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CORPORATE SOCIAL RESPONSIBILITY AS A MARKETING TOOL FOR CONSUMER PURCHASE DECISIONS

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ABSTRACT

Corporate social responsibility (CSR) remains a growing essential business topic. With the increased emphasis on CSR, corporations continue to link CSR initiatives to their business strategy. Embedding CSR into the core competencies helps the company's CSR program to be successful resulting in sustainable business models. In today's society, 42% of a company's reputation is a direct result of the company's CSR engagement and activities. 84% of respondents consider a company's involvement with CSR when making purchase decisions and will purchase a product or service from a company that is associated with a cause. When companies do not align CSR initiatives to causes important to their target market, companies can lose potential sales and customer loyalty. This loss impacts stakeholders and causes that could benefit from increased sales and customer loyalty. This shift in consumer behavior has forced companies to review their strategies and incorporate CSR into their core business, as a strong CSR program can be an important marketing tool for attracting customers and establishing brand trustworthiness. The goal of this presentation is to provide an overview of the impact a company's corporate social responsibility (CSR) initiatives has on consumer purchasing decisions, the possible willingness to pay higher prices, increased customer loyalty, and market competitiveness.

INVESTIGATING PRO-ENVIRONMENTAL BEHAVIOR: A CROSS-CULTURAL STUDY

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ABSTRACT

We aimed to clarify the predictors of pro-environmental behavior (PEB). The data were collected from 832 university students, 440 from Türkiye (TR), and 392 from the United States (US). The data was analyzed using a structural equation model (SEM). The exogenous variables of the study are internet use (IU), environmental knowledge (EK), perceived environmental pollution threats (PEPT), and environmental sensitivity (ES), personality (PER), and place attachment (PA). The main findings showed that EK positively affects PEB in TR samples. EK and PEPT positively affect ES in both US and TR samples. ES has a positive effect on PEB in both US and TR samples. ES seems to play a mediating role between EK-PEB, PEPT-PEB, and PER-PEB relationships. Place dependence has a positive effect on PEB in the TR sample. IU positively affects PEPT in the Turkish sample. Personality positively affects ES in both US and TR samples in terms of subfactors. Furthermore, age positively affects PEB in the TR sample. Being female has a positive effect on PEB in US samples. Income positively predicts PEB in the US sample.

Keywords: *pro-environmental behavior, place attachment, personality, environmental sensitivity, internet use, environmental knowledge, perceived environmental pollution threat.*

THE ANTECEDENT OF PRO-ENVIRONMENTAL BEHAVIOR: AN EMPIRICAL STUDY IN USA

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Murat Arik, Middle Tennessee State University
Murat Guler, Nigde Omer Halisdemir University

ABSTRACT

The objective of this study is to elucidate the antecedents of pro-environmental behavior (PEB). The data were collected from 392 students at a state university and were estimated with a structural equation model (SEM) to determine the predictors of PEB. The independent variables of the study are internet use (IU), environmental knowledge (EK), perceived environmental pollution threats (PEPT), and environmental sensitivity (ES). The study's primary findings indicate that environmental sensitivity (ES) emerges as the most significant predictor of pro-environmental behavior (PEB). Additionally, it has been observed that ES functions as a mediator not only between environmental knowledge (EK) and PEB, but also between perceived environmental pollution threats (PEPT) and PEB. The analysis reveals no significant relationship between internet use (IU) and the other variables, ES, EK, PEPT, and PEB. Furthermore, female participants exhibit a higher tendency to engage in pro-environmental behavior, and a positive correlation between income and pro-environmental behavior is also noted.

Keywords: *pro-environmental behavior, environmental sensitivity, internet use, environmental knowledge, perceived environmental pollution threat, structural equation method.*

HEALTHY LEADERSHIP: QUANTITATIVE RESEARCH TO DEVELOP A VALID AND RELIABLE SURVEY INSTRUMENT

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ABSTRACT

This research proposal presents the outline for a quantitative study whereby a validated survey instrument can be developed to measure healthy leadership. Previous studies have indicated healthy leadership is contrasted with toxic leadership and consists of six dimensions including respectful oversight, volitional leadership, altruism, stable consistency, follower advocate, and sincere integrity. As such, this proposal is designed to lead to a validated scale measuring those six dimensions. Having the necessary qualitative work for scale development previously completed, the implementation plan for the needed quantitative work is described in this proposal.

Keywords*: healthy leadership, toxic leadership, survey development, qualitative research*

INTRODUCTION

This research is focused on the future development, testing, and validation of a survey instrument called the Healthy Leadership Scale (HLS). Initially, some background information is provided to briefly describe the previously completed qualitative work which provides the foundation for the current effort. As such, the planned instrument is described in terms of how it will be developed based on the results of the previously completed qualitative work. Next, the pilot testing process is described as it will be necessarily conducted prior to full deployment of the instrument. The sample selection and sample size used to fully test the finalized instrument are described. The process for collecting data is described, and the process for analyzing that data is explained. Finally, some future considerations are noted related to how the results of the data analysis process will be reported.

QUALITATIVE FOUNDATION

Any effective survey instrument must be rooted in the relevant literature, in a preceding qualitative study of sound nature, and must accurately address all intended dimensions (Creswell, 2014). The qualitative foundation for the present work was completed by a group of seven researchers who performed 18 individual interviews over a multi-year period (Bell et al., 2025). Working from a previously published study (Bell, 2019) where the discovery of the healthy leadership concept was described, the researchers completed a robust review of the relevant literature in order to adequately define and describe the six constructs of healthy leadership. According to Bell et al. (2025), the six constructs of healthy leadership are respectful oversight, volitional leadership, altruism, stable consistency, follower advocate, and sincere integrity. The definitions and descriptions of those healthy leadership dimensions were used to form the basis of the interview protocol. Once the interviewing process was completed, the team of researchers then implemented multiple rounds of coding and refinement in order to isolate the specific themes and patterns in the data associated with each of the six healthy leadership dimensions.

INSTRUMENT DEVELOPMENT STEPS

There are several steps needed in the development of the HLS. As such, the following sections will describe the steps planned concerning the survey questions, pilot testing, sample selection, sample size, data collection, and data analysis. Ultimately, the results of the data analysis must be reported so that new decisions can be made concerning how to proceed with refinement of the new instrument.

Survey Questions

Using the data analysis results gleaned from Bell et al. (2025), the instrument's questions will be specifically designed to address all six dimensions of healthy leadership. The survey questions are specifically categorized in groupings that clearly match the six dimensions. Effective survey questions are those asking only one question and using plainly understandable language (Creswell, 2014). All the survey questions will be answerable on a 5-point Likert scale where 1 = Rarely, 2 = Occasionally, 3 = Sometimes, 4 = Fairly Often, and 5 = Almost Always. Following Creswell's (2014) guidance, each question will not be bundled and will not use any potentially confusing verbiage.

The HLS will initially include a total of 67 questions. The general expectation is the total number of questions may reduce later in the process as a result of factor analysis. The total number of initial questions associated with each dimension of healthy leadership are as follows: 1) respectful oversight, 8 questions 2) volitional leadership, 10 questions, 3) altruism, 12 questions 4) stable consistency, 11 questions 5) follower advocate, 12 questions and 6) sincere integrity, 14 questions. Examples of the initial survey questions are presented in Table 1.

Table 1
Initial Questions per Dimension

Dimension	Example Questions
Respectful Oversight	My leader acknowledges/affirms the person's ability.
Volitional Leadership	My leader seeks commitment rather than compliance.
Altruism	My leader is willing to sacrifice his/her own self-concerns.
Stable Consistency	My leader is predictable in behaviors.
Follower Advocate	My leader brags about people to his/her boss.
Sincere Integrity	My leader is willing to admit mistakes and take responsibility.

Pilot Test

A pilot test will be conducted prior to the full deployment of the HLS. According to Leon et al. (2011), a pilot test is a critical part of the research effort and is used to evaluate the feasibility of several aspects of the final study. The researcher's main goal for pilot testing the HLS is to gauge participant recruitment, question assessment, and to verify data collection procedures. The sample selected for the pilot test will match the demographics of the final study's sample selection criteria for obvious reasons. The question of sample size for a pilot study is a necessary consideration with perhaps a less obvious answer. Connelly (2008) suggests the sample size for a pilot study should be about 10% of the final study's sample size. Both Issac and Michael (1995) and Hill (1998) suggest 10 to 30 participants in a pilot study. The sample size for the final study is 160 as will be explained in the subsequent section. A sample size of 16 chosen for this pilot study would meet the 10% noted by Connelly while also exceeding the minimum suggestions mentioned by Hill as well as Issac and Michael. However, the researcher plans a sample size of 30 in order to provide the most significant result.

Sample Selection and Sample Size

The sample demographic will be individuals who have held the role of a follower and have had some experience with a good leader while in the follower role. Chaleff (2009) and Kelley (1992) claim anyone ever involved in a group of any type has been in the role of follower, and they also note leaders are almost always in the role of follower while simultaneously in their leadership role. The sample demographic is simply stated as anyone who has been or is currently in the role of a follower. The sample selection will not exclude participants based on the common demographics of gender, ethnicity, education level, profession, etc. so as to allow for maximum generalizability of results.

According to Hair et al. (2009), the sample size needed is ultimately a function of the number of variables involved and the particular statistical analysis to be completed. Since the HLS is attempting to measure healthy leadership in six dimensions, it is expected that six variables or factors will be present. Since this is a scale development endeavor, a factor analysis is the initial statistical analysis method to be completed. Hair et al. state the preferred sample size for factor analysis is at least 100. However, Hair et al. further note an acceptable sample size is a ratio of 10:1 or up to 20:1 meaning that between 10 and 20 samples per factor are necessary. Applying Hair et al.'s guidelines to the HLS's six dimensions requires between 60 and 120 samples. Factor analysis is not the only analysis to be conducted in a scale development effort. Convergent and divergent analysis is also very useful in order to strengthen the validity of the final HLS instrument. Winston and Field's (2015) EBSL measures servant leadership in one dimension and will be used to establish convergent validity. Additionally, Bell's (2020) TLS-1 measures toxic leadership in one dimension and will be used to establish divergent validity. Hair et al. also note the need for at least 20 samples per factor when conducting convergent and divergent analysis. As such, with a total of eight factors present across the three instruments, the finalized minimum sample size is 160.

Data Collection

According to Hair et al. (2009), response rates vary greatly but are often as low as 25% to 33%. As such, it is expected that anywhere from 480 to 640 invitations will be necessary in order to deliver a final sample of 160 usable responses and anywhere from 90 to 120 invitations to collect the 30 responses needed for the pilot test. The data for the pilot study and the full field study will be collected via an internet-based survey using SurveyMonkey. The survey results from SurveyMonkey can be downloaded in Microsoft Excel for use in the data analysis. SurveyMonkey recruits survey participants in the United States who fit the required demographics established by the researcher. Data collection will continue until the sampling needs are met.

Data Analysis

As previously mentioned, the data analysis planned is directly related to the purpose of creating and validating a survey instrument measuring healthy leadership. The Excel data file will be transferred to SPSS where the appropriate statistical analysis will be conducted. Several analytical tests will be conducted on the data as per the study's goal of scale development and validation. These analysis types include reliability analysis, factor analysis, as well as convergent and divergent validity analysis. According to Hair et al. (2009) alpha reliabilities meeting a .70 threshold are considered reliable and should be kept. Reliability analysis will be conducted until all items meet the .70 threshold. Williams and Monge (2001) claim factor analysis is used for the purpose of isolating the individual variables measured by the instrument by grouping questions into sets of questions also called factors. It is expected that the HLS will have a six-dimension factor loading in correspondence to the theory's stated dimensions. Hair et al. state items loading at or above .40 on multiple factors should be dropped and only items that load at .60 or above on a factor should be kept. Factor analysis will be implemented until all items load as per the thresholds described by Hair et al. Discriminant and convergent validity are two aspects of construct validity (Hair et al., 2009). As such, convergent validity is concerned with whether items in a measure are similar to items in other instruments that are theoretically similar (Creswell, 2014). Discriminant validity is concerned with whether items in a measure are different from items in other instruments that are theoretically different (Creswell, 2014). Williams and Monge note both convergent and discriminant validity are discerned by looking at the correlation coefficients where those items with high correlations are considered similar and items with low correlations are considered dissimilar. Convergent validity will be analyzed by comparing healthy leadership and servant leadership while discriminant validity will be analyzed by contrasting healthy leadership with toxic leadership.

Results Reporting

Results for each step of the data analysis process will be reported. The reporting results should ultimately include 1) factor analysis results leading to the final set of survey questions, 2) discriminant and convergent validity results to consider construct validity, and 3) alpha reliability ratings on each of the six dimensions of the instrument indicating internal consistency. A detailed reporting of each step is necessary to provide other researchers the opportunity to complete a replication study. A detailed reporting is needed if the results of the pilot testing indicate the need to complete a second pilot test or if the results indicate a full deployment of the new instrument is warranted. The goal would then be to deploy the instrument with a sample size of 160 or more in order to initiate actual field testing of the scale.

CONCLUSION

The present research proposal has outlined the basic steps toward completion of a quantitative study for the purpose of developing the Healthy Leadership Scale. The concept of healthy leadership requires much additional study as the concept is relatively new in the leadership literature. Healthy leadership has not yet been fully developed from concept to theory which is needed to advance the understanding of how some leadership has a beneficial influence on the vitality of an organization in contrast with the poisonous impact on organizations that results from toxic leadership.

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A VALIDATION STUDY OF A MEASURE OF ENCOUNTERS WITH JUSTIFIED EXPEDIENCY AT WORK

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ABSTRACT

As individuals progress in their careers, they are exposed to a range of attitudes and behaviors on the job. Such experiences might influence their own attitudes and behaviors. In this project we seek to develop a scale of exposure to questionable behavior at work. Scale items were developed from the existing literature and consultation with experts. A survey was used to gather data. Exploratory factor analysis was conducted to trim the scale and confirmatory factor analysis to verify the validity of the scale. In this presentation we will explain our rationale, process and results.

A VALIDATION STUDY OF A MEASURE OF PERSONAL STANCE ON CORPORATE RESPONSIBILITY

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ABSTRACT

Corporate social responsibility and business ethics are critical topics in academia, business and society. Scales and other means have been developed for measuring how and what organizations do regarding social responsibility and ethics. In this project, instead addressing the behavior of businesses, we measure how individuals think businesses should behave. Scale items were developed from the existing literature and consultation with experts. A survey was used to gather data. Exploratory factor analysis was conducted to trim the scale and confirmatory factor analysis to verify the validity of the scale. In this presentation we will explain our rationale, process and results.

IMPORT COMPETITION AND HOUSING MARKET: EVIDENCE FROM NAFTA[1]

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ABSTRACT

This paper investigates the localized effects of the North American Free Trade Agreement (NAFTA) on U.S. housing markets, focusing on how regions differently exposed to Mexican import competition experienced varied economic outcomes post-1994. We construct a vulnerability index using 1990 data to measure each region's exposure to Mexican import competition based on Mexico's Revealed Comparative Advantage (RCA) in specific industries and the local employment share in those industries.

Our analysis utilizes data from the County Business Patterns for employment, industry-specific import and export data for RCA, tariff schedules, housing price indices from the Federal Housing Finance Agency, and per capita income and employment data from the Bureau of Economic Analysis. The study covers the period from 1989 to 2007 across 541 Public Use Microdata Areas (PUMAs).

Employing both event study and difference-in-differences (DiD) methods, we examine changes in housing prices, income, and employment before and after NAFTA's implementation in 1994. The event study allows us to observe any pre-existing trends and the changes post-NAFTA, while the DiD approach compares outcomes between regions with high and low vulnerability indices over time, controlling for time-invariant and time-varying factors.

Our findings indicate that regions more vulnerable to Mexican import competition experienced significant declines in key economic indicators following NAFTA's implementation. Specifically, a one-unit increase in the vulnerability index is associated with a 5-6% decrease in housing prices, a 5-8% decrease in per capita income, and a 2-5% decrease in per capita employment. These results are robust across various specifications and controls, suggesting a causal link between NAFTA and the observed economic outcomes in vulnerable regions.

Potential mechanisms driving these effects include job losses and reduced wages in industries exposed to Mexican competition, leading to decreased local demand for housing, as well as possible outmigration from these regions, further depressing housing prices.

This study highlights the heterogeneous impacts of trade policies on local economies and underscores the need for policies that address the regional disparities arising from trade

[1] The authors claim no conflict of interest.

liberalization. Policymakers may need to consider targeted interventions to support regions and industries most affected by increased import competition.

***Keywords**: International Trade, NAFTA, Housing Market*
***JEL Codes**: F14, H75, H21, H31, O18*

FACTORS TO CONSIDER WHEN CREATING A SMIF

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ABSTRACT

A student managed investment fund (SMIF) is, as the name implies, a real money portfolio managed by students. SMIFs are widely recognized as experiential learning tools offering a variety of benefits. The following paragraphs present the characteristics of a SMIF identified in the literature that must be addressed when establishing a new SMIF.

Objectives: The primary objective for the SMIF is to provide students with practical experience in investment decision making. As such, investment performance goals for the SMIF are often determined, but this singular objective may conflict with the educational purpose of the fund.

AUM. The fund's Assets under management (AUM) refers to the monetary size of the SMIF. Given that funding may be the most problematic issue when establishing a SMIF, the question is how large the AUM of the SMIF must be to be viable.

Funding Sources. Funds can be sourced from institutions or individuals through one or more large or small gifts. Funds may also be carved out from university endowments. Funds may be held by the university's foundation or a private foundation created specifically for the purpose of holding the funds.

Structural Organization. Structural organization refers to how students engage with the SMIF, or how the SMIF is integrated with the curriculum, if at all. Students can manage the SMIF through for-credit courses or through or through extracurricular activities (e.g., student clubs). The number of semesters students are allowed to manage the SMIF must also be considered.

Participant Selection & Preparation. Some SMIFs are open to being managed by anyone while others are quite selective. Prerequisite courses/training should also be considered.

Continuity. Continuity refers to both the issue of managing the SMIF between semesters and how management of the SMIF is transferred to each new cohort of students.

Governance & Decision Processes. SMIFs are normally governed by a constitution, donor letter, or some other type of founding document that establishes the SMIF and the parameters in which it is to operate. An Investment Policy Statement (IPS) would be created to guide the investment management process.

Investments. Some SMIFs place restrictions on allowable investments and positions while others are open to most any type of investment. Equity is the most common asset class found in SMIFs with most SMIFs focusing entirely on equity.

Use of Funds. Funds from SMIFs may be used to fund scholarships, student trips, and infrastructure such as computer labs and specialized software.

Activities. The heart of the benefit of experiential learning is the activities the students engage in. The activities normally would require students to apply and synthesize a wide breadth of knowledge areas.

Resources. There are obvious software and database resources that facilitate investment decisions and portfolio management. Some resources relate simply to general productivity software such as Excel while investment related resources include trading rooms and Value Line. The primary resource for a SMIF is the faculty advisor.

A TALE OF TWO MANAGERS: DUNNING-KRUGER AND THE IMPOSTOR

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ABSTRACT

We have seen them in action. We may have even worked with one, or both contrasting types of managers. The Impostor Manager (IM) is modest and not self-aware of their abilities. Rather, they attribute their success to luck or chance. The IM is far more benign as she or he cannot quite believe that they have been promoted to this position of authority.

The Dunning-Kruger (DKM) manager is the opposite. She or he has an overabundance of confidence in their skills and ability. They often assume the department's success can be attributed to their superior leadership skills, not the entire team's effort. They do not manage the department as a team. Instead, the DKM manager manages information, makes decisions independently, and holds employees accountable for the results. If the results do not meet expectations, the fault belongs to the employees for lacking understanding or ability to follow the manager's instructions.

As a senior company executive, you may have several IM and DKM managers. Employees often look for working for managers who can inspire them, someone whom they can learn from and develop their good leadership skills. What do you do?

In this paper, the researchers discuss issues surrounding both types of managers and offer recommendations to develop these managers into high-performing members of the leadership team.

Keywords*: Dunning-Kruger effect, the Impostor Syndrome, the Impostor Cycle*

MOMENTUM AND CONTRARIAN PROFITS FROM CRYPTOCURRENCY INVESTMENTS

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ABSTRACT

A considerable amount of literature identifies the presence of contrarian and momentum profits in stock markets. This study follows the methodologies of Lo and MacKinlay (1990) and Jegadeesh and Titman (1995) to detect the presence and sources of contrarian and momentum profits in cryptocurrency markets. These techniques decompose the contrarian and momentum profits into three sources: the reward for cross-sectional risk, the lead-lag relationship between cryptocurrencies concerning a common market factor, and the time-series (idiosyncratic) pattern of cryptocurrency returns. Results imply that cryptocurrency investors are able to receive significant contrarian profits. Interestingly, the contrarian profit opportunity exists only during the 2019-22 period. This opportunity does not exist for the 2023-24 period. The magnitude of profits is also relatively small during this period. Finally, cryptocurrency prices are mainly determined by cryptocurrency-specific information, and what is happening with other cryptocurrencies is less important.

JEL Code: *G11, G12, G14*
Keywords: *Cryptocurrency, Digital currency, Contrarian profits, Momentum profits.*

USING GEN AI TO DEVELOP CRITICAL THINKING SKILLS IN BUSINESS COMMUNICATION

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ABSTRACT

Critical thinking is a vital skill in the business world, enabling professionals to make informed decisions, solve problems, and persuade well. Employers expect college graduates to not only communicate effectively but also utilize robust critical thinking skills when tackling problems on the job. Additionally, companies now expect employees to prompt and use Generative Artificial Intelligence (GenAI) with a modicum of skill. While critical thinking is recognized as a desired AACSB student learning objective, the rapid advancement of GenAI has sparked both excitement and concern within colleges of business. Some researchers have expressed concern that using GenAI tools may diminish critical thinking skills. Conversely, strategic use of GenAI has been shown to be a powerful tool in developing students' information synthesis, argument construction, and creative problem-solving. This conundrum presents a unique opportunity for business communication instructors to reevaluate course teaching methods. This study will do so with the intent to leverage GenAI use within primary writing assignments to enhance, rather than replace, the development of students' own cognitive processes.

This paper will examine the impact of intentional and educationally-supported GenAI use for assignment completion on students' ability to analyze, synthesize, and communicate complex ideas. A mixed-methods research approach will be used, combining quantitative analysis of student performance data with qualitative insights from student surveys and focus group interviews. Applying a lens of Social Exchange Theory, this paper will explore the perceived costs and benefits of student engagement with GenAI and the resulting impact on students' critical thinking development as well as students' willingness to utilize the tools effectively. The AAC&U VALUE Rubric will serve as a guide for assessing students' critical thinking skills. Attestation and transparency tools for assignment-level GenAI use created by Dr. Jennifer Friberg and her team at Illinois State University will be incorporated into each primary writing assignment. Intentional assignment and assessment design will be utilized to ensure that GenAI use actually enhances rather than replaces students' own cognitive processes. The paper will provide recommendations for ways other business communication educators might effectively integrate GenAI use to support critical thinking and prepare students for a technology-driven workplace.

STOCK REPURCHASES AND INVESTOR RETURNS: AN EMPIRICAL STUDY

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INTRODUCTION

Finance theory prescribes shareholder wealth maximization as the firm's long-term goal. This is justified on the ground that shareholders are residual owners, who assume enormous risk by providing capital to the venture, which results in production of valuable goods and services for consumers, jobs for employees, business opportunities for vendors, tax collections for the federal, state and local governments, and overall prosperity for the communities. Moreover, while other stakeholders have explicit or implicit contracts with the firm that protect the stakeholders' interests, shareholders' financial reward depends on whether the firm eventually produces and distributes free cash flow to shareholders either as dividends or share buybacks. Shareholder wealth maximization is synonymous with stock price maximization, which is dependent on the firm's production and eventual distribution of free cash flow to shareholders.

According to agency theory, which is rooted in the conflict of interest between shareholders and managers, firms may not be successful in producing free cash flow for shareholders because managers are more interested in maximizing their salaries and perks, and even if there is free cash flow available, managers may sit on it and/or make wealth-reducing investments instead of distributing it to their shareholders. Thus, it is argued that firms that distribute free cash flow via either dividends and/or share buybacks are superior firms that maximize shareholder wealth. It is important to note that share repurchases are deemed to be more tax efficient than dividends because while shareholders owe taxes on dividends, they can choose not to sell their shares in a buyback, thus deferring any taxes owed while benefiting from a higher future free cash flow available to a smaller number of shares outstanding. Furthermore, repurchases may signal firm undervaluation and/or value enhancing capital structure changes, in addition to avoiding the inflexibility associated with dividends, since buyback programs can be canceled, unlike dividends, without any negative consequences if firms find positive NPV investments. However, critics of buybacks argue that buybacks may not be in shareholders' best interests. For example, managers may give up positive NPV projects and instead spend the funds on buying back their shares, which results in higher future earnings per share and likely higher compensation for managers because their compensation may be tied to earnings per share. This was cited by some as justification for the one percent excise tax levied on corporate buybacks occurring after 2022. Another argument against buybacks is that managers may use them to reduce the number of shares outstanding to thwart a hostile takeover. Since target firms reap substantial gains in successful takeovers, share buybacks will reduce shareholder wealth when launched to defeat hostile takeover bids.

There is substantial evidence that stock buybacks announcements enhance shareholder wealth by positively impacting the repurchasing firms' share prices (Nohel and Tarhan, 1998).

There is also evidence that buying and holding repurchasing firms' stocks beats the alternative strategy of investing in a broad index, such as S&P 500 (Zeng and Luk, 2020). This study tests the buy and hold strategy of investing in repurchasing firms' stocks with one significant difference. Until recently, it was difficult for common investors to invest in a portfolio of repurchasing firms' stocks. In December 2006 Invesco, an investment management firm, launched an exchange traded fund (ETF) that tracks the US Buybacks Achievers Index (PKW), making it easier for common investors to invest in a diversified portfolio of repurchasing firms. The study tests the hypothesis of whether investing in PKW beats the alternative strategy of investing in an S&P 500 ETF.

There is evidence that managers are acknowledging the superiority of stock buybacks as a mechanism to return free cash flow to shareholders. Recent data indicate that managers are increasingly paying out a greater proportion of free cash flow via repurchases than dividends. According to S&P Global, the total amount of buybacks has exceeded the cash dividends paid by U.S. firms each year in the 2007-2023 period (See Table 1). Furthermore, the proportion of dividend-paying companies decreased to 43% in 2018 from 78% in 1980, while the proportion of companies with share buybacks increased to 53% from 28% during the same time period. While free cash flow payouts via dividends are important, the increased use of share repurchases appears to be driven by many advantages of the buyback alternative, namely the tax advantage, the cancelation option, the ability to signal undervaluation, and the potential benefits from increased financial leverage.

PRIOR RESEARCH

Prior research on whether share buybacks enhance shareholder value has followed three distinct tracks. Early studies primarily focused on the market response to stock buybacks and reported a positive reaction (Dann, 1981). Later, studies focused on the various specific hypothesized explanations for the positive market reaction to buybacks. For example, Dittmar and Field (2016) found evidence that firms repurchasing their shares were undervalued. More recent research focuses on building a buy-and-hold portfolio of repurchasing firms as an investment strategy to see whether such a portfolio outperformed a broad market index. Peyer and Vermaelen (2009) identified 24 stocks deemed undervalued by the firms' managers to see if these firms beat the market indexes. The authors found that in the six-month period studied, the buyback portfolio beat the three major indexes in all but one month. Zeng and Luk (2020) tested the strategy of investing in the S&P 500 Buyback Index to see whether it outperformed the return on S&P 500. The S&P 500 Buyback Index is comprised of 100 S&P 500 firms with the highest stock buyback ratio in the trailing 12-month period. The buyback ratio is defined as the amount of funds spent on buybacks by a firm divided by the firm's market capitalization at the beginning of the prior one-year period. The S&P 500 Buyback Index is equally weighted and reconstituted every quarter. The authors found that the S&P Buyback Index outperformed both the S&P 500 and S&P 500 equally weighted indexes in 10, 15 and 20-year periods on a risk-adjusted basis. It is important to note that the S&P 500 Buyback Index is a hypothetical portfolio and is not an investable index.

DATA AND METHODOLOGY

Invesco, a publicly traded investment management firm with $1.59 trillion in assets under management in 2023, launched a diversified exchange traded fund (Ticker: PKW) in December 2006 to mimic NASDAQ's US Buyback Achievers Index, which tracks the performance of companies that have reduced their shares outstanding by 5% or more in the trailing 12-month period. The ETF and the Index are reconstituted annually in January and rebalanced quarterly in January, April, July and October. This study tests the hypothesis of whether investing in PKW beats the alternative strategy of investing in an S&P 500 ETF. Beginning from January 1, 2007, the study will track two portfolios, the PKW portfolio and the S&P 500 Index and compute compounded annual returns for various time periods in the 2007-2024 period. The study will compare the risk-adjusted performances of the two portfolios to conclude whether investing in a portfolio of repurchasing firms beats the alternative strategy of investing the S&P 500 index.

Data are gathered from multiple sources, including Bloomberg. Data integrity is verified by cross-checking with other publicly available sources, such as Yahoo Finance and Stern School's historical market data (see the link below). (https://pages.stern.nyu.edu/~adamodar/New_Home_Page/datafile/histretSP.html

FINDINGS

Table 2 contains historical, calendar year rates of return for PKW investors for the 2007-2024 period. PKW earned a 10.02% annualized compounded rate of return over the 18-year period as compared to 7.58% for S&P 500. However, PKW outperformed the S&P index in only nine of the eighteen years, with the S&P index beating PKW in the other nine years. Table 3 lists the risk (as measured by the investment's standard deviation) and return measures over the past 5, 10 and 18 years. As the table shows, PKW outperforms the benchmark in the 5-year and 10-year period. PKW produced a compounded annualized return of 12.04% in the 5-year period (2020-2024) and 10.40% in the 10-year period (2015-2024) compared to the Index's 5-year return of 9.79% and 10-year return of 9.70%. Finance theory predicts a positive relationship between risk and return, so that in the current case it is reasonable to expect that PKW's higher return will come at a cost of higher risk. Surprisingly, PKW's standard deviation of return is lower than the Index's in both the 10-year and 18-year periods. Table 3 also displays the coefficient of variation or CV (standard deviation/return), which is a measure of risk per unit of return. PKW's CV is lower than the Index's in each period. This shows that PKW is producing a higher return while exposing its investors to lower risk.

Since standard deviation of return captures both the systematic (beta) and unsystematic risk and a diversified portfolio is exposed to just the systematic risk over the long term, PKW's beta was calculated using monthly returns over the past five years. Unsurprisingly, PKW's beta is 1.01, which is almost the same as S&P 500's assumed beta of 1. PKW is highly diversified with 203 holdings reported for the most recent quarter. Using beta values in the CV ratio leaves our previous conclusion of PKW's outperformance of the S&P 500 index in all periods unchanged.

SUMMARY AND CONCLUSION

Since finance theory prescribes return of free cash flow to shareholders and since share repurchases are deemed superior to the alternative cash payout via dividends, this study uses PKW's return and risk measures to determine if investing in repurchasing companies' shares is a market beating strategy. PKW is an Invesco ETF that invests in the shares of repurchasing companies. Our findings reveal that PKW outperforms the S&P 500 index on a risk-adjusted basis in 5, 10 and 18- year investment periods in the 2007-2024 period.

Table 1
S&P 1500 Composite 1500 firms' Dividend Payments and Share Repurchases

Period	Total Dividends Paid (In Billions)	Total Buybacks (in Billions)
2023	$588	$795
2022	$565	$923
2021	$511	$882
2020	$483	$520
2019	$485	$729
2018	$456	$806
2017	$299	$673
2016	$467	$600
2015	$457	$633
2014	411	$608
2013	$365	$522
2012	$330	$446
2011	$279	$525
2010	$249	$337
2009	$255	$300
2008	$286	$395
2007	$299	$673

Source: S&P Dow Jones Indices, LLC, Compustat.

Table 2
Annual returns on PKW and S&P 500 for the 2007-2024 period.

Year	PKW Return (%)	S&P 500 return (%)
2007	-2.23%	1.35
2008	33.25	36.61
2009	31.66	22.60
2010	18.01	13.13
2011	11.37	-0.84
2012	13.80	13.91
2013	42.84	30.19
2014	13.33	12.67
2015	-6.30	0.64
2016	15.44	9.50
2017	17.29	19.09

2018	-12.12	-6.02
2019	36.63	28.28
2020	7.93	16.44
2021	32.08	20.02
2022	-10.01	-23.01
2023	16.02	21.97
2024	18.06	21.54
Annually compounded return (18-year period)	10.04	7.58

Table 3
Risk and return characteristics of PKW and S&P 500 for different holding periods

Holding period	PKW Annual Return (%) (Standard deviation)	PKW Coefficient of Variation	S&P 500 Annual Return (%) (Standard deviation)	S&P 500 Coefficient of Variation
18 years (2007-2024)	10.04 (18.91)	1.88	7.58 (19.04)	2.31
10 years (2015-2024)	10.48 (15.92)	1.52	9.70 (15.85)	1.64
5 years (2020-2024)	15.66 (15.49)	1.29	9.79 (19.35)	1.98

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LULULEMON: SOMETHING FOR EVERYBODY?

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CASE DESCRIPTION

The primary subject matter of this case concerns business competition in a crowded market, so requires skill in strategic management and marketing. Secondary issues examined include awareness of external environmental forces such as the impact of technology on product development and related sustainability concerns. The case has a difficulty level of four, appropriate for a senior level course in strategic management or marketing management; or level five, appropriate for first year graduate level in an MBA environment. The case is designed to be taught in 2.5 class hours and is expected to require 4-6 hours of outside preparation by students.

CASE SYNOPSIS

Lululemon Athletica, Inc (NASDAQ: LULU) was an athleisure company founded by Chip Wilson in 1998. With its birth in Vancouver, Canada, the company had carved a distinct niche in the premium activewear market. Originally targeted toward women aged 25–45 with household incomes over $100K, the brand was meant to symbolize a yoga-centric commitment to wellness and quality. However, in 2025 the company faced intensifying competition from established sportswear icons such as Nike and Adidas, women-centric accessible outlets like Athleta (a Gap subsidiary), online subscription-based disruptors including Fabletics (co-founded by Kate Hudson) plus millennial/influencer-supported Gymshark, and luxury-focused wellness brands Alo Yoga and Vuori targeting both men and women. Lululemon's international expansion and accelerated product development into other athleisure spaces such as footwear appeared to many original fans ("Luluheads") to signal an identity crisis, blurring the brand's former values. In 2024, founder and former CEO Wilson went on record to state his opinion that Lululemon was "trying to become like the Gap, everything to everybody", while Reddit fans were concerned that the company was becoming "fast fashion" like Shein, prioritizing margin expansion over product excellence. Current CEO Calvin McDonald acknowledged the challenges of balancing the brand's legacy with the need to scale a premium label in an increasingly crowded competitive market. McDonald's goal in 2025 was to become a "global powerhouse". He pointed to store expansion in the U.S. and Canada and plans to open in Italy, Turkey and India in addition to the strong presence in China; to technological product innovation with engineered sustainable fabrics and tiered pricing to meet most budgets as well as the product extensions into menswear and footwear.

Lululemon would have to grab market share from incumbents while anticipating actions from newcomers. With these challenges could Lululemon truly offer something for everybody?

Keywords: *competitive strategy, strategic groups, environmental forces, consumer behavior, sustainability*

CASE BODY

Lululemon Athletica, Inc (NASDAQ: LULU) was an athleisure company founded by Chip Wilson in 1998. With its birth in Vancouver, Canada, the company had carved a distinct niche in the premium activewear market. Originally targeted toward women aged 25–45 with household incomes over $100K, the brand was meant to symbolize a yoga-centric commitment to wellness and quality. In 2025, Lululemon occupied a complex position in consumers' minds – a premium athleisure pioneer grappling with evolving market dynamics and reputational challenges.

Lululemon's ascent from a niche yoga apparel brand to a global athleisure powerhouse had been fueled by a fiercely loyal customer base drawn to its premium quality, technical innovation, and community-centric ethos. However, the brand's rapid expansion, product diversification, and response to market pressures had created tension with its original advocates.

Lululemon Athletica operated in a rapidly evolving athleisure market characterized by hyper-specialized competitors and heightened consumer expectations for innovation. While the brand remained a leader in premium activewear, its ability to sustain any competitive advantage depended on its strategic responses to niche competitors and its ability to maintain stable, visionary leadership.

In 2025 the company faced intensifying competition from established sportswear icons such as Nike and Adidas, women-centric accessible outlets like Athleta (a Gap subsidiary), online subscription-based disruptors including Fabletics (co-founded by Kate Hudson) plus millennial/influencer-supported Gymshark, and luxury-focused wellness brands Alo Yoga and Vuori targeting both men and women. In addition, an increasing number of consumers were concerned enough about the environment to be attracted to firms that promised to focus on sustainability in product design and supply chain management. Athleisure competitors such as pRana (a subsidiary of Columbia Sportswear) and Girlfriend Collective were making a real effort to use recycled materials and certify sustainable supply chains.[i]

In response to this competition, Lululemon had pursued international expansion and accelerated product development into other athleisure spaces such as footwear, while also building up a line of menswear. These actions appeared to many original fans ("Luluheads") to signal an identity crisis, blurring the brand's former values.

In 2024, founder and former CEO Chip Wilson went on record to state his opinion that Lululemon was "trying to become like the Gap, everything to everybody", while Reddit fans were concerned that the company was becoming "fast fashion" like Shein, prioritizing margin expansion over product excellence. Current CEO Calvin McDonald responded by acknowledging the challenges of balancing the brand's legacy with the need to scale a premium label in an increasingly crowded competitive market.

As the athleisure market ballooned to $567B, Lululemon's success hinged on transforming from a yoga pant company into a holistic wellness platform. By leveraging its community infrastructure and R&D capabilities, the brand might overcome recent controversies to reclaim its position as the originator of mindful movement culture. However, failure to address greenwashing perceptions and leadership instability could see Alo/Vuori capture Lululemon's core demographic, turning Lululemon from a status symbol into a cautionary tale. The company's ability to balance legacy loyalty with modern demands would determine whether it remained a wellness icon or became a victim of growth-induced dilution.

Since founder Chip Wilson's departure, Lululemon had been trying to shake off the idea that it was exclusively for upper-middle-class white women of a certain stature through inclusive marketing and by bolstering its diversity and inclusion commitments. But such efforts had been labeled "tokenistic" by celebrities, consumers, and staff members alike.

Lululemon was trying to stanch a slowdown in its women's business by dialing up variety in its products. But industry veterans said the company had more to worry about as competition grew and cash-strapped shoppers traded down to cheaper brands.

The Canadian athleisure pioneer had seen double-digit sales growth every year since 2003 to become one of the largest activewear firms in the U.S. and Canada. But when Lululemon reported 2024 second-quarter earnings, executives said they were disappointed in the recent performance of its women's lineup, despite the segment's 6% growth in the quarter.

Pointing to success in its market development, the company said in its 2023 annual report that its women's range represented 64% of net revenue and its men's represented 23%. "Lululemon remains a very good retailer and brand with an impressive track record. However, the miracle it has worked for so long seems to be fading," said one data analyst in the fall of 2024.[ii]

With plans to open Lululemon stores in Italy, the Czech Republic, Belgium and Turkey, plus an opportunity to launch in India, CEO Calvin McDonald said he wanted "this Canadian brand to be a global powerhouse."[iii] Lululemon was aiming to double sales and pass the 1,000-store mark in the next few years according to McDonald. Despite increased competition from a multitude of specialist and growing athleisure brands, many of which had selectively focused on particular sports, McDonald said he was confident that the Canadian yoga pioneer could expand across geographies and categories.

McDonald added: "We head into 2025 feeling very optimistic. The shopper will continue to spend but they are being selective, so we need to offer value, and maintain our position as a full price innovative apparel business. The consumer is looking for value, quality and experience. Those brands that don't grow will fall behind, the chasm between the have and have nots will grow."

McDonald was planning to succeed not only by geographic expansion but also by pushing technological product innovation with engineered sustainable fabrics and tiered pricing to meet most budgets as well as the product extensions into menswear and footwear. Lululemon would have to grab market share from incumbents while anticipating actions from newcomers. With these challenges could Lululemon truly offer something for everybody?

INSTRUCTORS' NOTES

RECOMMENDATIONS FOR TEACHING APPROACHES

This case is best for an undergraduate or first level MBA course in strategic management, focusing on the strategic management process: an assessment of the internal and external environment within which an enterprise hopes to achieve and maintain a sustainable competitive advantage. This deserves substantial assessment of the industry competition, including competitive positioning relative to the targeted consumer market: What position might Lululemon currently play in the consumer's mind? What does the brand really stand for these days, given that it did achieve a good deal of notoriety, and what does this mean for Lululemon going forward, especially as it struggles with very innovative competition, and a potentially ill-defined leadership vision?

CASE LEARNING OBJECTIVES

1. Students will analyze Lululemon and its strategic environment and position the company relative to the existing strategic groups in the athleisure industry.
2. Students will identify the larger issues in the environment, including assessment of markets, supplier relationships, sociocultural trends towards sustainability, and potential financial constraints.
3. Students will identify the resources and capabilities necessary for Lululemon to sustain its competitive advantage given all of the above.

TEACHING PLAN

The Lululemon case requires students to consider how a brand that once had a clear customer target and an original differentiated strategy compared to existing competition cannot assume it can continue to maintain a strategic advantage when the landscape changes. Major corporate entities may choose to move into any given space either through product or market development or by diversification or global expansion. However, this requires resources and capabilities, orchestrated by a clearly articulated vision from leadership which inspires action toward specific goals. Additionally, in a consumer-facing business such as Lululemon's, decisions must be made about stakeholders: which stakeholders are most important and are there any trade-offs which must be made?

This case is about an industry most students know well, so it's possible to prepare students for discussion by having them read about the strategic management process either in the textbook of choice or by assigning some of the classic readings from Porter and Prahalad & Hamel listed under **References and Suggested Readings.** They can then be encouraged to visit the websites of the firms mentioned and make up their own minds about the challenges involved.

THEORETICAL FRAMEWORK

Strategy is a process of analysis, decision-making, and actions. It also requires evaluation of those actions. The goal of a business strategy is to outperform competitors in a way that leads to a *sustainable* competitive advantage. Many companies establish a position in the marketplace, but are unable to maintain this position over time, because things change. The ability of an enterprise to adjust to challenges in the external environment is partly driven by those internal assets and operations that the company has developed and can effectively deploy, but some of it is due to timing and luck, and the ability of leaders to recognize those opportunities when they exist.

Strategic Analysis: Harvard professor Michael Porter (1996) has famously answered the question "What Is Strategy?" by explaining that strategy is about creating a position for competing in the marketplace; it is about performing different activities from rivals' or performing similar activities in different ways. He believes "a company can outperform rivals only if it can establish a difference that it can preserve" (p. 62.) And part of preserving that position requires making sometimes difficult decisions: "strategy is about making choices, trade-offs; it's about deliberately choosing to be different" (Porter, 2007, p 2-3).

In order to be successful, the enterprise must understand the industry in which it operates. Porter is famous for defining the five forces industry framework, a depiction of the elements that affect an industry's operation and determine the amount of profit potential in that industry (see Porter, 2008). The obvious "force" that affects profitability is the degree of *rivalry among existing competitors*. If there are multiple and aggressive competitors, any incumbent must position itself carefully to carve out any advantage. However, there are two other elements that must be considered, as an understanding of these forces can be critical to defending against *threats from new entrants* into the industry, and *substitute products or services* that siphon off customers by providing a solution to a given problem that's cheaper, easier, or more socially desirable.

Core Competencies: C. K. Prahalad and Gary Hamel pointed out in 1990 that "in the long run, competitiveness derives from an ability to build, at lower cost and more speedily than competitors, the *core competencie*s that spawn unanticipated products" (p. 81, emphasis added). And these competencies are developed over time and can include proprietary engineering expertise that can be applied as solutions to multiple problems; skillful allocation of key resources to the most promising products or services; integrating activities so that economic value can be created and maintained as products and services move along the "chain" from raw material to consumer use; well-developed and nurtured relationships among alliance partners; and visionary leadership that inspires innovation.

Organizations need to effectively manage these value-creating activities in order to attain a competitive advantage. Ability to control costs leads to the choice of a *low-cost leadership* strategy, while ability to quickly assess consumer needs and respond with unanticipated products that delight customers allows a company to create a *differentiated* advantage. If a firm can provide unique value to the customer in an efficient manner, this can be the best of all possible worlds. On the other hand, failing to adequately control costs, or being unable to create a distinctive brand image in the mind of the consumer, therefore always having to adjust prices and struggle to stand out from the crowd – this can result in a firm being "stuck in the middle", unable to break out of a declining death spiral. What might it take to become the product or service of choice in a given market? As Porter said, there must always be trade-offs.

ASSIGNMENT DISCUSSION QUESTIONS

1. What industry is Lululemon currently in, who are its major competitors and what must it do in order to regain and sustain a competitive advantage?
2. What factors in the external environment make it easier or harder for Lululemon to do this?
3. What are the resources that Lululemon must identify and fully develop in order to achieve this competitive advantage?
4. It appears Lululemon would have to grab market share from incumbents while anticipating actions from newcomers and simultaneously meet the diverse needs of its stakeholders. Does it have the capabilities to succeed here? Can Lululemon truly offer something for everybody?

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A SYNOPSIS OF MACHINE LEARNING APPLICATIONS IN MARKETING RESEARCH

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ABSTRACT

The purpose of this study was to review the marketing literature that employed machine learning methodologies over the past three years. We classified the articles into several categories: consumer online reviews, social media posts, product/brand management, finance/banking marketing, distribution/B2B marketing, and others. We highlighted methodologies, findings, and further research avenues involving machine learning applications. We conclude that existing research in this field is far from saturated, and there are plenty of emerging research problems that require further attention.

Keywords: *Machine Learning, Marketing, Literature Review, Classification*

INTRODUCTION

Machine learning is defined as the capacity of a machine to learn, contingent on preceding data (Luh and Aamer, 2023). This learning is called unsupervised if there is only input data, whereas if both input and output data exist, it is called supervised learning. Commonly observed algorithms in machine learning applications include regression, decision trees, k-means, random forests, and neural networks. As a subset of the larger field of artificial intelligence, machine learning applications are growing rapidly and represent the top trending methodology of our era. Consequently, marketing researchers have taken notice, and the number of articles in the marketing discipline employing this technique is growing exponentially.

The purpose of this research is to review the marketing literature on machine learning and develop a classification scheme that outlines the most commonly observed topics employing this method. We hope that this approach helps guide researchers in selecting topics to enhance their research streams by identifying gaps and opportunities for further inquiry.

METHODOLOGY

We accessed the ABI Inform database with a filter focusing on the last three years (2022–2025) and the keywords "marketing," "machine," and "learning" within the set of articles published in the marketing discipline. We included only full-text, peer-reviewed academic studies and excluded practitioner/non-academic studies. After careful scrutiny of the search results, we further excluded any journals not directly within the marketing discipline or published in a language other than English, resulting in a search result of 54 studies. Additionally, we eliminated studies not directly related to a machine learning application within marketing research, ending up with a final list of 33 articles. Table 1 lists the journals and number of articles from each journal. We summarized and categorized the articles within a framework that included the following recurring topics: consumer behavior, product/brand management, finance/banking marketing, distribution/B2B marketing, and others.

Table 1
Journals and Number of Articles

Journal Name	**Number of Articles**
Journal of Marketing Analytics	6
Journal of Financial Services Marketing	2
Marketing Intelligence & Planning	3
International Marketing Review	2
The International Journal of Bank Marketing	3
Journal of Fashion Marketing and Management	1
The Journal of Consumer Marketing	3
Journal of Contemporary Marketing Science	1
International Journal of Pharmaceutical and Healthcare Marketing	1
The Journal of Business & Industrial Marketing	2
International Journal of Retail & Distribution Management	1
International Journal of Sports Marketing & Sponsorship	2
The Journal of Product and Brand Management	2
Journal of the Academy of Marketing Science	2
Asia Pacific Journal of Marketing and Logistics	2

RESULTS

We categorized the articles as seen in Table 2. We will discuss the article details in the following section.

Table 2
Research Classification

Category	**Subcategory**	**Authors**
Consumer Behavior	*Consumer Online Reviews*	Ahmad and Laroche (2023)
		Çalli (2023)
		Poushneh and Rajabi (2022)
		Barari et al. (2023)
	Consumer Social Media Posts	Schlegelmilch, Sharma and Garg (2021)
		Wang (2023)
		Smith et al. (2022)
		Yadav et al. (2022)
		Yelkenci, Ozdagoglu and Ilter (2023)
		Wilk, Roni and Jie (2023)
		Li and McCrary (2022)
		Haines et al. (2022)
		Barari (2023)
Product/Brand Management		Xiao and Tan (2024)
		Woo, Dodoo and Choi (2023)
		Li and Nan (2023)
		Jang (2022)
		Zhang et al. (2024)
		Shankar and Parsana (2022)
Finance/Bank Marketing		Aslam, Awan and Fatima (2022)
		Grabe, Kwak and Archuleta (2023)
		Iman et al. (2023)
		Valluri, Vaju and Patil (2022)
		Poudel et al. (2023)
		Anand and Mishra (2022)
		Gao et al. (2022)
Distribution/B2B Marketing		Yaghtin and Mero (2024)
		Pandya, Kumar and Singh (2024)
		Curiskis et al. (2023)
		Vinicius et al. (2023)
		Luh and Aamer (2023)
Others	legal and regulatory environment	Malgieri (2023)
	sales management	Glackin and Adivar (2023)

CONSUMER BEHAVIOR

Within consumer behavior topics we noted two sub-types; (i) analysis of online reviews and (ii) studies of social media posts.

Consumer Online Reviews

We identified several studies that exclusively looked at consumer behavior by using the online reviews posted on the electronic medium. Ahmad and Laroche (2023) used machine learning-based text mining of consumer reviews posted on Amazon in order to conduct a semantic analysis. They found that knowing the area of knowledge, marketing objectives and machine learning method attributes are important to select various analysis techniques for better analysis outcomes. Similarly, Çalli (2023) used machine learning to analyze text data involving online user reviews for the mobile banking applications. Through their unsupervised learning methodology involving naïve Bayesian and random forest algorithms, they found that perceived usefulness and convenience were most commonly found factors that influenced user satisfaction.

Poushneh and Rajabi (2022) employed the Dirichlet allocation machine learning and gradient boosted tree methods to connect online customer feedback to ratings. They found that reviews containing concrete events and entities had a significant effect on customer ratings. Barari et al. (2023) studied the engagement between providers and customers in relationship to the performance of Airbnb as a business. By data collected from an international context, they gauged engagement using machine learning tools (i.e. naïve Bayes and support vector machine algorithms) and found that there are interdependent relationships between these three elements.

Consumer Social Media Posts

We observed a separate consumer behavior research perspective that was focused on social media posts. Schlegelmilch, Sharma and Garg (2021) used artificial neural networks and supervised machine learning in order to analyze the emotions and topics for tweets (X posts) posted during the pandemic in an international context. They analyzed 35 million tweets from 6 countries related to the pandemic and found emotions such as fear, anger, sadness, joy and disgust are commonly observed in the data. Wang (2023) used a semi-supervised machine learning method called guided Latent Dirichlet Allocation and analyzed the Instagram posts for NFL teams. They categorized all posts in terms of their main topic and created a regression model to assess fan engagement. They found that top two ways teams use Instagram for fan engagement is by providing information about the game and by giving updates about players.

Smith et al. (2022) studied the natural beauty movement on social media and used machine learning to train a model that can identify whether selfies posted by users on Instagram look natural (make-up free) or not. The used attribution theory to develop and test several hypotheses related to beauty perceptions and found that natural beauty doesn't equate to lesser consumption of beauty products but rather a preference to appear natural looking in order to enhance one's perceptions of inherent beauty. Consumers believe that if they appear to have spent too much effort on their appearance, their real beauty expressions would be undermined. Similarly, Yadav et al. (2022)

analyzed Reddit comments using machine learning in order to study gamers attitudes towards blockchain usage in esports (computer games). They utilized Ajzen's 1991 Theory of Planned Behavior in order to develop their model. They found that gamers on Reddit had a positive attitude in general for blockchain adoption in esports.

Yelkenci, Ozdagoglu and Ilter (2023) studied Twitter (X) consumer complaints such as brand switching, boycott and taking legal action by consumers using a multinominal logistic regression machine learning method. They emphasize utility of the machine learning for effective complaint handling. Also, on Twitter (X) Wilk, Roni and Jie (2023) used machine learning software Leximancer to analyze hundreds of thousands of tweets (X posts) from an international data set to explore purchase behavior of consumers during the pandemic. They found that while consumers in various countries shared similar feelings, their behavioral patterns depended on the topics in their locale.

Li and McCrary (2022) used Phyton scarper and Microsoft Azure Vision machine learning methods for the analysis of Instagram text and visual data to study pre- and post-pandemic consumer behavior. They found that consumers displayed a reactant mood to reassert their freedoms across cultures. Likewise, Haines et al. (2022) employed a machine learning software to analyze YouTube comments on fashion haul videos in a longitudinal study involving a decade of posts in order to see how themes related to sustainability changed over time. They found that the prevalence of sustainability related posts increased over time. Therefore, they suggest fast fashion brands to team up with socially responsible causes to fit into the evolving consumer interests towards eliminating waste, worker welfare and saving the environment.

Finally, Barari (2023) used social comparison and regulatory focus theories in order to study how consumer well-being is negatively influenced by human and virtual social media influencers. Their machine learning method involving naïve bayes and support vector machine analyzed the Instagram posts for social media influencers in the fashion and beauty industry. They found that consumer well-being can be negatively affected by social media influencer posts through negative emotions such as sadness, anger and anxiety.

PRODUCT/BRAND MANAGEMENT

We noticed that several studies analyzed product and brand management topics using machine learning. Xiao and Tan (2024) studied consumer acceptance of voice assisted products that uses machine learning in relationship with role clarity. They emphasized that consumers learning through trial is more effective than verbal learning for such products. They also found that voice assisted product features may in fact hinder consumer acceptance of products other than smart phones and speakers due to confusion with role clarity.

Woo, Dodoo and Choi (2023) studied brand anthropomorphism, which is a brand positioning type where human verbal and visual features are added to brands, using supervised machine learning methods. They analyzed Twitter (X) posts by applying the social exchange theory and found that brand management through consumer engagement is achieved commonly by socioemotional posts.

Li and Nan (2023) studied consumer online reviews in order to understand the relationship between brand perceptions and purchase intentions in the context of freezer sales by adding brand love as a mediator and emotional polarity as a moderator. They used machine learning methods (support vector machines for emotion classification and natural language processing for data transformation) to prepare their data and they used regression and t-tests and supported the hypotheses in their proposed model. Similarly, Jang (2022) studied the impact of host physical appearance features displayed on Airbnb profile pictures such as happy expression, hair color and head tilt as well as whether a profile picture is posted or not on lodger ratings using machine learning techniques. By using Azure computer vision instrument for their visual data processing, the authors found that it is very important to have pictures with positive and clearly visible facial features posted on Airbnb profiles from a marketing strategy standpoint.

Zhang et al. (2024) state that music streaming is now an industry worth more than $40 billion with an increasing usage. They studied the popularity of songs at Spotify using a non-linear machine learning model that incorporates phonic attributes with music type. They found that for different music types, attributes such as danceability and various auditory features play a role in song demand. Finally, Shankar and Parsana (2022) evaluated the machine learning methods used in the literature in order to classify suitable types of analysis for various marketing research topics. They paid special attention to natural language processing (NLP) applications and rapidly growing unstructured data types. They found that NLP analyses are utilized in a wide variety of contexts involving new product development, marketing communications, positioning, targeting and segmentation, sustainability, and competitor analysis. They highlighted the emerging generative pretrained transformer models (GPTs) as the next frontier in marketing applications of NLP.

FINANCE/BANK MARKETING

Finance and bank marketing is an area where machine learning was extensively applied. Aslam, Awan and Fatima (2022) used a machine learning method to study mobile payment usage of consumers. They found that support vector machine performs better than logistic regression in classification of mobile banking application users. Correspondingly, Grabe, Kwak and Archuleta (2023) used the ensemble machine learning method to study consumer access to financial services in the U.S. They used a model from healthcare and studied variables such as financial distrust in a random forest analysis for understanding motivations of the unbanked population segments. Their main finding was consumer segments that perceive themselves as not eligible for a loan below one thousand dollars, elder or with significant suspicion about the state of the economy are more inclined to remain bankless.

Iman et al. (2023) used technology readiness acceptance model (TRAM) in order to study open banking practice that is popular around the world where banks share consumer financial data with third parties and app developers so that consumer banking access and innovation increases. They used PLS-SEM in addition to machine learning instrument to analyze the responses to a survey involving open banking features and consumer attitudes. They found that consumers are interested in open banking but the technology has to be easy to use with extensive utility. Also, contrary to prior research, they did not note a significant effect of financial literacy on open banking adoption. Along similar lines, Valluri, Vaju and Patil (2022) studied the churn on used auto loans. They employed various machine learning techniques including random forest and decision trees and found that specific consumer traits such as net worth, age and employment need to be carefully scrutinized by financial institutions to improve effective use of credit.

Poudel et al. (2023) used neural networks and least squares machine learning methods to study cryptocurrency price volatility. They also attempted to predict the actual price of the cryptocurrencies using machine learning methods based on VAR, linear regression and several types and they showed making good predictions is possible. In a related manner, Anand and Mishra (2022) studied the financial behavior of customers in the finance industry. They used machine learning (vector machines) to understand propensity of consumers to accumulate savings and their resulting monetary comfort or discomfort in a model that uses consumer actions, earnings, and financial proficiency as classifiers. They found that using machine learning improves the adjustability of data modeling for quickly changing consumer preferences. They believe that increasing financial literacy of consumers would help them to become buyers of financial instruments. Finally, Gao et al. (2022) studied telecom upselling through consumer creditworthiness in China using a series of machine learning techniques involving random forest, support vector machines, deep neural networks, deep learning and gradient boosted trees. Their model provides the telecom companies the ability to manage consumer default and improved relationship management operations.

DISTRIBUTION/B2B MARKETING

Machine learning found extensive application in marketing channel management and B2B marketing context. Yaghtin and Mero (2024) state that machine learning methods can be used in B2B marketing in order to enhance customer service. Machine learning can be improved if human beings are added to the system at market analysis, information creation, and data organization steps of deployment where more personalized styles of marketing communications are possible.

Pandya, Kumar and Singh (2024) studied industry 4.0 attributes that include blockchain, big data, cybersecurity, 3D printing and internet of things along with machine learning in the context of medium or smaller sized companies in India. They found that machine learning based predictive analysis is an important factor that determines sustainable operations in the context of B2B marketing. Real time computing, machine learning and predictive analytics were seen to be most important attributes of industry 4.0 in India for sustainable enterprise. In parallel, Curiskis et al. (2023) studied B2B software services and developed a machine learning model to predict customer lifetime value. Their hierarchical ensemble technique aimed to optimize return on investment. Their model helps with deciding on how a company can use its time, effort and finances, improve product management, increase repeat customers and aid in running the business.

Finally, Vinicius et al. (2023) studied retail store parking lot occupancy from Google Images using computer vision and convolutional neural network machine learning methods in order to gauge channel member sales performance. They found support for the feasibility of this unique approach where they demonstrated that there is a relationship between the two. Finally, Luh and Aamer (2023) applied simple tree and random forest machine learning methods to demand prediction in supply chain management. They found that these methods improved forecasting preciseness.

OTHERS

We noted two other articles that were outside of our classification. The first one was on legal and regulatory environment; Malgieri (2023) studied the legality of online machine learning practices vis-à-vis illegal and intrusive marketing applications in the European Union. They explored whether the European Data protection legislation with its focus on candor, legality, risk and significant effect and solution framework involving ceasing misuse and improved transparency is effective in regulating unethical use of machine learning in marketing. They used a doctrinal legal research methodology and found that safe keeping of data would fulfill consumer confidence in businesses and improve societal impact. The also developed a step-by-step flowchart where marketers can identify the legality and ethicality of their machine learning practices in each stage involving fairness, lawfulness and risk level. The other outlier article was on sales management; Glackin and Adivar (2023) employed several theories from the sales management literature and applied supervised learning machine learning methods to the classical motivation-performance research stream. They found that direct sales background, tech skills, and job rank has a relationship to this linkage.

CONCLUSION

Overall, we found that marketing researchers have recently applied machine learning primarily to consumer behavior, particularly in social media and web content, product/brand management, as well as finance and B2B/distribution domains. However, there appears to be a dearth of research in areas such as marketing promotions, segmentation, positioning, and pricing. Additionally, the newly emerging Generative Pre-trained Transformer (GPT) models, which are deep learning models capable of generating human-like text based on the input they receive, are expected to attract significant attention for marketing applications and research. Overall, existing studies are far from saturated, and machine learning remains a fertile ground for marketers to explore further applications.

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EXXONMOBIL ACQUISITION OF PIONEER NATURAL RESOURCES: A TEST OF MARKET EFFICIENCY

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ABSTRACT

On October 23, 2023, ExxonMobil announced a record-setting all-stock acquisition of Pioneer Natural Resources, valued at $59.9 billion (or $253 per share). The deal is the ninth largest merger and acquisition (M&A) in history and the largest in the Energy sector in the twenty-first century. The purpose of this study is to test the Efficient Market Hypothesis, particularly its semi-strong form, which claims that rapid information absorption prevents significant stock price gains in response to new information. This research uses the standard event study methodology in the finance literature to investigate ExxonMobil's merger with Pioneer and its impact on the stock prices of 30 companies in the Energy sector traded on the New York Stock Exchange. The study aims to discern whether stock returns exhibited reactions prior to, on, or after the public announcement of the ExxonMobil acquisition of Pioneer, therefore assessing market efficiency. Using historical stock and S&P 500 index data, the study analyzes holding period returns, performs regression analyses for pre-event periods, and calculates average excess returns. Results indicate statistically significant positive impacts on stock prices surrounding and on the event date. The analysis shows a rise in adjusted stock prices approximately 7 days before the event suggests anticipatory market behavior, in line with semi-strong market efficiency (Bacon & Reis, 2024). The study highlights price gains in response to new information and further emphasizes the role of external factors, regulatory changes, and industry knowledge in shaping market responses. The case of ExxonMobil and Pioneer is one where financial institutions and those alike can learn strategies on future M&A deals in the Energy sector. The study results support the semi-strong form efficient market hypothesis and suggest the possibility of trading on this information up to 7 days prior to the announcement consistent with the behavioral finance literature (Bacon & Howell 2021). ExxonMobil's acquisition of Pioneer Natural Resource Group gives insight into one of the largest acquisitions in history and its impact on financial markets.

INTRODUCTION

On October 23, 2023, ExxonMobil's (Exxon) acquisition of Pioneer Natural Resource Group (Pioneer) became the largest merger and acquisition (M&A) deal in the Energy sector in the twenty-first century, and ninth largest of all time. M&A are pivotal events that reshape industries by influencing corporate strategies, market dynamics, and shareholder value. The energy sector, characterized by capital-intensive operations and fluctuating commodity prices, and has witnessed several major M&A deals, including Exxon's acquisition of Pioneer. This study examines whether ExxonMobil's acquisition of Pioneer supports the semi-strong form of Efficient Market Hypothesis (EMH), where stock prices react immediately to public disclosures, preventing abnormal returns. Event studies assess how announcements impact stock returns, with market reactions varying based on investor anticipation and prior insights. To explore this hypothesis, the event study methodology is applied to data collected during the period before the event announcement and after. This approach evaluates abnormally high returns by comparing actual stock returns to expected returns. The study is focused on the market returns of 30 Energy sector companies listed on the New York Stock Exchange (NYSE), and analyzing holding period return, average excess return, and cumulative average excess return before, during, and after the announcement, and more. By analyzing these returns, we aim to determine whether stock prices anticipated the acquisition or reacted only after the public disclosure.

LITERARY REVIEW

This study examines market efficiency surrounding ExxonMobil's merger with Pioneer, based on Fama's (1970, 1976) three forms. Weak-form efficiency suggests stock prices incorporate all past data, preventing investors from earning excess returns using historical trends. Studies supporting the random walk theory indicate price movements are unpredictable, making it impossible to outperform the market based on past information (Fama, 1965). Semi-strong form efficiency asserts that stock prices adjust instantly to publicly available information, preventing abnormal returns from announcements such as dividends, stock splits, or earnings reports. Empirical tests confirm this theory, demonstrating rapid price reactions to new information (Fama, Fisher, Jensen, & Roll, 1969). Research also links higher information quality to increased market efficiency (Tung & Marsden, 1998). Strong-form efficiency suggests stock prices reflect all information, including insider knowledge, making it impossible for any investor to gain above-normal returns. However, studies show mixed results, as insider trading can still provide advantages in certain cases (Jaffe, 1974; Finnerty, 1976). If the market is truly strong-form efficient, even those with private information would be unable to achieve excess profits. To test semi-strong efficiency, this research analyzes the risk-adjusted returns (through historical returns) of 30 Energy sector firms and the S&P 500 before and after ExxonMobil's merger announcement on October 23, 2023 (Ross et. al., 2016). If prices adjust immediately with no persistent trend, the results support semi-strong market efficiency, reinforcing that public information alone cannot generate abnormal returns (Ross et. al., 2016; Bacon & Howell, 2021; Bacon & Cannon, 2018; Bacon & George, 2023 Bacon & Reis, 2024).

METHODOLOGY

This study examined a sample of 30 Energy sector to test the impact of the announcement of ExxonMobil's acquisition of Pioneer Natural Resource Group on stock price returns. Table 1 provides a description of the study sample. The studied event was the announcement of ExxonMobil's acquisition of Pioneer Natural Resource Group on October 23, 2023. Using the standard event study methodology from the finance literature, the study analyzed the sample of energy companies' returns against the corresponding S&P 500 Index with just over 6,500 observations to test the semi-strong form efficient market hypothesis with respect to the announcement of ExxonMobil's acquisition of Pioneer Natural Resource Group (Reis & Bacon, 2024). The announcement date of the acquisition is day 0. Historical stock and corresponding S&P 500 prices used in this event study were obtained from the Yahoo Finance website (http://finance.yahoo.com). The following steps were taken to conduct the event study test.

The historical stock prices for the sample of energy companies as well as the S&P 500 index were obtained for the event period from -180 days to +30 days from the event date. Days -30 through +30 define the event period and day 0 is the announcement date of October 23, 2023. Next, the holding period returns of the sample companies and the corresponding S&P index were calculated for each day in this study period using the following formula: HPR = (Current day's closing price – Previous day's closing price) / Previous day's closing price. Then, a regression analysis was performed for the pre-event period from day -180 through day -31 using the actual daily return for each Energy sector company as the dependent variable and the corresponding S&P 500 daily return as the independent variable. Table 2 shows the alphas and betas for each company. Next, the risk adjusted method was used to calculate the normal expected returns as follows: E(R) = alpha + (beta*Rm), where Rm is the return of the market (S&P 500 index). After that, the excess return was calculated as follows: ER = Actual Return (R) – Expected Return E(R). The Average excess returns (AER) were calculated for each day during the event period (from -30 through +30) as follows: AER = Sum of all excess returns for each day / N where: N equal the number of companies. Then, the Cumulative AER (CAER) was calculated for the event period by adding the AERs for each day for the sample. After that, graphs of the AER and CAER were plotted for the event period and are included in Figure 1 and Figure 2 (Bacon & George, 2023)

TABLE 1
ALPHAS AND BETAS OF STUDY SAMPLE

TICKER	FIRM NAME	ALPHA (α)	BETA (β)
CVX	Chevron Corporation	-0.001017066	0.608830398
SHEL	Shell plc	0.000226841	0.657559953
COP	ConocoPhillips	3.47963E-06	0.741240142
TTE	TotalEnergies SE	0.000162744	0.607926516
ENB	Enbridge Inc	-0.000963836	0.704968984
PBR	Petróleo Brasileiro S.A.	0.001403154	0.590173145
BP	BP p.l.c.	-0.000168014	0.638841905
EOG	EOG Resources Inc.	-0.000349466	0.853934385
EPD	Enterprise Products Partners LP	2.84014E-05	0.305981502
WMB	The Williams Companies, Inc.	0.0002852	0.738406743
CNQ	Canadian Natural Resources Limited	0.00036343	0.913880115
ET	Energy Transfer LP	-7.13498E-05	0.606139052
EQNR	Equinor ASA	0.000127653	0.488509081
OKE	ONEOK, Inc.	-0.000270367	0.875083329
KMI	Kinder Morgan, Inc.	-0.000482044	0.667292405
SLB	Schlumberger Limited	-0.000414371	0.897617969
PSX	Phillips 66	0.001085668	0.595793676
TRP	TC Energy Corporation	-0.000693267	0.662784265
MPLX	MPLX LP	0.000227913	0.191857907
LNG	Liquefied Natural Gas	0.000500309	0.609577936
FANG	Diamond Back Energy, Inc.	0.000145359	0.826266112
SU	Sun Core Energy, Inc.	-0.0003161	0.708679477
MPC	Marathon Petroleum Corporation	0.000900858	0.748067747
OXY	Occidental Petroleum Corporation	-0.000519766	0.70043661
E	Eni S.p.A.	9.62463E-05	0.74203645
HES	Hess Corporation	-0.00022168	0.908061802
TRGP	Targa Resources Corporation	0.012801006	0.026687879
AMPY	Amplify Energy Corporation	-0.001290417	0.922004345
SUN	Sunoco LP	0.000310005	0.469411202
NFE	New Fortress Energy, Inc.	-0.00031384	1.261518279

To test for semi-strong market efficiency on the announcement, the following null and alternative hypotheses are used for the sample:

H10: *The risk adjusted return of the stock price of the sample is not significantly affected by this type of information on the announcement date.*

H11: *The risk adjusted return of the stock price of the sample is significantly positively affected by this type of information on the announcement date.*

H20: *The risk adjusted return of the stock price of the sample of Energy companies is not significantly affected by this type of information around the announcement date as defined by the event period.*

H21: *The risk adjusted return of the stock price of the sample of Energy companies is significantly positively affected around the announcement date as defined by the event period.*

QUANTITATIVE TESTS AND RESULTS

This study evaluated how the market reacts to new information, focusing on whether investors can achieve above-normal returns or if the market efficiently processes public announcements, such as ExxonMobil's merger with Pioneer Natural Resources. The analysis aimed to determine whether such events provoke significant market reactions and reveal insights about market efficiency. When examining ExxonMobil's merger announcement, differences between Actual Average Returns (AAR) and Expected Average Returns (EAR) during the event period provided critical evidence. Essentially, the question explored was: Is it possible to outperform the market? Employing a paired t-test to scrutinize the statistical distinction between risk-adjusted daily average excess returns and cumulative average excess daily returns over the event period (day -30 to +30), the findings substantiated alternative hypotheses H11 and H21. T-tests of AER and CAER indicate a difference at the 5% significance level. The implications suggest a significant positive impact on the stock prices of the sample firms surrounding and on the event date.

The Average Excess Return (AER) and Cumulative Average Excess Return (CAER) graphs below illustrate market efficiency and the relationship to time, particularly around the announcement date (Day 0). The CAER graph indicates that the merger announcement influenced stock prices prior, during, and after the event as values remained at a relatively constant increase with a spike from day -12 to 0. This pattern suggests that it might be possible for an investor to outperform the market following such an announcement. However, the market displayed signs of semi-strong efficiency by Day 12, as stock prices began reverting toward equilibrium. Additionally, evidence of potential insider information emerges, with stock prices starting to climb approximately 12 days before the official announcement. This supports the theory that the market reacts prior to the announcement of information.

FIGURE 1
TIME VS. AVERAGE EXPECTED RETURN

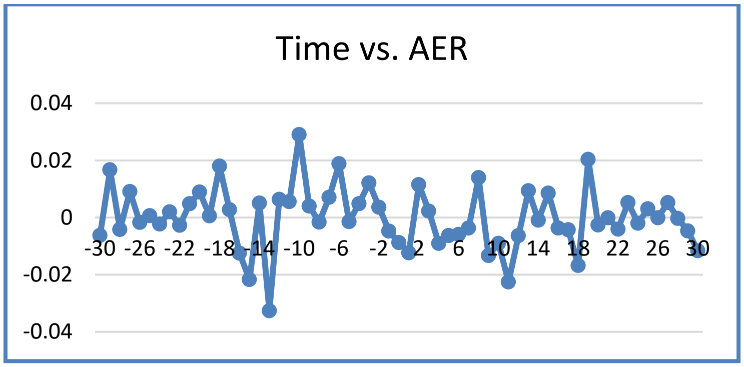
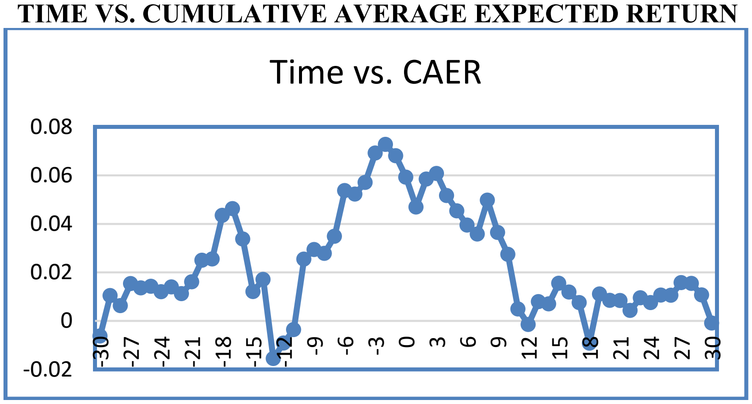


FIGURE 2
TIME VS. CUMULATIVE AVERAGE EXPECTED RETURN



CONCLUSION

The acquisition of Pioneer Natural Resources by ExxonMobil shows the significant impact of mergers and acquisitions in the energy sector. This study tested the semi-strong form of the Efficient Market Hypothesis by examining stock price reactions to this event. The analysis revealed that market participants responded to the announcement with significant stock price adjustments, as seen in the Average Excess Return (AER) and Cumulative Average Excess Return (CAER) data. The findings demonstrated a rise in adjusted stock prices leading up to and shortly after the public announcement, suggesting anticipatory market behavior and the possible influence of insider information. Moreover, the results support the principles of semi-strong market efficiency. While the data indicated opportunities for abnormal returns prior to the event, consistent with behavioral finance theories, the market's adjustment following the announcement affirmed the EMH theory. By Day 12, prices showed signs of equilibrium, underscoring the market's resilience and efficiency. This study provides insight into the market dynamics that surround major corporate events. For investors and financial institutions, the ExxonMobil-Pioneer merger highlights the importance of timing and information accuracy in decision-making. The effects of this acquisition go beyond shareholder gains, offering insights into strategic consolidation and its effects on market behavior in the energy sector.

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ASSESSING HEAT VULNERABILITY IN NASHVILLE: THE ROLE OF BUILDING VALUE, TREE CANOPY, AND SOCIOECONOMIC FACTORS

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ABSTRACT

As urban heat islands (UHIs) intensify temperature disparities in cities, cooling demands rise, placing strain on energy infrastructure and increasing household energy costs. This study intends to investigate the relationship between UHIs, using the Heat Vulnerability Index (HVI) as an indicator for UHIs, and various socioeconomic and environmental factors in the Nashville, Tennessee area. This was done to understand how tree canopy coverage, building value, median household income, number of households, persons per household, and poverty rate all contribute to HVI scores across various Nashville neighborhoods. Data was gathered from publicly accessible sources, including Nashville Electric Service, The U.S. Census Bureau, FEMA, Yale Center on Climate Change and Health, and PlanIT Geo, before being analyzed at the census tract level. Multiple linear regression modeling revealed that building value, median household income, number of households, persons per household, and poverty rate all influenced HVI scores significantly. Furthermore, the model had an R^2 value of 0.491, meaning it explained 49.1% of the variance in HVI scores. Overall, the model used in this study suggests that urban planning strategies geared toward addressing socioeconomic disparities and building infrastructure that is intended to reduce UHI effects would best help mitigate heat vulnerability in Nashville.

THE DUAL BENEFITS OF ETHICS AND VITA

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ABSTRACT

The Volunteer Income Tax Assistance (VITA) program is a free tax preparation service provided for low- to moderate-income taxpayers. As part of the course curriculum, students have the opportunity to enroll in a class that allows them to participate in this program and assist the local community. The program offers students and volunteers a chance to develop and apply their ethical skills in a real-world setting.

The purpose of this study was to examine the extent to which VITA students and volunteers experience ethical growth through real tax preparation, client interactions, and adherence to IRS regulations. This study explored how participation in the VITA program helped students develop their ethical competencies. By analyzing volunteer experiences and ethical decision-making scenarios in the tax preparation process, the study sought to determine whether hands-on involvement in tax preparation strengthened ethical awareness. Additionally, participation in the program enhanced students' and volunteers' ability to navigate ethical dilemmas.

Through a combination of surveys, virtual scenarios, and client-based assessments, the study measured changes in ethical reasoning, compliance with tax regulations, and the impact of IRS ethical training on volunteer behavior. The findings suggest that engagement in VITA strengthened ethical awareness and professional conduct. Students identified core professional competencies such as integrity, accountability, confidentiality, and professional responsibility as significantly heightened due to their participation in the program.

Key Words: *VITA, Ethics, Student Participation*

INTEGRATING AI IN INJURY PREVENTION, REHABILITATION, AND FINANCIAL POLICY: A COMPREHENSIVE ANALYSIS OF LOWER BACK AND LEG INJURIES IN VARSITY SOCCER PLAYERS

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Anthony Narsing, Middle Georgia State University
Mimi Ford, Middle Georgia State University

ABSTRACT

Injury prevention in varsity soccer remains a critical challenge, with lower extremity and spinal injuries being the most prevalent. Recent advancements in Artificial Intelligence (AI) offer new possibilities for injury prediction, prevention, rehabilitation tracking, and cost modeling, yet their implementation in high school soccer is limited. This study explores how AI-driven wearable technology, video motion analysis, neuromuscular training platforms, and financial modeling tools can enhance player safety, rehabilitation efficiency, and cost-effectiveness.

Using a survey-driven methodology, this research evaluates coaches' perceptions of AI adoption and its policy implications, integrating AI-based injury data from national databases (CDC, NFHS, NCAA). The study focuses on four key constructs:

1. *Injury Prevalence & Patterns – AI models confirm higher ACL injury rates in female athletes and greater lower back strain in male players.*

2. *Injury Mechanisms – AI-assisted video analysis highlights that non-contact injuries dominate, emphasizing the need for neuromuscular training interventions.*

3. *AI-Enhanced Strength & Mobility Training – AI-driven programs lead to lower injury rates and faster recovery.*

4. *Financial Impact & AI-Driven Cost Reduction – AI-based economic modeling demonstrates long-term cost savings for schools and families.*

Findings support policy recommendations, including AI-based injury surveillance, mandatory AI-assisted training, standardized rehabilitation tracking, and financial planning for AI adoption. This research provides a data-driven framework for enhancing athlete safety, rehabilitation outcomes, and financial sustainability in varsity soccer.

Keywords: *Artificial Intelligence, Injury Prevention, Rehabilitation, Varsity Soccer, Wearable Technology, Financial Modeling, Policy Development*

COVID-19 AND THE ENTERTAINMENT INDUSTRY: A TEST OF MARKET EFFICIENCY

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Frank Bacon, Longwood University

ABSTRACT

The World Health Organization declared the COVID-19 coronavirus outbreak as a global pandemic on March 16, 2020. How does the market react to a global pandemic announcement? How efficient is the market? The purpose of this study is to test for semi-strong form market efficiency. Will the Entertainment industry show excess gains or losses? The purpose of this study is to investigate the market efficiencies of the Entertainment Industries after the announcement by the World Health Organization that COVID-19 was a pandemic. When the lockdown came from the health organizations, and people were told not to go to public events such as this issue that live events and cinemas had to be closed, and people were told not to go to public events, this led to a huge growth in the entertainment industry. This had an impact on the entertainment industry as people had to resort to on-demand content or streaming platforms. Companies like Netflix and Disney experienced huge growth after the announcement because people had to stay at home. But did they immediately gain, or did they get negatively affected? At that time, nobody realized how big the impact of COVID-19 was. Millions of companies had to close because they couldn't cope with the financial pressure as they couldn't make any sales. For this study, I analyzed ten separate entertainment companies' stock prices after March 16, 2020, when the states began to implement shutdowns to prevent the spread of COVID-19. This study's results support the semi-strong form efficient market hypothesis and also show that the entertainment industries were negatively affected by the day of the announcement. (-30,+30 days)

***Keywords**: COVID-19, semi-strong form market efficiency, event study, negatively*

INTRODUCTION

The COVID-19 pandemic had a huge impact on the world, and it affected everyone. If we look closer at the entertainment industry, some industries suffered big losses while others had unexpected growth opportunities. Traditional entertainment companies such as cinemas, live events, or theatres were suffering a lot due to strict lockdowns and social distancing rules. Streaming platforms like Netflix, Disney, and Amazon Prime Video had the chance to rise at that time. Especially when the announcement of the worldwide shutdown in the World on March 16, 2020, came. Until that date, the world did not expect COVID-19 to have such a big effect on the world's industry. Now the question is how fast did the market reacted, and was it a semi-strong form efficiency? Also, it would be nice to see if COVID-19 had a negative or positive effect on the stock price during that timeline.

PURPOSE OF THE STUDY

The purpose of this study is to measure the market efficiency after the COVID-19 pandemic was officially announced and its impact on the entertainment industry. To measure the market efficiency, we will take data 30 days before and 30 days after the announcement to measure how fast the entertainment market reacted to information at a fast rate.

LITERATURE REVIEW

In 1970, Gene Fama, a finance researcher out of the University of Chicago, defined market efficiency in terms of how fast the stock market reacts to information. He said there are three forms of market efficiency: weak-form, semi-weak, and strong-form.

"If the market is weak efficient, then the stock price reacts so fast to all past information that no investor can earn above normal return (higher than the market or the return on the S&P 500 index) by acting on this type of information. Annual accounting reports are an example. These documents summarize the "past information" of the firm and, when mailed out, are past information. If an investor receives the report and buys the firm stock after discovering the firm had high earnings for the period and then the stock price does not rise, the market is said to be efficient with respect to past information and is weak-form efficient" (Farma, 1970)

"If the market is semi-strong form efficient, then stock price reacts so fast to all public information that no investor can earn above normal return (higher than the market or the return of the S&P 500 index) by acting on this type of information. Public announcements of stock splits, repurchases, and dividend increases are examples of public information. If one buys the stock on the announcement and still does not make an above normal return, the market is semi-strong form efficient." (Farma,1970)

"If the market is strong form efficient, then stock price reacts so fast to all information (public and private) that no investor can earn above normal return (higher than the market or the return on the S&P 500 index) by acting on this type of information. In this case, the market reacts to an event within the confines of the firm (or secret information) when it occurs even before it is publically announced. For this to occur, investors must act on insider information, which is illegal. If one buys the stock on the event and still does not make an above-normal return, the market is strong form efficient." (Fama, 1970)

METHODOLOGY

This study examines ten entertainment companies that the COVID-19 pandemic could potentially impact. The purpose of this study was to test the semi-strong form efficient market hypothesis by examining the risk-adjusted returns of 10 firms' stock prices from thirty trading days before the March 16, 2020, WHO global pandemic announcement to thirty days after. The firms' stock price returns were analyzed against the S&P 500 from 180 trading days before March 16, 2020, to 30 trading days after (September 17, 2019 – April 14, 2020). The following hypotheses were tested:

$H1_0$: The risk-adjusted rate of return of the sample of entertainment firms is not significantly affected by this information on the event date identified as the announcement date.

$H1_1$: The risk-adjusted rate or return of the sample of entertainment firms is significantly negatively affected by this information on the event.

$H2_0$: The risk-adjusted rate of return of entertainment firms is not significantly affected by information on the event date as defined by the event period.

$H2_1$: The risk-adjusted rate of return of entertainment firms is significantly affected by information on the event date as defined by the event period.

Using the standard risk-adjusted event study methodology in the finance literature, the stock market's response is tested to the event date of March 16, 2020, or the WHO global pandemic announcement. For this study, all of the stock return information for the sample of firms and the S&P 500 over and before the event period was collected from MarketWatch. This data included stock prices of the firms and S&P 500 from 180 days before to 30 days after the event date. The daily holding period returns of the companies (R) and S&P 500 (R_m) were calculated using the following formula:

Current Daily Return = (current day close price – previous day close price)/previous day close price

Using the holding period returns, a regression analysis was performed for each sample firm with the actual daily return for each company as the dependent variable and regressing it on the corresponding S&P 500 Index, the independent variable. The regression was performed over the pre-event period (day -180 to -31) to obtain the intercept, alpha, and the standardized coefficient, beta, for each firm. This regression analysis yielded the alpha and beta for each company over the pre-event period, as shown in Table 1.

Table 1

FIRM	ALPHA	BETA
Netflix,Inc. (NFLX)	0.00273236	0.70882239
Walt Disney (DIS)	-0.0012039	1.00239084
Sony (SONY)	0.00047456	0.78712857
Paramount Global (PARA)	-0.0056015	1.28211328
Comast (CMSA)	-0.0009285	0.87631574
Warner Bros Discovery (WBD)	0.00086762	-0.8258364
Live Nation (LYV)	-0.002179	1.11149904
MGM Resorts (MGM)	-0.0025558	1.7230014
Spotify Technology (SPOT)	0.00080965	0.58645824
NetEase (NTES)	0.00210009	0.69438775

To calculate the normal expected returns, the risk-adjusted method (market model) was used. The expected returns for each stock, for each day of the event period, are calculated using the formula:

$$E(R) = \text{Alpha} + \text{Beta}\ (R_m) \qquad (2)$$

Then, the excess return was calculated as:

$$ER = \text{Actual Return} - E(R) \qquad (3)$$

Average Excess Return was found for each day by averaging the Excess Returns for each firm on a given day as follows, where N is the number of sample firms:

$$AER = \text{Sum of Excess Returns}/N \qquad (4)$$

In addition, cumulative AER was calculated by adding the AER for each day of the event period, days -30 to +30. For the event period, graphs of CAER and AER were plotted to show their movement over time. Exhibits 1 and 2 below display the Average Excess Returns and the Cumulative Average Excess Returns plotted against time over the event period for the sample of firms. (Howell, 2023)

QUANTITATIVE TESTS & RESULTS

Did the market react to the March 16, 2020, WHO global pandemic announcement? Were the risk-adjusted stock price returns of the sample of firms significantly negatively affected? If there was a significant reaction to the event, it would be expected that a substantial difference between the Actual Average Daily Returns (Day -30 to Day +30) and the Expected Average Daily Returns (Day -30 to +30) should be observed. If a significant risk-adjusted difference is observed, then the evidence supports the alternative hypotheses that the global pandemic announcement caused a significant decrease in stock price returns. To test for a significant difference between the Actual Average Daily Returns and the Expected Average Daily Returns, a paired sample t-test was conducted and found a significant difference at a 5% level between the actual and expected risk-adjusted returns of the sample of firms. The result of these tests supports the alternative hypotheses $H1_1$ and $H2_1$ and concludes that the risk-adjusted return of the stock price of the sample firms is indeed significantly negatively affected around and on the event date. (Bacon & Howell,2021; Bacon & Cagigas, 2022; Keely & Bacon, 2023)

It is also important to determine how fast the market reacted to the March 16, 2020, WHO global pandemic announcement event to assess the level of efficiency of the market response. Did the market display weak, semi-strong, or strong form market efficiency? Specifically, are the Average Excess Returns (AERs) and the Cumulative Average Excess Returns (CAERs) for the samples of stocks significantly different than zero. T-tests of AER and CAER indicate a difference at the 5% significance level. Observation of AER and CAER over the event period for Exhibits 1 and 2 shows a significant negative reaction of the risk-adjusted returns of the stock prices of the sample when COVID-19 was announced to be a pandemic.

When analyzing the CAER over the event period in Exhibit 1 below, the goal is to determine how fast the market reacted to the event. According to Exhibit 1, there is an increase from day -3 until day 3, and then there is a decrease from day 3 to day 11. Consistent with market efficiency and behavioral finance theories (Fama, 1997), we observe a positive overreaction from day -3 to day +3, followed by a negative overreaction from day +4 to day +11, then another positive overreaction and a return to equilibrium by day +30.

Therefore, evidence shows that the market had already embedded the global pandemic announcement information into the stock prices of the sample companies before the event date of March 16, 2020, thus supporting semi-strong form efficiency. Since the market already responded prior to the event date, no investor could earn an above-normal risk-adjusted rate of return on the event date.

EXHIBIT 1
Cumulative Average Excess Returns Per Day Surrounding the Announcement

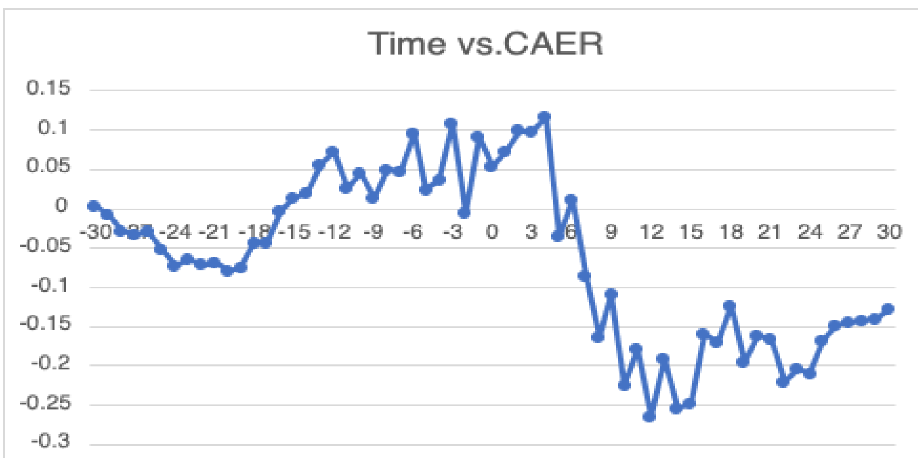
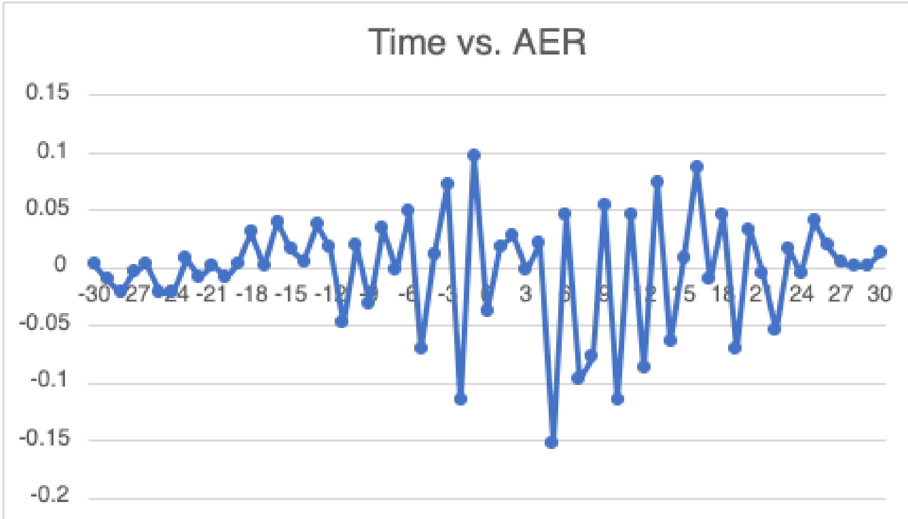


EXHIBIT 2
Average Excess Returns Per Day Surrounding the Announcement



CONCLUSION

The World Health Organization (WHO) on Monday, March 16, 2020, announced the rapidly spreading coronavirus outbreak as a global pandemic. The purpose of this study was to examine the pandemic to test for semi-strong form efficiency. Will the entertainment industry show gains or losses in the period of the COVID-19 announcement? As we found out for the ten entertainment industries, we looked at the Alpha and Betas to finally calculate the Cumulative Average Excess Returns Per Day Surrounding the Announcement and the Average Excess Returns Per Day Surrounding the Announcement we see in the graphs the effect during that event period. If we focus on Exhibit 1, we see a decrease from day 3 to day 11, which confirms a negative reaction. The Average Excess Returns in Exhibit 2 highlights spikes in daily returns around the event date, which shows increased volatility and consistent abnormal returns. Also, after running a two-sample t-test, we have statistical evidence (t-statistic= 4.3388 and P-value= .0005) that demonstrates a significant difference between actual and expected risk-adjusted returns at the 5% significance evidence. Both charts provide support that it is negatively affected. Lastly, the CAER supports semi-strong form market efficiency because it had first a positive overreaction from day 0 to +4 and a correction (negative overreaction) from day +3 to +11 and then a return to equilibrium by day +30.

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WHAT ATTRACTS FOREIGN DIRECT INVESTMENT TO THE U.S.: THE IMPACT OF PARTNERSHIP 2020 IN ATTRACTING INTERNATIONAL BUSINESS TO NASHVILLE METROPOLITAN STATISTICAL AREA

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ABSTRACT

The Nashville Metropolitan Statistical Area (MSA) experienced a population growth of 31,554 in 2023, equating to about 86 people daily. This growth is evident in infrastructure development, school expansion, and increased traffic. Alongside population growth, Nashville MSA has attracted 1,035 international businesses, with over USD 47 billion in capital investment as of October 2024. The area has seen consistent growth in sectors like medical equipment, navigational instruments, and motor vehicles due to foreign direct investment (FDI).

Literature identifies three main factors affecting inward FDI: productivity in labor, investment in education, and state government taxation. Higher labor productivity significantly increases a state's share of inward FDI. For instance, a 10 percent improvement in labor productivity boosts a state's share of inward FDI by approximately five percent. Investment in education also plays a crucial role, with a strong correlation between state spending on education and FDI inflows. Improved education quality further enhances FDI attraction, necessitating active investment in K-12 education and technical certification programs.

State government taxation and tax incentives are also pivotal. Tennessee's corporate income tax is 6.5 percent, with various tax incentives based on job creation, capital investment, and business type. Although Tennessee's corporate tax rate is not the lowest, its comprehensive fiscal package, including significant tax incentives and low property tax rates, positively influences inward FDI.

The Partnership programs, managed by the Nashville Area Chamber of Commerce, are strategic initiatives aimed at enhancing these factors to attract FDI. Initiated in 1990, these programs promote economic inclusion and sustainability, fostering a balanced and diverse economy. This research will focus on Partnership 2020 and its effectiveness in growing inward FDI in Nashville MSA, assessing the impact of these programs on the area's economic and social growth.

EMPIRICAL INVESTIGATION OF GENDER PAY GAP IN FACULTY SALARIES

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Tammy Johnston, University of Louisiana at Monroe
Cameron Sumlin, University of Louisiana at Monroe
Hannah Parker, Purdue University

ABSTRACT

Research on gender wage disparities reveals persistent global inequality across sectors and time. A long time has passed since 1979 when the U.S. Bureau of Labor Statistics first reported a 38% gender earnings gap. In academia, early 20th-century data showed only 1% of academic roles held by women globally, rising to 11% by 1969. A recent 2023 study of 7,000 universities worldwide identified enduring disparities in hiring, publications, citations, and promotions, though gaps in citations and promotions have narrowed over time.

The current case study of a historically Black university found no gender wage gap but highlighted salary compression for long-serving faculty, with mobility and discipline influencing salaries. Fields in Marketing, Management, and Computer Science commanded higher wages, driven by rank and specialization. Regional studies in Louisiana show faculty salary disparities are smaller than general workforce gaps, emphasizing the importance of occupation-specific analysis. Adjusting for rank, experience, and discipline often renders gender pay gaps statistically insignificant. However, unexplained gaps persist, demanding ongoing research and tailored interventions to address inequality comprehensively.

EXPLORING FACTORS ASSOCIATED WITH SELECTION OF CAREER CHOICE BETWEEN MEN AND WOMEN

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Tammy Johnston, University of Louisiana at Monroe
Anna Grigsby, University of Louisiana at Monroe

ABSTRACT

As universities and businesses are encouraged to diversify, the personal decision-making of individuals plays a role in who is available for various positions. Some fields of work are male-dominated, and others are female-dominated. Additionally, the gender pay gap has been an actively researched topic for decades. However, recent gender pay gap studies have shown that once job title, hours worked, years of experience, and education are included, the gender pay gap diminishes significantly. That is, differences in pay between men and women can be attributed to career choice, which is driven by personal values and preferences. Therefore, is there a difference in how men and women choose their careers? What considerations are deemed more important for men versus women? What is it that men versus women value in their career path? Understanding these differences in the thought process of choosing a career can assist universities and businesses in attracting a diversified field of applicants.

The current research surveyed high school students to ascertain what they consider the most influential and essential as they begin their career choice journey. The findings show that although men and women consider some factors equally, family-related considerations, such as weekday work only, flexibility, and daytime work only, are found to be key to the decision-making process of women. Additionally, women were found to gravitate towards more "helpful and caring" careers such as education and medical while men were more likely to choose engineering.

THE IMPACT OF ABUSIVE BEHAVIOR ON SOCCER REFEREE RECRUITMENT AND RETENTION: AN EXPANDED ANALYSIS

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ABSTRACT

Referees are fundamental to the integrity of soccer matches, yet abusive behavior from players, coaches, and spectators significantly affects their recruitment, retention, and job satisfaction. This study builds on previous research by incorporating additional qualitative insights and comparative analysis between USSF-governed youth soccer and NFHS-governed high school soccer. Using survey data and expert interviews, it examines how abusive behavior, role conflict, and organizational support influence referee attrition through the lenses of Social Exchange Theory, Role Theory, and Organizational Commitment Theory.

Findings indicate that the first 3-10 years of officiating are critical for referee retention, with younger referees (18-25) being significantly underrepresented. Social Exchange Theory suggests that abusive behavior increases the perceived costs of officiating, leading to early exits. Role Theory highlights the challenges referees face in managing conflicting stakeholder expectations, particularly in NFHS-governed high school soccer. Organizational Commitment Theory underscores the need for strong institutional backing, yet 19% of referees report feeling unsupported. Additionally, 75% believe that enhanced resources would improve retention. Unlike USSF, NFHS lacks a structured referee abuse prevention program, exposing high school referees to greater risks. Implementing a Referee Abuse Prevention (RAP) program and strengthening mentorship programs can provide sustainable solutions. This paper presents expanded insights into policy implications, referee training programs, and cultural shifts required to improve retention rates in soccer officiating.

Keywords: *Referee abuse, soccer referees, referee recruitment, referee retention, role conflict, referee organizational support, Social Exchange Theory, Role Theory, Organizational Commitment Theory, Referee Abuse Prevention (RAP) program.*

1.0 INTRODUCTION

Soccer referees ensure fairness and safety in matches, but their role is increasingly under threat due to verbal abuse, intimidation, and even physical violence. Referees at all levels face hostility, making it difficult to retain officials, particularly younger referees who are more vulnerable to these pressures. Recent studies indicate that most referees quit within their first 3-10 years, leaving a critical shortage in officiating ranks.

This paper expands upon previous findings by incorporating expert perspectives and comparative data on the factors influencing referee attrition. It addresses two key questions: How does abusive behavior impact recruitment, retention, and job satisfaction for referees? What strategies and policies can be implemented to mitigate these negative effects and ensure long-term referee retention? By leveraging Social Exchange Theory, Role Theory, and Organizational Commitment Theory, this study offers deeper insights into referee experiences and proposes data-driven interventions.

2.0 LITERATURE REVIEW

2.1 Social Exchange Theory: Cost vs. Benefit of Officiating

Social Exchange Theory (Blau, 1964) posits that individuals evaluate relationships based on perceived costs and rewards. For referees, fair treatment, respect, and institutional support serve as rewards, while verbal abuse, job-related stress, and lack of backing constitute significant costs. When the costs outweigh the benefits, referees opt to leave (Duvinage & Jost, 2019).

Key challenges that increase the cost of officiating include:

- **Verbal and Physical Abuse**: Studies reveal that referees subjected to consistent harassment experience higher levels of stress and burnout (Simmons, 2009).
- **Lack of Institutional Protection**: Many referees believe their governing bodies do not enforce strict enough penalties for abuse (Samuel et al., 2020).
- **Psychological Impact**: Referees who endure prolonged abuse may experience lower confidence, anxiety, and reluctance to officiate (Serenko & Bontis, 2016).

2.2 Role Theory: Navigating Stakeholder Expectations

Role Theory (Goffman, 1959) examines how individuals manage multiple role expectations. Referees must balance the often-conflicting expectations of players, coaches, spectators, and administrators (Anderson & Lee, 2020).

Key stressors include:

- **Conflicting Expectations**: Coaches demand favorable calls, players expect perfect accuracy, and spectators often misunderstand officiating decisions, leading to confrontational situations.
- **Physical and Mental Demands**: Referees run several miles per match while making split-second decisions under pressure, leading to fatigue and emotional strain (Aragão e Pina et al., 2018).
- **Insufficient Training**: Many referees enter high-stakes matches without adequate psychological preparation or communication training (Castagna et al., 2012).

2.3 Organizational Commitment Theory: Institutional Support and Retention

Meyer and Allen's (2021) Organizational Commitment Theory highlights how affective, normative, and continuance commitment influence workforce retention.

- **Affective Commitment**: Referees with emotional connections to the sport exhibit greater resilience (Leonov et al., 2024).
- **Normative Commitment**: Organizations that invest in referee development cultivate a sense of responsibility and duty among officials (Castagna et al., 2012).
- **Continuance Commitment**: Financial and psychological investments, such as training costs and certification requirements, influence retention (Webb, 2022).

4.0 RESULTS AND DISCUSSION

4.1 Referee Attrition Trends and Underlying Causes

Survey data reaffirmed a shortage of young referees, with those aged 18-25 significantly underrepresented. A bimodal distribution was observed, with many referees leaving within the first 3-10 years and a second group of long-term officials remaining in the profession. Expert interviews revealed that most referees who quit within the first five years cited verbal abuse and lack of organizational support as key factors. Those who persisted beyond 10 years often developed coping mechanisms or received structured mentorship.

4.2 The Impact of Abuse on Retention

The survey indicated that 77% of referees cited abuse as a primary factor reducing job satisfaction. Younger referees and those officiating high-intensity matches were particularly affected. Many expressed concern that governing bodies do not provide adequate protection, leaving them vulnerable to repeated mistreatment. The lack of enforceable penalties for verbal or physical abuse further discourages referee retention.

4.3 Stakeholder Expectations and Role Conflict

Role conflict emerged as a major stressor, with 62% of referees highlighting stakeholder expectations as their greatest challenge. Expert interviews confirmed that referees often experience significant stress from attempting to appease multiple parties while maintaining impartiality. This pressure leads to burnout, particularly in high school soccer, where games often have passionate community involvement.

4.4 Organizational Support and Referee Commitment

While 63% of referees felt supported by their organizations, 19% expressed dissatisfaction. A significant 75% believed improved resources would enhance retention. Interviewed referees emphasized the importance of mentorship programs and structured abuse reporting mechanisms, both of which were identified as missing in NFHS high school soccer settings.

4.5 Solutions and Policy Recommendations

- **Expanding Referee Abuse Prevention (RAP) Policies**: NFHS should implement strict penalties for abuse, mirroring USSF policies.
- **Enhanced Mentorship Programs**: New referees require structured guidance to build resilience against abuse and role conflict.
- **Psychological Resilience and Conflict Management Training**: Governing bodies should offer workshops on stress management and stakeholder communication.
- **Mandatory Stakeholder Education**: Coaches, players, and spectators should undergo training on appropriate referee interactions.

6.0 CONCLUSION

Referee abuse remains a critical barrier to recruitment and retention. Without immediate action, officiating shortages will worsen, jeopardizing the future of soccer. Implementing structured support programs, educational initiatives, and stronger disciplinary measures will help create a safer environment for referees and ensure the sustainability of officiating.

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LEADERSHIP CHALLENGES DURING COVID CRISIS

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ABSTRACT

The research paper includes the leadership experiences of those who led their organizations through the Covid-19 crisis. The problem facing leaders was bringing followers/staff together during a crisis and moving their organizations forward in times of uncertainty. The objective of the research study was to explore the crisis's impact on leaders, followers/staff, organizations, and customers. In addition, the praxis of transformational leadership theory was examined in the context of a crisis. The contribution of this qualitative study will add to and build upon the previous knowledge base of transformation leadership in a crisis. Moreover, it will benefit leaders by offering practical steps to take when faced with a crisis. The key elements to explore are: How did the Covid crisis impact leaders, followers, and organizational operations pertaining to customer service? What leadership skills are observed in a time of crisis? And how did leaders guide followers and organizations through the Covid crisis? The phenomenological design method applied to the commonality of the human experience of leaders who lead followers and organizations during the Covid crisis. In this study, the reader will understand better what it was like to be an organizational leader, leading followers and their organization through the crisis called Covid-19.

The Covid crisis changed the world and how businesses operate (IBM, 2021). The Covid pandemic spread with alarming speed, infecting millions and bringing economic activity to a near-standstill as countries imposed tight restrictions on movement to halt the spread of the virus (World Bank, 2020). Covid is a highly contagious respiratory disease caused by the SARS-CoV-2 virus that is spread from person to person through droplets released when an infected person coughs, sneezes, or talks (National Cancer Institute, 2020). Furthermore, Covid may also be spread by touching a surface with the virus on it and then touching one's mouth, nose, or eyes, making it contagious and easy to spread. Covid is considered a serious illness that may include life-threatening pneumonia and organ failure (National Cancer Institute, 2020). The Covid virus has caused significant disruption in global, local, and personal economies and has created an environment of uncertainty that seems to have no end. In addition, Covid affected how business owners did business and how healthcare workers cared for patients. Moreover, Covid challenged pastors of churches about when and where to conduct religious services. Family get-togethers, holiday celebrations, and sports attendance were affected. Children's education, attendance of funerals, weddings, and the birthing of newborn babies were also affected. Air/bus/train travel, vacation plans, and much more were also touched by Covid. In addition to all this, the approach to how best to deal with Covid, to wear a mask or not, to vaccinate, caused divisions between family members, politicians, medical professionals, church leaders, students and teachers, school boards, and parents. Almost every segment of society and social strata was affected by the crisis we called Covid. The problem facing leaders was bringing followers together during a crisis and

moving their organizations forward in times of uncertainty. Current research shows a plethora of information concerning the impact of the Covid virus on global economies and businesses, medical research, vaccines, testing, physical symptoms, and how to treat them. However, the research is incomplete because Covid is an ongoing crisis phenomenon. A public health expert on the coronavirus response describes it as "we're building the plane as it's flying" (Ciammachilli, 2020). Current research has focused on the impact of Covid and how to build the plane. Yet, there needs to be more research on how leaders can help guide and safely land the plane for their followers and organizations. In addition, there is a need for greater insight into how organizational leaders can adapt to leadership praxis that brings their followers together and move their organizations forward in a time of crisis.

The qualitative study focuses on the praxis of transformational leadership and its effectiveness in the Covid crisis for both the follower and the organization. Furthermore, the study recommends what adjustments organizational leaders can make to adapt to new ways of doing business, bring followers together, and move organizations forward. The qualitative research is significant because it will benefit leaders and organizations who feel helpless and overwhelmed when faced with a crisis. This research study will add to and build upon the previous knowledge base of transformational leadership in a time of crisis.

The phenomenological study aims to define the Covid crisis and its impact on leaders, followers, and organizations. In addition, describe transformational praxis that leaders can adopt that will help followers build trust and feel cared for; to explore new ways to move their organizations forward in the middle of a crisis. Based on the analysis, the study seeks to answer the following questions: How did the Covid crisis impact leaders, followers, and organizational operations? What leadership skills were observed during the Covid crisis? How were leaders guiding followers and organizations through the Covid crisis?

LITERATURE REVIEW

The phenomenological approach to this qualitative study examined the ongoing Covid crisis and its impact on leaders, followers, and organizations. While there has been much research on the Covid crisis, there needs to be more research on how organizational leaders can best navigate the uncertainty of the Covid crisis. Furthermore, there is a need for research on how organizational leaders can adapt to leadership praxis that brings their followers together and move their organizations forward in a crisis. The three main topics explored are a) defining and analyzing the Covid crisis and its impact on global and local organizations, b) exploring the effectiveness of transformational leadership in crisis, and c) leadership skills to bring followers together and move organizations forward. The literature review scope will be current from 2010-2021, with some exceptions where older works are cited in recent research and seminal works. This study aims to show the need for transformational leadership to be at the wheel during uncertain times.

DEFINING COVID CRISIS AND IMPACT

What is the Covid Crisis? Covid is a highly contagious respiratory disease caused by the SARS-CoV-2 virus that is spread from person to person through droplets released when an infected person coughs, sneezes, or talks (National Cancer Institute, 2020). Furthermore, Covid may also be spread by touching a surface with the virus on it and then touching one's mouth, nose, or eyes, making it contagious and easy to spread. Covid is considered a serious illness that may include life-threatening pneumonia and organ failure (National Cancer Institute, 2020). On the other hand, the description of crises, according to Barton (1994) are unexpected and unpredictable circumstance required rapid response and threatens the values, goals, and assumptions by neutralizing the prevention and adaptation mechanisms of the firm (Celik et al., 2016). Rosenthal et al. (2009) defined a crisis as an event that threatens an organizations' viability and is dominated by ambiguity and uncertainty (Zhang et al., 2012). Connecting the description of the Covid virus and the definition of "crisis" revealed that the Covid crisis is real and affects every sector of society, and has been disconcerting for leaders and the organizations they lead.

The economic impact around the world has been affected in many ways. To be sure, poorer countries have suffered the most, but, despite their greater resources, wealthier countries have faced their own challenges (Sanchez, 2021). Moreover, World Bank (2020) warned that as the health and human toll grows, the economic damage is already evident and represents the largest economic shock the world has experienced in decades. In the U.S., small and mid-sized businesses have demonstrated a disproportionate impact from the Covid-19 pandemic, with over 43% surveyed reporting a significant to severe impact (Shane, 2020). Furthermore, Shane (2020) stated that nearly 48% of businesses with 1-4 employees had experienced a significant or severe impact and 37% of businesses with 20-49 employees. The saying is, "numbers do not lie," the above alarming numbers challenge small business leaders to look for ways to transform and reinvent themselves. The impact of the Covid -19 crisis affected every area of our lives, "Living this calamity at the head of a company breaks every seam in any comfort zone" (Arias-Chachero, 2020). Furthermore, this crisis "presents us with continuing challenges we never thought we would have to face" (Arias-Chachero, 2020).

EFFECTIVENESS OF TRANSFORMATIONAL LEADERSHIP IN CRISIS

Leaders worldwide struggle with the challenges of crisis, which demonstrates the undeniable fact that leadership and crisis are closely intertwined (Prewitt & Weil, 2014). The next logical question is, "What kind of leadership would be most effective in crisis?" Transformational leadership is the process whereby a person engages with others to create a connection that raises motivation and morality in the leader and follower (Northouse, 2010). Burns (2004) states that leaders are people who tap the motives of followers to better reach the goals of both leader and follower. It is clear that from these two statements that leadership must engage the follower to lead successfully through a crisis. Followers feel trust, admiration, loyalty, and respect toward the leader, and they are motivated to do more than they were originally expected to do (Bass, 1985, 1996). A leader who transforms and motivates followers by making them more aware of the importance of task outcomes, inducing them to transcend their own self-interest for the sake of the organization or team, and activating their higher-order of needs (Yukl & Gardner, 2020, p.215). Transformational leaders who suggested alternative solutions to problems and who showed individualized consideration to followers were able to redirect follower negative feeling of frustration and helplessness to more constructive ones, which, in turn, led to heightened followers' performance (Hur et al., 2011). The Apostle Paul demonstrates an example of transformational leadership in a crisis in Acts 27:14-44. Observing the effectiveness of Paul's leadership on board a sinking ship defines leadership in the context of crisis. Paul demonstrated transformational leadership by caring for the followers (encouraging them to eat) and the mission/organization. In a time of crisis, transformational leaders will show individual consideration and motivate followers to do more for the sake of the organization. Transformational leaders will motivate followers to transform and reinvent new processes in the performing of tasks.

BRINGING FOLLOWERS TOGETHER AND MOVING ORGANIZATIONS FORWARD

It is no longer a question of predicting the future but of inventing the present (Arias-Chachero, 2020). Inventing the present takes an open mind, practicing curiosity, being willing to listen to a different opinion, learning from others, and being willing to experiment and accept failure when it occurs (Arias-Chachero, 2020). The old barriers are being brushed aside under the pressure of unrelenting disruption, rapidly evolving customer expectations, and an unprecedented pace of change (IBM, 2021). Priorities are changing to emphasize workforce safety and security, cost management, and enterprise agility (IBM, 2021). The conversations that leaders need to have with employees is, to be honest, and transparent in acknowledging the facts, acknowledge the feelings of the uncertainties of the future, and be willing to go first to close the distance with the employee by speaking honesty and be willing to listen (Groysberg et al., 2021). In bringing employees together, keep them informed on the latest information, ask for feedback, and give personal encouragement. In moving the organization forward, look for ways to reinvent procedures and/or processes, stay current on informational guidelines for your organization, and be in tune with customer's expectations.

The literature review directed the formulation of interview questions and the formation of guiding principles. The literature review sought to define and understand the impact of the covid-19 crisis; the effectiveness of transformational leadership in a crisis and explore how to bring followers/employees/customer together and move the organization forward. The literature review allows for seven open-ended interview questions:

Impact of Covid -19 Crisis on Organization Operations

RQ 1: How did the Covid-19 crisis impact the operations of your organization? (Zhang et al., 2012; Sanchez, 2021; World Bank, 2020; Shane, 2020;)

Impact of Covid-19 Crisis on Leadership Practices/Skill Set

RQ 2: Have you had to change any of your leadership methods to continue your organization's mission? (Northouse, 2010; Burns, 2004. Bass 1985, 1996; Yukl & Gardner, 2020; Acts 27:14-44; Hur et al., 2011)

Impact of Covid-19 In Organizational Challenges

RQ 3: What is the most challenging issue that the Covid crisis has brought upon your organization? (Barton, 1994; Celik et al., 2016; Rosenthal et al., 2009; Zhang et al., 2012)

Impact of Covid -19 on Followers and Customers

RQ 4: How has the Covid crisis impacted the followers/population that your organization serves? (Arias-Chachero, 2020, IBM, 2021; Hur et al., 2011)

Balancing Concern for Organization- Individuals-Self

RQ 5: How are you balancing concern for the organization's employees/followers, the population your organization serves, your health, and your family's health? (Yukl & Gardner, 2020; Hur et al., 2011)

Organization Communication During Covid-19 Crisis

RQ 6: How do you communicate with employees and the public when notifying them of new rules and regulations of your company concerning Covid? (Croysberg et al., 2021)

Personal Impact of Covid-19 Crisis

RQ 7: How has the Covid crisis affected you personally? (Arias-Chachero, 2020).

RESEARCH DESIGN METHOD/DATA COLLECTION

The qualitative research method defined in the study of this paper is the phenomenology design. Since phenomenology is defined as a study of phenomena: appearances of things as they manifest themselves in our experience, and thus the meanings things have in our experience (Klenke, 2016, p. 208), then it is a fitting research design for this study. The phenomenological design method was applied to the commonality of the human experience of leaders who were leading followers and organizations during the Covid crisis. Applying this design created a foundational framework to understand better the phenomenon that leaders were experiencing during the Covid crisis. The phenomenological research method gave a contextual understanding of the work environment for leaders and followers. The phenomenological approach enlightens the reader on leaders' everyday challenges as they guide their organization through a global crisis. Finally, the phenomenological method revealed the leadership skills that leaders utilized to bring followers together and move their organizations forward. The goal of applying the phenomenological approach to the study allows the reader to "understand better what it is like for someone to experience that" (Polkinghorne, 1989, p. 46; Creswell et al., 2007, p.255). In this study, the reader comes away with a better understanding of what it is like to be an organizational leader, leading followers and their organization through the crisis called Covid.

DATA COLLECTION METHODS

Based on the research of this study, seven interview questions were formulated. Three participants were initially contacted through text, describing the study, the kinds of questions they would be asked, and if they were willing to participate in this research project. After agreeing and providing their email address, participants were emailed the questions. Initially, the data collection was set to be an interview through Zoom or Word transcribe, but because of two participants having limited experience, trouble with the software, and time constraints, it was decided to have all three participants type out their answers and then email them to the interviewer. The understanding was that this would be left as an open interview, and participants would answer further questions in the future. These three participants were chosen because of their distinct representation of the medical, military, and pastoral leadership fields. Since the objective of a phenomenological study is to describe the essence or structure of a phenomenon from the perspective of those who have experienced it (Meriam, 2002), then the interview questions were formulated around the leadership practices during the ongoing Covid crisis. The sample size in a phenomenological study may vary from 2 to 25 (Klenke, 2016, p. 212). The sample size of three was chosen to keep a more uniform control over the study due to time constraints for this project. Bio information on each participant, including their titles/positions, organization's geographic location, and how many employees they supervised, was submitted in field notes. The phenomenological research approach will allow for forms of data such as documents, observations, and shared experiences of other employees to form meaning of the situation (Creswell, 2013, pp.77-83). The data analysis consisted of interview questions, participant answers, and field notes. Interview questions were analyzed based on common themes and patterns concerning participant experience in leading followers and their organizations in the ongoing Covid crisis.

This study utilized seven open-ended questions to understand the impact of the Covid-19 crisis as related to followers, leaders, organizations, and customers:

Q1. How did the Covid-19 crisis impact the operations of your organization?

Q2. Have you had to change any of your leadership methods to continue your organization's mission?

Q3. What is the most challenging issue that the Covid crisis has brought upon your organization?

Q4. How has the Covid crisis impacted the followers/population that your organization serves?

Q5. How are you balancing concern for the organization's employees/followers, the population your organization serves, your health, and your family's health?

Q6. How do you communicate with employees and the public when notifying them of new rules and regulations of your company concerning Covid?

Q7. How has the Covid crisis affected you personally?

CONCLUSION

The purpose of this qualitative phenomenological study was to examine leadership challenges during the Covid-19 crisis. The goal of this study was to understand the impact Covid-19 was having on leaders, followers/staff, organizational operations, and customers. Moreover, the aim of the study sought to understand how leaders dealt with the challenges of bringing followers together during a crisis and moving their organizations forward in uncertain times. Key findings demonstrate that the Covid-19 crisis impacted every area of organizations, their leaders, followers, and customers on multiple levels. Furthermore, the findings show the transformational leadership theory of inducing staff/followers to transcend their own self-interest for the sake of the organization, team and activating the staff/followers to address a higher order of needs (Yukl & Gardner, 2020 was most effective. The findings in this study support the literature that shows moving an organization forward in a time of crisis; transformational leaders will look for ways to reinvent procedures and/or stay current on informational guidelines for their organization and be in tune with customers' expectations. The research findings will benefit scholars and practitioners interested in bringing followers together and moving organizations forward during crises.

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ENTREPRENEURIAL RESILIENCE IN AN ERA OF ECONOMIC UNCERTAINTY: INFLATION, DEBT, AND SMALL BUSINESS DYNAMICS

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ABSTRACT

The U.S. economy continues to endure a volatile period of instability in the wake of the COVID-19 pandemic, as inflation, supply chain disruptions, labor shortages, and rising consumer and public debt shape the contemporary business environment (Lahm Jr. & Perry, 2024). This study examines the economic conditions affecting small business formation and sustainability, analyzing key data point indicators such as inflation rates, consumer (and business) borrowing behaviors, consumer and business owner confidence indices, and entrepreneurial activity (as operationalized in new business applications at the no-, low-, and high- propensity levels). Given ongoing policy shifts and priorities under a new U.S. federal government administration (e.g., influence of an unprecedented leveraging of executive orders demonstrating immediate priorities), the research is framed to contextualize the realities, challenges, and opportunities facing business owners, policymakers, and consumers in an evolving and capricious economic landscape.

Inflation remains an integral focus, with recent Consumer Price Index data reflecting persistent price increases that continue to impact both consumers and small businesses (Consumer Price Index - January 2025). From consumer and business owners' perspectives and objective analysis of the CPI, it is noted that while inflation was 3% over the past 12 months, the impact over the past five years has led to the highest inflation rates experienced in the past quarter century. As such, inflation has been identified as the greatest concern and challenge for consumers and small business owners. The Federal Reserve has implemented monetary policy interventions, primarily through interest rate adjustments (which have been the steepest increases in the shortest duration holding higher for the longest duration in the past 35 years). The currently philosophy of monetary policy is focused on balancing inflation by curbing excessive borrowing at what seems to be at the cost of the consumer. Counter to the intentions of curbing borrowing, inflationary pressures have led to record levels of credit card debt and an increased frequency hardship withdrawals from retirement accounts (Anderson, 2023); this is also in light of record public debt levels. This study presents a longitudinal analysis of economic conditions since pre-COVID (2019), emphasizing the intersection of the compounding variables of inflation, debt, and small business. By providing a data-driven examination of these factors, the research offers insights for *policymakers, business owners, and entrepreneurship scholars navigating a capricious economic future.*

Keywords: *Inflation, small business formation, economic uncertainty, entrepreneurial activity, monetary policy.*

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MERCHANDISING FOR ENTREPRENEURS: EXPLORING OPPORTUNITIES FOR IMPROVEMENT

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ABSTRACT

Products are important but in an era of increasing competition for the attention span of consumers, along with an exploding digital landscape, merchandising may be more important than ever. Social media has played a major role in providing more opportunities to communicate with customers, but with those arguably oversaturation. It is incumbent upon entrepreneurs to improve, if not, master methods for presenting their wares in the best possible light. The research presented here has implications for practitioners. There are many methods of merchandising that are well known, such as promotional offers, limited time deals, weekly sales, and the like. With the now widespread proliferation of smartphones and other mobile technologies, the environment has changed dramatically. Beyond the techniques of visual merchandising there is an opportunity to create experiences for consumers that are the most engaging.

Keywords: *Small business, entrepreneurship, impulse purchases, retail and digital strategies*

THE COVID-19 PANDEMIC AND THE HEALTHCARE SECTOR: A TEST OF MARKET EFFICIENCY

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ABSTRACT

The World Health Organization declared the Covid-19 coronavirus outbreak as a global pandemic on March 11, 2020. How does this announcement affect the economy and closer how will the market react to such an event? The purpose of this study is to test and see if this announcement has a correlation to the market being semi-strong form efficient. Will the healthcare sector benefit from the announcement and show positive/excess gains? A link between the market and pandemics can be inferred but has not been heavily studied. In the efficient market hypothesis, Fama (1970) proposes that in semi-strong form market efficiency, all public information is factored into the market and no investor can achieve a risk-adjusted, above normal return (Bacon & Howell 2021). To complete this study, data from the S&P 500 and 10 healthcare firms was collected from 180 days before the event day till 30 days after the event. Standard event study methodology from finance literature was used. Evidence here supports the expected positive signal associated with the sample firms and pandemic announcement. Likewise, the results support the semi-strong form efficient market hypothesis and suggests the possibility of trading on this information up to 24 days before the announcement (Bacon & Howell, 2021).

Keywords: *Market Efficiency; Covid-19 Pandemic; Announcement*

INTRODUCTION

The world Health Organisation known as WHO, on Wednesday March 11 of 2020, declared coronavirus as a global pandemic, knowing that the virus would likely affect and spread to all countries across the world. How fast does the market respond to public information? In particular this study will focus on the following research question: How does the health care sector market react to the covid 19 pandemic announcement? The health care sector consists of medical laboratories, pharmaceutical companies, device manufacturers, health insurance providers. These are all essential to the production of medication and vaccines, that people will continue to need regardless of their financial allocations. The purpose of this study is to test the semi-strong form market efficiency theory by examining the effect of the March 11th, 2020, WHO global pandemic announcement on the risk adjusted stock price returns of a sample of major health care sector firms using the standard risk adjusted event study methodology in the finance literature (Bacon &

Howell 2021). We test to see how quickly 10 major stocks in the healthcare sector react on or around the announcement that Covid-19 is officially a global pandemic.

LITERATURE REVIEW

This study tests market efficiency on and around the pandemic announcement by the WHO. Fama (1970, 1976) defined market efficiency in three forms: weak-form, semi-strong-form and strong-form. Accordingly, with weak-form efficiency no investor can earn an above normal return by trading based on past information. Numerous studies support the random walk theory in support of the weak form market efficiency hypothesis (Fama, 1965; Alexander, 1961; Fama and Blume, 1966; Granger and Morgenstern, 1970). According to weak form efficiency, stock price reacts so fast to all past information that no investor can earn an above normal risk adjusted return (i.e., higher than the risk adjusted return using the S&P 500 index) by acting on this type of information. For example, if an investor reviews a firm newly released annual report, discovers higher than expected positive earnings results for the past year and buys the firm's stock and the stock price does not rise, the market is weak form efficient based on to past information (Bacon & George, 2023).

Semi-strong-form market efficiency states that no investor can earn an above normal, risk adjusted return based on any publicly available information. Tests of semi-strong form efficiency (Fama, Fisher, Jensen, and Roll, 1969; Ball and Brown, 1968; Aharony and Swary, 1980; Joy, Litzenberger, and McEnally, 1977; Watts, 1978; Patell and Wolfson 1979; Scholes, 1972; Kraus and Stoll, 1972; Mikkelson and Partch, 1985; Dann, Mayers, and Raab, 1977) document the claim that no investor can earn an above normal risk adjusted return on publicly available information such as accounting statements, stock split announcements, dividend announcements, sale of stock announcements, repurchase of stock announcements, block trades, and earnings announcements. If the market is semi-strong form efficient, then stock price reacts so fast to all public information that no investor can earn an above normal risk adjusted return (i.e. higher than the market or the return on the S&P 500 index) by acting on this type of information. Public announcements of stock split, repurchases, and dividend increases are examples of public information. If one buys the stock on the announcement and still does not make an above normal risk adjusted return, the market is semi-strong form efficient. Tung & Marsden (1998) provided a controlled environment and performed trading behavior tests which resulted in a positive relationship between information quality and market trading profits in support of the existence of semi-strong form efficiency within markets (Bacon & Howell, 2021).

Strong-form efficiency theory suggests that no investor can earn an above normal risk adjusted return using any information, public or private. Studies on the validity of strong form efficiency offer mixed results (Jaffe, 1974; Finnerty, 1976; Givoly and Palmon, 1985; Friend, Blume, and Crockett, 1970; Jensen, 1968). If the market is strong form efficient, then stock prices react so fast to all information (public and private) that no investor can earn an above normal risk adjusted return (i.e. higher than the market or the return on the S&P 500 index) by acting on this type of information. In this case, the market reacts to an event within the confines of the firm even before it is publicly announced. For this to occur, investors must act on insider information, which is illegal. If an investor is to buy the stock on the event of based on inside information and still does not make an above normal risk adjusted return, the market is strong form efficient (Bacon & Howell, 2021).

Market Efficiency and Investment Analysis Fees

This study tests the semi-strong market efficiency theory by using the standard event study methodology in the finance literature (Bacon, 2008, 2017, and 2020). If the market is semi-strong form efficient, then two popular methods of stock valuation are rendered useless resulting in a significant implication of this study's findings. Investors pay analysts who use these valuation models billions of dollars annually for investment advice and guidance. But if the market is efficient, these investors are wasting billions of dollars on useless investment advice. Efforts to determine the "right" value of stock are useless if the market is semi-strong form efficient since the "right" price is the market price that instantly impounds all available and relevant information (Bacon, 2008, 2017, 2018, and 2020).

Methodology

This study examines 10 healthcare sector companies that the COVID-19 pandemic could have potentially impacted. The purpose of this study was to test the semi-strong form efficient market hypothesis by examining the risk-adjusted returns of 10 firms' stock prices from thirty trading days before the March 11, 2020, WHO global pandemic announcement to thirty days after. The firms' stock price returns were analyzed against the S&P 500 from -180 trading days to March 11, 2020, to +30 trading days after (June 21, 2019 – April 23, 2020). The following hypotheses were tested:

$H1_0$: The risk adjusted rate of return of the sample of healthcare firms is not significantly affected by this information on the event date identifies as the announcement date.

$H1_1$: The risk adjusted rate or return of the sample of healthcare firms is not significantly negatively affected by this information on the event date.

$H2_0$: The risk adjusted rate of return of the sample of healthcare firms is not significantly positively affected by information around the event date as defined by the event period.

$H2_1$: The risk adjusted rate of return of the sample of healthcare firms is not significantly positively affected by information around the event date as defined by the event period.

Using the standard risk adjusted event study methodology in the finance literature, the stock market's response is tested to the event date of March 11, 2020, or the WHO global pandemic announcement. For this study, all of the stock return information for the sample of firms and the S&P 500 over and before event period were collected from Yahoo! Finance This data included stock prices of the firms and S&P 500 from 180 days before to 30 days after the event date.

The daily holding period returns of the companies (R) and S&P 500 (R_m) were calculated using the following formula:

Current Daily Return = (current day close price – previous day close price)/previous day close price (1)

Using the holding period returns, a regression analysis was performed for each sample firm with the actual daily return for each company as the dependent variable and regressing it on the corresponding S&P 500 Index, the independent variable. The regression was performed over the pre-event period (day -180 to -31) to obtain the intercept, alpha, and the standardized coefficient, beta, for each firm. This regression analysis yielded the alpha and beta for each company over the pre-event period as shown in Table 1.

Table 1
Alphas and Betas

Firm	**Stock ticker**	**Beta**	**Alpha**
Pfizer	PFE	**0.807076**	**-0.001165**
Johnson and Johnson	JNJ	**0.430795**	**0.000017**
Abbvie	ABBV	**1.091958**	**-0.000261**
Merck	MRK	**0.699905**	**-0.000354**
Roche	RHHBY	**0.513104**	**0.000627**
GSK	GSK	**0.454241**	**0.000758**
Sanofi	SNY	**0.599606**	**0.000278**
Astrazeneca	AZN	**0.514471**	**0.000855**
Novartis	NVS	**0.445369**	**-0.000201**
Bristol Myers Squibb	BMY	**0.686609**	**0.001330**

To calculate the normal expected returns, the risk-adjusted method (market model) was used. The expected returns for each stock, for each day of the event period was calculated using the formula:

$E(R) = \text{Alpha} + \text{Beta}\ (R_m)$ (2)

Then, the excess return was calculated as:

ER = Actual Return – E(R) (3)

Average Excess Return was found for each day by averaging the Excess Returns for each firm on a given day as follows, where N is the number of sample firms:

AER = Sum of Excess Returns/N (4)

In addition, cumulative AER was calculated by adding the AER for each day of the event period, days -30 to +30. For the event period, graphs of AER and CAER were plotted to show their movement over time. Exhibits 1 and 2 below display the Average Excess Returns and the Cumulative Average Excess Returns plotted against time over the event period for the sample of firms (Bacon & Howell, 2021).

QUANTITATIVE TESTS AND RESULTS

Did the market react to the March 11, 2020, WHO global pandemic announcement? Was the risk adjusted stock price returns of the sample of firms significantly positively affected? If there was a significant reaction to the event, it would be expected that a substantial difference between the Actual Average Daily Returns (Day -30 to Day +30) and the Expected Average Daily Returns (Day -30 to +30) should be observed. If a significant risk adjusted difference is observed, then the evidence supports the alternative hypotheses that the global pandemic announcement caused a significant increase in stock prices returns. In order to test for a significant difference between the Actual Average Daily Returns and the Expected Average Daily Returns, a paired sample t-test was conducted and found a significant difference at a 5% level between actual and expected risk adjusted returns of the sample of firms. The result of these test supports the alternative hypotheses H1-1and H2-1 and concludes that the risk adjusted return of the stock price of the sample firms is indeed significantly positively affected around and on the event date (Bacon & Howell, 2021; Bacon & Cagigas, 2022; Keely & Bacon, 2023; Bacon & George 2023).

Did the market react to the March 11, 2020, WHO global pandemic announcement? Was the risk adjusted stock price returns of the sample of firms significantly positively affected? If there was a significant reaction to the event, it would be expected that a substantial difference between the Actual Average Daily Returns (Day -30 to Day +30) and the Expected Average Daily Returns (Day -30 to +30) should be observed. If a significant risk adjusted difference is observed, then the evidence supports the alternative hypotheses that the global pandemic announcement caused a significant increase in stock prices returns. In order to test for a significant difference between the Actual Average Daily Returns and the Expected Average Daily Returns, a paired sample t-test was conducted and found a significant difference at a 5% level between actual and expected risk adjusted returns of the sample of firms. The results of these tests support the alternative hypotheses H11 and H21 and concludes that the risk adjusted return of the stock price of the sample firms is indeed significantly positively affected on and around the announcement date (Bacon & Howell, 2021; Bacon & Cagigas, 2022; Keely & Bacon, 2023).

It is also important to determine how fast the market reacted to the March 11, 2020, WHO global pandemic announcement to assess the level of efficiency of the market response. Basically, did the market display weak, semi-strong, or strong form market efficiency? Specifically, are the Average Excess Returns (AERs) and the Cumulative Average Excess Returns (CAERs) for the samples of stocks significantly different than zero. T-tests of AER and CAER indicate a difference at the 5% significance level. Observation of AER and CAER over the event period for Exhibits 1 and 2 shows a significant positive reaction of the risk adjusted returns of the stock prices of the sample prior to the event date (Bacon & Howell; Bacon & Cagigas, 2022; Keely & Bacon, 2023; Bacon & George, 2023).

When analyzing the CAER over the event period in Exhibit 2 below, the goal is to determine how fast the market reacted to the event. According to Exhibit 2, there is an increase from day -19 to day -15 and again from day 0 to day 4, then returns leveled off. Possibly the observed positive reaction prior to the global pandemic announcement surfaced because of the increasing number of positive COVID-19 cases being reported in the international news. Consistent with market efficiency and behavioral finance theories (Fama, 1997), then another positive overreaction and a return to equilibrium by day +30.

Therefore, evidence shows that the market had already imbedded the global pandemic announcement information into the stock prices of the sample companies prior to the event date of March 11, 2020, thus supporting semi-strong form efficiency. Since the market already responded prior to the event date, no investor could earn an above normal risk adjusted rate of return on the event date.

Exhibit 1
Average Excess Returns Per Day Surrounding the announcement

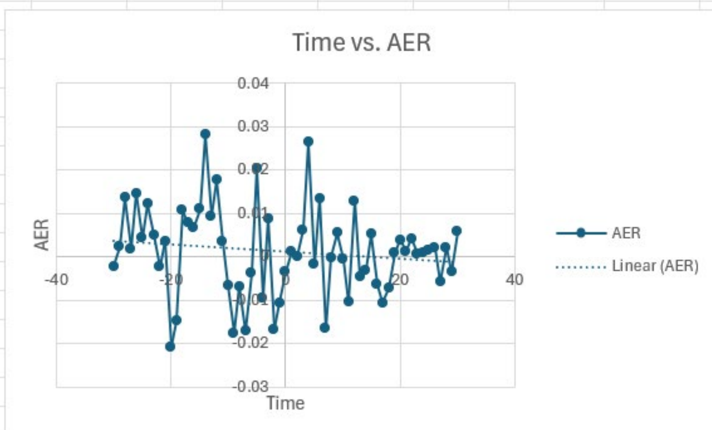
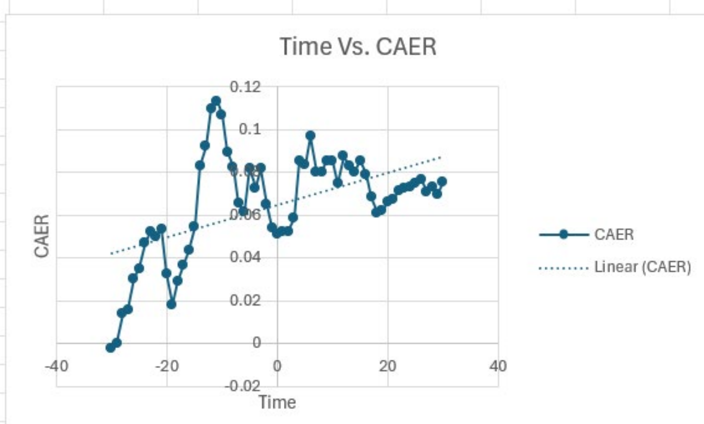


Exhibit 2
Cumulative Average Excess Returns Per Day Surrounding the Announcement



CONCLUSION

On Wednesday March 11, 2020, the WHO declared the coronavirus outbreak a global pandemic. The purpose of this study was to test the pandemic announcement for semi-strong form market efficiency. Will returns in the healthcare sector industry exhibit excess positive returns over the event period of the COVID19 announcement? There is little research in the finance literature that investigates the link between pandemics and the market. Fama (1970) proposes that under semi-strong form market efficiency all public information impounds the market so fast that no investor can achieve an above normal risk adjusted return. To test for semi-strong form market efficiency, data for the S&P 500 and 10 major healthcare sector firms were collected for the event period surrounding the announcement of the COVID-19 pandemic. Using the standard event study methodology from the finance literature, this research tests the WHO global pandemic announcement for the presence of semi-strong form market efficiency. Evidence supports the expected positive signal associated with the sample of healthcare sector firms in response to the WHO announcement. The study results support the semi-strong form efficient market theory and observed trading on this information up to 30 days prior to the announcement, consistent with market efficiency, signaling and behavioral finance theories (Fama, 1998), (Bacon & George, 2023), we observe an increase from day -20 to day -10, then a negative overreaction from day -10 to day 0, then another positive overreaction from day 0 to day +5, then a negative overreaction from day +15 to day +20 and then finally leveling off to an equilibrium in the territory of day +30. Since the market had already responded prior to the announcement date of Covid-19, no investor could earn an above normal risk adjusted rate of return on the announcement date in support of semi-strong form market efficiency.

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WALMART INVADING AMERICA'S LIVING ROOM: THE VIZIO ACQUISITION

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ABSTRACT

Walmart has been the largest retailer in the world since the early 2000s. In fact, Walmart is the largest company in the world with revenues of more than $600 billion in 2024. No longer content to be just a retail powerhouse, Walmart wants to expand into the advertising business and compete with online rival Amazon. To that end, Walmart is buying smart TV manufacturer VIZIO for $2.3 billion. Why buy VIZIO? Mainly because VIZIO's SmartCast Operating System will allow Walmart to connect with consumers using innovative entertainment. (Or should we say it will allow Walmart to advertise more easily.) VIZIO has more than 18 million accounts on SmartCast, which offers free, streamed content that is supported by ads.

Today, Walmart does sell ads at its 10,500 physical stores and websites. But once it acquires VIZIO, Walmart will be able to sell ads through streaming services on televisions, similar to how Roku and Amazon operate. Walmart stores serve 160 million visitors each week; a whopping 90% of all Americans shop at Walmart. And while Walmart's advertising business generated revenue of $3.4 billion, that amount is less than one percent of its total retail sales. Compare this to Amazon which generates ad sales of about 15% of its total sales and the reason for the acquisition becomes clearer.

By buying VIZIO, Walmart keeps its valuable shopping data and gains operating systems and hardware that are used to deliver ads. It expands Walmart Connect, which brings advertising partners into contact with its extensive customer base through sponsored products ads. This paper will explore how the acquisition affects Walmart, Vizio, and other big box retailers and TV manufacturers.

WHAT IS THE DIFFERENCE BETWEEN A COLLEGE TOWN AND A TOWN WITH A COLLEGE?

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ABSTRACT

College towns have a personality, a brand, unique to them. No two are exactly alike. They can be similar in terms of student body size, geographic location, the academic institution based there, etc., while still being quite different. These academic institutions can have profound effects on their communities, influencing their demographics, social dynamics, and cultures.

"College town" is a term that has been used to denote towns where the college or university serves as one of the key employers and vehicles for economic growth in an area (Almond, 2020; Gumpredcht, 2003). College towns have often differentiated themselves from other small towns because of the types of job opportunities, development, and culture they bring to a community (Maceli & Frank, 2024). Almond (2020) posited 10 characteristics that are synonymous with American college towns; school colors, college languages, local organizations (exterior and interior), public signage, public artifacts, public vehicles, local people's vehicles, clothing and touch points. The identities of the town and college become blended in a way that gives them a shared existence (Maceli & Frank, 2024).

This paper compares two small towns in the Midwest. Each town has a small university with comparable enrollments. It will explore the two institutions' enrollment and employment trends, the retails sales trends of the towns, and the towns' demographic and real estate trends. The paper also aims to shed light on the relationship of the towns to their communities.

ESERVICE LEARNING: ANY SIGNIFICANT DIFFERENCE?

Sue Y. McGorry, DeSales University

ABSTRACT

Service learning is an opportunity for students to gain real world experience while learning and contributing in a meaningful way to their community. More institutions of higher education today employ service learning to deliver and enhance their business curriculum. Service learning should not be limited to the traditional classroom, but can the experience be replicated and deliver the same opportunity for skill development online? In this study we compare two types of business service learning: traditional service learning (instruction and service in person) with extreme service learning (both instruction and service online). Students indicate no significant differences in the service learning experiences. Factors contributing to success are discussed.

THE IMPACT OF INDUSTRY 4.0 ON EMPLOYMENT: A STUDY IN THE BANKING SECTOR

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ABSTRACT

This study examines the impact of Industry 4.0 technologies on employment in the Turkish banking sector (Garanti Bank, Yapı ve Kredi Bank, Finansbank, and Denizbank) between 2009 and 2020. Using data on personnel numbers, operating expenses, and digital banking usage (internet/mobile, customers, credit cards, ATMs, POS devices), the research investigates how banks are adapting to the evolving customer ecosystem through Fintech and Banking 4.0 innovations. The study analyzes changes in traditional banking activities (branch/personnel numbers, personnel expenses) alongside the growth of digital channels and related technology investments (operating expenses).

Keywords: *Industry 4.0, Employment, Digital Banking, Operating Expenses, Fintech.*

INTRODUCTION

Banks are the basis of the economy and have duties such as intermediating financial services to ensure market stability, providing investment financing, increasing the effectiveness of monetary policy and contributing to the development of trade (Küçükbay 2016: 13). A healthy banking structure is critical for the effective functioning of the economy, and this is possible by increasing profitability. The net profit of the four banks subject to our research increased by 96.21% on average between 2009 and 2020. However, banks invest this profitability in technological infrastructure and digitalization instead of traditional banking. In this way, they maximize their profitability while responding to new generation customer demands.

Our research is based on the thesis that Industry 4.0 will create a substitution effect by reducing personnel demand in the banking sector. Additionally, the relationship between technological investments and banks' operating expenses was examined. The activity reports of Garanti Bank, Yapı Kredi, Finansbank and Denizbank for the years 2009-2020 were used as data sources. In the second part, literature review is made, and in the third part, the effects of Industry 4.0 on employment are evaluated with Panel Data Analysis. The results show that technological transformation is progressing faster compared to employment growth.

The most important motivation for the study is the risk of sector employees being caught unprepared for technological transformation. Most employees feel comfortable about job security due to the institutional structure and profitability of the sector. However, banks are investing in digitalization instead of traditional banking. The average annual increase in the number of personnel by around 2% between 2009 and 2020 supports this thesis. Digitalization is inevitable to adapt to customer demands. The increase in the number of internet and mobile banking users shows that customers have adopted digital banking. The increase in banks' operating expenses due to technology investments is evidence of this transformation.

LITERATURE REVIEW

Industry 4.0 and its Impact on Banking

Industry 4.0, characterized by the digital integration of various sectors, signifies a paradigm shift in production and service delivery (Cividino et al., 2019; Muscio & Ciffolilli, 2019; Rossini et al., 2019). It encompasses key technologies like the Internet of Things (IoT), Big Data, Cyber-Physical Systems (CPS), Cloud-Based Manufacturing (CBM), Smart Factories, Virtual Reality (VR), 3D Printing, and Artificial Intelligence (AI) (Acatech, 2013; Alçın, 2016). These technologies facilitate real-time data processing, automation, and enhanced connectivity, leading to increased efficiency and responsiveness. In the banking sector, Industry 4.0 manifests as Banking 4.0, transforming service delivery, customer interaction, and operational processes (Harjanti et al., 2019). This transformation involves the adoption of digital channels, personalized services, and data-driven decision-making.

Fintech and Digital Banking

Fintech, the convergence of finance and technology, plays a crucial role in driving the digital transformation of banking (Lee & Shin, 2018; Dasho et al., 2017; Arner et al., 2015). It empowers new business models, innovative financial products, and improved customer experiences through mobile banking, online platforms, and advanced analytics. Digital banking, fueled by widespread internet adoption and evolving customer expectations, represents a core component of Banking 4.0. It focuses on delivering seamless, accessible, and personalized financial services through digital channels.

Open Banking and Robotic Process Automation

Open Banking (OB), leveraging APIs for data sharing and third-party integration, fosters collaboration and innovation within the financial ecosystem (Open banking homepage, 2018; Apiacademy homepage, 2018). It enables the development of personalized financial solutions and expands the reach of banking services. Robotic Process Automation (RPA) automates repetitive, rule-based tasks, improving efficiency and freeing up human resources for more strategic activities (Romao et al., 2019; Orlandić et al., 2024). In banking, RPA can streamline processes like customer onboarding, transaction processing, and regulatory compliance.

Employment and Technological Change

A central theme in the literature is the impact of technological advancements on employment. While technology can create new opportunities, it can also lead to job displacement in certain sectors. This study investigates the specific impact of Industry 4.0 technologies on employment within the Turkish banking sector, examining the relationship between digital adoption and personnel requirements.

METHODS

This study uses panel data analysis to investigate the impact of Industry 4.0 technologies on employment in the Turkish banking sector. The following steps are undertaken:

Data Collection: Data on personnel numbers, operating expenses, internet banking users, mobile banking users, customers, credit card users, ATMs, and POS devices are collected from the annual reports of four Turkish banks (Garanti Bankası, Yapı ve Kredi Bankası, Finansbank, and Denizbank) for the period 2009-2020.

Panel Data Analysis Procedure:

First, Tests for homogeneity (Pesaran-Yamagata test), cross-sectional dependence, and unit root are conducted. Second, F-test and Hausman test are used to determine the appropriate panel data model (classical, fixed effects, or random effects). Third, the chosen model is estimated. Fourth, tests for heteroscedasticity and autocorrelation are performed. Fifth, robust standard errors (Huber-Eicker-White estimator) are used to address potential issues of heteroscedasticity and autocorrelation. And lastly, the results are interpreted to assess the impact of Industry 4.0 technologies on employment and operating expenses in the Turkish banking sector.

Model Specification: Two models specified:

Model 1: The dependent variable is the number of employees (representing employment). The independent variables are operating expenses (representing technology investments), internet banking users, mobile banking users, customers, credit card users, ATM numbers, and POS devices.

$$PSit ==\beta i+\beta 1FGit+ \beta 2\dot{I}Bit+ \beta 3MBit+ \beta 4MSit+ \beta 5KKit + \beta 6ATMit + \beta 7POSit +u$$

Here, the index ***i*** represents the number of banks (1, 2, 3, 4, etc.), while the index ***t*** represents the time period (2009, 2010, …, 2020). ***u*** denotes the error term.

Model 2: The dependent variable is operating expenses. The independent variables are internet banking users, mobile banking users, customers, credit card users, ATM numbers, and POS devices.

$$FGit ==\beta i+\beta 1\dot{I}Bit+ \beta 2MBit+ \beta 3MSit+ \beta 4KKit+ \beta 5ATMit + \beta 6POSit +u$$

Table 1 presents the results of a random effects regression analysis, examining the influence of several independent variables (FG, IB, MB, MS, KK, ATM, POS, CONS) on a dependent variable (PS). The table shows the estimated coefficient for each independent variable, along with its robust standard error, z-score, and p-value. A p-value less than 0.05 generally indicates statistical significance, suggesting a relationship between the independent and dependent variable. For instance, in the first part of the table, MS has a statistically significant positive relationship with PS (p=0.000), while IB, FG, MB and KK do not. ATM, POS and CONS also show statistically significant relationships with PS. The second part of the table seems to be showing a different model or perhaps the same model with different estimation methods, as the coefficients and standard errors are vastly different. It also reports the Wald chi-squared statistic, which tests the overall significance of the model, along with other statistics like the estimated variance components (sigma_u and sigma_e) and the intra-class correlation coefficient (rho). The fact that sigma_u and rho are 0 suggests no between-group variance was estimated. The sample size is 48 observations, grouped into 4 groups.

Table 1: Random Effects Regression. PS, FG

PS	**Robuts Standard Error**	**z**	**P>|z|**		**Robuts Standard Error**	**z**	**P>|z|**
FG	0.0001446	-0.63	0.531	**FG**			
İB	0.0002706	-0.08	0.934	**İB**	0.1524485	2.12	0.034
MB	0.0003501	-1.02	0.308	**MB**	0.071182	35.9	0
MS	0.0000306	11.71	0	**MS**	0.2177178	1.04	0.299
KK	0.0000631	-1.89	0.059	**KK**	0.1952045	0.83	0.406
ATM	0.1304681	5.06	0	**ATM**	587.2245	-1.26	0.206
POS	0.0016401	7.26	0	**POS**	1.043189	7.04	0
CONS	447.5121	16.66	0	**CONS**	1487360	0.87	0.382
Observer number:48	Wald chi2(6)	Wald chi2(6)	.	Observer number:48	Wald chi2(6)	.	
Group number:4	Prob > F	Wald chi2(6)	.	Group number:4	Wald chi2(6)	.	
sigma_u	0			sigma_u	0		
sigma_e	784.51151			sigma_e	1501468.6		
rho	0			rho	0		

CONCLUSION

The Turkish banking system is in the process of customer-centered digital transformation. The banks subject to our research integrate Industry 4.0 and developing technologies into their services. While digitalization increases the number of customers, it provides financial savings by reducing the need for branches and personnel. Banks direct their profitability to new generation technology tools and R&D instead of traditional banking.

In Model 1, a negative and significant relationship was found between the dependent variable, the number of personnel, and the number of customers, ATMs and POS. While the demand for traditional banking services decreases, the new customer profile prefers digital banking. In Model 2, a positive relationship was observed between operating expenses and the number of internet and mobile banking users and the number of POS. This is a finding that supports the digitalization process of banking.

While the number of personnel increased by 21.66% between 2009 and 2020, operating expenses and the number of digital banking users increased by 400.64%. The number of customers increased by 81.75% and net profit increased by 96.21%. Banks adapt to new generation customer demands by investing in digital transformation. Our research shows that traditional banking will remain dysfunctional in the future and digitalization will negatively affect employment.

Although the banking sector is an important area of employment in developing countries, the acceleration of digitalization threatens the job security of employees. It is inevitable that employment opportunities will decrease for students who aim to make a career in the banking sector. The main purpose of this research is to raise awareness for industry employees and individuals with career goals.

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THE EFFECT OF GRIT AND SUBJECTIVE RISK INTELLIGENCE ON WORK PERFORMANCE AND EMPLOYEE BURNOUT: THE MODERATING ROLE OF SOCIAL COOPERATION

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ABSTRACT

In today's rapidly changing and competitive business environment, understanding the psychological factors that influence employee performance and well-being is critical for organizational success and individual career development. In this study, the effects of grit and subjective risk intelligence on job performance and burnout in emergency room nurses and the moderating role of social collaboration in these relationships were examined. 172 nurses working in the emergency departments of two public hospitals participated in the research. A survey was used as a data collection tool, and regression analysis and Hayes (2013) Process moderation model were applied to test the hypotheses. The results of the study show that grit and subjective risk intelligence have significant effects on job performance and burnout in emergency room nurses. It was found that social cooperation partially regulates these relationships and increases the positive effect of perseverance on job performance, especially in emergency room nurses with high levels of social cooperation. These findings emphasize that social collaboration, as well as personal characteristics, are important to increase the performance and well-being of emergency department nurses.

Keywords: *Perseverance, Subjective Risk Intelligence, Job Performance, Burnout, Social Cooperation.*

INTRODUCTION

In today's rapidly changing and competitive business environment, understanding the psychological factors that influence employee performance and well-being is critical to individual and organizational success. While employees face increasing demands, the contribution of individual characteristics such as perseverance and subjective risk intelligence to job performance and psychological resilience comes to the fore.

Grit refers to passion and determination towards long-term goals and enables individuals to continue striving in the face of challenges (Duckworth et al., 2007). Subjective risk intelligence is the ability to effectively manage uncertainty and creates positive effects on decision-making, adaptation and performance (Teuber et al., 2021). However, how these individual characteristics interact with social collaboration in the workplace has been understudied. Because most professional tasks require teamwork, social collaboration can enhance or limit individual performance.

This study examines the effects of grit and subjective risk intelligence on job performance and burnout by considering the moderating role of social collaboration. According to the Conservation of Resources Theory (Hobfoll, 1989), individuals accumulate psychological and social resources to cope with stress. Social Exchange Theory (Blau, 1964) suggests that mutual support and information sharing in the workplace strengthens these processes.

LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

Grit involves perseverance and consistency of interest in goals that enable individuals to maintain effort and interest despite obstacles (Duckworth et al., 2007). Employees with high grit levels increase productivity and career success with their resilient and determined behavior (Credé et al., 2017). Similarly, burnout is defined by emotional exhaustion, depersonalization, and decreased personal accomplishment (Maslach & Leiter, 2015). Grit reduces the risk of burnout by supporting individuals to develop adaptive coping strategies (Teuber et al., 2021). Subjective risk intelligence refers to individuals' ability to cope with uncertainty and make informed decisions (Taneja et al., 2016). Employees with high subjective risk intelligence increase their job performance with their decision-making, adaptation and problem-solving skills. Additionally, the ability to manage uncertainty helps prevent burnout by reducing psychological stress (Mazzola & Disselhorst, 2019).

Social collaboration increases motivation, reduces stress, and strengthens resilience in the workplace by enabling employees to share resources and establish supportive relationships (De Dreu, 2007). Employees with high levels of grit can maintain their perseverance through collaboration, which increases their performance and reduces burnout (Porath et al., 2012). Similarly, individuals with high subjective risk intelligence strengthen their decision-making processes through collaboration. Thus, we hypothesize:

H1: Consistency of interest (H1a) and perseverance of efforts (H1b) are positively related to work performance.

H2: Consistency of interest (H2a) and perseverance of efforts (H2b) are negatively related to burnout.

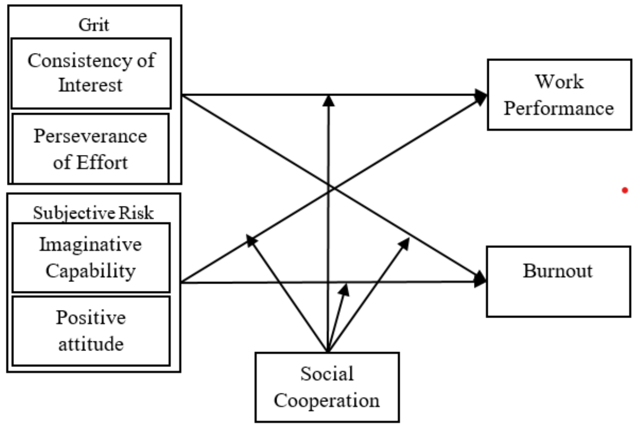
H3: Imaginative capability (H3a) and positive attitude toward uncertainty (H3b) positively correlate with work performance.

H4: Imaginative capability (H4a) and positive attitude toward uncertainty (H4b) are negatively correlated with burnout.

H5: Social cooperation increases the effect of consistency of interest and perseverance of efforts on work performance (H5a and H5b, respectively) and burnout (H5c and H5d, respectively).

H6: Social cooperation increases the effect of imaginative capability and positive attitude toward uncertainty on work performance (H6a and H6b, respectively) and burnout (H6c and H6d, respectively).

Figure 1. The research model



METHOD

Data were collected by convenience sampling method from two public hospitals known for their large emergency departments. Researchers identified 272 nurses who were currently working in these hospitals or had worked in the emergency department in the last two years and shared an anonymous survey link between May and August 2024. 201 survey returns were received, but five were removed due to low standard deviation. The remaining 172 responses were found sufficient for correlation and regression analyzes with a 95% confidence interval and a margin of error of 0.05. 63.3% of the sample was female, 69.4% was single, 47.1% had an average of 9 years of experience (SD = 7.89) and 46.9% had a bachelor's degree.

Five scales were used in the study. The Grit scale is an eight-item scale developed by Duckworth and Quinn (2009) and adapted into Turkish by Akin & Arici (2015) and includes the subscales of consistency of interest and perseverance of effort ($\alpha = 0.941$). Subjective risk intelligence scale, Craparo et al. (2018) and only the negative attitude towards uncertainty and imagination capacity subscales were used. The job performance scale consists of four items developed by Kirkman and Rosen (1999). Burnout scale, includes the three-item emotional exhaustion subscale of a 12-item developed by De Beer et al. (2022). The social cooperation scale has a single-factor structure with six items developed by Stibe and Cugelman (2019).

RESULTS

To control for common method bias due to cross-sectional data collection, the common latent factor method was applied, and chi-square values were compared. Results indicated no significant difference between models [$\Delta\chi2$ (32) = 42.716, $p > .05$], suggesting that common method bias did not threaten validity. The normal distribution of scale items was assessed, with skewness and kurtosis values within acceptable limits (-2.334 to 4.243). Confirmatory factor analysis (CFA) evaluated convergent and discriminant validity, with factor loadings ranging from 0.62 to 0.88. AVE and CR values exceeded the thresholds, confirming scale validity. The HTMT ratio ranged from 0.025 to 0.326, remaining below the 0.85 threshold. A CFA using AMOS 23.0 confirmed an adequate model fit ($\chi2$ = 815.133, df = 443, $\chi2$/df = 1.840, CFI = 0.893, SRMR = 0.071, RMSEA = 0.066).

Table 2 displays relationships, means, and standard deviations.

Table 2. The means, standard deviations, and correlation values

	Mean	SD	1	2	3	4	5	6
1-Consistency of interest	3.72	1.09	-					
2-Perseverance of effort	4.45	0.63	.18*	-				
3-Imaginative capability	3.71	0.64	.09	.65**	-			
4-Positive attitude toward uncertainty	3.64	1.06	.19**	21**	16**	-		
5-Social cooperation	3.47	0.72	-.06	.06	.01	.03	-	
6-Work performance	4.19	0.77	29**	15*	.04	.27**	.07	-
7-Exhaustion	3.09	1.06	19**	-.06	-.10	-.25**	-.06	-.15*

*p < .05, **p < .01 (two-tailed)

We tested hypotheses using a simple linear regression model with the least squares method. The results of the regression analysis are presented in Table 3. While H1a, H1b, H2a, H3b, and H4b were accepted, H2b, H3a, and H4a were rejected.

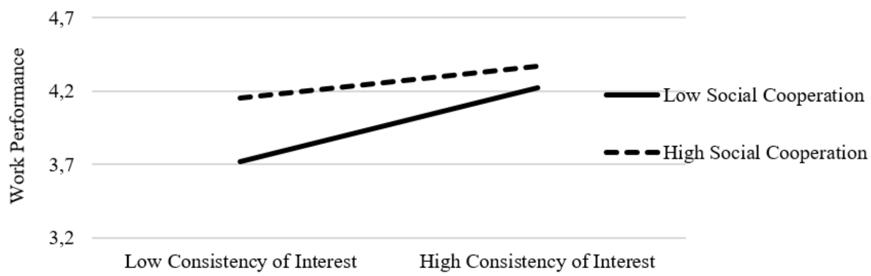
The findings of the regression analysis are presented in Table 3. Incorporating each interaction variable into the regression model revealed that it only significantly increased the explained variance ($R^2 = 0.01$, $p < .05$) in the relationship between consistency of interest and work performance, indicating that social cooperation is a moderating factor. Therefore, only H5a was accepted.

Table 3. Results of regression analysis

Variables	Work Performance			Exhaustion		
	B (SE)	*p*	$R^2/\Delta R^2$	*B* (SE)	*p*	$R^2/\Delta R^2$
Consistency of interest (CoI)	0.20 (0.04)	.001	.08	0.19 (0.06)	.006	.04
Perseverance of effort (PoE)	0.18 (0.09)	.032	.03	-0.98 (0.12)	.414	.00
Imaginative capability (IC)	0.05 (0.08)	.514	.00	-0.16 (0.12)	.154	.01
Positive attitude toward uncertainty (PAtU)	0.20 (0.05)	.001	.07	-0.25 (0.07)	.001	.06
Social cooperation (SC)	0.08 (0.08)	.306	.00	-0.09 (0.10)	.401	.00
CoI x SC	-0.18 (0.07)	.016	.03	0.15 (0.09)	.099	.00
PoE x SC	0.17 (0.11)	.148	.00	0.18 (0.15)	.246	.00
IC x SC	-0.02 (0.10)	.834	.00	0.02 (0.14)	.878	.00
PAtU x SC	0.08 (0.07)	.219	.00	-0.05 (0.09)	.582	.00

The authors constructed an interaction graph using conditioning values to understand the moderating impact better. Figure 2 thoroughly shows how social cooperation affected the connection between consistency of interest and work performance. Employees with high social cooperation had higher work performance perceptions than those with lower levels. In other words, greater consistency of interest was crucial for employees with lower social cooperation to achieve higher work performance.

Figure 2. Interaction graph



DISCUSSION

This study examined the impact of grit and subjective risk intelligence on emergency nurses' job performance and burnout. Findings show that consistency of interest and effort increase job performance, and a positive perspective on uncertainty strengthens performance. Consistency of interest and a positive perspective on uncertainty have been found to reduce burnout. However, effort and imagination were not found to be directly related to burnout and job performance. Social collaboration has been found to only strengthen the relationship between consistency of interest and job performance. However, it did not show the expected effects on other variables. This suggests that teamwork alone may not be sufficient to improve performance or reduce burnout.

Findings highlight the importance of educational programs for emergency nurses that increase resilience and acceptance of uncertainty. Additionally, it is suggested that environments that encourage collaboration may increase the performance of nurses with high consistency of care. The study has limitations in terms of generalizability because it was conducted in only two hospitals and was based on self-report data. Future research could extend the findings by examining contextual factors such as leadership styles, job stress, and organizational culture.

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RIDING THE WAVES IN THE STOCK MARKET: AN EXPERIENTIAL SIMULATION PROJECT TO DEVELOP CRITICAL THINKING SKILLS

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ABSTRACT

Critical thinking is one of the most important skills for every business major student. Considered a "high order" skill in Bloom's Taxonomy, critical thinking skills can help business students to perform a comprehensive analysis of available information, to identify relevant problems, and subsequently, to make informed decisions.

According to Cambridge Dictionary, simulation is defined as "a model of a set of problems or events that can be used to teach someone how to do something, or the process or making such a model." The utilization of a simulation project is an effective way to teach critical thinking skills. This paper discusses the implementation of a stock market simulation game offered on the Market Watch (https://www.marketwatch.com/games). The pedagogical implications of the simulation game are also presented.

UNVEILING ECONOMIC RESILIENCE: THE CHILD TAX CREDIT'S EFFICACY, SOCIETAL IMPACT, AND TAX POLICY IMPLICATIONS FOR DOCUMENTED AND UNDOCUMENTED FAMILIES POST-PANDEMIC

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Troy Sullivan, Middle Georgia State University
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ABSTRACT

As economic inequality and child poverty remain pressing concerns in the U.S., tax policy continues to be a critical tool for fostering financial stability. This research examines the evolving role of the Child Tax Credit (CTC) in addressing poverty and economic resilience in the post-pandemic era. Building on the transformative modifications introduced under the American Rescue Plan (ARP), this study evaluates the policy's impact on alleviating financial hardship, particularly for marginalized communities and undocumented children in legal U.S. households.

Empirical findings reveal that the CTC significantly reduced child poverty rates, improved household financial security, and contributed to broader economic stability. However, with the expiration of expanded benefits, millions of families have been thrust back into financial uncertainty, reigniting debates on the long-term efficacy and sustainability of such tax policies. This research explores the economic and societal implications of the CTC, including its effects on workforce participation, consumer spending, and intergenerational mobility.

By bridging accounting theory with socio-economic analysis, this study sheds light on the importance of tax credit programs in shaping equitable economic policies. The findings contribute to ongoing discussions on tax reform, emphasizing the need for policies that enhance financial resilience and economic inclusion.

***Keywords**: Child Tax Credit (CTC), American Rescue Plan (ARP), Fiscal Policy, Economic Resilience, Social Equity, Tax Reform*

ANALYSIS OF STRATEGIES USED BY RURAL COUNTIES IN MIDDLE TENNESSEE TO ATTRACT PROFESSIONALS

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Richard J. Tarpey, Middle Tennessee State University

ABSTRACT

Often falling behind their urban counterparts, rural communities face many unique economic challenges, including the need to bring workers into rural communities. When identifying strategies to attract professionals, the current literature identifies eight main themes: 1) education, 2) tourism and recreation, 3) accessible healthcare, 4) broadband internet, 5) community amenities and development, 6) financial incentives, 7) attraction of new businesses and support of existing businesses, and 8) community partnerships. The purpose of this project is to identify the strategies rural counties in Middle Tennessee currently use to attract workers. Specifically, this research will address the question, "What strategies do rural counties in Middle Tennessee use to attract professionals, and how do these strategies differ across counties?"

This research will gather qualitative data using semi-structured interviews with six chamber of commerce officials from rural counties in rural Middle Tennessee to determine the specific strategies their county is utilizing. These strategies will be analyzed using reflexive thematic analysis and compared between counties by using secondary economic data publicly available from the Tennessee Department of Economic and Community Development.

The results of this study will show how the specific strategies used by counties in rural Middle Tennessee compare to those identified by the literature, including potential strategies described in the literature but not implemented by the counties or new strategies adopted by the counties but not highlighted in the current literature. The findings from this study will also reveal whether economically more successful counties adopt different methods compared to their less economically successful counterparts. While a limitation of this research is the size and regional spread of counties sampled, this research can still provide valuable information concerning the rural workforce to economic development officials, particularly those in the Middle Tennessee region. This research can also serve as a model for similar analyses conducted in other geographic areas.

UNDERSTANDING BUSINESS COLLEGE STUDENTS' THOUGHTS AND PERCEPTIONS ON THE CLASSROOM CLIMATE AND RELATIONSHIP-RICH EDUCATION: AN EXPERIENTIAL STUDY

Recep Pekdemir, University of Wisconsin La Crosse

EXTENDED ABSTRACT

Purpose*: The paper aims to document the experience of classroom climate and relationship-rich education practices in undergraduate-level accounting courses. The experience was realized during the Fall of 2023, the Spring of 2024, and the Fall of 2024 in an upper Midwest middle-class university. The study has two purposes: The first states the position of the classroom climate and relationship-rich education environments in the accounting courses I taught. The second seeks consistency between the results of the Learning Environment Surveys conducted by the university and those of the survey I conducted. The results show the demographics of those surveys, and a comparative analysis is performed to understand consistency.*

Motivation: *College educators are liable to influence student growth and behavior that classrooms or learning environments will be important and have social climate, and social and physical elements. Both college administrators and educators should ensure a welcoming classroom and learning environment in which students are engaged, connected, motivated, satisfied, and successful. Thus, college administrations and educators survey to understand students' thoughts and perceptions for a better learning environment.*

Where the Study Experienced and How: *A middle-class university in the upper Midwest has developed and applied a survey called the LENs – Learning Environments Surveys since the Fall of 2023. Some components of the LENs are crucial for a better campus climate as follows:*

Peer interactions – In my experience, learning together with other students in this course (through discussions, activities, and/or projects) was,

- *Inadequately supported or facilitated*
- *Adequately supported or facilitated*
- *Interacting with other students was not a part of this course*

Belonging - I feel comfortable contributing to class discussions and/or activities,

- *Rarely*
- *Sometimes*
- *Most of the time*

Opportunities - I had the same opportunities to achieve in this course as other students did,

- *Rarely*

- *Sometimes*
- *Most of the time*

Support – In my experience, asking questions related to the course was,

- *Rarely encouraged*
- *Sometimes encouraged*
- *Often encouraged*

***A Questionnaire**: On the other hand, I developed and applied a questionnaire to understand and analyze students' thoughts and perceptions of the classroom climate and relationship-rich education in my accounting courses of Accounting Principles I and II for all business majors and Intermediate Accounting III for solely accounting majors. I applied for the questionnaire in the Fall of 2023 and the Spring of 2024 in my courses. The surveys are conducted anonymously so there have been no students' identities in the responses or analyses and voluntarily. The questionnaire has only four open-ended questions as follows:*

Q.1. I believe that every student must experience genuine welcome and deep care. Did I make you experience genuine welcome and deep care? If I did, how? Can you give me an example?

Q.2. I believe that every student must be inspired to learn. Did I do something on the statement? How? Can you give me an example?

Q.3. I believe that every student must develop a web of significant relationships. Did I help you develop a web of significant relationships in my classes? How? Can you give me an example?

Q.4. I believe that every student must explore questions of meaning and purpose. Did I do something that you were able to explore questions of meaning and purpose? How? Can you give me an example?

***Data Collection and Analyses**: The experience has two sources of the data used for the study: the results of the LENs, provided by the university administration, and the results of the survey I developed and applied to the subject matter. The results show the demographics of those surveys, and a comparative analysis is performed to understand consistency.*

***Summary and Conclusion**: The findings of the study are interesting and encouraging. I will continue with such studies to understand the classroom climate and relationship-rich education environments of the classroom sessions of my courses.*

The study might be interesting to some other college educators as well.

A LINGUISTIC APPROACH TO THE FACTOR ANALYSIS OF ENVIRONMENTAL TURBULENCE

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ABSTRACT

The environmental turbulence construct continues to be one of the most prevalent moderators used in empirical business research. The degree to which the external environment is stable or turbulent has been shown to influence relationships between many other constructs in strategy, organizational behavior, entrepreneurship, and other fields of management. However, with this popularity comes a plethora of definitions and operationalizations. This study uses a linguistic approach to robustly represent 16 dimensions of environmental turbulence found in extant literature. Exploratory factor analysis is then used to reduce the number of dimensions. The pilot phase of the study has been completed, finding three underlying factors which are tentatively called complex dynamics, limited understanding, and adverse conditions. While the main study is still in progress, the initial findings are promising with regard to improving our theoretical understanding of environmental turbulence and its operationalization in future research.

INTRODUCTION

The degree to which the external environment is considered stable or turbulent is an important contingency factor in business strategy and management (Grant, 2003). While all environments change over time, stable environments are those which change little, slowly, and in predictable ways. Firms operating in stable environments often benefit by defending and exploiting their industry positions (March, 1991; Miles & Snow, 2003). Turbulent environments are those which change greatly, quickly, and in ways not foreseen. Firms operating in turbulent environments are often rewarded by prospecting and exploring for new opportunities and industry positions. Despite the establishment of the environmental turbulence (ET) construct in the management literature over 50 years ago (Emery & Trist, 1965; Khandwalla, 1970), it continues to be used heavily in business research today. A search on ABI Inform and ProQuest identifies 51 peer-reviewed journal articles involving the construct during the last 10 years.[2]

But what is environmental turbulence, really? At least 16 dimensions of the construct have been proposed and studied. Some, like uncertainty and ambiguity, seem quite similar. Others, like complexity and hostility, are quite different. This richness in the view of the construct is both a blessing and a curse. A blessing, in that it provides many ways to reveal the construct which may

[2] The 51 articles are those with "environmental turbulence" in the title. There are undoubtedly many more with alternative titles or related constructs such as VUCA, environmental dynamism, etc.

be tailored to the research context at hand. A curse, in that it allows miscommunication due to a lack of definitional rigor and a resulting murkiness in our findings.

The aim of this study is to revisit the ET construct with an organizing principle that helps clarify what we mean by the term. The organizing principle is that of linguistics, or more specifically, word-level semantics. By representing each dimension using a common linguistic framework, the degree of similarity or overlap between the 16 dimensions may become apparent. Further, using exploratory factor analysis, the number of dimensions may be reduced to a smaller set of underlying factors. From a theoretical perspective, this is important as it brings greater clarity to our understanding of environmental turbulence and possibly more consistency to its operationalization in future business research. From a practical perspective, managers may be able to concentrate on just three broad aspects of their external environment and not sixteen.

THEORETICAL BACKGROUND

Environmental Turbulence

The concept of turbulence as applied to organizational environments may be traced to Emery and Trist (1965) who used the term "turbulent field" to describe an environment which is complex and dynamically changing. In such environments, the nature of causality is less clear, impeding organizational decision making and thereby influencing organizational structure. Complexity and dynamism were two of the earliest dimensions of environmental turbulence studied by researchers (Duncan, 1972).

Khandwalla (1970, 1972) highlighted uncertainty as the salient feature of environmental turbulence. Complexity and dynamism were viewed as contributors to uncertainty, along with heterogeneity – the diversity of the components comprising the environment. Khandwalla argued that uncertainty makes planning difficult, leading organizations to seek to reduce uncertainty through people devices (collaboration), structural devices (vertical integration), and technocratic devices (information and control systems).

Some scholars recognized hostility as an important dimension of environmental turbulence (Dess & Beard, 1984; Khandwalla, 1977; Mintzberg, 1979). Munificent environments support organizational growth and stability, while malevolent environments impede the firm's ability to achieve its goals, requiring organizational change. The hostility dimension also demonstrates how the same environment may be perceived quite differently by different organizations. For example, the Covid-19 pandemic caused great economic harm to firms in some industries (e.g., accommodation, food services, air transportation) yet great economic success for firms in others (e.g., pharmaceuticals, on-line retail, social assistance) (Bureau of Labor Statistics, 2020).

Igor Ansoff (Ansoff, 1984; Ansoff et al., 2019) modeled environmental turbulence using five dimensions: complexity, novelty, rapidity, visibility, and frequency. Novelty represented the organization's familiarity with successive events in the environment. Rapidity was the rate of change in the environment. Visibility meant visibility into the future, another form of uncertainty. And frequency represented how often the overall level of turbulence in the environment shifted.

Ansoff also provided a scale ranging from 1 to 5 for each dimension, arguing the level of strategic response must match that of the turbulence.

Other dimensions of environmental turbulence which have been proposed include volatility and ambiguity from the VUCA framework (Bennett & Lemoine, 2014), changeability (Ansoff, 2019), restrictiveness (Khandwalla, 1977), predictability (Kipley et al., 2012), and duration (Reed, 2022). In total, 16 dimensions are addressed by the current study.

Linguistics

Linguistics is the field of study concerned with human natural language (Akmajian et al., 2017). The field is usually segmented into morphology (the internal structure of words), syntax (how words fit into phrases and sentences), and semantics (the meaning of words, phrases, and sentences). As each of the environmental turbulence dimensions has been labeled by a single word (e.g., uncertainty), we may use word-level semantics as a consistent method for representing and analyzing the dimensions. Further, we may use the English dictionary and thesaurus as authoritative sources of meaning.

Take the uncertainty dimension, for example. According to Merriam-Webster (2020), the noun form of the word (uncertainty) is defined as "the quality or state of being uncertain." This is simply a reference to the adjective form of the word (uncertain). Under the adjective form, we find more meaningful definitions, with the most relevant being "not known beyond doubt." The adjective form of each dimension is therefore used in this study.

Turning to the thesaurus, we may also look up synonyms and related words for a richer understanding of each dimension. Synonyms are described as words that share at least one basic meaning with another word. Synonyms for uncertain include "capricious, changeable, changeful, flickery, fluctuating, fluid, inconsistent" and others (Merriam-Webster, 2019). Related words are described as words that do not share a basic meaning but are still of likely interest to the user. Related words for uncertain include "aimless, arbitrary, desultory, erratic, haphazard, hit-or-miss, irregular, random" and others.

Linguistically, four levels of meaning may therefore be used to richly represent each environmental turbulence dimension. As shown in Table 1, these are the name of the dimension itself, its definition with regard to the external environment, its synonyms, and related words. A survey item may then be derived at each level for a consistent, four-item operationalization of each dimension. This consistency is important. Some of the ET dimensions have been operationalized in many ways, while some have not been operationalized at all, rendering factor analysis using existing survey items problematic. By building new survey items based on linguistic theory, the factor analysis may be applied "fairly" to all dimensions.

Table 1 Four Levels of Meaning for the Uncertainty Dimension		
Level	Meaning	Survey Item
Name	Uncertain	There is a lot of uncertainty in my external environment.
Definition	Not known beyond doubt	My external environment is not known without great doubt.
Synonyms	Capricious, changeable, changeful, flickery, fluctuating, fluid, inconsistent, inconstant…	My external environment is very capricious.
Related words	Aimless, arbitrary, desultory, erratic, haphazard, hit-or-miss, irregular, random, scattered, slapdash, …	Things happen randomly in my external environment.

METHODS

A survey is used to collect data from managers across multiple industries on their perceptions of environmental turbulence. Using the linguistics approach, 64 survey items have been developed for the 16 dimensions (4 items each). The survey is conducted on-line via SurveyMonkey. Given the overlapping nature of the 16 dimensions, the order of the items is randomized to minimize order bias.

Each dimension is treated as a single, unidimensional latent variable. Cronbach's alpha and average variance extracted (AVE) are used to assess the reliability and validity of each variable. Factor analysis is then used on the 16 variables to attempt to reduce the number of dimensions to a fewer number of underlying factors. By assessing the factor loadings, it may be seen which dimensions are grouped together as similar based on their correlations with a common factor.

To test the validity of the underlying ET factors, two additional constructs are included in the survey: the firm's entrepreneurial orientation (EO) and performance. EO is a well-studied construct whose relationship with firm performance has been found to be positively moderated by environmental turbulence (Balodi, 2020; Covin & Slevin, 1989; Lumpkin & Dess, 1996). An established 9-item EO scale is used for this purpose (Miller, 1983; Covin & Slevin, 1989). For performance, a three-item subjective scale is used which combines financial performance, performance versus industry peers, and meeting or exceeding firm goals and objectives. Using regression analysis, the convergent validity of the reduced dimension ET is demonstrated if it positively moderates the relationship between EO and firm performance too.

The study is designed in two phases: a small pilot study with university students to test and improve survey items, followed by a larger main study with nationwide participation. As of the time of this writing, the pilot phase has been completed.

PILOT STUDY RESULTS

The pilot study used MBA students and senior-year undergraduate business majors at Berry College in Rome, Georgia as participants. 56 valid and complete survey responses were collected. Table 2 shows the 16 latent variables operationalizing the environmental turbulence dimensions. Note that some Cronbach's alpha values are below the 0.7 rule-of-thumb suggesting room for improvement of the survey items or a greater number of items per dimension (Nunally, 1978).[3] This is particularly true for ambiguity and restrictiveness. Similarly, some AVE values are below the 0.5 rule-of-thumb and are not found to be unidimensional, having more than one eigenvalue > 1.0 (Fornell & Larcker, 1981). While some survey items could be dropped to improve these variables, they are retained as is for the pilot.

Table 2
16 Dimensions of Environmental Turbulence

Dimension	Mean	Variance	Alpha	AVE
Complexity	4.464	.274	.676	.510
Heterogeneity	3.723	.158	.632	.367[a]
Diversity	3.737	.060	.725	.552
Volatility	3.996	.148	.737	.561
Dynamism	4.509	.015	.813	.646
Changeability	4.281	.153	.659	.497
Frequency	4.411	.123	.583	.449
Rapidity	4.223	.039	.880	.739
Hostility	3.161	.066	.783	.610
Novelty	3.420	.052	.621	.476
Unpredictability	3.652	.004	.660	.502
Uncertainty	3.679	.096	.667	.508
Ambiguity	3.629	.138	.333	.354[a]
Visibility	3.415	.058	.546	.438[a]
Restrictiveness	3.933	.143	.442	.387[a]
Duration	4.585	.054	.648	.488

[a] Two underlying factors found. AVE is shown for the first factor only.

Table 3 shows the results of factor analysis on the 16 ET dimensions. Only three components are found to have eigenvalues > 1.0 which together account for 72.4 percent of the variance. This is a strong indication of three underlying factors for environmental turbulence. The highest factor loadings are highlighted and are well above the 0.5 rule-of-thumb (Costello & Osborne, 2005). Component 1 appears to represent the dimensions associated with the dynamics of the environment. Dynamism, rapidity, changeability, volatility, and frequency show the highest

[3] DeVellis (2017) suggests an alpha as low as 0.6 may be acceptable for exploratory research.

loadings here. Interestingly, complexity, diversity, and duration are also loaded on Component 1, indicating they are viewed as related to the dynamics of the environment. For now, this factor will be called *Complex Dynamics* pending further examination under the main study phase.

Component 2 appears to represent the dimensions associated with a lack of knowledge or understanding of the external environment: ambiguity, uncertainty, novelty, and unpredictability. Heterogeneity is loaded here as well, suggesting it is involved in understanding too. This factor will tentatively be called *Limited Understanding*. Component 3 loads the two remaining dimensions, hostility and restrictiveness. It appears to represent the negative aspects of the environment which may be called *Adverse Conditions*. Thus, the three underlying dimensions of environmental turbulence found by the pilot study may be summarized as complex dynamics, limited understanding, and adverse conditions.

Table 3
Factor Loadings for ET Dimensions

Dimension	Component 1	Component 2	Component 3
Complexity	**.727**	.248	.085
Heterogeneity	.453	**.693**	.004
Diversity	**.710**	.515	-.015
Volatility	**.767**	.472	.218
Dynamism	**.882**	.165	-.158
Changeability	**.799**	.321	-.113
Frequency	**.762**	-.034	.274
Rapidity	**.845**	.295	-.042
Hostility	.077	.507	**.577**
Novelty	.479	**.661**	.223
Unpredictability	.591	**.617**	.191
Uncertainty	.287	**.831**	-.085
Ambiguity	.197	**.849**	.077
Visibility	.048	**.735**	.336
Restrictiveness	.001	.045	**.843**
Duration	**.566**	-.494	.283

Extraction based on principal components. Solution rotated using varimax with Kaiser normalization.

Dess and Beard (1984) also used factor analysis to study five environmental dimensions drawn from population-ecology theory: capacity, stability-instability, turbulence, homogeneity-heterogeneity, and concentration-dispersion (Aldrich, 1979). They found three underlying factors to be the most prominent: munificence (hostility), complexity, and dynamism. While the similarity of these factors to those found by this study is considered encouraging, there are notable differences between the two studies. Dess and Beard (1984) studied only five dimensions drawn from the population-ecology literature and used objective measures from the Census Bureau, Bureau of Economic Analysis, and other databases. The current study addressed 16 dimensions drawn from the broader management literature, using subjective measures collected directly from managers.

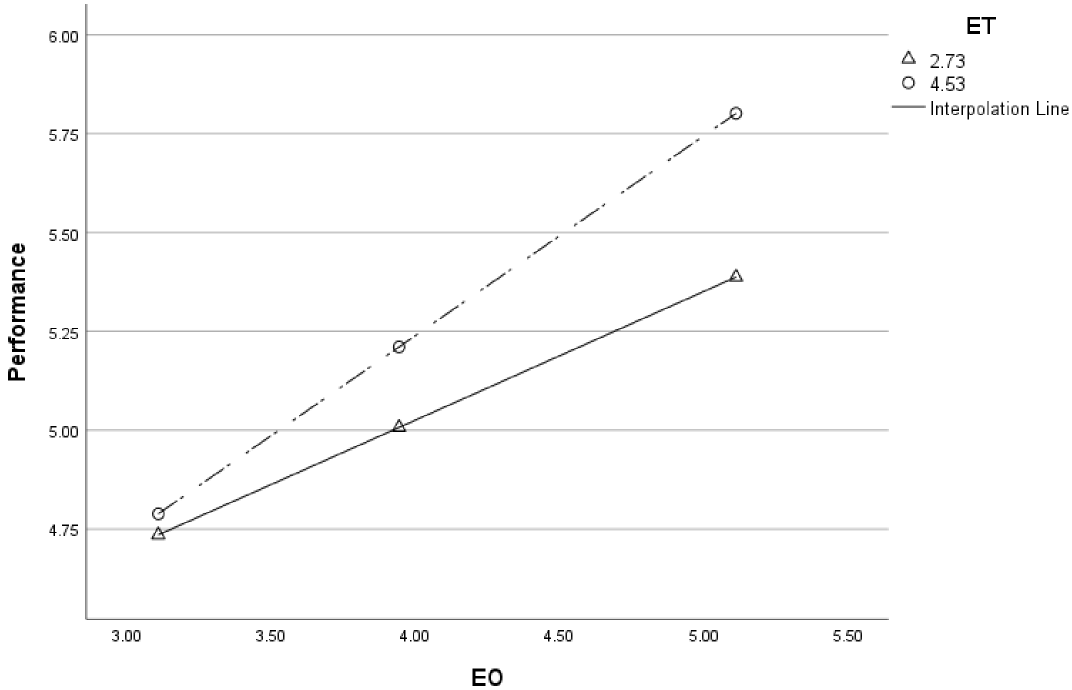
Table 4
Regression on the Interaction of EO and ET

	Dependent: Performance		
Variable	Model 1	Model 2	Model 3
EO	.465 (<.001)	.411 (.013)	.047 (.922)
ET		.082 (.611)	-.218 (.588)
EOxET			.613 (.418)
R	.465	.469	.479
R^2	.216	.220	.230
Sig.	<.001	.001	.003

N = 56. Standardized coefficients shown with p values in parenthesis.

Table 4 provides the results of the block regression investigating the interaction of entrepreneurial orientation and environmental turbulence. Using the established EO scale, models 1 and 2 show that EO is positively related to firm performance consistent with prior research. ET is calculated as the mean of the three underlying ET dimensions found in this study: complex dynamics, limited understanding, and adverse conditions. Each of these dimensions is measured as the mean of the top 5 survey items loaded on its underlying component. Model 3 shows that ET positively moderates the relationship between EO and performance which is also consistent with prior research. The moderation effect is illustrated by Figure 1 where the dashed line representing the high turbulence condition is above and steeper than the solid line representing the low turbulence condition. The regression results therefore support convergent validity of the new three-dimensional ET measure with prior studies of the interaction of EO and ET.

Figure 1
ET Positively Moderates the Relationship between EO and Performance



CONCLUSION

The environmental turbulence construct deserves continuing study due to its prolific use in management research and its wide variety of dimensions and operationalizations. The purpose of this study is to identify the similarity between the dimensions and reduce them to a smaller, underlying set. A novel approach based on linguistic analysis is used to represent 16 dimensions in a consistent manner, enabling the application of factor analysis. The pilot phase of the study finds three underlying factors which are tentatively called complex dynamics, limited understanding, and adverse conditions. Environmental turbulence may therefore be defined as an external environment that is complex and changing, difficult to understand and therefore predict, and adversely affects the focal firm. The results of the pilot phase lend confidence to proceeding with the nationwide main study, while also pointing out improvements which may be made to the survey.

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WHY HUMAN CAPITAL AND SOCIAL CAPITAL MATTER TO THE START-UP FOUNDER: EXAMINING COMPLEMENTARITIES BETWEEN CAPITAL INVESTMENTS AND STRATEGIC PERFORMANCE

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ABSTRACT

In this paper, we seek to provide a better understanding of factors impacting the innovative and strategic performance of start-up founders when beginning and growing a new venture. We focus in particular on the impacts and relationships between human capital, social capital and the innovative and strategic performance measures we examine. Although substitution effects exist, we propose that human capital and social capital act primarily as complements as they impact the founder's learning performance, innovative performance and resource management, and, ultimately, the competitive advantage and enduring success of the new venture.

Keywords: *Human capital, social capital, complementarity, innovation performance*

CULTURED PEARLS OF WISDOM: THE VALUE OF OVERCOMING CHALLENGES IN VIRTUAL EXCHANGE EXPERIENCES

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ABSTRACT

Pearls are formed when oysters suffer irritations, such as grains of sand that enter their shells. In dealing with the problem, oysters create beautiful gems that would not have existed had the irritations not occurred. In the same way, the experience of tackling and overcoming the challenges of collaborating with partners in another country during a virtual exchange creates deeper learning than would occur if every step of the process had gone smoothly. This paper presents the PEARLS model, which highlights some of the most important skills/mindsets that can be fostered through the growth experience of handling challenges in virtual exchange: persistence, empathy, adaptability, relationships (connectedness), life-long learning and self-awareness. Each of these are important qualities for humans throughout their lives in a global society, and these qualities are especially sought after by employers in this age of AI, when being fully human is an advantage.

INTRODUCTION

Study abroad opportunities have long been highlights of students' college programs and these travels are frequently viewed by employers as enriching experiences that help develop desirable qualities in future employees (Oberhelman & Dunn, 2019). Between the financial costs, opportunity costs and the threat of danger during international travel, traditional study abroad trips are not practical for many students. Given the state of communication technology available to schools and individuals now, virtual exchanges can provide a next-best-thing opportunity for a wide range of students who can engage in virtual exchanges multiple times during their college careers, meeting sycnrhonously through video conferencing and working asynchronously on collaborate projects.

Virtual exchange, as well as study abroad trips, are both considered high-impact practices that can transform students' self-perception, behavior and worldview as they are challenged by collaboration with international peers with different values and perspectives (Lee, Leibowitz, Rezek, Millea & Saffo, 2022). Faculty in the business field has especially taken to virtual exchanges, which is logical given the importance of international business in today's global environment (Dovrat, 2022). In reports on the processes and outcomes of virtual exchange experiences, onflicts and challenges are often downplayed but are important in learning, especially for students who must learn to negotiate with people around the world (Dooly & Vinagre, 2022). This paper presents the PEARLS model for highlighting some of the most important skills/mindsets that can be fostered through the growth experience of handling difficulties and challenges in virtual exchanges. The PEARLS model includes persistence, empathy, adaptability, relationships (connectedness), life-long learning and self-awareness. Each of these are important qualities for humans to develop throughout their lives, but are even more important in this day of artificial intelligence, when exhibiting good human skills and qualities is an advantage to employers. The PEARLS model is inspired by natural pearls that are formed when oysters suffer irritations, such as grains of sand that enter their shells. In dealing with the irritant, the oyster creates a thing of beauty that would not have existed had the challenging situation not arisen. In the same way, the experience of tackling and overcoming the challenges of collaborating with partners in another country during a virtual exchange creates deeper learning than would occur if every step of the process had gone smoothly.

PERSISTENCE

Persistence is the evidence of mindset in which people believe they can bounce back from failure to eventually succeed. Just as the oyster persistently coats the irritant with many layers to form a pearl, students learn to persist through the challenges and obstacles they encounter in a virtual exchange, ultimately achieving personal and academic growth. People with persistence are resilient, continuing their attempts to overcome challenges they face in order achieve greater goals. Persistence has been found to be very important for worker performance (Bowles et al., 2001; Hockman & Kautz, 2012; Levin 2012; 2015).

The unfortunate truth is that persistence, like patience, is something one learns by enduring and working through situations in which things go wrong. Students in virtual exchange programs find they must persist through various challenges, such as language barriers, time zone differences, and technological issues. The dynamic nature of virtual exchanges means that plans and expectations can change frequently. Students learn to be resilient and adapt to new situations and unexpected changes, building their capacity to handle uncertainty. Likewise, for faculty involved in virtual exchange, increased efforts required to create and run a successful virtual exchange present "grains of sand" that create "pearls" for them as they persist to complete the project (Stevens Initiative, 2022)..

EMPATHY

Empathy is the awareness of and willingness to understand the feelings and perspectives of others. Developing empathy involves the sometimes difficult process of coming to terms with the fact that others' views and experiences may be different from one's own. Building relationships with peers from different cultural backgrounds fosters empathy as people begin to understand more about others' perspectives, problems and experiences (Abdullah, 2023). When students in a virtual exchange learn about the personal lives and experiences of their international peers, they can better understand and empathize with their emotions and challenges .This process broadens their understanding and appreciation of different lifestyles, traditions, and values. Repeated interaction with diverse cultures and perspectives acts as a gentle irritant that encourages students to broaden their understanding and develop the "pearl" of empathy. Many employers value empathy due to the fact it can improve communication, teamwork, and customer relations. The productivity of workers in the future will depend upon intrapersonal and interpersonal skills as well as cognitive knowledge (Levin, 2015). Thus, empathy is a key factor in work success as it plays a significant role in interpersonal relationships.

ADAPTABILITY

Adaptability is a mindset that allows people to think creatively and flexibly about the challenges they face (Brassey, De Smet, Maor & Rabipour, 2024). Much like the oyster adapts to the presence of the irritant, students learn to adapt to new environments, technologies, and cultural norms. This adaptability is crucial in virtual exchange programs as students must navigate new environments, cultural norms, and technological challenges. As with persistence, adaptability is developed "the hard way" by working through situations that challenge students by requiring flexibility and open-mindedness: In particular, students are faces with practical issues related to schedules, work patterns, time zones, communication styles, different languages, points of view, and technological problems.

Adaptability is highly sought after by employers, as adaptable employees can more quickly adjust to changing circumstances and find creative solutions to problems (Burns, 2013, Levin, 2015). In fact, Levin (2015) contends that the greatest gains in productivity in the workforce have been attributable to the ability of works to adapt to change. This is logical given the increasingly rapid pace of change in organizations. A study by McKinsey Health Institute (Brassey et al., 2024) concluded that people with high levels of adaptability or resilience demonstrated higher engagement and better holistic health. Those that scored high on both aspects were more than three times more likely to be innovative. This makes intuitive sense in that innovation requires people to approach new and uncertain situations with an open mind and a willingness to adapt and respond with flexibility and creativity.

RELATIONSHIPS

Forming meaningful connections with peers from different cultures is a key aspect of virtual exchange programs. Participating in a virtual exchange can significantly enhance students' sense of connectedness and teach them about fostering good relationships through various means (Wagner, n.d.). For example, regular interactions through virtual meetings, discussions, and messaging platforms help students stay connected and these frequent communications build familiarity and friendship. These relationships improve communication skills, foster empathy, and create support networks, all of which can help reduce conflicts and enhance collaboration. Soft skill learned through interactions with international peers can concretely benefit students as qualities related to the ability to develop interpersonal relationships are highly desired by employers (Levin 2012; 2015).

On a broader scale, building personal relationships with international peers allows students to see firsthand how their lives are intertwined with those of others around the world. Interacting with those outside one's normal group of friends and acquaintances can lead to less bias and stereotyping as people come to understand others as humans (Abdullah, 2023). These connections make global issues feel more personal and relevant. Students begin to understand that people from different backgrounds can work together towards common goals. This fosters a sense of global unity and collaboration. Many virtual exchanges incorporate cultural sharing in addition to academic work in order to build connections. Learning about different cultures, traditions, and ways of life broadens students' perspectives and helps them appreciate the diversity of the human experience and recognize the commonalities that unite people around the world. Specifically, such interactions with international friends helps dispel stereotypes and misconceptions. Students learn to see their new friends as individuals, rather than through the lens of cultural or national stereotypes. In sum, students who make friends with their international peers in a virtual exchange are more likely to see the world as an interconnected place where collaboration and mutual understanding are essential. This awareness can inspire them to become active global citizens who contribute positively..

LIFE-LONG LEARNING

The oyster's ongoing effort to transform the irritant into a pearl mirrors the process of life-long learning and self-improvement. By exposing students to new perspectives and challenges and opportunities they did not know existed, virtual exchanges promote a mindset of life-long learning (Wagner, n.d.). Employers value this quality as it indicates a willingness to grow and adapt in an ever-changing work environment. Interacting with peers from different cultural backgrounds broadens students' horizons and encourages curiosity about the world. According to the principle of selective perception, humans necessarily ignore many of the multitudinous stimuli to which they are exposed. Individuals pay more attention to information that aligns with their existing beliefs, experiences, or interests. When students participate in a virtual exchange and form personal connections with peers from different countries, several transformative processes occur. The personal relationships students build make them more attuned to news, events, and issues related to their friends' countries. This heightened awareness occurs because the information now has a personal connection and significance. As students learn about the experiences and challenges faced by their international peers, they develop a deeper sense of empathy. This empathy extends beyond individual relationships to a broader understanding of the diverse issues people face worldwide. Then, as students begin to see the world as a more interconnected place, they are more likely to notice global events and decisions that can have far-reaching impacts on the lives of people they care about. This interconnected perspective fosters a sense of global citizenship and responsibility. With a newfound awareness and empathy, students are more likely to engage with global issues and advocate for positive change. They become more informed and proactive in addressing social, environmental, and political challenges. In the end, the personal connections students form lead to a greater appreciation for cultural diversity. They become more open to learning about and respecting different cultures, traditions, and viewpoints.

In essence, the process of selective perception triggered by personal connections in a virtual exchange enriches students' empathy and understanding of global interconnectedness and leads to life-long learning. As students become more aware of the shared human experience and the importance of working together to address common challenges. This transformative learning experience shapes them into compassionate, informed, and engaged global citizens.

SELF-AWARENESS

Many virtual exchange programs incorporate reflective activities in which students consider their own values, beliefs, biases, assumptions, and emotional responses (Wagner, n.d.). Confronting their own biases and values helps them understand more about themselves and how they can relate to others (Abdullah, 2023). Like the other PEARLS elements, self-awareness is interconnected with other parts since it is crucial for developing empathy. Students gain a deeper understanding of how their actions, words and biases can impact others. This naturally influences their relationships and interconnectedness with others. Participating in virtual exchange programs in which students get to know their international peers as friends helps students become more aware of how their cultural background influences their perspectives. They are challenged to examine their own beliefs as they are more widely exposed to different perspectives presented by people they now consider friends. Employers highly value self-aware individuals as they are more likely to take responsibility for their actions, manage stress effectively, and continuously seek self-improvement.

CONCLUSION

The elements of the PEARLS model inter-relate in many ways. Experiencing different approaches and reacting to new situations helps students become more self-aware of their capacity for persistence and adaptability. Using empathy to help build relationships with international peers helps students understand their capacity for connecting with people around the world and can spark their interest in new topics. While these mindsets and skills are important for all students, Lee and associates (2022, p. 92) found that virtual exchanges are particularly valuable for first-generation students, students from minority groups, female students, and students who are financially disadvantaged. This makes virtual exchanges even more important for the transformative learning experiences they provide.

Many challenges that present an "irritating piece of sand" in the proverbial oyster can be found in virtual exchange experiences. Communication issues span from problems with the technology used to communicate across long distances to different languages spoken by the participants to varying ways of expressing thoughts and leading to misunderstandings. Persistence, empathy and adaptability are all necessary to work through these problems, thus adding layers to the “beautiful pearl” that results from dealing with these challenges. Developing trust and rapport in a virtual setting can take longer than in-person interactions, requiring more persistence and more empathy. As students work through these with their peers, they develop relationships that can then inspire life-long learning. All of these contribute to self-awareness. While these examples demonstrate how various challenges can contribute to multiple aspects of the PEARLS model, the overarching theme of building and maintaining relationships remains central. Overcoming these challenges leads to the development of crucial soft skills, ultimately creating a "beautiful pearl" of personal growth and interconnectedness.

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GOT BUGS? PIONEERING THE FUTURE OF SUSTAINABLE PROTEIN SOURCES

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CASE DESCRIPTION

The primary subject matter of this case concerns business growth strategy in a nascent industry. Insect agriculture offers a sustainable alternative to current sources of protein that are incorporated into animal feeds to support aquaculture, livestock production, and pet foods. The companies operating in this industry utilize different business models and face critical choices in strategic direction. The focus of this case study is strategic direction for commercializing a high quality insect protein developed by Stratium US.

The secondary issue examined in this case study is product messaging and consumer behavior. There are numerous examples of industries which developed and executed campaigns to change consumer perception and adoption in a product category. Insect agriculture has numerous documented benefits in terms of the quality of the protein, the efficient use of limited environmental resources, and the ability to reduce food waste from the food system. The case challenges students to identify the appropriate messaging to encourage consumer acceptance in a product category which at best faces consumer uncertainty and at worst faces consumer aversion.

The strategy portion of the case study has a difficulty level appropriate for first year graduate students. The consumer behavior and messaging portion of the case study has a difficulty level for junior or senior level undergraduates.

The case is designed to be taught in 3 class hours and requires 3 hours of outside preparation by students.

CASE SYNOPSIS

Stratium is a US-based company which launched in 2023. Their primary mission is the production and commercialization of insect protein and fat derived from black soldier fly larvae (BSFL). This insect can be raised far more sustainably than many other protein sources in terms of natural resources required, and the process of raising them has the environmental benefit of reducing food waste in the food system. The protein and fats from this insect can be incorporated into animal feeds to support aquaculture and livestock production, and pet foods that could be sold directly to consumers. Their work is based on over 14 years of research and supported by numerous patents which ensure product quality and consistency. While the protein is also theoretically safe and nutritionally beneficial for humans, this is not their initial mission, as there are many regulatory and cultural barriers to overcome in the US before this is possible.

Rather than develop pet food and animal feeds themselves, Stratium is focused on bulk production of insect agriculture products and relies on partnering directly with R&D teams at manufacturers in multiple industries to formulate new products for these companies and brands. With a looming worldwide shortage of protein, numerous environmental and nutrition benefits to *insect protein, and a patented process ready to scale, Stratium is poised for success. The question and the topic of this case study, is whether consumers are ready, and the best path for commercializing the insect-based protein in terms of products and messaging that would lead to the greatest consumer acceptance and commercial success.*

EXPLORING THE CORRELATION AND TIME LAGS OF REIT PRICES AND ILLIQUID REAL ESTATE PORTFOLIOS: EMPIRICAL EVIDENCE FROM A RETIREMENT FUND

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William Procasky, Texas A&M University – Kingsville

ABSTRACT

This research investigates the relationship between forward-looking Real Estate Investment Trusts (REITs) and an illiquid real estate portfolio within a retirement fund. The portfolio that is marked to market on an ongoing basis throughout the year due to the frequent assessment of properties, creates a daily fluctuating value. While REITs, as market-traded entities, adjust continuously based on market conditions and investor expectations. In this study, we hypothesize that the forward-looking REITs would predict the price movements of illiquid assets with a time lag. We intend to examine the nature of this lag, should one exist.

To test the hypothesis, we analyze daily values of the illiquid portfolio and construct an index from several REITs to mirror the portfolio's composition. By applying econometric/statistical models such as Vector Auto Regressive (VAR), we test to determine if a causal relationship exists between REIT prices and the illiquid portfolio's value, and if so, identify the length of the lag. Our findings could offer valuable insights for fund managers and investors regarding the integration of forward-looking market indicators into the valuation of illiquid assets and further improve the information flow among market participants.

BRIDGING THE GAP: ENHANCING HIGH ORDER STUDENT LEARNING THROUGH EXPLICIT COMMUNICATION OF BLOOM'S TAXONOMY

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ABSTRACT

Academics often use Bloom's Taxonomy to measure the extent a student has mastered the material as well as their analysis skills related to these learnings. While instructors design Student Learning Objectives (SLOs) and assessments to guide students from basic knowledge to higher-order evaluation, students are often unaware of these pedagogical intentions. As a result, they may focus on lower cognitive levels as well as communicating these lower levels "facts," under the assumption that this aligns with instructor expectations.

This research investigates whether explicitly introducing Bloom's Taxonomy to students (or reminding them if they had been previously exposed) as part of the assignments enhances their demonstration of higher-order thinking abilities. We hypothesize and test that students who receive an explanation of Bloom's levels will perform better on assessments that require advanced cognitive skills than those without such exposure. By involving students in this conversation, the study aims to fill a gap in the literature, offering practical insights for improving student learning outcomes through intentional engagement with Bloom's framework.

DISCOUNTING BIASES IN INTERTEMPORAL FINANCIAL CHOICES OF AMATEURS AND PROFESSIONALS

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Thomas P. Langdon, Roger Williams University

ABSTRACT

This study explores differences in the intertemporal choice behavior of amateurs versus professionals. The results indicate that amateurs exhibit impulsive behavior evident by significant discounting. In contrast, the professionals generally do not exhibit such biases.

CORRELATION BETWEEN INTERNAL CONTROL WEAKNESSES AND SOCIAL CAPITAL

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ABSTRACT

The Sarbanes-Oxley Act (SOX) 2002 was enacted to restore public trust in capital markets after several high-profile accounting scandals. The objective is to ensure investors are informed regarding firms' internal control weaknesses (ICW) that may increase financial statement errors or managers' ability to manage earnings. It mandates new disclosures about and assessments of internal controls. Section 404 requires management to disclose annually its assessment of the firm's internal control structure and procedures for financial reporting, and the corresponding opinions of the firm's auditor must be included.

This study focuses on the relation between social capital and effectiveness of internal control in U.S.-listed firms. It investigates whether there is a difference in propensity for ineffective internal control between firms with headquarters in societies with higher level of social capital and those in regions with lower social capital. Results show that firms headquartered in high-social capital counties have fewer ICWs than those in low-social capital counties.

Cross-sectional analysis reveals that the negative association between social capital and ICW is more pronounced for firms facing high product market competition. It also reveals that this negative association is more pronounced for firms that are young.

This study contributes to current literature by providing a direct link between social capital and ICWs, and by showing that market competition and age of firms have impact on the relation between the two.

Furthermore, this study should be of interest to investors. A fundamental premise underlying SOX is that effective internal control provides a significant benefit to investors by reducing both intentional and unintentional misstatements in measuring, recording, and processing financial information, which leads to reliable financial statements. Weaknesses in disclosing firms' systems of internal controls may increase financial statement errors or managers' ability to manage earnings. Therefore, financial reports and statements of firms that have a propensity for ineffective internal control are not reliable. Investors need to practice due diligence when considering investments in firms that are headquartered in counties with low social capital.

TRAPPED IN TRAFFIC: THE SOCIOECONOMIC AND BEHAVIORAL BARRIERS TO TRANSIT ADOPTION

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Steven Livingston, Middle Tennessee State University

ABSTRACT

Public transit usage in Middle Tennessee remains strikingly low, with only 0.86% of commuters utilizing public transportation despite ongoing urban development. This study investigates the persistent lack of public transit adoption in Middle Tennessee, exploring the structural, economic, and sociocultural factors that contribute to low ridership. Prior research on this subject highlights how transit adoption is heavily influenced by infrastructure reliability, economic disparities, and cultural perceptions, with car-dependent cities often facing significant challenges in shifting behavior toward public transportation.

By evaluating trends in Middle Tennessee, this study contextualizes local behavioral patterns within broader national trends. The research hypothesizes that low ridership stems initially from unreliable and inconsistent transit service, which erodes public trust and perception. Simultaneously, our research identifies three interconnected, fundamental barriers to transit adoption: economic disparities, car-dependency culture, and negative public perception. This creates a self-perpetuating cycle where limited transit accessibility restricts job opportunities, particularly higher-wage positions, for transit-dependent populations.

Using a variety of methods, including descriptive statistical, geospatial analysis, trend evaluation, and comparative analysis, the findings reveal that while system inefficiencies serve as an immediate barrier to transit adoption, broader socioeconomic and psychological factors reinforce low ridership patterns. The study emphasizes that improving transit infrastructure alone is insufficient and addressing the ingrained behavioral and economic barriers that shape public attitudes toward transit is of utmost necessity.

These insights have significant implications for policymakers and urban planners, underscoring the need for developing integrated solutions that combine transit investment with behavioral change initiatives, equitable route planning, and targeted efforts to reshape public perceptions. By identifying the interconnected social, economic, and structural barriers to transit adoption, this research provides a framework for developing more inclusive, efficient, and sustainable public transportation strategies for Middle Tennessee.

THE IMPACT OF DIVIDEND CUT AND SUSPENSION ANNOUNCEMENTS: A TEST OF MARKET EFFICIENCY

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INTRODUCTION

The purpose of this event study is to test market efficiency by analyzing the impact of a sample of 10 companies who made announcements of dividend suspensions or cuts on the firm's stock price. In particular, how fast does the market price of the firms' stock react to dividend cut announcements? This research tests whether the announcement of dividend cuts incorporates the strong form, semi-strong form, or weak form of the efficient market.

This study tests the effects of 10 dividend cut announcements on stock price using the standard risk adjusted event study methodology. If a strong correlation exists between an announcement and an immediate equity market price change, there may not be an opportunity to earn an above normal return and such evidence would support efficient market theory.

LITERATURE REVIEW

Fama defined market efficiency in respect to how quickly the stock market reacts to announced public information and proposed three levels of market efficiency. These three levels are characterized by how quickly the stock market responds as well as the amount of returns investors can possibly seek from carrying out legal trading actions. Weak-form, semi-strong form, and strong-form efficiency are the three different ways a market can be differentiated.

The impact of an increased dividend announcement on stock prices has been widely researched and documented. (Labbs 2013, Fama 1970)

METHODOLOGY AND STUDY SAMPLE

This study sample includes 10 randomly selected dividend cut and suspension announcements.

In order to test semi-strong market efficiency with public announcements of dividend cuts and to examine the effect of dividend cuts on stock return around the announcement date, this study proposes the following null and alternative hypotheses:

H10: The risk adjusted return of the stock price of the sample of firms announcing a dividend cut or suspension is not significantly affected by this type of information on the announcement date.

H11: The risk adjusted return of the stock price of the sample of firms announcing a dividend cut or suspension is significantly positively affected by this type of information on the announcement date.

H12: The risk adjusted return of the stock price of the sample firms announcing a dividend cut or suspension is significantly negatively affected by this type of information on the announcement date.

This study uses the standard risk adjusted event study methodology from the finance literature. The announcement date (day 0), obtained from http://finance.yahoo.com/, is the date of the firm's announcement of the increased dividend. The required historical financial data, stock price and S&P500 index during the event study period was also obtained from the internet website http://finance.yahoo.com/.(Labbs, 2013)

First, The historical stock prices of the sample companies, and S&P 500 index, for the event study duration of -180 to +30 days (with day –30 to day +30 defined as the event period and day 0 the announcement date) were obtained.

Next, holding period returns of the companies (R) and the corresponding S&P 500 index (Rm) for each day in this study period were calculated using the following formula: Current daily return = (current day close price – previous day close price)previous day close price.

Then, a regression analysis was performed using the actual daily return of each company and the corresponding S&P 500 daily return over the pre-event period (day –180 to –31) to obtain the alpha and beta.

To get the normal expected returns, the risk-adjusted method (market model) was used. The expected return for each stock, for each day of the event period from day -30 to day +30, was calculated as: E(R) = alpha + Beta (Rm), where Rm is the return on the market i.e. the S&P 500 index.

Then, the Excess return (ER) was calculated as: ER = the Actual Return (R) – Expected Return E(R).

Lastly, the Average Excess Returns (AER) were calculated (for each day from -30 to +30) by averaging the excess returns for all the firms for a given day.

AER = Sum of Excess Return for given day / n, where n = number of firms is sample. Also, Cumulative AER (CAER) was calculated by adding the AERs for each day from -30 to +30. Both the graphs of AER and CAER were plotted for the event period i.e. day -30 to day +30.

QUANTITATIVE TEST AND RESULTS

After the announcements of dividend cuts one would expect there to be a significant difference in the Actual Average Daily Returns and the Expected Average Daily Returns if the information is new.

Results here support the hypothesis H12: The risk adjusted return of the stock price of the sample of firms announcing a dividend cut or suspension is significantly negatively affected by this type of information on the announcement date.

Chart 1: Average Excess Return Over Event Period

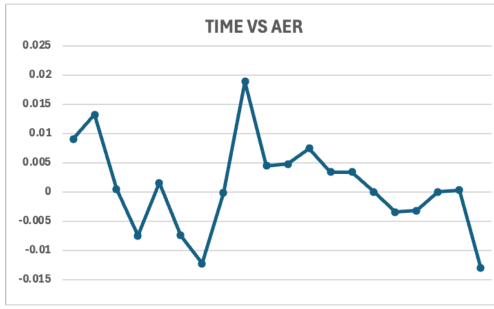
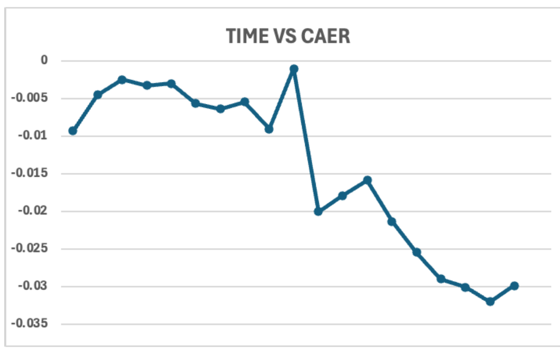


Chart 2: Cumulative Average Excess Return Over Event Period



The graph in Chart 2 shows that the announcements of dividend cuts had a significant negative impact on the firm's share price over the time period.

CONCLUSION

This study tested the effect of announcing a dividend cut or suspension on the stock price's risk adjusted rate of return for a randomly selected sample of 10 firms. Results show a significant negative market reaction prior to the firms' announcement of dividend cuts. These findings support efficient market theory at the semi-strong form level as documented by Fama (1970). For that you cannot make an above normal return in a semi strong market. For this study the announcement of the dividend cuts are viewed as bad news. The market reaction suggests that investors are weary of these companies and would rather steer clear.

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CAFÉ CAMPESINO: A CASE STUDY ON ETHICS AND SUSTAINABILITY

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CASE DESCRIPTION

Café Campesino, founded by Bill Harris, emerged from a transformative experience in Guatemala that highlighted the struggles of small-scale coffee farmers. By pioneering fair-trade practices, Café Campesino established direct relationships with farmer cooperatives, ensuring ethical sourcing and better wages for growers. The company has since expanded by incorporating sustainability initiatives, obtaining B Corporation certification, and maintaining a commitment to both global farmers and the local community in Americus, Georgia. However, Café Campesino faces challenges in effectively reaching individual consumers online despite strong brand loyalty and a high-quality product. This case study examines strategies for expanding the company's online direct-to-consumer sales through target market identification, promotional methods, budget allocation, and success measurement. By leveraging past successes, such as event-based marketing and addressing previous missteps in retail distribution, the company seeks to strengthen its connection with ethical coffee consumers and increase online sales in a competitive market.

IMPACT OF PLAYER ACQUISITIONS ON EUROPEAN SOCCER STOCKS (AN EVENT STUDY)

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ABSTRACT

This study analyzes the effect of soccer players on the stock prices of publicly traded European top-flight soccer teams. Using an event study methodology, it analyzes the abnormal returns of the soccer team's stock price during the event window, which comprises two significant dates: the day journalists report the transfer to the broad public and the day the club officially announces the transfer. Five transfers from the 2024 summer transfer window were analyzed, using both single-factor and two-factor models to measure the previously mentioned abnormal returns while controlling for broad market and economic trends The study's findings indicate that the semi-strong form of the Efficient Market Hypothesis (EMH) holds, as no abnormal returns were statistically significant at the 5% level. The results are not robust enough to reject the Efficient Market Hypothesis or signaling theory. Ultimately, the results from this analysis advise against incorporating player transfer events into investment strategies.

Keywords*: Abnormal returns, event study, semi-strong form, player transfers, efficient market hypothesis, event dates, event windows, transfer windows, estimation period*

1.1 INTRODUCTION

In the modern age of digital media, people receive information faster than ever before. Events such as soccer player transfers can drastically shift the sentiment around a team's future performance over the space of hours. As the average age of investors continues to decrease (Arifuzzman 2014) and social media plays a larger influence in the decisions of investors (Vasquez and Cross, 2024), quick-moving events related to a soccer team can have an impact on its stock price (de Bakker et al., 2016).

The impact of non-financial indicators on a soccer team's financial value has been historically proven (Botoc et al., 2019). When looking at how soccer games have impacted the prices of the stocks of soccer teams, it is evident that certain events can influence the price at which a stock is traded (Edmans et al., 2005). Previous studies have concluded that transfers have had positive impacts on stock prices for their respective teams (de Bakker et al., 2016). While these inquiries into this central question have been insightful, more nuance is important when considering what day these transfer events became known to the public. The quick access to information that most investors have can impact how these transfer events are announced to the public. With the rise of social networks over the past two decades, a new niche of football transfer reporting has been carved out. Popular reporters share news on these social networks before these updates are officially given in newspapers and news networks. The process of a player transfer announcement can have two significant days instead of just one: the report by journalists and the official club announcement.

Event studies are statistical tools with which the effect of a specific event on a business can be evaluated. The purpose of these tools is to measure any abnormal returns in the stock price during a given event period (Kumar et al., 2012). The many steps in a soccer player transfer make setting the date of the event in an event window methodology difficult.

Unlike other studies, this study aims to consider both of these dates in an event window methodology to truly understand how markets react to player transfers in real time. As a result, this study provides an opportunity not only to see how markets react to player transfers but to see at which point markets react to them. In this study, both the day that the transfer is announced by journalists and the day the club officially confirms the transfer can be considered the declaration date of the event.

An abnormal return on a stock during an event window is the difference between the real returns and the expected returns (Levy and Gunthorpe 1992, Strong 1992). Actual returns refer to observed stock returns, while expected returns represent the projected returns of the firm during the event period without the impact of the event itself.

Five particular player transfers were randomly sampled from the population of summer 2024 top-flight European transfers. The relatively small sample size in this methodology is a result of multiple methods to reduce confounding variables in the population. In this study, the reason why only transfers from the summer of 2024 were sampled was to minimize potential confounding variables. Since all of these transfers happened after the same season, market dynamics and social media coverage of player transfers will be much more similar than if data from other years was included. For example, the different relative sizes of online journalists' impact on social media in separate years could result in disparate stock price changes. In addition, this reduces the scope of the dataset into a more manageable one. This sample size of five transfers is also the maximum that would follow the rule of sampling a maximum of 10% of the population, allowing the ability to treat the trials as if they were independent. Cleaning and analyzing this data for all transfers in this population would be time-consuming and difficult given each country's different bank holidays, market dynamics, and economic situations, but could be done in the future. Since this study's concern is to find the impact of player transfers on short-term stock price fluctuations, a smaller event period was used. This period consists of the three trading days preceding the event dates and the three trading days after the event dates. An estimation period of 90 trading days preceding the event window was used.

1.2 THE EFFICIENT MARKET HYPOTHESIS AND RELATED THEORIES

Event studies assume the Efficient Market Hypothesis (EMH), which was introduced by Professor Eugene Fama in 1990. This hypothesis states that all available information is entirely reflected in the market price of a firm (Savita 2014). As a result of this hypothesis, an investor cannot obtain any abnormal profit. Event studies test the Semi-Strong form of the Efficient Market Hypothesis. This hypothesis allows people to analyze the relationship between the market price of a stock and available information. In this case, the current value of the firm will not be affected by this event because it will already be priced into the market price of the stock according to this conjecture. There are three forms of market efficiency.

The semi-strong form of the Efficient Market Hypothesis states that all publicly available information is priced into a given stock's valuation. This includes past publicly available information and current publicly available information. In this case, both fundamental and technical analysis are not relied upon because these methods don't generate additional information that is not public. As a result, investors would only be able to boost returns by using information that is not publicly available. This form of the EMH can be assessed by seeing the impact of a previously unknown event.

The idea that decisions made publicly by a firm work as indicators of information towards the market (Miller and Rock, 1979) is referred to as signaling theory. Buying a soccer player is a corporate action that could serve as a positive signal to public markets. This is because the team is indicating a plan of action to perform better, which could translate to higher revenues for the firm through ticket sales and licensing deals.

In contrast, the belief that stock prices do not react to dividend adjustments is referred to as irrelevancy theory. In this case, whatever circumstances an investor deals with are not influenced by the dividend policy of a business. Modigliani and Miller emphasize that an investor can sell some of their portfolio to meet whatever deficit is in place, so dividends are not relevant. In this theory, the value of a business is only adjusted in response to riskless earnings and not those in the future. The stock price of a firm would only increase in response to increases in earnings and dividend announcements.

2.1 RESEARCH METHODOLOGY

The data of the historically adjusted closing prices for each stock and index was taken during the 90-day period before the first event date. The historical data sources include Yahoo Finance and the Wall Street Journal. Samples were randomly selected by conducting a simple random sample from all the players that publicly traded top-flight European teams bought. The event window spans three trading days before the transfer was announced by journalists and three trading days after the club's official announcement. The accrual of excess returns on the given event days will support the semi-strong form of market efficiency, as newly incoming information will become priced into the stock speedily. Meanwhile, if excess returns are created in the days after the event, the semi-strong form of market efficiency will be nullified, as it will take time for this information to be priced into the stock.

The study uses two methods to see the impact of the transfer announcement on the stock price. The first method uses a single-factor model, which only tracks the price of these stocks with the market index, the MSCI World Communication Services 20/35 Capped Index. This index was chosen in preference to the MSCI World Communication Services 35/20 Index because it provides a higher level of diversification in the broader industry due to its buffering mechanism, which allows for flexible weighting, preventing dominating components of the Index. After getting the changes in the stock and index prices as percentages, we calculate the intercept, slope, standard error, and r^2 values when the market index and stock prices are the independent and dependent variables, respectively. Meanwhile, the second method uses a two-factor model that considers both the MSCI World Communication Services 20/35 Capped Index and the main index in each team's respective country. In this case, the model uses multiple regression to calculate the intercepts, slopes, standard errors, values, F-Statistics, and the sum of squares for the models.

After this, abnormal returns in the single-factor model are calculated using:

$AR_{i,t} = R_{i,t} - (\alpha + \beta \times R_{m,t})$ where:

- $AR_{i,t}$ is the abnormal return for security "i" on day "t"
- $R_{i,t}$ is the actual return of security "i" on day "t"
- α is the intercept coefficient from a regression of security "i" returns on industry returns (estimated during the estimation window).
- β is the beta coefficient from the same regression, representing the sensitivity of security "i" to industry movements.
- $R_{m,t}$ is the industry return on day "t"

Meanwhile, the abnormal returns in a two-factor model are calculated using:

$AR_{i,t} = R_{it} - (\alpha + \beta \times R_{m,t} + \gamma \times R_{i,t})$ where:

- AR_{it}: is the abnormal return for security "i" at a time "t"
- R_{it}: is the actual return of security "i" at time "t"
- α: is the security's intercept coefficient (estimated during the estimation window).
- β: is the security's beta coefficient (measuring its sensitivity to industry movements).
- $R_{m,t}$: is the industry return at time "t"
- γ: is the index's beta coefficient (measuring the sensitivity of the security to industry movements).
- $R_{i,t}$: is the index's return at time "t"

Both the single-factor and two-factor models were used to provide a multi-faceted analytical approach to the event study. The single-factor model allows for the simple control of market risk. Meanwhile, the two-factor model creates a more granular approach that can capture the additional risks in an economy. From there, the t-statistic is calculated and tested at a 5% significance level, and compound abnormal rates were calculated.

When doing event studies for each randomly selected player transfer, three stocks, and indices were used. The stock price of the publicly traded top-flight European team, the MSCI World Communication Services 20/35 Capped Index, and the main index for each team's country were used. Only publicly traded top-flight European teams were selected to be part of the population because of these countries' relatively similar economic conditions and the fact that different markets within the European soccer industry generally have similar growth catalysts and risks. This gave the ability to better control for both economic and market conditions that are not relevant to this study. The MSCI World Communication Services 20/35 Capped Index was used because no index measures the European football market (the STOXX Europe Football index closed in 2020, meaning its performance cannot be used to track transfers in 2024). The main index of a team's respective country was analyzed to control for any national economic fluctuations.

Data was taken from five randomly selected player acquisitions for clubs listed as publicly traded top-flight European teams. Table 1 contains information about the samples taken. Column 1 gives both event dates for each player transfer. Column two shows the name of the transferred player, while Column 3 gives the name of the team buying the player. Column 4 gives the index used to compare the fluctuation in the stock price, while Column 5 gives the index used to track the industry of the soccer club.

Table 1: Transfer Information

Event Dates	**Player Transferred**	**Buying Team**	**Buying Team's Largest Domestic Stock Index**	**Industry Index**
June 19th: Media Report July 1st: Club Announcement	Vangelis Pavlidis	Sport Lisboa e Benfica	PSI (PSI20.LS)	MSCI World Communication Services 20/35 Capped Index
July 17th: Media Report July 18th: Club Announcement	Juan Cabal	Juventus Football Club S.p.A.	FTSE MIB	MSCI World Communication Services 20/35 Capped Index
July 12th: Media Report July 13th[1]: Club Announcement	Ciro Immobile	Besiktas Jimnastik Kulübü	BIST 100 (XU100.IS)	MSCI World Communication Services 20/35 Capped Index
August 12th: Media Report August 13th: Club Announcement	Matthijs De Ligt and Noussair Mazraoui[2]	Manchester United Football Club[3]	S&P 500[2]	MSCI World Communication Services 20/35 Capped Index
September 2nd: Media Report September 3rd: Club Announcement	Francisco Moura	Futebol Clube do Porto	PSI (PSI20.LS)	MSCI World Communication Services 20/35 Capped Index

2.2 DATA ANALYSIS

Table 2 contains descriptive statistics of the samples. This table contained the total number of randomly selected events, the abnormal returns of both single-factor and 2-factor models, the t-statistics of both single and 2-factor models, and standard errors. This includes the standard error for the single-factor model and the standard error for the market and industry, which are accounted for in the 2-factor model.

Table 2: Descriptive Statistics

	N	Arithmetic Mean of Single Factor ARs	Arithmetic Mean of 2 Factor ARs	Single-Factor T-Statistic	2-Factor T-Statistic	Single Factor Std. Error	Market Std. Error (2-Factor)	Industry Std. Error (2-Factor)
t_3[1]	4	0.85513%	0.78223%	0.06087	0.04753	0.06721	0.78798	0.62944
t_2	5	0.13879%	0.12554%	0.10357	0.06730	0.05733	0.66696	0.56344
t_1	5	0.60254%	0.59120%	0.01285	0.05769	0.05733	0.66696	0.563444
t_0 (Club)[1, 2]	4	-1.76267%	-1.43647%	0.84473	0.75081	0.02880	0.31219	0.38158
t_0 (Media)[1]	4	3.90160%	3.86502%	0.87175	0.83153	0.06721	0.78798	0.62944
t_1	5	-0.41783%	0.20624%	0.39811	0.37117	0.05733	0.66696	0.563444
t_2[1]	4	0.79243%	0.58303%	0.00372	0.14039	0.06579	0.75575	0.62542
t_3	5	-1.27944%	-1.71982%	0.37799	0.52626	0.05733	0.66696	0.563444

After compiling the data from the samples during the event window, a confidence interval was used to determine whether these aggregated abnormal returns were statistically significant. Table 3 determines the impact of the player transfer announcement by using a 95% confidence interval. The total event window period is 8 days, with two event dates.

The null hypothesis of the thesis is that an investor cannot obtain abnormal returns during this event window. At none of these points are the aggregated t-statistics statistically significant at the 95% confidence level. As a result, the semi-strong form of the Efficient Market Hypothesis is not rejected. This means that the market is efficient in reflecting available information on European soccer player transfers. Below is the table with data on respective t-statistics, mean differences from the test value, and significance values.

Table 3: Share price reaction to player transfer announcements

	Test Value = 0						
Date	Average Single- Factor T-Statistic	Average 2-Factor T-Statistic	Df	Mean Difference (Single-Factor)	Mean Difference (2-Factor)	Significance (Single-Factor)	Significance (2-Factor)
t_3[1]	0.06087	0.04753	3	0.85513%	0.78223%	0.95529	0.96508
t_2	0.10357	0.06730	4	0.13879%	0.12554%	0.92249	0.94957
t_1	0.01285	0.05769	4	0.60254%	0.59120%	0.99036	0.95676
t_0 (Club)[1, 2]	0.84473	0.75081	3	-1.76267%	-1.43647%	0.46030	0.50729
t_0 (Media)[1]	0.87175	0.83153	3	3.90160%	3.86502%	0.47526	0.46667
t_1	0.39811	0.37117	4	-0.41783%	0.20624%	0.71088	0.72933
t_2[1]	0.00372	0.14039	3	0.79243%	0.58303%	0.99727	0.89725
t_3	0.37799	0.52626	4	-1.27944%	-1.71982%	0.72464	0.62654

3.1 CONCLUSIONS AND LIMITATIONS

The purpose of the study is to identify whether the 2024 soccer player transfers had an impact on the stock of the club buying the player. The abnormal returns of these stocks during the event window are not statistically significant at the 5% level. This means that the market efficiently reflects available information on European soccer player transfers. Below is the table with data on respective t-statistics, mean differences from the test value, and significance values. With this being said, the results from this impact study do not only point to this conclusion, as t-statistics of abnormal returns after the event dates tended to be higher than those before the event dates. Both the single-factor and 2-factor models indicate that the abnormal returns of the stocks are all statistically significant at the 50% level on the two event dates. While such a high statistical significance at a 50% level is not a traditional threshold, abnormal returns appeared to be notable on these two dates. These two dates display a higher level of statistical significance when compared to other dates in the event window. Other dates tend to only be significantly above the 85% level.

This event study also rejects the signaling theory and fails to reject Modigliani and Miller's dividend irrelevancy theory since the abnormal returns were not statistically significant. The general conclusion that can be made from these results is that player transfers do not have a significant impact on the returns of a stock on a short-run basis. At the 50% significance level, the semi-strong form of market efficiency would be rejected. This is not the case at the 5% significance level, at which this form of market efficiency is not rejected.

While the study was able to draw general conclusions regarding this topic, some limitations could have impacted the quality of the study's results. Firstly, the fact that no soccer or sports indices could be used to track the market growth of the very specific European soccer market created issues in creating a model. As a result of this, more broad indices such as the MSCI World Communication Services 20/35 Capped Index had to be used to still track the general communication industry. While this still broadly tracks the European soccer market as part of the media industry, it is not as fitting as an index that is only for soccer. Secondly, the small sample size that was used could impact the results of the study. This smaller study reduced the variability in results, making them potentially less accurate than the ideal sample. The reason for such a small sample was that there were only just over 50 soccer transfers to publicly traded top-flight European teams. As a result, it was important to follow the 10% rule to sample with independence. Lastly, while the study did attempt to control for economic fluctuations in the different countries where players transferred, there will always be variations in the performance of these indicators. Major stock indices can be very good indicators of a country's economic health but are not entirely accurate.

Despite accounting for this in the model, certain confounding variables could have an impact on the results of this study. These include game results and other player transfers influencing the team's stock price. No other permanent transfers occurred during the event windows of Benfica, Besiktas, Manchester United, and FC Porto that could skew the event study results. In the case of Juventus, the team acquired Alessandro Nisci on a free transfer. As a result, the data on Juventus' abnormal returns, mean differences, t-statistics, and significance were omitted on the day of the free transfer to avoid any skewed outcomes. In addition to this, significant news on sponsorship deals could have impacted the given team's share price. Each of the randomly selected teams was assessed to see whether any significant sponsor news came out during either the estimation or event windows, and none was found. Therefore, sponsor news can be ruled out as a significant confounding variable for this specific event study. Lastly, a player or team's popularity in a transfer could have an unmeasured impact on the stocks mentioned in the study. For example, teams or players that are more well-known to the public may impact these stock prices on a larger scale, making their stock price fluctuations more statistically significant.

The different number of days between the given t0 dates could also correlate with the returns in a way that was not accounted for. For example, there is only one day between the media report date and the club announcement for Juan Cabal's transfer, while there are twelve days between the media report and the club announcement for Vangelis Pavlidis's transfer. While there is no evidence of there being such a correlation, it has not been researched thoroughly enough to confirm or rule it out.

3.2 FUTURE RESEARCH DIRECTIONS

Several routes for future research could create a better understanding of how player transfers impact a given company's stock price on a short-term scale. Expanding this research to soccer team stocks in other global markets, such as Asia, would help increase the depth of understanding of this subject globally. This method would likely set continent-specific parameters to create a set of similar conditions to get the best results. Another approach to expand the knowledge on this topic would include gathering a higher quantity of data on soccer team transfers for a specific country or team, eliminating potential confounding variables such as macroeconomic conditions and country-specific bank holidays. This method would require a much larger amount of data collection, cleaning, and analysis. Related research could focus on how the creation of social networks has impacted soccer team stock-price sentiment concerning player transfers over time.

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GENDER PERSPECTIVES ON WORKPLACE SEXUAL HARASSMENT: EXPLORING DIVERGENT VIEWS AMONG FULL-TIME EMPLOYEES IN THE UNITED STATES

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ABSTRACT

Sexual harassment is a significant issue in the United States, with implications for employee morale, workplace culture, productivity, and legal liability. However, perceptions of what constitutes sexual harassment, views on the reasons for it, believability of the accuser and accused, and other employee reactions can vary by gender. Women frequently describe experiencing workplace environments where inappropriate behavior was sometimes ignored, leading to feelings of discomfort, alienation, and decreased job satisfaction. Conversely, men often express concerns about the ambiguity of certain behaviors, fearing accusations despite benign intentions. These narratives underscore the complexities surrounding workplace interactions and the role of gender in shaping perceptions. This study explores these divergent perspectives, focusing specifically on full-time male and female employees across diverse industries. Data was collected in Qualtrics using adult participants working across the United States. Quantitative findings reveal clear gender differences, but also similarities. Findings have implications for organizational policies and training programs.

THE ROLE OF THE AGE AND THE TENURE IN THE EFFECT OF ORGANIZATIONAL DEVIANCE ON JOB PERFORMANCE

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ABSTRACT

Increasing job performance, an important element of sustainable competition, is an important problem area of business life. It is considered that determining and optimizing the factors that reduce job performance has an important role in solving this problem. Considering that the level of organizational deviance, which is an indicator of the problems experienced within the organization, is a factor that reduces employees' job performance, a study was conducted on healthcare professionals in Antalya province (n=345). In the study conducted in 2024, the effect of organizational deviance, which is considered to negatively affect job performance, and the role of age and tenure, which are among the descriptive factors that can regulate this effect, were examined. With this research conducted in private hospitals, it was determined that the perceived level of deviance in the health sector affects the performance of employees and the moderating role of age and tenure in this relationship was determined.

Keywords: *Organizational deviance, job performance, age, tenure, health sector*

INTRODUCTION

The health sector is an important sector that plays a critical role in meeting the health needs of societies. The job performance of employees in this sector is an important factor affecting the health of individuals and society. Increasing job performance sustainably is indispensable to improving the quality and effectiveness of health services.

Organizational deviance is a concept that refers to situations such as uncertainty, imbalance, and unfair practices in businesses. In the health sector, organizational deviance can be caused by factors such as rapidly changing managerial policies, inadequate allocation of resources, and role ambiguity. These situations may make it difficult for employees to perform their jobs effectively and negatively affect job performance.

METHODOLOGY

In the research, SPSS and Smart PLS package programs were used in order to test the following model and the hypotheses related to this model.

The research population consists of the employees of the health (private) sector operating in Antalya. The sample size was calculated as 310 people (Yazıcıoğlu & Erdoğan, 2007:71;

Sekaran, 1986). Of the mixed face-to-face and online surveys, 345 surveys were included in the analysis.

To measure the job performance of employees, the job performance scale first used by Kirkman and Rosen (1999) and then by Sigler and Pearson (2000) was used. In Turkey, the scale validated by Çöl (2008) was used. The 8-question scale developed by Aquino et al. (1999) was used to measure the level of organizational deviance perceived by employees.

Hierarchical regression analyses were conducted to reveal the predictive and moderating effects between the variables. The research model is presented in Figure 1 and CFA findings of the scales used in the study are presented in Table 1.

Figure 1: Research Model

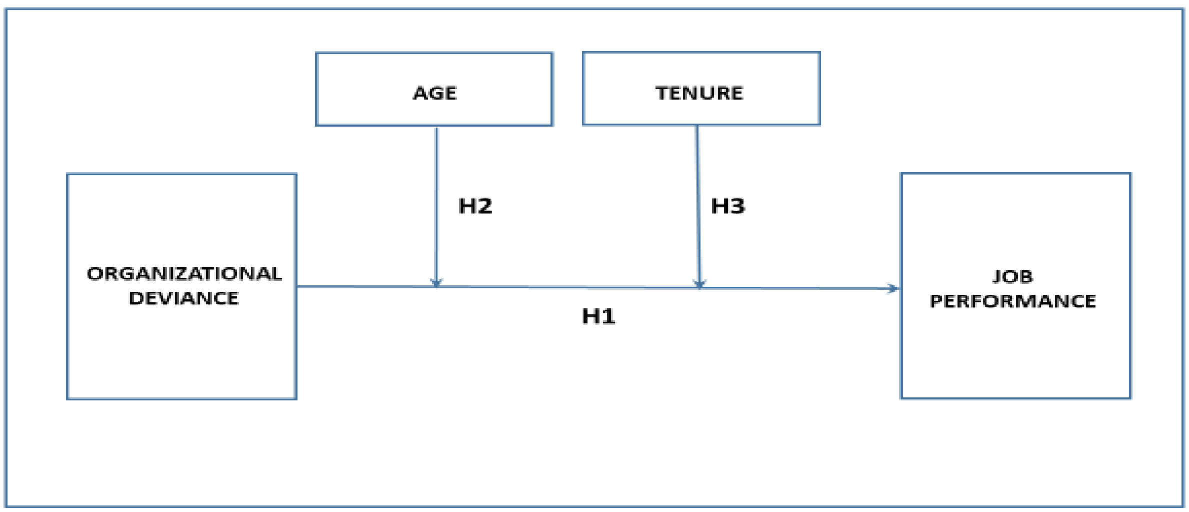


Table 1. Goodness of Fit Values of the Scales at the End of Confirmatory Factor Analysis

Variables	X²	df	CMIN/ DF ≤5	GFI ≥.85	AGFI ≥.80	CFI ≥.90	NFI ≥.90	TLI ≥.90	RMSEA ≤.08
1. Job Performance (JP)	60,6	20	3,03	0,97	0,95	0,96	0,93	0,96	0,07
2. Org. Deviance (OD)	30,3	15	2,2	0.96	0.95	0.98	0.98	0.99	0.08

Note: Goodness-of-fit value ranges are organized according to ***"acceptable"*** standards.

Pearson correlations were calculated in Table 2. The results of the analyses indicated that job performance had significant relationships with the independent variables.

Table 2: Mean, S. Deviation and Correlation Values

Variables	*Mean*	*S. Deviation*	1	2	3	4
1. Job Performance	4,12	,63	-			
2. Age	37,72	8,95	.04	-		
3. Tenure	13,86	8,93	.06	.89***	-	
4. Organizational Deviance	2,94	0,94	-.19***	.03	.02	-

****p*≤.001

In this study, hierarchical regression analyses were conducted to test the hypotheses in order to determine the moderating role of employees' age and tenure.

In the analysis process, organizational deviance (OD), and job performance (JP) were included in the model as dependent variables, and age (A) and tenure (T) were included as moderator variables (Table 3). The independent variable and the moderator variable were centralized (Cohen et al., 2003).

According to the results of Table 3, which includes the analyses conducted in the first stage, the relationship between OD and JP is negative and significant (β =-.19; p≤.001). Thus, ***Hypothesis 1*** was supported. According to these findings, OD appears as a factor that decreases job performance. As a result of these findings, it was found that the effect of age on JP was insignificant (β =.04; p>.05). In addition, it was determined that A assumed a moderating role in the OD-JP relationship (β =.17; p≤.01).

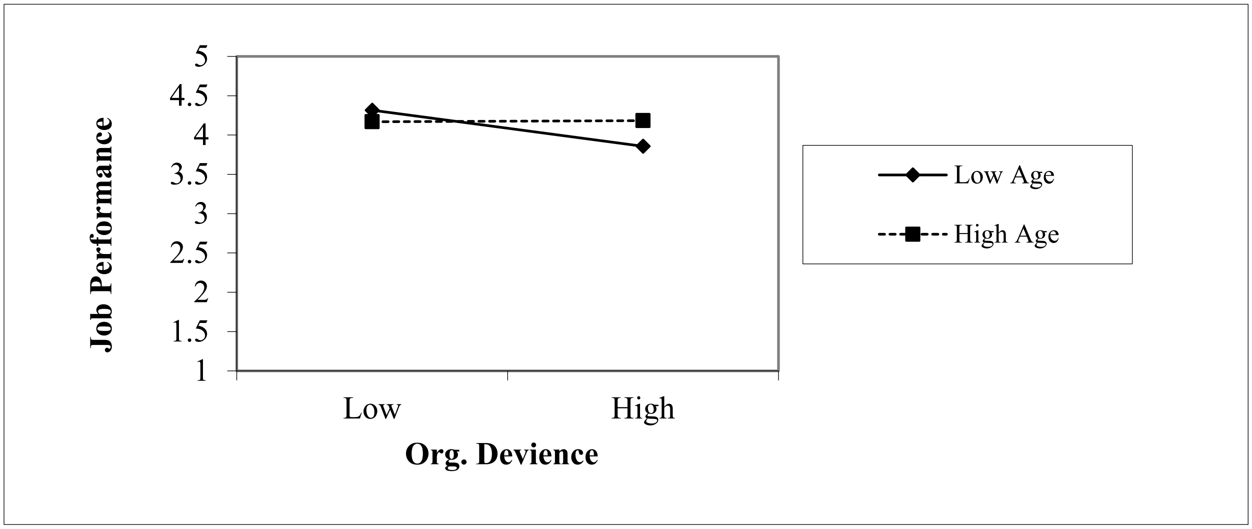
Table 3: Hierarchical Regression Analysis Results

	JobPerformance(JP)		
	Step 1	**Step 2**	**Step 3**
Variable	***β***	***β***	***β***
Organizational Deviance(OD)	-.19***	-.19***	-.17***
Age (A)		.04	.06
OD x A			**.17****
R^2	.03	.03	.06
Adjusted *R^2*	.03	.03	.05
F	12,6***	6,5**	7,6***

** *p*< .01, ****p*< .001

According to the findings of in-depth analyses, the relationship between OD-JP is negative and significant when age is low (Figure 2). The fact that the slope is higher when age is low indicates that the effect of OD on JP is higher when age is high. According to these results, ***Hypothesis 2*** is supported.

Figure 2: Moderating Effect Analysis



According to the results of Table 4, which includes the analyses conducted in the second step, the relationship between OD and JP is also negative and significant (β =-.19; p≤.001). Again, the findings in the second step show that the effect of tenure on JP is insignificant (β =.06; p>.05). In the last step, it was also found that tenure played a moderating role in the OD-JP relationship (β =.19; p≤.001).

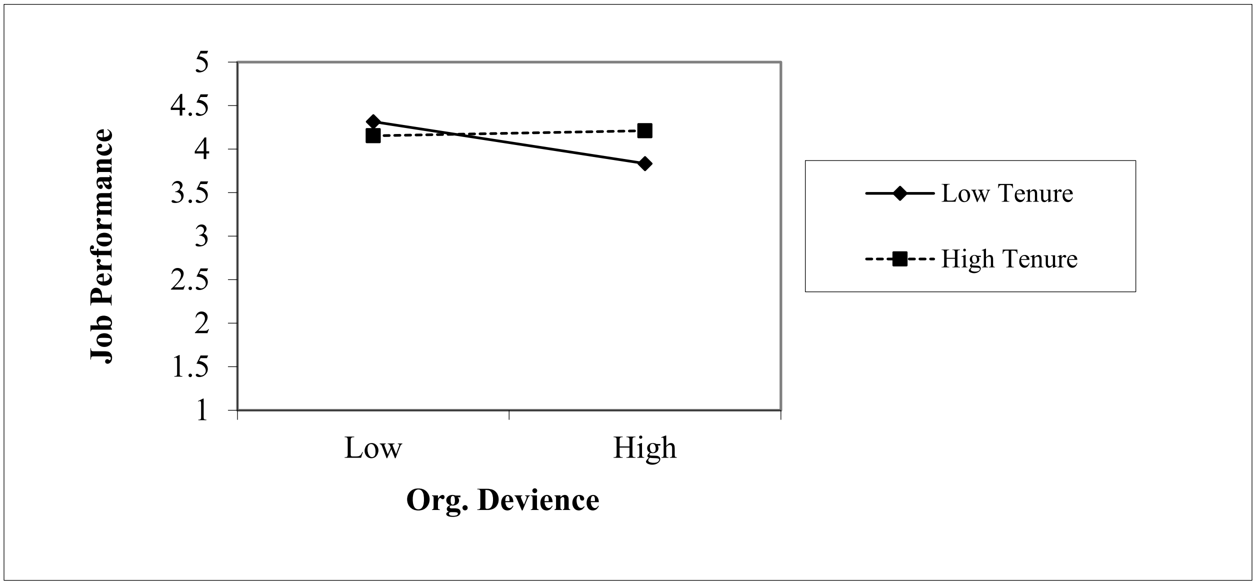
Table 4: Hierarchical Regression Analysis Results

	Job Performance(JP)		
	Step 1	**Step 2**	**Step 3**
Variable	***β***	***β***	***β***
Organizational Deviance (OD)	-.19***	-.19***	-.17***
Tenure (T)		.06	.08
OD x T			**.19****
R^2	.03	.04	.07
Adjusted *R^2*	.03	.03	.06
F	12,6***	7,01**	8,78***

** *p*< .01, ****p*< .001

According to the findings of the in-depth analysis, the relationship between OD-JP is negative and significant when tenure is low (Figure 3). The higher slope when tenure is low indicates that the effect of OD on JP is higher when tenure is high. According to these results, ***Hypothesis 3*** is supported.

Figure 3: Moderating Effect Analysis



CONCLUSION AND DISCUSSION

The results of the research conducted in private hospitals show that perceived organizational deviance in the health sector reduces the job performance of employees. This is an expected finding. In addition, the fact that age plays a moderating role in the OD-JP relationship and that the slope is high when age is low shows that the effect of OD on JP is higher when employees are young. This finding is an expected finding. It is known that the attitudes of young people are more affected by negative situations.

Another finding of the study is that tenure plays a moderating role in the OD-JP relationship and the fact that the slope is high when the tenure is low shows that the effect of OD on JP is higher in low-experienced employees. This finding is also an expected finding. It is known that low-experienced employees are generally younger and the attitudes of young people are more affected by negative situations.

The findings show that working relationships need to be carefully managed to prevent deviance in organizations. Deviant behaviors have a significant negative impact on the job performance of especially young and inexperienced employees.

The study has various limitations. The most important of these limitations is that the study was conducted in a single sector and province and the study was not longitudinal. Longitudinal studies conducted in different sectors and geographies may yield more objective results.

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ANALYZING DEMOGRAPHIC REPRESENTATION IN CIVIC LEADERSHIP & YOUNG PROFESSIONALS ORGANIZATIONS

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Amelia Fancher, Austin Peay State University

ABSTRACT

This study is the second iteration of a content analysis of social media images posted by Civic Leadership organizations and Young Professionals programs. The purpose of this study was to examine the racial/ethnic and gender representation of individuals depicted in photos on these groups' Facebook pages to understand the extent to which these organizations represent their communities in the imagery disseminated through their online communications. Knowing that individuals look to social media to obtain information on civic groups they may wish to engage in, it is important to represent the community appropriately. Over-representation of certain demographic groups may lead to prospective members in other demographic segments wondering if the organization is a place where they would feel welcomed. Furthermore, these organizations often serve as indicators of both the present and future landscape of business and community leadership. Research indicates that racial and ethnic disparities persist in business ownership and leadership, and media representation may further amplify these inequalities. The research questions explored in this study were:

- *In photos posted on Facebook by Civic Leadership organizations and Young Professionals groups, what is the frequency of males and females depicted within each racial/ethnic group, and controlling for population demographics, how representative of the community's residents were the individuals in the photos?*

- *In photos posted on Facebook by Civic Leadership organizations and Young Professionals groups, what is the frequency of males and females depicted within each racial/ethnic group shown with a microphone in hand and/or addressing a crowd of listeners?*

The researchers compared the demographics of individuals (n=45,016) depicted in the images posted on Civic Leadership and Young Professionals Facebook accounts for a one-year period with the demographics of the communities they represent. Descriptive and inferential statistics were used to highlight areas of under-representation, accurate representation, and over-representation of racial/ethnic groups and gender categories. Researchers also investigated differences between the frequency of the demographic over- or under-representation of individuals

depicted holding a microphone or addressing a group of people in each photo that depicted this type of scenario in an effort to further the discussion on perceived power dynamics in these organizations.

HOW THE ANNOUNCEMENT OF THE COVID 19 PANDEMIC AFFECTED THE OIL COMPANIES STOCK PRICE

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ABSTRACT

This study tests the efficiency market theory by examining the effect of the COVID-19 Pandemic announcement on oil companies' stock prices. The study looks at how the following government measures should have negatively affected the stock price of major oil companies in some time frame. This event study analyzes 13 oil companies and the effect of COVID-19 on the stock prices risk adjusted rate of return before and after March 11, 2020, when COVID-19 was declared a pandemic. Results show that stock prices dropped steadily before the announcement of the pandemic. A few days following the announcement, stock prices experienced a sharp decline, reflecting increased market uncertainty and the market's reaction to the economic result of the pandemic. These findings support the semi-strong form of market efficiency, demonstrating that public information about the pandemic was incorporated into stock prices, leaving little opportunity for abnormal returns based solely on the announcement.

INTRODUCTION

The Covid-19 Pandemic had major effects on the stock market, particularly industries highly sensitive to economic change such as the oil sector. How soon does the stock market respond to a major public health crisis? If the market efficiently processes all available information related to an emerging pandemic, it could serve as an early indicator of the economic devastation that follows. This study examines the ability of the market to monitor or predict the announcement of the Covid-19 Pandemic by analyzing the risk adjusted rate of return of selected oil company stocks around the event.

Specifically, this research tests the effect of the announcement of COVID-19 on the risk-adjusted rate of return of selected oil company stocks around the event date which is defined as March 11, 2020. The oil industry is extremely vulnerable to global crisis, with the pandemic triggering a decline in demand, production cuts, and volatile oil prices. Given the uncertainty surrounding the world leading up to the announcement of the pandemic, it follows that oil companies' stock prices should have reacted rapidly to the anticipated impact of the pandemic on the global economy. This means that the losses should be anticipated by the oil company's stock price reaction before the announcement of the pandemic. The purpose of this study is to examine the reaction of the risk-adjusted rate of return of selected oil company stocks up to 30 days before and 30 days after the event, defined as March 11, 2020. Results suggest that the market demonstrated semi-strong efficiency, with stock prices reacting as early as February 10, 2020, well ahead of the announcement. These early reactions were based on publicly available information about the spreading virus and its potential impacts. While there was a market response prior to March 11, the most significant price adjustments were a few days after the announcement of the pandemic, consistent with semi-strong efficiency. These early reactions reflect market participants' anticipation of the pandemic's potential impact based on publicly available information. However, a more complete market adjustment occurred following the official announcement of the pandemic on March 11, 2020."

LITERATURE REVIEW

Covid 19 had a major impact on a number of industries. One of the biggest impacts was on the tourism industry. The results show that COVID-19 created panic among the public, which lowered demand in the tourist industry. This is one of the largest effects of the spread of the disease. The decrease in demand led to a decline in tourism prices. Therefore, according to the market equilibrium of supply-demand theory, the price of the tourism sector keeps decreasing parallel with decrease in demand (Bakar et al., 2020). Directly linked to tourism is the travel industry, which also took a huge hit during the pandemic. COVID-19 shows that pandemic outbreaks have a much larger destructive impact on the travel industry than previously thought. Travel managers must assess the effects of epidemics on business and develop new plans to deal with the crisis. Also, in order to maintain the travel industry's pre-COVID-19 operating numbers, private and public policy support must be planned between 2021 and 2022. (Rahman et al., 2021)

Travel and tourism weren't the only industries affected by the pandemic. The global stock market as a whole was affected greatly. Global stock markets were severely affected by the start of COVID-19, and stock returns in many nations fell dramatically as a result of investor nervousness and uncertainty. For example, during the first months of the pandemic, stock markets worldwide experienced increased volatility, as the spread of the virus caused many sell-offs and contributed to a loss of market value, reflecting the broader economic instability caused by the crisis (Kusumahadi et al., 2021). The broader stock market turmoil extended to the oil sector, where prices experienced severe volatility due to both reduced global demand and supply shocks from oil-producing nations. This volatility was caused by a larger reduction in global demand and a supply shock from oil-producing nations. Investors' reactions to the uncertainty surrounding oil prices and the overall state of the economy caused a sharp drop in stocks related to the oil industry.

METHODOLOGY

This study looks at the impact of the COVID 19 pandemic on the stock prices in the oil industry by analyzing the risk adjusted returns of the 13 companies. The study tests the semi-strong form efficient market hypothesis by examining the risk adjusted return of 13 oil firms' stock prices from 30 days before the announcement and 30 days after. The following null and alternative hypothesis were tested:

$H1_0$: The risk-adjusted return of the stock prices of the sample of oil firms is not significantly affected by the COVID-19 pandemic announcement.

$H1_1$: The risk-adjusted return of the stock prices of the sample of oil firms is significantly negatively affected by the COVID-19 pandemic announcement.

$H1_0$: The risk-adjusted return of the stock prices of the sample of oil and gas firms is not significantly affected by the COVID-19 pandemic information during the event period.

$H1_1$: The risk-adjusted return of the stock prices of the sample of oil and gas firms is significantly negatively affected during the event period.

The standard risk adjusted event study methodology was used to test the stock markets response to the event date of March 11, 2020 when Covid 19 was first declared a pandemic. The required data about stock returns and S&P 500 before and after the event date was obtained via Marketwatch. This data includes stock prices of the firms, and S&P 500, for the duration of the event study 30 days before the event and 30 days after the event with day 0 being March 11, 2020 when the announcement happened.

The daily holding period returns of the companies (R) and the corresponding S&P 500 index (R_m) were calculated using the following formula:

$$\text{Currency daily stock return} = \frac{\text{(current day close price - previous day close price)}}{\text{previous day close price}}$$

$$\text{Current daily stock return} = \frac{\text{(S\&P current close - S\&P previous day close)}}{\text{S\&P previous close}}$$

Using the holding periods returns, a regression analysis was performed for each of the 13 firms with the daily return of each firm being the dependent variable and the corresponding daily return of the S&P 500 Index which was the independent variable. The regression was performed over the pre-event period (day -30 to +30) to obtain the intercept alpha and beta the standardized coefficient. The alpha and beta can be seen for each of the 15 firms in Table 1.

Table 1
Alpha and Beta for Sampled Firms

Firm	Alpha	Beta
CHV	0.0184973713592252	0.846764279624615
XOM	0.00977577202502029	0.885138169128752
BP	0.0365708310932855	0.667726687428102
SHEL	0.0410403251309295	0.809536058121658
CNQ	0.0501502342396973	-0.627700287514202
COP	0.044762935088096	-0.997213804029153
TTE	0.0260111180359053	-0.375502711300644
TRP	0.028070452002142	0.0263298919647866
IMO	0.0421824312895127	-0.646467394185251
OXY	0.0436061403184507	-0.304802465453056
PBR	0.0437823252419076	-0.639006867739985
ENB	0.0189522618424687	-0.211420352407715
EOG	0.0305319300859443	-0.574601377945852

For this test, In order to get normal expected returns, the risk-adjusted method (market model) was used. The formula for calculating the expected return for each stock, for each day of the event period was as followed:

$E(R) = Alpha + Beta (R_m)$ Where E(R)

Then the excess return (ER) was calculated using the following formula:

ER = Actual Return - E(R)

The Average Excess Return (AER) was found for each day by averaging the Excess Return for each firm on a given day: AER = Sum of Returns/N where N is the number of firms. In addition, the cumulative AER was determined by adding the AER for each day of the event period, from -30 to +30. Graphs of AER and CAER were plotted during the event period to highlight their movement over time. Exhibits 1 and 2 show the average and cumulative excess returns for the sample of firms over the event period, plotted against time.

QUANTITATIVE TEST AND RESULTS

Did the market react to the announcement of the Covid 19 pandemic on March 11, 2020? Was there a significant impact on the sample of firms' risk-adjusted stock price returns? It would be expected that if there was a significant reaction to the event, then there would be a considerable difference from the Actual Average Daily Returns (Day -30 to Day +30) and the Expected Average Daily Returns (Day -30 to +30) should be observed. If there was a significant risk adjusted difference, then the announcement of Covid 19 did in fact significantly impact stock price as hypothesized. To statistically test for a difference in the risk adjusted daily average excess returns and the cumulative average excess daily returns for the firms over the time period (Day -30 to Day +30), a paired sample t-test was performed at a 1% significance level for the sample of oil firms. Given the results of the test the null hypothesis ($H1_0$) should be rejected and the alternative hypothesis ($H1_1$) should be accepted.

Something of importance to look at is how quickly the market reacted to the announcement on March 11, 2020 to assess the level of efficiency of the market response. Basically, which of the three forms of market efficiency did the market display? Specifically, are the Average Excess Returns (AERs) and the Cumulative Average Excess Returns (CAERs) for the samples of stocks significantly different from zero. T-tests of AER and CAER indicare a difference at the 1% significance level. Observation of AER and CAER over the event period for Exhibits 1 and 2 shows a significant negative reaction of the risk adjusted returns of the stock prices of the sample prior to the event date.

The goal is to find out how quickly the market responded to the event; this can be done by examining the CAER across the event period in Exhibit 2 below. According to Exhibit 2, there is a steady decline from day -30 to day 0, representing a consistent negative reaction. After the pandemic declaration on day 0, there was a much sharper decline, reaching its lowest point around day +13. This sharp drop may reflect heightened fears about reduced oil consumption due to lockdowns and travel restrictions. From day +13 to day +30, the CAER begins to recover, signaling a gradual understanding of expectations as the market adjusted to the new realities of the pandemic (Albulescu, 2020).

Therefore, the results show that the oil market had already incorporated the information about the pandemic into oil prices prior to the event date of March 11, 2020, supporting the semi-strong form of market efficiency. However, the continued market drop after the announcement reflects the market adjusting to the confirmed global crisis and its real-time implications.

Exhibit 1
Average Excess Returns Per Day Surrounding the Announcement

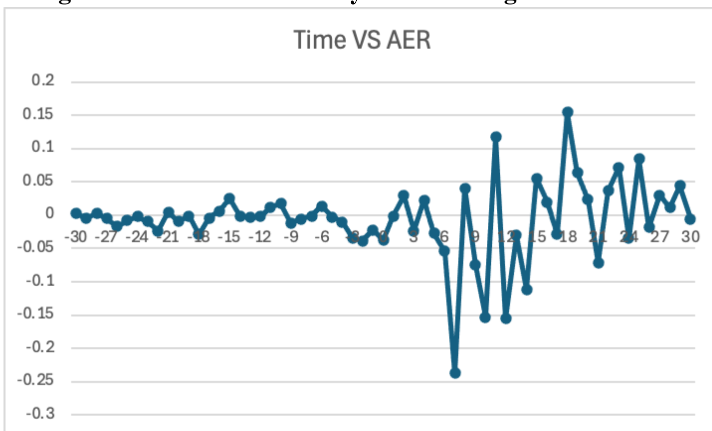
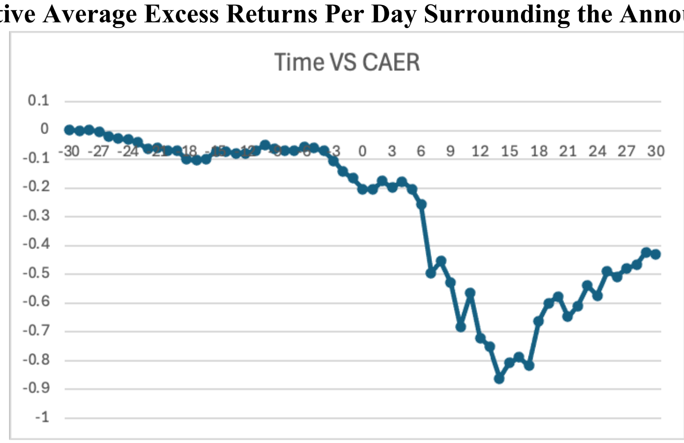


Exhibit 2
Cumulative Average Excess Returns Per Day Surrounding the Announcement



CONCLUSION

On March 11, 2020 The World Health Organization officially declared COVID-19 a global pandemic, this announcement sent shockwaves across the global markets. This study investigates the impact of this announcement on the stock prices of oil companies, testing the semi-strong form of market efficiency. By analyzing the risk-adjusted returns of 13 oil firms' stock prices during the event period, this research highlights the market's response to the pandemic declaration and its ability to anticipate such a global crisis.

The results show that the oil market responded to the pandemic well before the official announcement, supporting the idea of semi-strong market efficiency. The data reveals that stock prices had already adjusted in anticipation of the pandemic's impact on oil demand and supply. The steady drop in returns leading up to March 11 reflects growing fears about the economic uncertainty from COVID-19. After the announcement, the sharp decline was not inconsistent with the semi-strong market efficiency hypothesis, as it reflected the market's adjustment to the newly confirmed reality of the pandemic's economic consequences. While the market had already reacted to early public information, the official declaration triggered a more significant adjustment to the confirmed global crisis. However, by day +13, the recovery in returns shows the market beginning to adapt to the new economic reality.

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STEPPING INTO THE ROLE OF DEPARTMENT CHAIR: A REVIEW OF THE ROLES AND RESPONSIBILITIES

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EXTENDED ABSTRACT

INTRODUCTION

The role of an academic department chair is paradoxical (Hecht et al., 1999) and challenging, ever-changing in the higher education environment (Freeman et al., 2020. Gigliotti, 2021. Gmelch, 2015. Titjen-Smith et al., 2020. Weaver et al., 2019. Gonaim, 2016). The multitude of responsibilities and stakeholders they serve mean chairs experience liminality (Freeman et al., 2020. Jenkins, 2016) as they constantly pivot between them, never entirely focusing on just one. Because of this, it is hard to define a chair based on the specific work they do; instead, "chairs are defined by the capabilities they possess" (Bowman, 2018, p. 161).

Due to the lack of an available parallel for the role of chair in industry (Gmelch, 2004. Gmelch, 2015) and differing roles between universities and departments (Jenkins, 2016), many chairs experience a steep learning curve. Understanding and learning the role may further be complicated as universities and departments differ (Jenkins, 2016). Providing a comprehensive overview of the general role of the chair and the stakeholders with which the chair interacts will provide increased clarity for upcoming chairs and the stakeholders with whom they interact.

LITERATURE REVIEW

The role of the chair is ambiguous as they competently deal with issues arising from stakeholders with which they interact (Titjen-Smith et al., 2020). Chairs have a relationship with university administrators (Walker, 2015. Freeman et al., 2020), industry and alumni stakeholders (Hecht et al., 1999), parents, college leadership (Gmelch, 2004), students, and faculty and staff (Parker, 2014. Hecht et al., 1999). The chair acts as a link between the stakeholders (Wescott, 2000), existing in the middle space they occupy (Freeman et al., 2000), and advocating for and representing them to one another and the department (Weaver et al., 2019).

University Administration and College Leadership

The department chair handles departmental issues with upper administration (Titjen-Smith et al., 2020) as they take on administrative duties while maintaining their academic role (Aggarwal et al., 2009). The chair must act as faculty first, maintaining their academic role, and *administrator second (Jenkins, 2016). The duties also include merging the goals of both faculty and administrators (Walker, 2015) to implement administrative policies for the institutional mission (Jenkins, 2016. Franklin & Hart, 2006). This dual role requires chairs to be able to communicate effectively with the stakeholders.*

Being the link between stakeholders (Wescott, 2000), the chair also acts as middle management for the college where they work (Hinson-Hasty, 2019. DeLander, 2017. Bowman, 2018). Viewing chairs as middle managers means that the college leadership's relationship with faculty and staff is only as good as that of the department chair (Gmelch, 2015). The chair mediates between the department and the dean (Cornell College, 2018) and is prepared to communicate both good and bad news up and down the chain of command (Gmelch, 2004).

Industry, Alumni, and Parents

Acquiring department funding may be the chair's responsibility (Cornell College, 2018), which they may do through industry and alums monetary grants or reputation affiliation. Being affiliated with industry and alums can also increase the department's reputation (Kelly, 2013; Hecht et al., 1999). If these relationships are strong, they may include industry and alumni individuals to partake in guest speaking and connect the department to other connections. One way to strengthen the department-industry relationships is to place high-performing students within their organizations as well as stay in contact through newsletters and annual reports (Kelly, 2013. Hecht et al, 1999).

As the face of the department (Cornell College, 2018), the chair may interact with not only industry and alumni but also parents at college open days and showcases. Connecting with parents in person allows for positive relationship development and building trust as it provides the chair with the opportunity to clearly communicate and bring clarity to any concerns the parent may have (Bruer & Pollart, n/d). Building a relationship with students' parents is essential, as parents are often the purchasers of their child's college tuition (McCormack, 2019). Reassuring the parent that the major is right for the student may also eliminate any need for the parent to contact with concerns later in the student's academic life, allowing the chair to focus on other responsibilities.

Students, Faculty & Staff

The department chair is responsibile for both understanding the needs of students and developing an innovative curriculum (Trocchia & Andrus, 20023). Monitoring student enrollment and course evaluation feedback will allow the chair to evaluate and renew courses to better through managing faculty talent and facilitating their work for the department's good to meet student needs (Hinson-Hasty, 2019. Trocchia & Andrus, 2003). Connecting students with faculty directly may aid students in deciding on majors, minors, and classes that best suit their learning (Gigliotti, 2021. Miller et al., 2006). Faculty aiding student registration also helps faculty as it empowers them, acknowledges their insights (Kelly, 2013), and ultimately positively influences job satisfaction for which the chair is responsible (Mgaiwa, 2023. Gonaim, 2016).

Department Chair

The role of the department chair is complex and multi-faceted as it requires the individual to balance numerous roles and competing systems that often contradict each other (Freeman et al., 2020. Franklin & Hart, 2006. Hubble & Homer, 1997). The role is both highly political (Hubbell & Homer, 1997) and servant-lead (Gmelch, 2004), which chairs are expected to utilize to lead change (Wescott, 2000). For change to occur, chairs should be open to operating with shared governance and authority to lessen the demands of the position and generate support for changes (Gonaim, 2016. Jenkins, 2016).

Creating change within the department means the chair has managerial and administrative duties over faculty, department, and leadership responsibilities, which requires vision and judgment (Wescott, 2000). The chair's vision impacts the department and the community (Perlmutter, 2017), who want improvement balanced with continuity (Jasinski et al., 2021). Advocating for each stakeholder in times of development requires the chair to have excellent emotional intelligence, communication, and interpersonal skills (Weaver et al., 2019. Brinkley-Etzkom, 2019. Miller et al., 2006). Having these attributes will aid the chair in managing the opportunity cost of each decision they make and the impact they will have.

Implications

The department chair's role can cause elevated stress levels for individuals (Rockquemore, 2016. Gonaim, 2016. Aggarwal et al., 2009). The stress is exaggerated by the current lack of job training, causing new chairs to feel unprepared to handle the job and the consequences their decisions now have (Aggarwal et al., 2009. Rockquemore, 2016. Wescott, 2000). With most of the work chairs going unseen by stakeholders (Perlmutter, 2023), having a better knowledge of the role of department chairs may allow for better understanding from stakeholders when chairs make decisions in favor of others. Knowing the roles, responsibilities, and skills required of the department chair may encourage institutions to provide training and support to both upcoming and current chairs to improve efficiency when one chair steps down and another faculty steps up into the role. Additionally, the training combined with greater stakeholder knowledge may aid in developing the position to be more sustainable for the individual in the long term.

KEYWORDS: *Academic department chair, roles, responsibilities*

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THE ACCOUNTING STANDARDS SAFARI: EXPLORING INSTITUTIONAL THEORY IN THE ADOPTION OF IFRS AND IFRS FOR SMES IN WEST AFRICA

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ABSTRACT

Adopting International Financial Reporting Standards (IFRS) and IFRS for Small and Medium-sized Enterprises (IFRS for SMEs) has become a cornerstone of global accounting harmonization, aiming to improve financial transparency, comparability, and reliability across nations. While developed economies have largely embraced these standards, the adoption process in developing regions, particularly in West Africa, presents distinct complexities. The region's regulatory frameworks add a unique dimension, particularly the influence of the Organization for the Harmonization of Business Law in Africa (OHADA). OHADA, through its SYSCOHADA framework, governs accounting practices for member states but has only partially aligned with IFRS and IFRS for SMEs, creating divergent adoption patterns across the region. Moreover, linguistic and colonial legacies, such as French, English, and Portuguese influences, shape the business and regulatory environments, further complicating the adoption process.

Institutional theory provides a robust framework for examining the adoption of IFRS and IFRS for SMEs, emphasizing the interplay of coercive, mimetic, and normative isomorphic pressures. Coercive pressures stem from external forces, such as international organizations or financial institutions, which may link the adoption of IFRS and IFRS for SMEs to foreign aid or financial support conditions. Mimetic pressures arise when countries emulate the practices of successful trading partners to enhance their competitiveness and integration into global markets. Normative pressures are rooted in professional and educational systems, where workforce expertise aligned with international standards facilitates adoption.

We investigate the determinants of IFRS and IFRS for SMEs adoption in 16 West African countries, applying the lens of institutional theory. Specifically, our paper examines how coercive pressures, such as foreign aid, mimetic pressures, driven by trade integration, and normative pressures, facilitated through education and professionalization, influence adoption between 2009 and 2022. While coercive pressures do not significantly impact IFRS or IFRS for SMEs adoption, mimetic pressures emerge as a critical driver, with countries aligning their financial reporting practices to enhance trade relationships and attract foreign investment. Normative pressures reveal a nuanced effect, with professional capacity positively influencing IFRS for SMEs adoption but presenting challenges for IFRS adoption due to gaps in specialized accounting education.

By providing a comprehensive analysis of IFRS and IFRS for SMEs adoption in West Africa, this study significantly contributes to the growing body of literature on international

accounting standard adoption. Specifically, it sheds light on the factors influencing IFRS for SMEs adoption, emphasizing the critical role of targeted capacity-building initiatives, continuous professional education, and the alignment of accounting curricula with SME-specific requirements. The study highlights the transformative potential of IFRS for SMEs in addressing the unique challenges faced by small and medium-sized enterprises in West Africa, particularly in improving access to finance and enhancing the quality of financial reporting. Moreover, the findings on the evolving role of OHADA's accounting framework and the impact of linguistic diversity provide nuanced insights into the regional dynamics influencing adoption decisions. These results deepen our understanding of how institutional frameworks and cultural factors intersect with economic priorities to shape the adoption of international standards in developing economies.

The study offers practical implications for policymakers, international organizations, and investors. It underscores the importance of fostering transparency and economic development through harmonized accounting practices while advocating for tailored strategies that address the distinct institutional, cultural, and economic contexts of developing regions like West Africa.