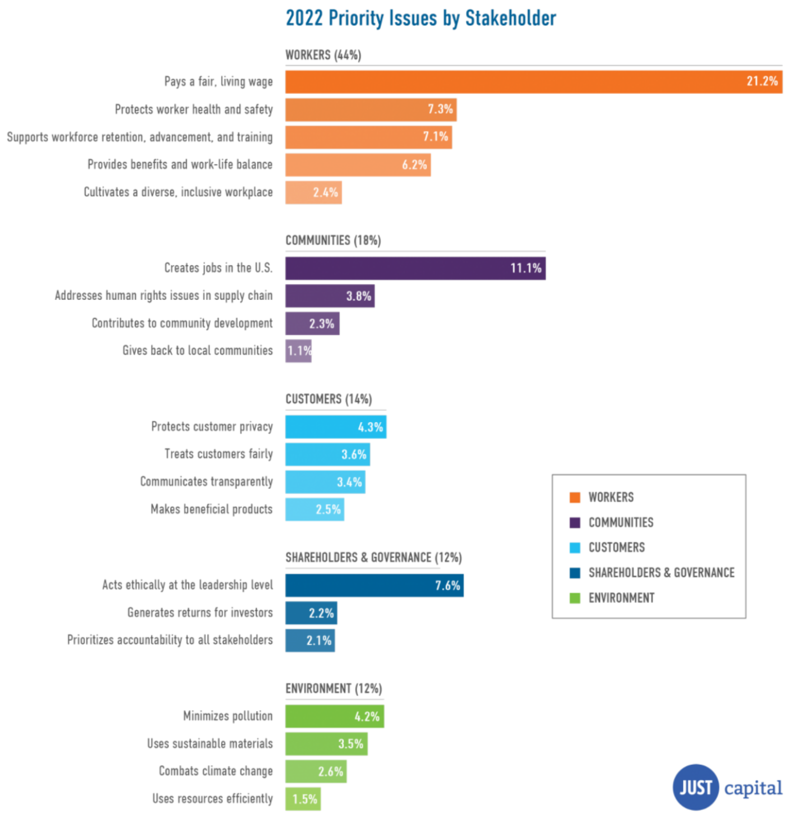
RANK	NAME	REVENUES ($M)	PROFITS ($M)	ASSETS ($M)
1	Walmart	$572,754	$13,673	$244,860
2	Amazon	$469,822	$33,364	$420,549
3	Apple	$365,817	$94,680	$351,002
4	CVS Health	$292,111	$7,910	$232,999
5	UnitedHealth Group	$287,597	$17,285	$212,206
6	ExxonMobil	$285,640	$23,040	$338,923
7	Berkshire Hathaway	$276,094	$89,795	$958,784
8	Alphabet	$257,637	$76,033	$359,268
9	McKesson	$238,228	$-4,539	$65,015
10	AmerisourceBergen	$213,988.8	$1,539.9	$57,337.8

However, measuring morality is more complicated and, thus, involves a few more variables. Morality is both variable and subjective, changing from person to person and from firm to firm. A standardization of morality that focuses on a single person's view would not be accurate nor representative of another. This is due to the fact that a person's morality comes from factors such as their own experiences, their family, and their culture. Someone who lived in America for their whole life would have a different system of determining morality than someone who lived in the Middle East. For the most accurate measurement of morality for each company we need an understanding of morality *as seen by a general population* not an individual, as well as a way to measure morality between unique and individual firms. This data was supplied by Just Capitals 2022-2023 survey [Just Capital, n.d].

Just Capital is a charity which dedicates itself to "Creating an economy that supports all Americans" [Just Capital, n.d]. Established in 2013 as a 501(c)(3) charity, Just Capital works with both consumers and companies to better understand and work with each other in order to prove that “Businesses and Markets can and must be a greater force for good” [Just Capital, n.d]. Much of their research on this topic focuses on their rankings of over 1000 companies not based on profit, but rather on how moral they conducted themselves in the year prior. In an effort to rank 1000 companies (pulled from the Russell 1000 index), they surveyed 160,000 [Just Capital, 2023] American adults since 2015, determining the most important issues to the average US citizen. By using such a large sample size, we can avoid focusing on any one individual’s morality system and understand how the general population perceives business morality. This survey resulted in roughly 20 overall items, which were divided up into five overall buckets: Workers, Communities, Customers, Shareholders & Governance, and Environment. Below are the top 20 items based on the survey, as well as an example of how they were weighted/rated per company. Each company was given a score (-25 to 125) in each category based on their business practices and actions, then ranked by their categorical scores and their overall score against other companies from the Russell 1000. These scores will be how we measure morality between different companies.

With systems in place to measure both profitability and morality, I am able to compare these two variables. Using the ranking system from the Fortune 500 and the scoring/ranking system from Just Capital, we will be able to determine what sort of relationship and correlation exists between these two variables, if any. For our sample(s) we will be taking one hundred companies that show up on both ranking systems, from the Fortune 500 and the Russell 1000 (the Index which Just Capital draws from). Once our companies have been determined, I will compare a company's yearly profit with their scores from each of the five buckets from Just Capital, as well as their overall score. Below we can see the twenty items that have been scored for the NVIDIA corporation, as well as an example of how these scores were weighted for each company. These visuals will show how each company will be measured in this experiment, how each variable was weighted, as well as a snapshot of how each company is actually ranked compared to others based on industry average, industry best, and the overall best. Included is the company's own score and how it comes on each variable to the average within its industry.

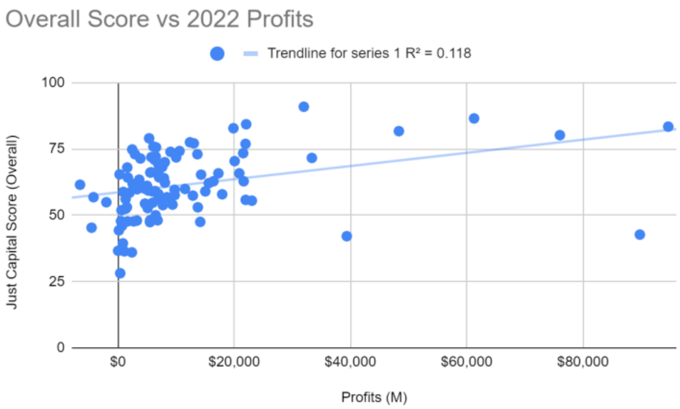


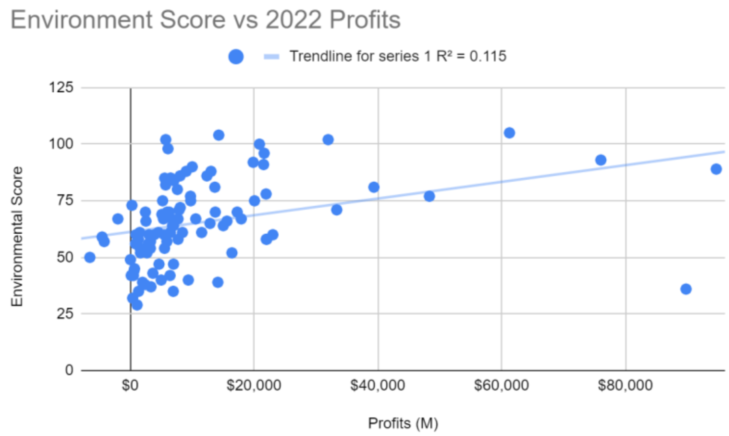


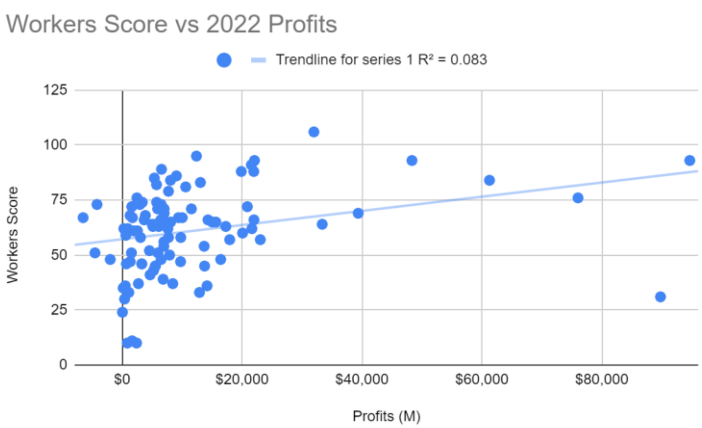
In order to best compare and understand the relationship between these two scores, I graphed each bucket and the overall score into a scatter plot in an attempt to determine the line of best fit. This will show us the general trend between our independent variable (Rankings/Scores provided by Just Capital) and our dependent variable (Profits in (M) millions provided by Fortune 500). Additionally, I will run six regressions on these graphs, one per bucket as well as the overall score, which will detail the coefficient (how much impact these variables have on profit) as well as if these results are significant. This will be tested at a 90%, 95%, and a 99% confidence level to determine how statistically significant these results are and if they are economically significant, in terms of what impact they actually have. When all the data has been graphed and analyzed, we will be able to determine if our hypothesis of morality having a positive influence on profits is true or not.

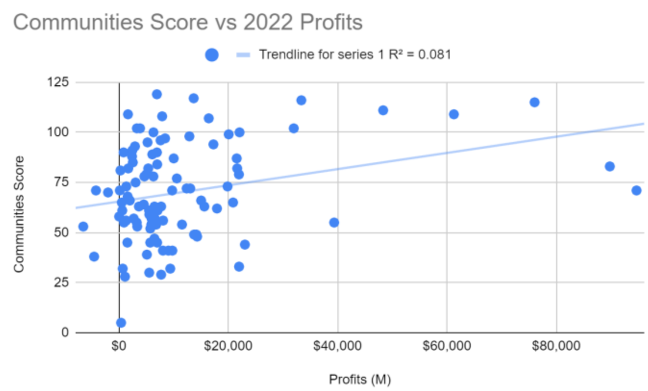
Results and Analysis

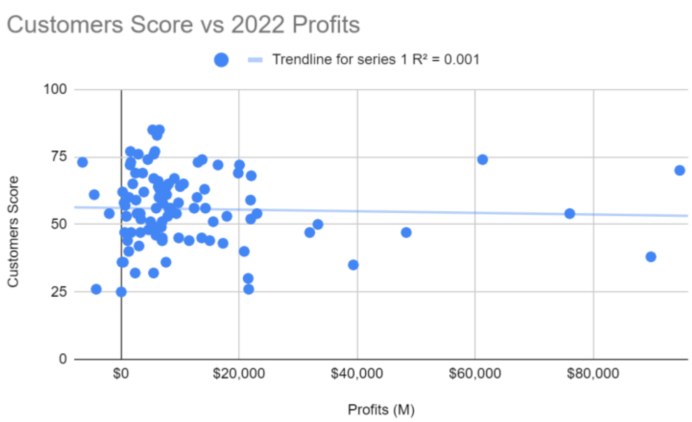
Below are graphs depicting the results of the six buckets we tested showing the general trends we saw during our experiment, as well as the regression data for each graph.

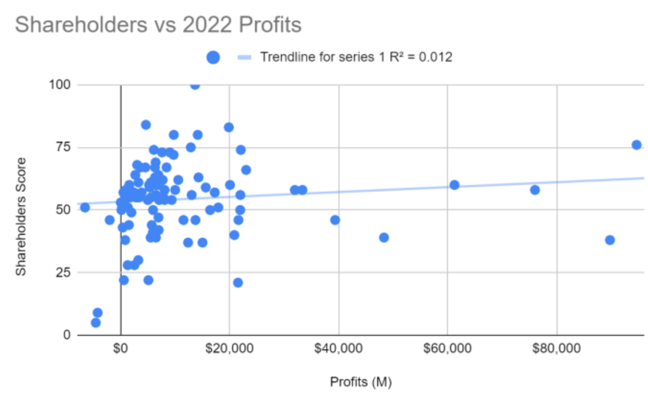












	Depdent Variable = Profit					
	Regression 1	Regression 2	Regression 3	Regression 4	Regression 5	Regression 6
Independent	Overall Score	Environmental Score	Workers Score	Community Score	Customers Score	Shareholders Score
Coefficient	0.000248***	0.000368***	0.000322**	0.000404**	-0.00003000	0.000098
R - Squared	0.11758	0.11500	0.08288	0.08106	0.00143	0.01199
	(*=90%, **=95%, ***=99%)					
	A coefficient of .0002 would result in $200 per point gain					

Out of the six regressions we ran, we found that four out of the original six are significant at a confidence level of 95% (being Workers, Community, Environmental, and Overall Score). Out of these four, two are significant at a confidence level of 99% (Environmental and Overall Score). Every score that was statistically significant showed a positive trend/coefficient, meaning that a company that got a higher score in these categories would likely be more profitable than one that got a lower score. By how much profit, however, is also important to note. While this trend does exist, it is a very minimal improvement by each "point" in the score. Since we measured overall profit in the millions, a coefficient of .0001 would give us exactly $100 dollars per point. These regressions gave us coefficients of between .0002 and .0004, meaning that even a difference of 10 points would result in only a few thousand dollars more in profits. For multi-billion-dollar corporations, something on this scale offers minimal benefit for them. Additionally, we saw high levels of variation in profits across all the buckets, which was expected due to the large variety of business and industries represented in the data. Despite this however, a clear positive correlation emerged between our variables.

Looking at the results from our experiment, we can see that they mostly line up with what I expected. Ultimately, companies that adhered to the moral standards based on the survey would make more profits than companies that didn't. However, there were a few outcomes that I didn't expect that emerged during this experiment, primarily which of the buckets would have the biggest effect. Originally I thought that the organization's customer and shareholder score would have the biggest impact, as the customers and the shareholders are the primary way a company actually *gains* profit, through stock and through selling their product. Interestingly however, we found that these were the *least* influential variables in our graphs, not even being remotely significant and without any major observable trend. The most significant graph was the overall score, which represented *all* variables in the experiment, while the graph that had the most impact on a firm's financial state was the *community* score, which represented how positively a firm impacted the local community. So, overall, it seemed that companies were most affected by variables that reflected on how *moral* they were according to Just Capital, whereas they were not as impacted by customer and shareholder score.

Overall, the results from this experiment accurately reflect the initial hypothesis of the experiment, where profitability in businesses increases proportionally with an increase in morality. There were a few surprises in which factors specifically influenced profit and which ones did not, but overall based on the data we can conclude that there is a *positive* relationship between being a moral business and being a profitable one. However, there are still many potential control variables that were not examined for the duration of this experiment due to time and other constraints that would have given more accurate / more informative results. Moving forward with this research, there are several factors that I hope to improve upon.

Moving Forward

While a positive correlation was established in this experiment, I do not believe that we are able to establish causation yet. As previously stated, both morality and business are complicated subjects that cannot be fully summarized only by the variables observed in this experiment. For example, did behaving morally increase a company's total profits in this experiment or did higher profits simply give a company more resources and thus more ability to behave morally? In order to improve this experiment moving forward, I wish to add more potential control variables and observations to get more accurate results and a better understanding of the factors that determine how businesses incorporate morality into their business practices.

General improvements such as more data will give a more accurate picture of the results. For the duration of the current experiment we used 100 data points, 1/10th of the overall population of the Fortune 1000 (An extension of the Fortune 500). The additional 900 data points will hopefully give a much more accurate example of the trends and patterns we see in the current experiment. Additionally, all the data taken was from the current year (2022-2023). By taking data from previous years, we can see how trends changed over time: not only general profits from each company, but which factor was most important before a certain period of time, and which one was more important during another period of time. This will allow us to understand how the values of the American people have shifted over time, and how these changes may have affected businesses. Additionally, I wish to search for data that goes *beyond* the US version of morality. The survey conducted by Just Capital was primarily in America, using American businesses and values. This method of measuring morality would not accurately reflect business done primarily overseas, or the morality held on a global scale. In order to create a version of this experiment that applies on a global, instead of a national scale, I need to be able to determine and measure the values that are held on a global scale.

Utilizing more variables, such as industry, will give us additional insights into how morality affects profits. For example, adding Industry as a factor (Retail, Manufacturing, Finance, etc.) will help determine which industries are held more to the standard of morality or which industry scores higher and *why* that is. This adds another dimension to the experiment, allowing us to expand our model. Finally, I wish to examine business in relation to *real world events* and how it has been affected by it. These could be events such as the Ukraine-Russia War, or possibly the outbreak and subsequent pandemic of the Covid-19 Virus. These factors have massive implications for how businesses function and prosper in modern day society, such as impacting the supply chain or changing how people work (In-person vs remote). In this experiment however, I treated business as a vacuum, testing every company equally without considering how each one has been affected by recent events. In future experiments related to this project, I will involve real world events in the project in order to get the most accurate representation of this experiment.

Overall, this experiment gave me a better understanding of the trends between morality and business performance and how they influence each other. However, while this experiment provided evidence for my initial hypothesis of there being a positive correlation between these two variables, I would not say it confirms an ultimate influence without more data and a better understanding of the real-world variables that go into how a business functions. I will continue this research in the future and ultimately come to a conclusion about just how much morality affects business, and hopefully use this knowledge to create a better, safer, and more efficient work environment.

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