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ARTIFICIAL INTELLIGENCE IN HIGHER EDUCATION: AN EMPIRICAL STUDY EXAMINING AUTOMATED DECISION MAKING, TRUST, AND ANXIETY

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ABSTRACT

This study of Automated Decision Making (ADM) in higher education examines the challenges and perceptions that instructors and students have with applications of ADM. Growth in artificial intelligence (AI) usage in higher education does not come without questions about the trust and anxiety brought upon by the latest technological development. This qualitative and quantitative study generates 18 statements and 5 findings for and against the use of AI Automated Decision Making (ADM) in higher education. Our findings reveal that both instructors and students lack confidence in ADM especially related to Automated Essay Scoring (AES) primarily due to limited experience, resulting in opaque decision-making processes and grading outcomes. Additionally, the absence of clear rules and guidelines from the university further contributes to this lack of trust. The dependence and unfamiliar setup of such tools appear to trigger anxiety reactions by both instructors and students. However, our findings suggest that both instructor and students also see potential in AES because of improved efficiencies and faster feedback loops which allows students to do more self-tests, and provides opportunities to motivate and enhance their learning experiences through gamification. Overall, our findings demonstrate significant results that provide a framework for exploring AI in higher education across instructor and student perspectives.

KEYWORDS: artificial intelligence, automated decision making, higher education, essay scoring

INTRODUCTION

The growing popularity of artificial intelligence (AI) tools for data-driven decision making is becoming increasingly common, with intelligent machines making decisions based on massive datasets. This decision making is performed using a variety of tools and technologies, including business intelligence and business analytics tools, as well as large language models (LLMs) and machine learning algorithms. This raises the question of whether we can trust these automated decision making systems. There are several studies providing an overview on how people interact with ADM systems (Denka et al., 2022; Zawacki et al. 2019). For example, one study found that people are more likely to trust ADM systems if they are transparent and explainable (Sleep, 2022). Another study found that people are more likely to accept ADM decisions if they believe that they are fair and impartial (Olfat, 2020). However, these studies have not focused on the area of academics and higher education where ADM tools are currently and expected to revolutionize the industry (Ifenthaler 2022; Jaiswal & Arun 2021; Ramesh & Sanampudi 2022).

There are many areas in which ADM tools are predicted to make significant impacts in higher education and academics (Sekwatlakwatla & Malele, 2023). First, many current assessments and certificates rely on multiple-choice questions which are commonly scored automatically. Thus, technology has successfully

replaced the manual grading of multiple-choice questions, where there is a clear distinct answer. However, the next challenge looming on the horizon is how to assess essays, which involve judgment and language interpretation. As new AI tools are introduced and widely available, students are increasingly using ChatGPT for example to prepare (automated) essays and instructors similarly are starting to use Automated Essay Scoring Apps for evaluation (Zindela, 2023). As a result, this paper aims to investigate the role of automated essays and AES due to the ethical, legal, and academic issues at hand. In both cases humans can hardly differentiate if content has been created by human or machine. The question is what to grade when the research, structure and content comes from machines? What is the student's contribution to evaluate by the instructor and how? As a result, this study will investigate how students and instructors behave and think about ADM and address the following research questions:

- What are the benefits and concerns of ADM in higher education?
- How do instructors and students view ADM regarding trust and anxiety effects?
- How well known are automated Essay Scoring Systems (AES) which are a special kind of ADM in higher education?

AUTOMATED DECISION MAKING (ADM)

In recent years, the use of data to inform decisions, also known as data-driven decision making, has become increasingly automated (Elragal & Elgendy, 2024). The rise of big mainframe computers led to the development of Management Information Systems (MIS) software, which allowed managers to access and analyze data to make better human decisions. This was followed by Executive Support Systems (ESS) and Decision Support Systems (DSS), which were more advanced and provided executives with more background information and tools to help them make decisions. The advent of the PC and data warehouses democratized access to data and data-driven decision making, making it possible for all employees to leverage data to improve their performance. Often, people understand that data visualization is important, but it is not enough. To make good decisions, there is a need to be able to explain the data and identify metrics like key performance indicators (KPIs). Corporate Performance Management Software used such KPIs to measure the progress of a company or organization towards its goals and helps to interpret the results. Advances in hardware, sensors, and user-generated content (social media) have led to a surge in big data with a wide variety of information. This requires specialized analytical software (Big Data Analytics) to process and extract insights from the data. The next step is to use AI and more automated content to make more automated decisions.

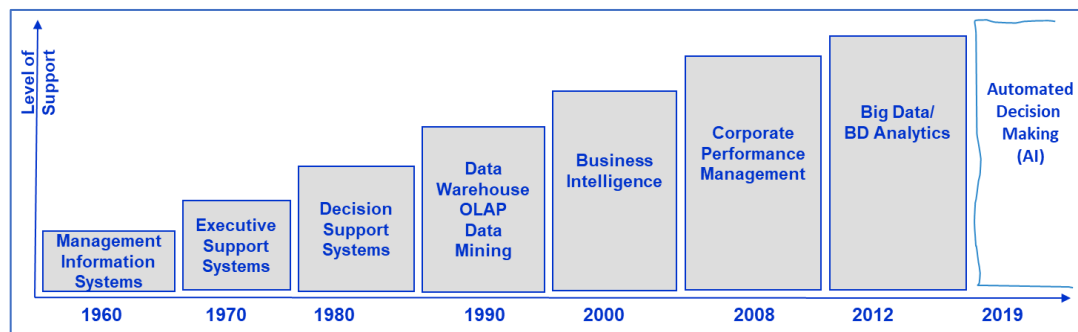


Figure 1: The History of Data Driven Decisions

ADM can be defined as a process of analyzing data, interpreting the results based on a human-defined model, and then automatically acting on the interpretation as determined by a human-defined decision-making model (Algorithm Watch, 2012). There are other different approaches to classify ADM depending on the purpose. In this article we differentiate decisions only done by a Human or Human Decisions with the Support of Computer (Human-In-The-Loop: HITL) (Wu et al., 2022) and Automated Decision Making supported by AI (Abdullah et al., 2019). Human decisions could be done as an individual or in groups. Human decisions are influenced by Intuition which are fast, effortless, creative, and holistic but may be

unreliable. Human decisions could also be led by rationality based on logic, analytics, and more systematic objectives, but could also be slow in comparison. Additionally, human decisions led by emotions which are more empathetic but potentially misleading and biased.

In many instances today, many decisions today are supported by computer systems. This could be in a simple way of delivering data from e.g., excel sheets, by collaborative filtering or doing research on the Internet as well as data informed. Data informed means data is one of many factors that are considered. If it's more data driven, then the recommendation from the system is crucial, and people only monitor this primarily (Human-In-The-Loop). When the decisions are made without human interaction, then it comes to ADM which can be rule based using known algorithms or could be based on AI. In this case machine learning algorithms will also “produce” decisions not known beforehand (Helberger & Diakopoulos, 2023). These AI based decisions can make use of large language models, often at the center of AI. Decisions can be triggered by a prompt, a certain event, or by collected sensor data. ADM is the use of algorithms and data to make decisions without human intervention (Abdullah et al., 2019). ADM systems are becoming increasingly common in a wide range of industries, including finance, healthcare, education, and criminal justice.

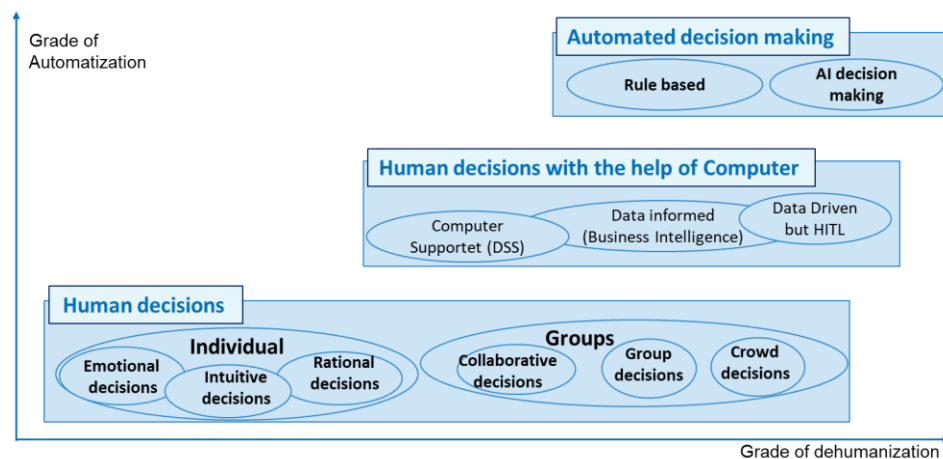


Figure 2: Classification of Decision Making (Abdullah et al. 2019; Kern et al., 2022)

Research on ADM demonstrates the lack of knowledge and concerns surrounding its usage across a variety of settings. ADM studies in the public sector show that many people are not aware of automated decisions e.g., in Government. Even in locations where automated decisions have a long tradition, for example in Sweden ADM has been in use for over 15 years and only a minority of the respondents of a study were aware of ADM e.g., automated tax refunds. The findings suggest that men were more aware of ADM than women in comparison. When evaluating the decision made, many agreed (71%) that computers do not take people's situations into account as much as humans do when making decisions. A slightly smaller number (69%) said that computer decisions are more impartial than human decisions (Denka et al., 2022). Advancements in ADM will likely become more legally sound and impartial because of less biases and emotions as humans overtime if the programming permits. When it comes to ADM citizens are convinced that decision-making becomes less transparent than when public servants make the decisions (Denka et al. 2022). Burkart et al. conducted a randomized experiment in which participants improved their predictions after receiving advice from ADM, but they did not give more weight to naturally interpretable models with an explanation component than models without an explanation component in their decision-making process (Burkart et al., 2021). Therefore, a visible decision process is particularly important for the acceptance of ADM (Sleep, 2022).

Automated bots and AI-robots can collect data and produce decisions and web content on their own (Murphy, 2019). However, it is still a subject of investigation how people understand and trust these kinds

of decisions (Sperrle et al., 2019). Helberger et al. found that people think ADM systems are fairer than humans at making decisions. They argue that people associate ADM systems with being immune to manipulation, meaning that they can make legally secure decisions, which is why people think they are fair (Helberger, 2020). Another study found that people thought semi-ADM was fairer than full ADM, and about as fair as most human decision-making. But how fair people thought it was depended on the context and what data was used (Kern et al., 2022). Studies on decision-making processes show that if the process and outcome are not transparent and understandable, people will trust the process and outcome less (Smith et al., 2010). Additionally, research suggests that there is a correlation between impartiality and trust in decision-making within public institutions (Abdezadeh et al., 2015) and (Rothstein, 2011). Given the expected rise of ADM and potential application in higher education, this research aims to evaluate both instructor and student views.

TRUST AND ANXIETY ABOUT LARGE LANGUAGE MODELS (LLM)

Trust and Anxiety

Trust and anxiety concerns with technology are common across many areas and academics is not immune (Weitz et al., 2019). Trust can be described as a multidimensional construct, which differentiates between four dimensions: ability, integrity, benevolence, and predictability (Zahedi & Song, 2008). In this article trust will be referred to as “...the willingness to accept risk and vulnerability based upon positive expectations of the intentions or behaviours of another” (Ravale et al., 2022). In addition to the definition above, various approaches of how to explain trust can be found in the literature. Covey, for example, describes five stages of trust starting with trust in yourself, in relationships, in organizations, in markets and in society. He calls his approach five waves of trust because each layer builds upon each other (Covey, 2008). Additional theories and methods on how trust can be described, Figure 3a) shows mechanisms to establish trust and in Figure 3b) underlying theories can be found.

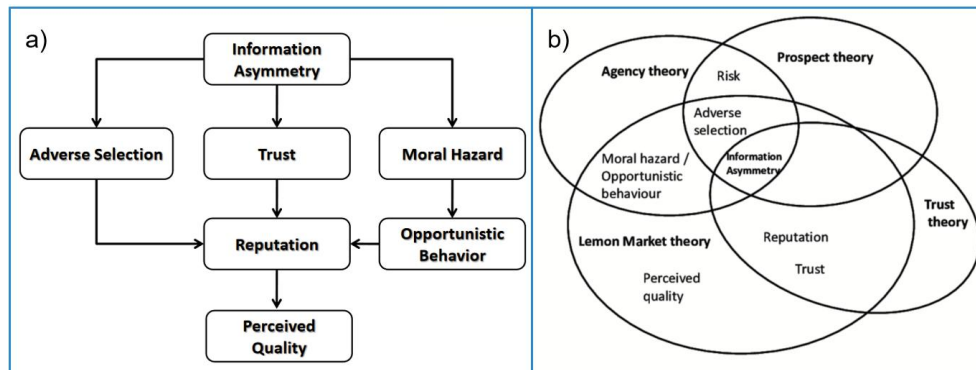


Figure 3: Methods and Underlying Theories of Trust /Source (Devos et al., 2011)

This article focuses on available ADM mechanisms as well as related trust on the internet-provided information, referring to the so-called eTrust. eTrust or online trust is a positive thinking of a user in a particular webpage (e.g., retailer) or web content (Dobrygowski et al., 2022). It refers to the question of how trust is established among strangers interacting on the Internet. Mechanisms for building trust online are shown in Figure 4. It shows that technical trust, like encryption and other security mechanisms, must be in place before businesses trust IT. Only if the described trust preconditions exist can social trust be established. In social trust, many trust mechanisms from the physical world can be transferred into the online world. In the right side of the figure below you can see further aspects of building trust online (eTrust) (Dobrygowski et al., 2022).

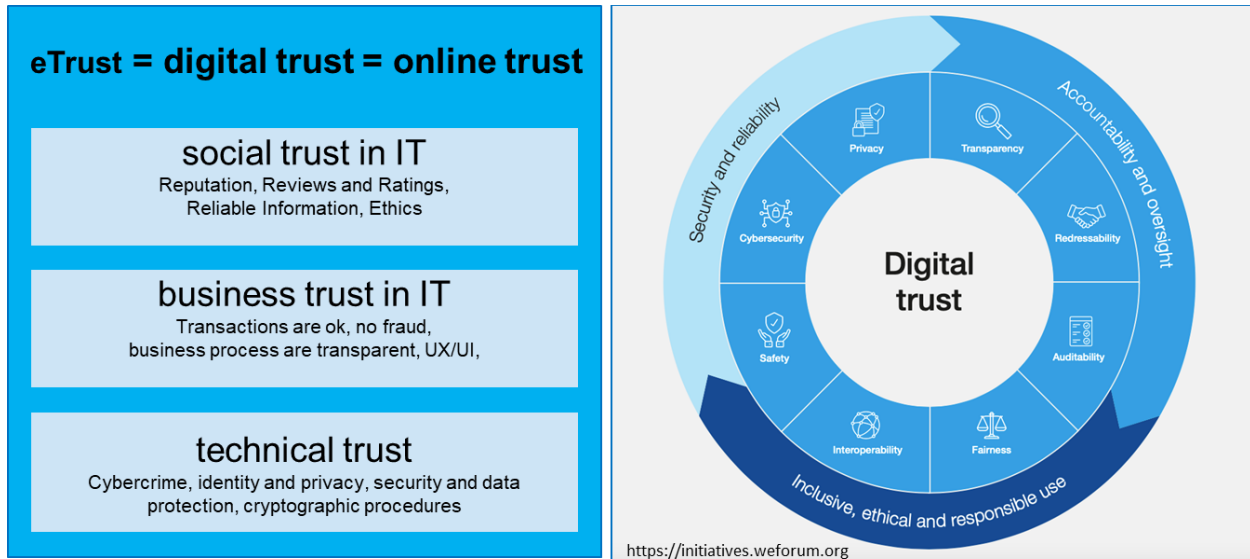


Figure 4: Digital Trust (Dobrygowski et al., 2022)

In this article the term eTrust (electronic Trust) will be used. It refers to the analysis of trust in the context of online or electronic interactions. eTrust involves the confidence that users have in the reliability, integrity and security of online platforms, websites, or transactions. Trust research suggests that trust can reduce complexity as well as uncertainty and is positively related to the loyalty of websites (Bowden-Everson et al., 2013). Trustworthy websites depend on several factors, especially information quality and source credibility to establish trust (Lata, 2021). Once one website is trusted, trust will be transferred to another corresponding website. Studies applying game theory found that trust can be transferred from one context to another (Buntain & Golbeck, 2015).

Anxiety is a feeling composed of worrisome thoughts, tension, and physical manifestations in the form of high blood pressure and several other effects (Bhatnager et al., 2023). Anxiety refers to potential future threats and often lasts longer and must be distinguished from fear, which is an immediate response to a present threat. Anticipatory anxiety occurs when the user becomes uncertain about upcoming interactions and their reasoning leads them to project the worst-case scenarios. Anxiety has been found to be linked to produce a negative impact on a user's perception of using recent technologies (Huang & Haried, 2019) like using Automated Decision Making. In higher education, research has shown that students exhibit a moderate level of preparedness and a high level of anxiety concerning AI (Özbek et al., 2024). Anxiety, in one form or another, is a necessary factor to incorporate when examining acquisition, stability, and change of human behaviour (McReynolds, 2015). Information systems research has described anticipatory anxiety utilizing "waiting for spiders" as a metaphor Straube et al., (2007). Anticipatory anxiety was described such that humans will estimate a possible future threat, danger, or other upcoming potentially negative event, which causes him/her anxiety (Barlow et al., 1996). Anticipatory anxiety occurs when people are facing an important event with uncertainty; they start filling their mind with worst case scenarios (Chua et al., 1999). Given the early adoption and the unknown with AI ADM, and associated plagiarism accusations, anxiety around the use and adoption of AI in an academic setting is expected. For students and faculty, the uncertainty involved revolving around plagiarism, ethical use and the concerns over the accuracy of the results suggests anxiety could impact AI ACG usage. Thus, our study seeks to investigate when users are considering AI use that anxiety could be seen as a negative force on the introduction and use of AI. As a result, this paper will investigate how trust can reduce anxiety in ADM. As Generative AI is becoming more and more widely used, there is a need to investigate the roll that both trust and anxiety play in the usage of AI.

Large Language Models

Large language models (LLMs) are a type of AI algorithm that uses deep learning techniques and massively large data sets to generate and understand human language (Paas and Diesselbach 2022). The LLMs are trained from massive amounts of text data, such as books, articles, and code, which allows them to learn the patterns and connections between words and phrases. The different models distinguish in the kind of input and the way they get trained. The most well-known LLMs are GPT-3.5/4 (OpenAI), PaLM (Google AI), Claude (Anthropic), Cohere (Cohere), Falcon (Google AI), and LLaMA (Meta AI) (Lutkevich, 2023). Siri (Apple) and Alexa (Amazon) are also based on LLMs. Not every company will have the resources to own or adapt LLMs. Thus, it is predicted that there will be a few select players dominating the market (Akshay, 2023). LLMs work by using a neural network architecture to process and generate text. Neural networks are a type of machine learning algorithm that is inspired by the structure of the human brain. The neural networks are made up of layers of interconnected nodes, and each node is responsible for performing a specific task (Varghese & Xu, 2022). When a LLM is given a text input, it first breaks the input of words down into individual so-called tokens. This process using complex AI-algorithms continues until the LLM reaches the end of the input text. These words and phrases (Tokens) are then converted into numerical representations, called embeddings, which are a dense numerical representation of tokens. The embeddings are then passed through the neural network layers, which process the information and generate an output text sequence. For Text production the LLM uses its knowledge of language to predict the next token in the sequence. LLMs can be used for text generation, text understanding as well as code generation. AI systems like DALL-E can also generate realistic images from text descriptions. DALL-E is able to generate those images from text descriptions because it is built on a large language model similar to GPT-3. (Paas & Giesselbach, 2023). The LLMs have different data sources and different (machine) learning approaches. These learning sets are the basis for the used neural networks. By using the results of the networks and the decision the user may give back feedback which improves the learning process and outcomes. The response quality with the measurement of how good a response is, based on factors such as accuracy, completeness, relevance, and fluency the response quality depends more on the input than on the AI methods used (Paas & Giesselbach, 2023). As a result, this paper will investigate how the implementation of trust mechanisms can help to reduce the anxiety of LLMs and make such tools more reliable and trustworthy.

DECISION MAKING THEORIES and AUTOMATED ESSAY SCORING

Basic Theories of Decision Making

Decision making is not a new phenomenon and research across many areas (medicine, psychology, business, etc) all have their own underlying theories. As a result, this paper will discuss a selected segment of decision making theory to help guide our analysis. Decision making has been viewed under Bayesian decision theory, a mathematical framework used for making decisions under uncertainty. The theory is based on the idea that we can update our beliefs about the world as we learn the latest information. Bayesian decision theory is already being used in a wide range of applications, including machine learning, artificial intelligence, and medical diagnosis (Robert, 2007). From a behavior perspective, decision making theories consider the influence of cognitive biases, emotions, and social factors on decision-making. One example is the Prospect Theory, which aims to explain how individuals make decisions when there is risk involved (Kahneman & Tversky, 1979). Furthermore, the Bounded Rationality perspective respects that human knowledge and capabilities are limited and imperfect. Thus, decision makers must be willing to adapt their rational approach due to not having access to all possible and relevant information, as there are limited analytical and computational abilities for not having unlimited time to make decisions (Tisdell & Clement, 1996). The Vroom-Yetton Decision Making Theory is a contingency theory that helps people choose the most appropriate decision-making process for a given situation. It is based on the idea that there is no one-size-fits-all approach to decision-making, and that the best approach will vary depending on the specific situation (Northouse, 2018). Attribution Theory tries to identify the reasons behind any action or motive.

Both internal attribution which refers to the qualities of the person, personality, and attitudes, and external attributes which refer to environmental impact decision making with other attributes possible (Alice, 2001).

Speed or time to decision is another area often investigated in regard to decision making. Heuristics relies on experience and on tried and tested rules of thumb. A heuristic simplifies a complex situation and allows the decision maker to focus only on the most important pieces of information. The decisions are faster and easier to explain, but there could be a BIAS (Wójtowicz & Winkowski, 2018). Robust decisions respect that there is mostly not the best decision possible light of numerous uncertainties. Because there are many solution pathways that will be successful. It involves identifying a range of possible scenarios and developing plans for each scenario. One selects one without losing sight of other solutions because of the inability to predict the future with certainty (Bartholomew & Kwakkel, 2020). Satisfying theory like the name implies suggests that the option that satisfies the problem is first without exploring all the options. The decision maker makes a fast compromised choice, satisfying the bare minimum of the problem (Cyert & March, 1963). Each of these decision making frameworks are expected to play a larger roll in AI ADM. AI ADM is expected to be influenced by each theory and provides a valuable framework for the goals of this paper.

Automated Essay Scoring (AES) in Higher Education

Earlier research demonstrates the potential benefits and risks with ADM systems, such as Automated Essay Scoring (AES) in higher education. ADM in higher education has experienced a shift in usage and capabilities due to technological advances. Multiple choice tests with autocorrection and Automated Essay Scoring (AES) have a long history in academics (Albano et al., 2022). The vast majority of work on AES has focused on holistic scoring, which summarizes the quality of an essay with a single score (Zixuan & Ng, 2019). However, a single score does not provide the level of feedback that could be offered by a human instructor. Thus, an ongoing concern with the holistic score are concerns surrounding correcting errors and provide feedback on essays. For giving feedback the holistic score does not provide information on two significant areas. First, specificity (how specific the statements in the argument are) and second, evidence (how strong is the evidence provided in support of the claim being made in the argument) (Ke & Ng, 2019). AI can be employed to assess essays, evaluate student understanding, engagement, and academic integrity (Zawacki, 2019). The latest AES utilize LLMS as their foundation, provide a distinct variant of ADM within higher education when compared to early AES (Ramesh & Sanampudi, 2022). Early research suggests that approaches using a LLM for AES provide several benefits, including shorter rating times and increased consistency in scoring (Mizumoto & Eguchi, 2023).

During Covid19, many exams were taken online with the help of video monitoring software. In many cases the student input was digital and could be evaluated more mechanically. ADM mapping is the process of identifying, documenting, and analyzing the use of ADM systems in an organization or society (Manyika, 2022). To do so, the AES system has to identify deterministic linguistic features that human raters used to identify essay quality. Such features often include the length of essays, number of words, word usage, and sentence complexity. Then, the AES system attempts to learn a scoring pattern or a rule close to the human raters' using those features (Shin & Gierl, 2021). With the technological advancements, the use of ADM will continue to be an option to address many of the challenges in higher education.

METHODS AND RESEARCH MODEL

In this research we utilized a mixed methods approach. We first applied an inductive research approach and conducted five expert interviews as part of a grounded theory study on ADM from October 2023 until January 2024. Two experts were from higher education in the US, and one from Europe. Each interview lasted about 45 minutes. In addition, we had two expert "conversations" with AI tools: ChatGPT3.5 and GoogleGemini (former GoogleBard) using the same questions. In the setup for the interviews, GoogleGemini was first asked "what questions would you ask experts in higher education about Automated Decision Making?" GoogleGemini proposed eight questions, which were then asked to all five "experts". The answers of the interviews and conversations were transcribed using the Mayring method (Mayring,

2014), followed by a qualitative analysis. Next, an online questionnaire was distributed to undergraduate business students which resulted in 328 responses. All participants filled out and completed an informed consent form prior to the study. Respondents were asked about their usage, trust, and anxieties regarding generative AI tools, as well as their experience with ADM. The research presents five findings, including 18 statements on trust, anxiety and acceptance of ADM in higher education.

RESULTS

Human Expert Interviews and Conversations with ChatGPT and GoogleGEMINI

Finding 1: *The answers of human experts are more creative but not more detailed than those from Chat GPT & GoogleGEMINI.*

Explanation: Responses generated by both GoogleGEMINI and ChatGPT3.5 were remarkably similar, even though they originate from different language models. Asking the human experts for more questions did not produce any new or different content from the AI transformers. Overall, the transformers generated more comprehensive and well-structured answers than the human expert answers, but the human expert answers were more surprising and creative. Almost all of the arguments made by the human experts were also included in transformer answers, but the humans were able to provide better examples and were able to “think out outside the box.” Qualitative interviews with the human experts and using generative AI identified 18 statements (Figure 5). These statements describe all of the arguments and can be divided into positive and negative views of ADM. Some statements could be positive and negative. For example, bias could be reduced if properly trained, whereas bias might increase if flawed data or code is utilized.

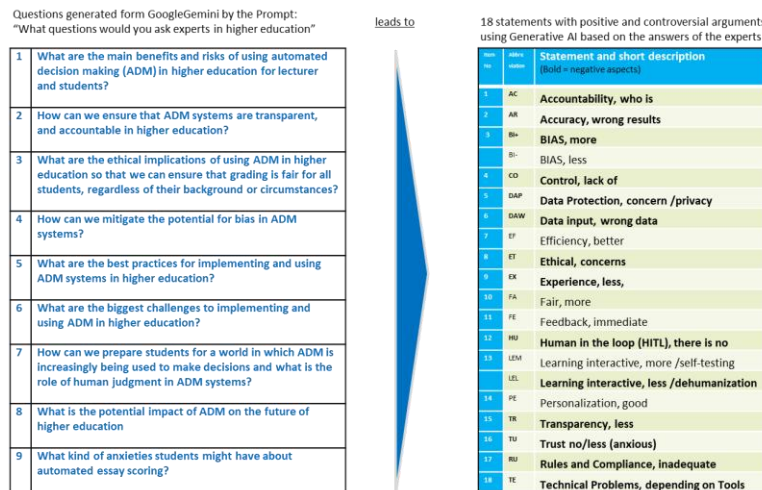


Figure 5: Questions and Resulting Facets of Arguments Proposed From Humans

Finding 2: *The primary advantages of Automated Decision Making (ADM) identified in higher education included reduced bias, quicker personalized feedback, and increased efficiency, with emphasis often placed on these factors in the context of Automated Essay Scoring (AES) in higher education.*

Explanation: While algorithms for ADM are widely used in industries like production planning and online lending, universities are often largely unfamiliar with these tools. Automated content generation tools like ChatGPT are in use but ADM tools are relatively unknown among professors and students. In discussions with human experts, some mentioned how these tools should first be used for grading multiple-choice tests, but none of the human experts were aware of AES. While there have been ongoing discussions in the Natural Language Processing (NLP) community for years on how to set up and evaluate AES [KeNg19] there are a few tools currently available on the market [CPG23] but their adoption in higher education appears low for our subject population.

The human experts see that ADM can enhance the efficiency of certain grading tasks. They anticipate that it will allow for faster feedback, which may result in better understanding of the material. The experts recommend that once ADM is familiar across parties, it can then be rolled out to other areas. The experts believe that ADM is a valuable tool that can help improve the way that students learn, it is just unclear at this time what can and should be done. The experts raised questions about the future role of professors if grading is done by AES and whether students might complain about receiving less human interaction. Experts believe that ADM may initially be used for quizzes or more lower level or reinforcement focused learning assignments. The learning materials could be of greater value to students, since the ADM could provide more personalized feedback tailored to the student's specific needs. In this scenario, experts view AES not as a replacement for human interaction but as a tool for professors to provide better support and advice to assist in the learning process. Personalized quizzes made possible by AES can be designed to motivate students through implementing gamification. This can enhance the interactive nature of the learning process which is often limited due to time and budget constraints. While experts see a possibility of less bias in AES-based grading (could be more when AES is using wrong code or data). They generally consider it fair if the evaluation criteria are clearly explained, visible, and students and professors maintain control over the process throughout each step. Experts acknowledge the importance of Human-in-the-Loop (HITL) mechanisms, where students can raise concerns or request re-evaluation of their results alongside a professor.

Finding 3: *Concerns surround the usage of AES tools. The key drawbacks highlighted in the qualitative survey include the absence of academic and university regulations, lack of experience, and the absence of transparent explanations for grades, ultimately resulting in a lack of trust. As of now (2024), AES tools are not prepared for unreflective use, resembling more of a beta version.*

Explanation: Our findings reveal that experts have limited trust in AES due to its lack of widespread adoption, the absence of standardized grading rules, and the lack of academic guidelines for its implementation. Additionally, the absence of university recommendations for using AES and the availability of tools like ChatGPT have led to inconsistencies in its usage of review-tools among professors. The findings suggest that some experts have concerns surrounding potential data misuse, technical glitches, and the complexity of these tools. They are not convinced of AES's transparency and ability to explain grades. They also doubt its accuracy, especially for complex or nuanced essays. Additionally, they are unsure about its fairness, as AES tools could be biased against certain groups of students due to insufficiently discussed criteria and the potential for errors in data or code. The non-transparency of the underlying algorithms and data used by AES makes it difficult for instructors to identify and address any problems with the scoring process. Experts also see AES as a dehumanizing factor in the learning/grading process, as it reduces the role of human judgment and interaction into the education experience.

Overall, instructors highlighted a variety of concerns with AES. Implementing AES requires professors to rely on pre-trained tools, as they cannot fully develop them independently. This necessitates training professors on using these tools, particularly in specialized fields where specific tools may not be readily available. This upfront effort increases the initial investment before realizing efficiency gains. As students increasingly utilize automated content generation tools like ChatGPT, which are difficult to ban entirely, the demand for grading and evaluation tools will also rise. Of course, there are tools available to check the usage of AI but may the next generation of ACG tools will have features to hide it. Integrating AES into higher education demands a collaborative approach where both students and professors gain experience with these tools to pave the way for their normalized adoption.

The crux of the matter is, what should be graded when the essay topic is provided by the professor, and the content, structure, literature selection, and overall composition of the essay are generated by a machine? What is the student's contribution? The orchestration of all that into a cohesive essay or the ability to identify and select the appropriate prompt? Before delving into discussions about the specific criteria and setup of AES, there needs to be a consensus on what constitutes a valid assessment of a student's abilities in writing in the context of machine-generated essays.

Quantitative Study About Usage and Anxiety of Automated Decision Making

In order to capture student perceptions on the usage, trust and anxiety of ADM, questionnaires were distributed to undergraduate business students to identify their experiences with AI. As shown in Figure 6, a total of 328 responses were collected, with 42 surveys incomplete questionnaires dropped due to inadequate information yielding 286 complete and valid responses (86%). Students (34% female, 61% male, 1% diverse) were asked 36 questions about ADM. Overall, 95% of the students surveyed were between 19-22 years old and on average were commonly using the internet 3-6 hours per day (67%). Most of the students (57%) use conversational platforms like Siri or Alexa several times a week, while 43% do not currently use. Most of the students (81%) have experience with ChatGPT or GoogleGemini (81%).

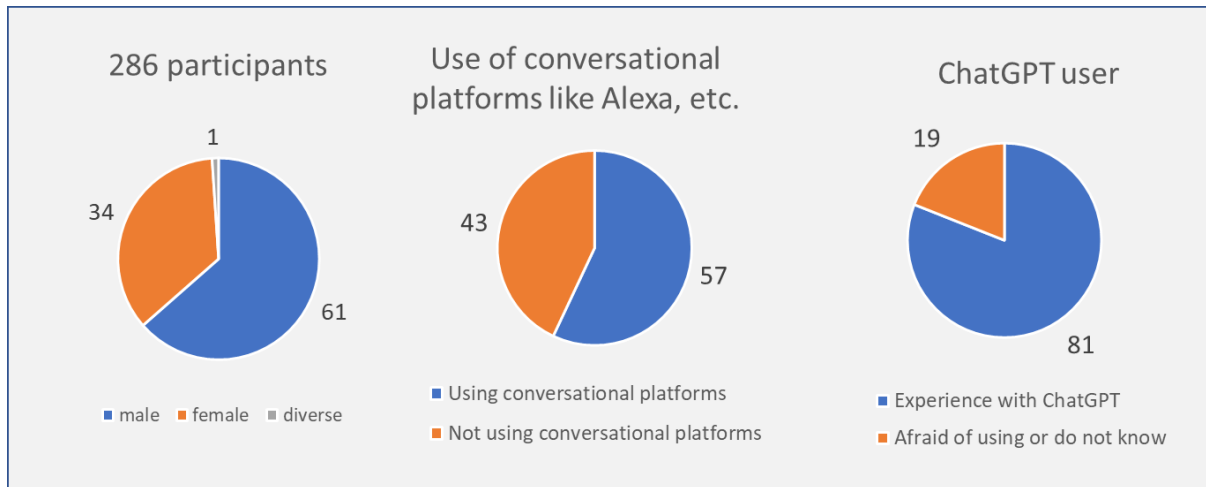


Figure 6: Student Participation (in %)

Finding 4: *The most crucial factors of ADM identified by students were the non-transparent process and evaluation criteria generated. Students were interested in having the option to ask for human involvement in such decision processes, at least for verification if needed.*

Explanation: Students perceive automated grades to be less biased and split when evaluating if instructors are more fair than the AES (Figure 7). Students appeared to believe instructors are able to provide a greater level and greater personalized/individualized level of feedback and students believed that they can discuss the feedback easier with a human instructor. Students identified a substantial interest in engaging with the lecturer regarding feedback and result analysis. These findings lead to a strong demand for a (HITL), especially when it comes to problems or to discuss exceptional circumstances. However, AES can help to identify knowledge gaps and to forecast strengths and weaknesses when AES is used by students by themselves and not as an official grading mechanism. Additionally, students like to use AI to conduct predictions on their overall academic achievements.

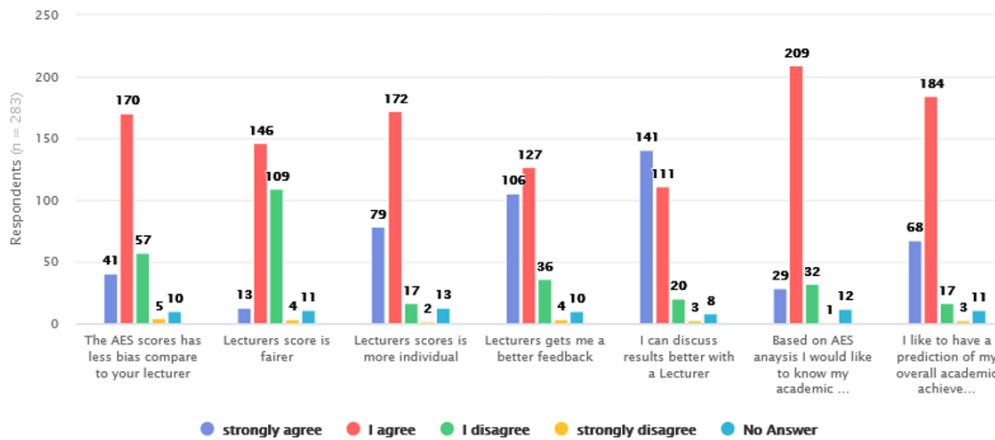


Figure 7: Question: How do you think the automated essay scoring system's score is compare to your teacher's score?

Finding 5: While students are generally not opposed to ADM, their interest lies more in utilizing it for themselves due to a lack of experience.

Explanation: Students see a benefit of ADM in using it for tracking progress and improving the quality (spelling, grammar, rephrasing) of their work (Figure 8). Also, these ADM tools can provide additional and faster feedback which students can use to assist their learning. However, when it comes to evaluating specific student needs or identifying areas of improvement, students prefer to talk to a human instructor.

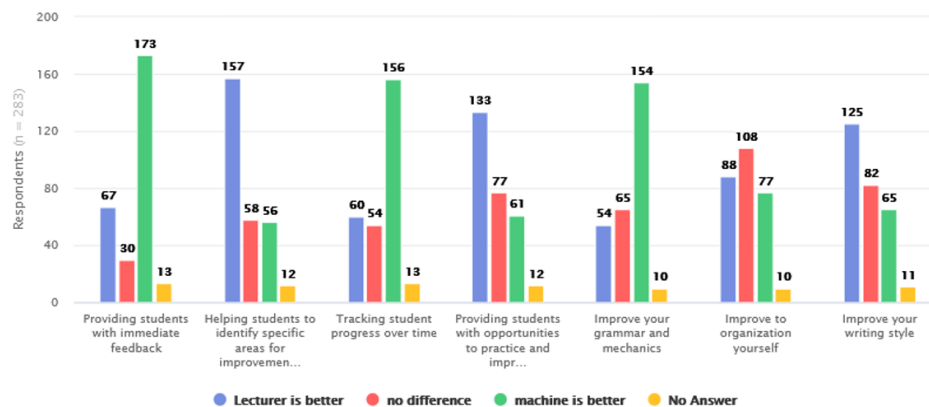


Figure 8: Question: How do you think automated essay scoring systems can be used to help students improve?

Because of a lack of experience students appear to exhibit anxious concerns about ADM and prefer to have a human involved in the grading process (Figure 9). Concerns over the misuse of data or anonymity were concerns for about half of the student participants. Overall, our findings suggest that if the evaluation criteria are clear most students will trust the programmed algorithms.

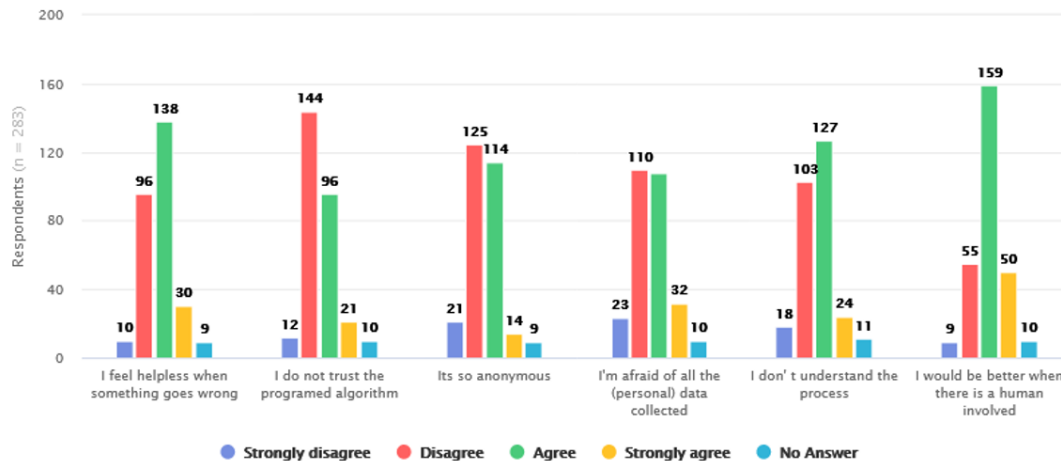


Figure 9: Question: I feel anxious about AES because?

FURTHER RESEARCH

Overall, this research aimed to review ADM AI tools in higher education. The identified 18 statements and 5 findings discussed demonstrate usage optimism but all trust and anxiety concerns. Our findings demonstrate that answers from Generative AI like ChatGPT are becoming more and more complete and comprehensive providing ample opportunities in higher education. Exploring and encouraging AI enabled ADM use may pave the way for new and more innovative approaches to improve academic outcomes. Additionally, our research presents a series of positive arguments for using AES (as a special part of ADM in higher education). Instructors and students both see opportunities for increased efficiencies and having more personalized and timely learning feedback provided to students. However, the potential benefits are not without concerns. Besides a lack of governance other concerns about AES are the non-transparent decision process so lecturers and students cannot fully understand or trust how the decisions are generated. Furthermore, we see anxieties about bias, plagiarism, and ethical implications mentioned by instructors and students. It is not the goal of this paper to solve the question of how AI should be utilized in higher education, but rather to identify how AI enable applications, such as LLMs, AEG, or AES will impact higher education. The goal of the paper is to identify and lead the discussion and we encourage further research on the topic. Only open dialogue, responsible development, and clear guidelines will help to ensure that these tools can be trusted and effectively applied to higher education. A ban on AI tools would simply create a hare and tortoise problem, where students become increasingly sophisticated in their use of LLM tools for automated Content, while instructors will continue to rely on intelligent ADM tools to detect their use. Our findings suggest that students see AES as a tool to support their individual learning process and to have more often an individual feedback. Students report being anxious about using ADM on assignments significantly impacting assessment without a human in the loop (HITL). If the data and rules are clearly established and communicated students see the benefits of AES in several ways by providing them with transparent, fast, and engaging feedback to improve and motivate their overall learning process. With transparent and faster results, students can quickly identify their strengths and weaknesses. Students may use AES with practice exams to test their knowledge multiple times before the actual exam. This may also help to reduce anxiety associated with traditional exams. It is expected that the AES will lead to more individual feedback and personalized learning which could not be done with the constrained instructor resources available in many higher education settings. However, it is important to note that students, due to a lack of experience at the current stage, see more potential risks, such as discrimination and bias if there is wrong code or data used and don't understand the grading process. Due to this many students voiced support for having an instructor in the process and think that in many cases humans can give better overall

feedback. Our findings suggest that students will accept automated grading when there are transparent processes and comprehensible criteria.

CONCLUSION

Overall, our findings highlight both the optimism and initial apprehensions with AI in higher education. Both instructors and students see great potential once the technology matures and questions have been resolved. Higher education and associated stakeholders are just starting to learn the impact of AI, ADM and AES and we hope this paper helped structure both current and future research opportunities.

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DECLARATIONS

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Ethics approval and consent to participate

The research was ethically approved by the IRB & Ethics Committee of the University of Wisconsin – La Crosse. Prior to participation, all participants were duly informed of their rights and responsibilities and provided explicit written consent. The study was conducted in agreement with the guidelines governing research involving human participants, as outlined by the IRB and Ethics Committee of the University of Wisconsin – La Crosse.

TO INCORPORATE DATA ANALYTICS OR TO NOT INCORPORATE DATA ANALYTICS? HOW IT AFFECTS GRADUATES

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ABSTRACT

Big Data is a growing concern for accounting firms, higher education, and accrediting bodies. The problem under investigation in this study was whether Accreditation Council for Business Schools and Programs (ACBSP) accredited schools lack an understanding of what employers need relevant to accounting data analytics. This paper expands on the literature, examining the data analytical and technology needs of small- and mid-sized accounting firms and attempts to determine if ACBSP accounting programs included the needed skills in their curriculum. Data sources were 10 participants from small- and mid-sized accounting firms and 23 Accreditation Council for Business Schools and Programs (ACBSP) accredited schools located within Oklahoma, Arkansas, and Kansas. This qualitative case study explored the data analytical and technology skills needed of these firms and showed a lack of data analytical and technology skillsets from ACBSP accounting graduates. Results suggest the need for Excel and QuickBooks knowledge and the need for more qualified and technology trained accounting graduates to meet the needs of the profession.

Key words: data analytics, ACBSP, QuickBooks, technology skillsets

INTRODUCTION

Due to the increase in data, businesses are struggling to obtain qualified, trained employees to meet the increased demand for skilled analysts. Bressler and Pence (2019) noted as companies continue to invest in the latest technology, skilled and experienced employees will be needed. The authors stated the skillset needed to be successful in the workplace is different from what higher education institutions are currently covering in their accounting curriculum (p.50).

We sought to find the most important technology and analytical skills needed from small- to mid-sized accounting firms. Zadeh et al. (2018) explained while there has been an increase in research on the importance of data analytical skills, limited studies showed which tools are most helpful in enabling students to understand data analytics. The authors noted higher education is influential in undertaking the shortage of trained workers problem.

Andiola et al. (2020) explained that accountants will play a significant role in data analytics in the upcoming decade. While the skillset analysts need is ever-increasing, the competency of recent graduates is less than what the profession needs. University curriculum must include industry knowledge, skills, and abilities (KSAs) (Qasim and Kharbat, 2020).

Accounting jobs will change with automation, requiring accountants to learn new skills. Both the accounting profession and higher education accrediting agencies note the need for data analysts. Previous research revealed that the Association to Advance Collegiate Schools of Business International (AACSB) requires the addition of specific analytics, data mining, storage, and reporting to be added to the curriculum. How ACBSP schools are addressing technology and data analytics has not been studied.

The purpose of this qualitative, constructionist case study is to identify the data analytical skill requirements of small- to mid-sized accounting firms which graduates from ACBSP accredited schools will need as they enter the accounting profession. Data was collected in an attempt to determine the differences between graduate skillset and knowledge and employer perception of the preparedness of ACBSP graduates as they enter the workforce.

LITERATURE REVIEW

This study could function as a roadmap for ACBSP universities to incorporate data analytics into their accounting curriculum and ensure universities are providing the skills needed to be successful in the accounting profession.

Nguyen et al. (2020) noted data analytics and higher education are in the primitive stage of development and it is essential that an integrated framework be created to assist higher education institutions and industry. The key concept of this research was how to link the analytical needs of organizations and the changes in analytical requirements from accrediting agencies to higher education curriculum design (Restivo, 2019).

With the new data analytic requirements, AACSB schools are altering their curriculum. The gap in the literature is the lack of data analytical requirements of ACBSP accredited schools. The Big Four accounting firms noted they would hire as many graduates with data analytical skills as higher education could graduate (Richardson and Shan, 2019). If there is a difference between what the accounting profession needs from graduates and what higher education is teaching, schools should reconsider their curriculum. This information can be extremely important to ACBSP schools, because they currently have no requirement to add data analytics, while AACSB is requiring their schools to include it in their curriculum.

RESEARCH DESIGN

This qualitative study examined whether there is a lack of data analytical skillsets from ACBSP graduates and what affect that has, if any, on meeting the analytical needs of the accounting profession. Interviews were conducted with CPAs from small- and mid-sized accounting firms asking questions regarding which knowledge, skills, and abilities are most important in new hires and what, if any, of these needed skills do new hires lack.

This study consisted of an analysis of the data analytics curriculum changes that are now required of AACSB schools to develop an understanding of how ACBSP schools plan to adapt to these changes, and to determine how these changes, or lack of, could affect ACBSP graduates. The accounting professional community, accrediting agencies, and higher education institutions are attempting to build relationships with one another to meet the demands and employee shortages many are experiencing due to changes in data analytics (Janvrin & Watson, 2017).

Both AACSB and the Pathways Commission understood there was a gap between what students were learning academically in comparison to what is needed in the workforce (Bryant, 2019; Lee et al., 2018).

The “lack of graduating accountants who are skilled in data analytics has also caused concern within the accounting profession” (Restivo, 2021, p. 5).

RQ1: What are the knowledge, skills, and abilities (KSAs) required of small- and mid-sized accounting firms?

RQ2: What data analytical skills do graduates from ACBSP schools lack as they enter the workforce?

As more AACSB accredited schools begin to incorporate data analytics and technology into their curriculum, how will this impact ACBSP graduates? The findings of this study will fill a gap in current accounting literature by providing information on what ACBSP schools are doing to incorporate data analytics into their curriculum to ensure graduates are better prepared as they enter the workforce and whether this new curriculum aligns with the needs of the accounting profession. Better information from the accounting profession will assist ACBSP schools as they consider if, or where, to integrate data analytics into their curriculum or add hours to their programs.

LITERATURE REVIEW

Analytics is a trending area in accounting and business literature (Ballou et. al., 2018 & Norman, 2020). Due to the increase of large amounts of data, it has become an important topic for both organizations and higher education. Dewu and Barghathi (2019) noted the 21st century as the “information age” because this time period is so reliant on data (p. 418). Hossain (2020) noted that while data science is centuries old, it is more perplexing today as conventional mathematical methods worked well with small sets of data, but new methods must be created to manage larger data sets. Andiola et al. (2020) referenced big data as the next frontier, with 87 percent of Chief Financial Officers and finance professionals proclaiming Big Data will transform business over the next decade (p. 1). Richardson and Watson (2021) stated technology is “revolutionizing accounting” (p. 129). Wahyuni (2018) anticipated Industry 4.0 as the “most powerful driver of innovation over the next few decades” (p. 256). Polimeni and Burke (2021) discussed how many tools (e.g., adding machines and computers) have affected ways accountants work, but did not transform the profession. Kruskopf et al. (2020) predicted within the next 5 to 10 years, parts of accounting and auditing will no longer require human interaction.

As massive amounts of digital information become available, there is an increased need for educated, talented people to decipher and manage large amounts of data. Without these, many companies are incapable of making sense of or gaining insight from the data. Rufino et al. (2017) noted how business operations have become more technical, driving businesses to hire accountants with more technology knowledge. Unfortunately, many new hires have not been educated or trained how to understand and analyze big data. Ackerman (2019) cited recruitment and retention of skilled accountants as two struggles challenging accounting firms, blaming the gap between what higher education is teaching and what firms need. Bressler and Pence (2019) added how businesses, recruiters and higher education are blaming one another rather than trying to determine why graduates need additional skillsets to secure and maintain accounting positions.

Hossain (2020) emphasized data analytics as important, as it can help assess risk, plan finances, manage costs, and predict value. Companies who lack data analysts may not have the same ability to understand data and make relevant decisions as other businesses with data analysts. Stancheva-Todorova (2019) explained that accountants need to become “hybrids”—multifaceted (p. 309). But, Bressler and Pence (2019) questioned the bearer of the responsibility of ensuring graduates have necessary skillset for workforce success (Saggi and Jain, 2018).

Accounting organizations have also recognized the need for and importance of data analytics to the profession. The AICPA noted the accounting profession insisted new CPAs have a better understanding of the use of technology and that real-world simulations be added to the exam (Freeman, 2018, p. 2). The AICPA also stated that educators need to place more emphasis on higher-level skills, specifically analytical and critical thinking skills (Zhang et al., 2018, p. 26). The Pathways Commission is appealing to academic accounting programs to detect existing and developing technology and to incorporate these technologies into their curriculum. McCollum et al. (2019) stated students not only need to be introduced to basic statistics and data analysis, but also to use more sophisticated analytic tools.

While ACBSP has not made required changes related to data analytics, the CPA exam made changes to include analysis skills beginning July 1, 2021 (Tysiac, 2021, p. 31). Higher education, specifically ACBSP accredited schools, may begin to feel the pressure to modify their curriculum to include the new skills required on the CPA exam.

Accrediting agencies are also realizing the need for data. AACSB stressed the value of incorporating Big Data and data analytics into accounting curriculum and now requires business schools to evolve by incorporating curriculum with data analytic approaches, tools and practices. Authors of the literature reviewed showed that the need to include data analytics in higher education curriculum is unanimous among AACSB accredited institutions (Bryant, 2019; Andiola et al., 2020; Polimeni & Burke, 2021).

Janvrin and Watson (2017) explained AACSB wants to ensure that students understand how to use current analytical tools and technology. Tapis and Priya (2020) stated AACSB Standard 5A does not want institutions to focus on a specific skill or technology, rather, provide a comprehensive methodology. This standard expects faculty and students will become familiar with, and proficient at, new and developing technologies.

Business decisions driven by data lead to better decisions (McAfee & Brynjolfsson, 2012). Richardson and Watson (2020) discussed PricewaterhouseCoopers' (PwC) suggestion of "upskilling" (p. 129). PwC reasoned if accountants welcomed data analytics, they could become a crucial part of companies. Stancheva-Todorova (2019) explained how critical it is for accountants to become authorities in technology. The author further discussed data analytical skills as vital to the accountant's success in today's data-driven business world. Schmidt et al. (2020) remarked, "become a profession utilizing data analytics or become a profession bound for the history books" (p. 165). The authors stressed data analytics is an extremely essential new skill needed for accountants. Augustine et al. (2020) explained how industry is demanding higher education develop curriculum that better addresses the needs of the consumer and expressed the pressure higher education is under to keep pace with rapidly changing technology.

Atanasovski et al. (2020) claimed developing technology is expected to alter the accounting professions' functions and responsibilities. A literature review examined emergent technology and the accounting industry. Findings showed big data, artificial intelligence, and machine learning as most likely to require future skillsets and impact the profession (p. 60).

Qasim and Kharbat (2020) noted higher education should modify how curriculum is planned and reviewed. Handoyo and Anas (2019) argued accounting education institutions must meet the needs and expectancies of the profession or it could potentially become extinct.

The lack of accountants with technological expertise has caused many companies to hire data analysts or technology experts who understand the more complicated technology tools. Kruskopf et al. (2020) noted the demand for technologically skilled accounting graduates is vital due to emerging technology affecting every aspect of the profession. Further, job descriptions will change sooner, rather than later, due to the digital transformation that is occurring. Zhang et al. (2018) noted the skills needed for entry-level

accounting jobs would likely also be affected by technology in the near future. Further, the Big 4 want to hire accounting graduates/professionals with more analytical and computer programming skills.

Rosi and Mahyuni (2021) noted some accounting jobs may become obsolete, but generally will cause the accountant's role to change to that of a data analyst. Qasim and Kharball (2020) discussed how technology and big data are an opportunity, as opposed to a threat, while Rosi and Mahyuni (2021) argued there would be many new possibilities and career opportunities for the profession.

Qasim and Kharbat (2020) noted that while a number of universities have started to incorporate technology into their curriculum, there is still a gap between what is taught and what is used in the business market. Many graduates have a large disparity between acquired technology knowledge and industry technology knowledge expectations making the adoption of new technologies laborious and difficult. Woodside et al. (2020) agreed that skills deemed important and necessary vary between professionals, accrediting bodies, and higher education.

While the accounting profession, accounting organizations, accrediting agencies, and higher education agree that accounting graduates need to have technical and analytical skills, it is difficult to determine which future skillset would be needed, and how higher education could ensure that skillset is taught (Kauermann and Seidi, 2018). Atanasovski et al. (2020) noted that many higher education institutions' curricula need additional technology. Woodside et al. (2020) and Qasim and Kharbat (2020) noted fast-changing technology is a serious dilemma for both higher education and the accounting profession. Richardson and Shan (2019) noted while the majority (90.7%) of accounting department chairs surveyed stated data analytics should be a part of the curriculum, only 31.8% confirmed that their department had already incorporated data analytics into the courses.

Andiola et al. (2020) discussed how businesses expect accountants to understand technology and data analytics but the skillset of recent graduates is below what the industry needs. Richardson and Watson (2021) explained how the accounting profession has attempted to request changes to higher education's accounting curriculum in the past, but their efforts have been ineffective citing both the 1986 American Accounting Association's Bedford Report, which declared a growing gap between the tasks required of accounting professionals versus what accounting graduates are taught in school (p. 131) and the 2019 Sage survey of 3,000 accountants who stated many accounting programs are deficient, and that many will not teach the necessary skillsets required of graduates to effectively practice by the year 2030 (p. 131).

Higher education also has a shortage of funding and a limited number of faculty who can teach data analytics (Andiola et al., 2020). Dow et al. (2021) noted lack of time, effort and understanding of data analytics or how to incorporate it as challenges to accounting faculty. Surianti (2020) added facilities may also need renovations to support learning, while Moll & Yigitbasioglu (2019) noted that academia has not given appropriate consideration to technology and how it relates to the accounting profession. Handoyo and Anas (2019) explained if higher education does not embrace technology, the profession may view some institutions as ones that no longer graduate highly-knowledgeable accountants with up-to-date skills.

Surianti (2020) noted higher education must react promptly so graduates are prepared.

What can organizations do to help institutions of higher education provide qualified, talented employees? Stancheva-Todorova (2019) said that industry and higher education must be continually connected to manage the gap between what graduates know versus what the profession needs. Kotb et al. (2019) declared leaders of the accounting profession should be engaged in influencing accounting curriculum. Stancheva-Todorova (2019) suggested companies and higher education work together to help close the gap between education and industry.

METHODOLOGY

The researcher was investigating the data analytic skills needed of small- to mid-sized accounting firms. The best suited design for this research was constructive case study design. The target population is ACBSP accredited schools and CPAs from small- to mid-sized accounting firms. A multistage area sampling, which includes more than one probability sampling, was used—purposeful cluster sampling and stratified sampling. Data was collected on accounting courses required from ACBSP schools, and the data analytic and technology skillsets accounting firms needed from graduates/new hires. The geographical area for the sampling frame included three states: Oklahoma, Arkansas and Kansas (OAK). Data was collected from schools that are accredited by ACBSP and from small- to mid-sized accounting firms.

The identified cluster (OAK) is assumed to realistically yield sufficient data for analysis, compared to any attempt to collect a random sample from the entire population (all ACBSP accredited schools and small and mid-sized accounting firms). It was assumed the sample within the OAK area are representative of institutions and firms across the entire population.

Stratified sampling was also selected as a sampling method for this study, which consisted of three subgroups: ACBSP accredited schools, small-sized accounting firms, and mid-sized accounting firms from the OAK area. A random number table was used to identify the given number samples of two of the three subgroups. The sub-type of stratified random sample used was equal allocation. The two subgroups will be: small-sized and mid-sized accounting firms. An equal number of small- and mid-sized accounting firms were selected from each state. Since there are only 23 ACBSP schools within the OAK area that offer an accounting degree or concentration in accounting (12 in Oklahoma, 6 in Arkansas, 5 in Kansas), all 23 schools from the OAK census was included.

Primary data was collected through interviews of small- to mid-sized accounting firms and AACSB curriculum managers. Curriculum managers at AACSB schools were interviewed to understand their accrediting body's mandated inclusion of data analytics, and its placement in their curriculum. This information assisted in creating interview questions for the accounting firms. Secondary data, including plans of study and course descriptions, were retrieved from ACBSP schools' websites. If the course descriptions did not contain information concerning the software used in the courses, an email inquiry was sent to the department. AACSB and ACBSP schools were selected using the membership list provided on the agencies' websites.

A list of structured open-ended questions was created for the interviews with individuals from small- to mid-sized accounting firms located within cities and the metropolitan areas of OAK. Small- to mid-sized accounting firms were selected from the cities and metropolitan areas of Oklahoma City, Tulsa, and Lawton, Oklahoma; Little Rock, Arkansas; and Kansas City, Manhattan, Leneva, and Wichita, Kansas. Google search was utilized to locate the firms, the number of CPAs employed, and the contact information for each firm.

The items collected from the firms included (a) company name, (b) number of employees, (c) number of CPAs, and (d) company location. Interviews were conducted to collect a list of data analytical and technology skills deemed essential of new hires. The items collected from the ACBSP schools were (a) program descriptions, (b) degree plans, (c) course descriptions, and (d) course syllabi. The information collected from the schools was used to determine if the curriculum covers the data analytical skillsets needed of the accounting firms.

Semi-structured interviews were used for this case study and began with predetermined research questions. The main subtopics of the interview questions included a) current use of data analytics, b) current use of

technology/software, c) current data analytical software, d) technology skills needed, and e) skillsets/weaknesses of new hires.

The questionnaire was field tested by the accounting faculty in the Business Department at a regional university in Southwest Oklahoma. This review ensured the questions could be easily comprehended and were applicable to the research questions of this study. The accounting faculty at the university have terminal degrees, hold CPA licenses, have current knowledge of the field, and are actively involved with community and professional organizations.

Interviews with individuals from the accounting firms were conducted online using a web conferencing tool such as Zoom. Invitations were sent to the various firms within the OAK area explaining the study and requesting permission to record the interview sessions. The recordings were then viewed later. The data collection sheets included the KSAs that individuals from the different sized accounting firms believe are important for accounting graduates to possess. The sheet contained the number of firms that identified each analytical or technical skill as important. Data collection sheets were also used to organize the information gathered from the schools' plans of studies and course descriptions. The sheets included information concerning the number of specific data analytics courses or types of courses that contain data analytics curriculum within each school's program, and if possible, the specific skills covered.

Four differing groups of accounting firms were interviewed, small- and mid-sized, firms that offered tax and auditing services, and firms that offered only tax service. Developing themes and properly coding the data was essential. A code book helped to keep track of the different codes and themes. The researcher used NVivo coding and attribute coding as the first cycle coding methods. This process was repeated after each interview. As an alternative to identifying participants by their accounting firm, non-identifiable numbers were assigned to each firm.

RESULTS

The results include 10 thorough interviews conducted with selected participants of both small (6)- and mid-sized (4) accounting firms located within the OAK area and 2 interviews conducted with curriculum managers of AACSB accredited schools. The Oklahoma Society of Certified Accountants, Arkansas Society of CPAs, Kansas City Business Journal, Kansas Society of CPAs, and Google search were all used to identify small- to mid-sized accounting firms within the OAK area. A data collection sheet was created, which contained the name of the firm and its location. After the final interview, the initial codes were examined and placed into categories. From the categories, 4 themes were developed. Figure 1 shows the open codes, categories and selected themes collected from the data.

Two interviews were conducted with curriculum managers from two Oklahoma schools. Both interviews were conducted through Zoom. Even though the Zoom sessions were recorded, the researcher also took detailed notes. These notes were intended to assist the researcher with developing questions during the accounting firm interviews. While data analytics and technology is now required to be included in accounting curriculum of programs accredited by AACSB, one school noted many of their accounting graduates do not sit for the CPA exam; therefore, this school focused on the technology and software they determined important—Excel and PowerBI.

Regarding Research Question 1 (RQ1): What are the knowledge, skills, and abilities (KSAs) required of small- and mid-sized accounting firms? There were several themes that developed related to RQ 1: use of Excel, lack of particular skillsets, use of QuickBooks, and no required skills needed. The following themes were selected: (1) Excel knowledge preferred, (2) additional curriculum needed, (3) QuickBooks knowledge preferred, and (4) no expectation of skillset. Theme 1: Excel Software. The theme most

discussed was the use of Excel. Of the 10 participants interviewed from both small- and mid-sized accounting firms, 9 indicated they use Excel on a daily basis, while 1 indicated they do not use Excel at all. Most firms use Excel as their working papers for auditing. Of the 9 firms that use Excel, 5 (56%) require new hires to have experience with and a clear understanding of the software. Four (44%) noted it would be ideal for new hires to have experience and an understanding of the software, but not required.

Many participants noted a lack of particular skillsets including lack of fundamental accounting knowledge, critical thinking skills, analytical thinking skills, and an overall shortage of talented newly-graduated accounting students. Participant M2 commented “many accounting graduates have only seen financial statements in textbooks. It would be beneficial for students to study real world financial statements. Use more cases. Ask what the financial statements say, no numbers, just words. I prefer students with

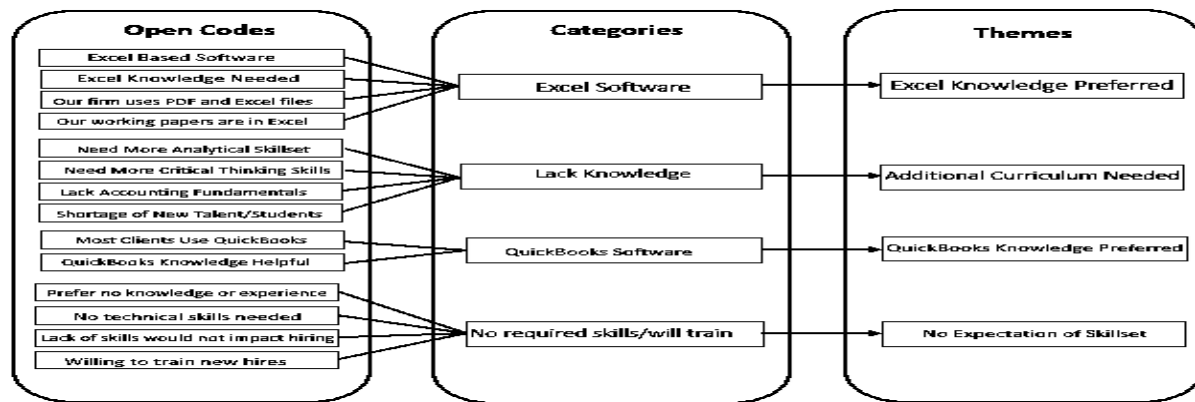


Figure 1 Open Codes, Categories, and Themes

writing skills over technology skills”. Participant M3 noted “Just because a new graduate that we hire does not know it [software skillset], may not be because the schools are not teaching it”.

In addition to Excel, many participants noted QuickBooks as a skillset needed of new hires. Most of the firm’s clients use QuickBooks and having new hires understand the software was mentioned as being beneficial. One participant (S5) explained the need and experience of working with QuickBooks. S5 clarified that the clients of his firm used online QuickBooks, which provided easy access to their information during tax season, so an understanding of the program was required for employment.

Many of the participants interviewed shared a consensus on training new hires rather than hiring accountants with previous technology or software experience or education. Six (60%) acknowledged a preference to hiring newly-graduated accounting students, with the expectation these new hires would have little to no experience or training on software or technology. Each participant noted the new hires would be trained on the software used by the firm. Participant S1 commented: Having data analytics or technical skillsets is not a qualify determinate. If they [new hires] have an increased skillset [technology/software] it would be a bonus, but if they did not, it would not cause me to not hire them. Participant S6 agreed stating “we expect to teach people how to use it [software]. Participant M1 echoed this statement noting “we prefer no prior knowledge so we can train how we want”.

Concerning Research Question 2 (RQ2):What data analytical skills do graduates from ACBSP schools lack as they enter the workforce? After obtaining the KSAs from the individuals from small- to mid-sized accounting firms, a search of the ACBSP website was performed to locate the schools within the OAK area. The researcher then visited each school’s website to determine whether the 40 ACBSP schools listed, 23

were found to offer either an accounting degree or a business degree with a concentration in accounting and were then selected for this research. Of the 23 schools, 12 schools were located in Oklahoma, six in Arkansas, and five in Kansas.

The next step was to examine each school's website for a plan of study to determine if any required courses taught the needed KSAs of the accounting firms. Twenty-eight courses were identified as courses that contained a title which indicated the course may include some type of data analytics, technology, or accounting software as part of the course curriculum. Each course description was obtained from each school's website and documented. If the course description did not provide detailed information about the technology or software used in the course, textbook information was searched for in the course schedule offerings. If the technology or software used was still not determinable from that information, an email was sent to the accounting department of the school requesting that information. The information was collected and entered into a data collection sheet for the accredited schools.

Of the 23 schools investigated, a total of 29 courses were identified as applicable to the study as illustrated in Table 1 below.

Table 1 Software by Course

Course Title Included:	Courses Offering QuickBooks	Courses Offering Excel
Accounting Information Systems/ Accounting Software	7	5
Data Analytics/Data Analysis	0	5
Computer Applications/Spreadsheet Analysis	1	3
Enterprise Systems	0	0
Total	8	13

Of the 29 courses identified, 13 (45%) taught Excel as part of their curriculum. The most common course was Accounting Information Systems, offered at 15 of the ACBSP schools. Of these courses, five offered Excel within the curriculum in courses with either Data Analytics or Data Analysis in the name. All five courses listed Excel as part of the course curriculum.

Of the 29 courses offered at the 23 ACBSP schools, 8 specially noted QuickBooks as the software included in the course curriculum as illustrated in Table 1 above. Of the remaining 21 courses, the course descriptions stated AIS textbook only or listed a different software such as Tableau, Power BI, Sovlr, JASP, Access, Alteryx, or SAP.

ANALYSIS

The results of the analysis depicted a need for Excel knowledge of new hires. Though not consensus, more than half (56%) of the firms require this knowledge for hiring. Participant M2 commented "I prefer to hire individuals with a strong background in Excel". Several participants (S1, S2, S3, S4, S5, and M4) primarily use Excel to organize and sort data. Much of the literature available addressed the Big Four accounting firms and their need for more technically trained accountants (Zhang & Vasarhelyi, 2019; Cooper et al., 2019; Richardson & Shan, 2019). Schmidt et al. (2020) expressed the resistance of accountants to shift from Excel to more emerging data analytic technology to align with what Big Four needs. Based on these findings in this study, the small- to mid-sized accounting firms do not utilize data

analytics and technology in the same way as the Big Four. Participant S6 noted “our firm only does small audits. We still use a lot of paper, not data mining like the Big 4”.

There were several recurring categories that revolved around new graduates’ lack of knowledge in areas that fell outside data analytics and technology. Lee et al. (2018) explained the importance of newly graduated accounting students having the understanding of and ability to use a variety of software and technology ranging from basic Excel to SAP (p.45). Bayerlein and Timpson (2017) noted the need for higher education to align curriculum more closely to the needs of the accounting profession. McBride and Philippou (2022) identified a need for graduates to have a better understanding of how to comprehend and decipher data and be able to convey the results clearly. This aligns directly with the comments of Participant M2 who stated students need more cases and real-world financial statements to analyze. Participant M2 commented “What do the footnotes say? It is important for them [students] to understand the flow of information. I believe they [students] need more experience with real documents. Taking the numbers and converting them to the English language”.

The findings of the interviews also showed a consistent desire for QuickBooks software knowledge. Suarta et al. (2023) explained many technology skills, such as QuickBooks, are needed, not only for experienced workers, but also for entry-level accounting positions. Many of the firms interviewed remarked that QuickBooks was the software used by the majority of their clients. Participant M1 commented: a good number of our clients use QuickBooks, ... but QuickBooks is migrating towards moving their product completely online—making it much easier for firms to access client information during audits... This is very beneficial because it limits the number of schedules and documents that the client has to provide. It is not like the old days where you had to ask for an AR or AP, they [clients] just give us access and we can pull all the reports and things on our own”.

Participant M1 explained having individuals previously educated on QuickBooks could be very beneficial to the firm. This knowledge would afford new hires the ability to navigate reports and accounts within QuickBooks better than those with no experience or training on the software. and Laswad (2018) explained the unfeasibility of educators being able to teach all of the needed skills expected of accounting firms and noted higher education should instead focus on the most requested employer skills. Interestingly, many participants stated their firms had no data analytical or technology expectations of new hires. While 6 (60%) of the firms noted a preference to hiring individuals with prior technology and/or analytical skills, 4 (40%) placed little emphasis on skillset and noted they would hire new graduates even if they lack knowledge or experience with technology or software. Pitstick (2022) explained that the number of accounting graduates “decreased by 10% in 2020” (p. 29).

The problem investigated in this research was whether ACBSP accredited schools lack an understanding of the skillsets needed of small- to mid-sized accounting firms. Dawkins and Dugan (2022) discussed the upcoming changes to the CPA exam and how increased credit-hour requirements have created some doubt about the future of accounting education. The authors further noted how the skill expectation of entry-level accounting positions is transforming as the use of accounting technology continues to evolve. With the rapid growth in accounting technology, it is imperative that higher education remain relevant to the needs of the profession to ensure successful employment of accounting graduates.

IMPLICATIONS

Previous research in this area has focused on the lack of data analytical and technology skills of new accounting graduates as they enter the workforce (Zhang et al. 2018; Ackerman, 2019; Suarta et al., 2023). Tan and Laswad (2018) noted considerable research has been done over the past 30 years to determine the skillsets expected of accounting graduates (p. 403), yet accounting curriculum has failed to

meet the anticipations of the profession. Past research has been restricted to AACSB accredited schools and not ACBSP accredited schools (Bryant, 2019; Richardson & Shan, 2019; Andiola et al., 2020). Additionally, previous research has not focused on small- and mid-sized accounting firms, but rather on the Big 4 accounting firms and their needs (Zhang et al., 2018; Richardson & Shan, 2019). Findings from this case study reflected precise themes within a limited sample of small- to mid-sized accounting firms located within OAK. Firms offered a variety of services, including tax preparation, auditing, reviews, payroll, consulting, and compilation. Results may be used as a roadmap for ACBSP universities to identify which data analytics and technology skills to incorporate into their accounting curriculum to ensure graduates success with small- to mid-sized accounting firm.

Regarding RQ1: What are the knowledge, skills, and abilities (KSAs) required of small- and mid-sized accounting firms? Andiola et. al (2020) explained that accountants' knowledge and use of data analytics and technology is improving, but many critics are still noting accountants' knowledge falls short. Two persistent themes developed from the interviews with participants accounting firms: 1) the need for Excel knowledge, and 2) the need for QuickBooks skills. While existing literature addressed the skillsets needed of the Big 4 accounting firms (Zhang & Vasarhelyi, 2018; Richardson & Shan, 2019; Cooper et al., 2019), there was very little literature discussing the needs of small- and mid-sized accounting firms. The findings from this study show that the skillset needed of small- to mid-sized firms appear to differ from the skillsets needed of larger firms. Cooper et al. (2019) stated that one Big 4 firm said professionals hired moving forward would need to have both accounting and data analytical skills. Many firms in this study noted no data analytic or technology expectations of new hires. Rather, many would prefer no previous knowledge or training and instead train the new hires themselves. Clayton and Clopton (2019) noted some firms are teaching data analytics internally, but the need for trained analysts is growing at such a rate that many firms cannot keep up with the demand and want to hire individuals with experience and knowledge.

While most participants conveyed a desire for new hires to have prior Excel and QuickBooks knowledge there is a vital need for businesses to be able to manage large data in order to make useful business decisions (Deniswara et al., 2020). So, while data analytics may not be affecting small- to mid-size firms today, Clayton and Clayton (2019) noted improvements to technology can impact how businesses use unstructured data. These smaller sized firms should still consider the value in data and how it may assist growth and efficiency within their firms.

Another theme that evolved was a need for real-world experience and cases. There is a need for new CPAs to have more comprehensive and thorough understanding of the use of technology, real-world simulations, critical thinking skills, and analytics, but further examination would be necessary to determine if real-world simulations are included in the courses evaluated.

Several participants expounded on various skills and knowledge outside of data analytics and technology that are needed of new accounting graduates: critical thinking and analytical skills over technology skills. Bressler and Pence (2020) advised that many accounting graduates may not possess soft skills needed of the profession, and this concept was reinforced by Tan and Laswad (2018), specifically communication skills make graduates more employable. Several participants noted the many new hires struggle with both written and oral communication skills.

Concerning RQ 2: What data analytical skills do graduates from ACBSP schools lack as they enter the workforce? Many accounting organizations understand the growing importance of data analytics to the accounting profession. Specifically, the AICPA performs research on a regular basis to confirm the CPA exam is relevant and up to date. The AICPA expressed the need for new CPAs to have a greater understanding of the use of technology and real-world simulations. The Pathways Commission continually examines accounting education to determine its relevance and focuses on discovering ways to

improve not only students' educational experiences, but also ensuring graduates are prepared to enter the profession. Lee et al. (2018) noted how they requested higher education examine existing and developing technologies and include these in their curriculum. While ACBSP is not commanding data analytic and technology requirements of AACSB, the CPA exam has made changes that include data analytics and technology, which may require ACBSP schools to consider altering their curriculum.

Each accounting course at ACBSP schools had a variety of names and descriptions, but many covered the two persistent themes: Excel and QuickBooks knowledge. Andiola et al. (2020) explained the technology difficulty facing higher education: inconsistency from the profession and rapidly transforming technology compels universities to decide for themselves what technology to include in the curriculum. Participants interviewed for this study noted many were willing to accept new hires with little-to-no training while a few preferred new hires having no experience. One participant's desired new hire would have no prior knowledge; thus, the firm could train, not only on a specific technology, but also how they wanted them to be trained.

While many participants shared a desire for new hires to have prior Excel and QuickBooks knowledge, having skilled employees who can interpret data into meaningful information is extremely valuable to businesses. While many of the ACBSP accounting courses teach Excel, it is not clear to what extent the software is taught. One participant noted a small percentage of Excel's actual capability was actually being utilized at their firm. However, even smaller accounting firms may need skilled employees to help decipher data, so it is vital that higher education develop curriculum to ensure the needed skills of the software are covered.

A previous study conducted by Qasim et al. (2020) explained that data analytics and technology are not new to the accounting profession, but most of the analysis was conducted manually. During the participant interviews, it was mentioned that QuickBooks now offers their product online and it appears there is a push by the company to move all firms in this direction. In the past, clients would download the information needed of auditing and tax firms, but now, many of the clients are providing firms access to their information via online QuickBooks. Ensuring new hires understand and can utilize the software will be very beneficial to many firms.

There is very little research that reveals the skills needed of small- to mid-sized accounting firms. Therefore, using a qualitative case study to gain insight on which skills are needed of accounting graduates was deemed appropriate to provide insight to ACBSP accredited schools to ensure their curriculum is current and relevant to the accounting profession. The purpose of this research is valuable to both higher education institutions and accounting organizations. Research on this topic will assist institutions in knowing what data analytic and technology skills are needed and should be included in their curriculum. Subsequently, continuing research will also benefit the graduates from ACBSP accredited institutions.

The accounting profession, accounting organizations, accrediting agencies, and higher education all agree that accounting graduates need to have technical and analytical skills; however, many challenges exist. Dawkins and Dugan (2022) stated the skills required of entry-level positions will also change as technology continues to evolve. The interviews conducted provide some insight into what data analytical and technology skills small- to mid-size accounting firms are needing. Ensuring that Excel and QuickBooks are included as part of the accounting curriculum can help meet the needs of these types of accounting firms.

Another recommendation would be for higher education to include in the curriculum real-life cases and financial statements. Yeaton (2021) noted the changes implemented by the AICPA and the National Association of State Boards of Accountancy (NASBA) have brought about fundamental restructuring of the CPA exam. One significant change is the added specialty choices, which include taxation compliance and planning, business reporting and analysis, or information systems and controls. Further, the “Core + Discipline” model provides a means for higher-order skills and knowledge (p. 8). This redesign will command higher education to consider the realignment of accounting curriculum to include the new content of the exam.

SUMMARY AND CONCLUSIONS

This paper examines what technology and analytical skillsets are needed of small- and mid-sized accounting firms and whether ACBSP accredited schools lack an understanding of these needs. Data analytical skillsets of small- to mid-sized accounting firms differ from that of larger accounting firms. While technology skillsets are needed of both sized firms, the small- to mid-sized firms have a need for Excel and QuickBooks knowledge.

This research issue is a significant topic that will be beneficial to higher education institutions, graduates, and accounting organizations. Data analytics is a skill that will be required and needs to be addressed. Research and education will help to meet both the current demand and future challenges. The findings may assist educational institutions in better determining how to adopt Big Data into curriculum to help both graduates and organizations.

As technology continues to grow at such a rapid pace, accounting and business professions and higher education can benefit from the expansion of the research topic of data analytics, specifically its inclusion in higher education curriculum. To meet the current and future challenges encompassing data analytics and technology, more research and education will be needed. It is certain that this research topic could help higher education understand what data analytics and technology is needed, and particularly, what needs to be adopted into curriculum to better prepare graduates, while simultaneously helping firms.

SUGGESTIONS FOR FUTURE RESEARCH

The findings aligned with the available literature and also presented new thoughts to consider. As with a number of studies, this research has limitations. A limitation of this study was that it only included small- to mid-size accounting firms. Future research could include Big 4 accounting firms to see if their required skillsets differ.

A second limitation was location. Both the accounting firms and ACBSP schools were located within a small geographical location. The clustered population (Oklahoma, Arkansas and Kansas) may consist of different demographics such as rural versus urban, and these differences could vary drastically from one state to another. No international schools or firms were included in the sample. Future studies could include more states and countries.

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ENHANCING THE SERVICE-LEARNING EXPERIENCE: KEEPING VITALITY IN VITA

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ABSTRACT

The population served by the Volunteer Income Tax Assistance (VITA) program is comprised of the most fragile and least likely to feel comfortable completing their own tax return. This paper proposes expanded outreach efforts that are needed to better serve that population by raising awareness and access, as well as eliminating any stigma that may be attached to use of VITA services. This paper suggests that Higher Education plays a vital role in delivering VITA programs by offering such assistance to community members as a formal service-learning experience for students. VITA provides valuable experiences for students, positively impacts the users of the VITA service, and strengthens the relationship between the community and the educational institution. The VITA program lends itself to a learning-by-doing approach which is a very successful avenue as students progress toward their professional careers. We provide evidence of success of our own VITA program offered as part of the higher education experience and suggest ways to expand student opportunities for growth and apply continuous improvement practices to the VITA service offered at our institution.

Key Words: VITA, Service learning, Experiential learning, Community partnerships

INTRODUCTION

VITA is intended to prepare annual income tax returns, free of charge, for designated and/or underserved populations. These groups of taxpayers include low- to moderate-income individuals and households, persons with disabilities, the elderly, and limited English speakers. Filing these income tax returns allows these taxpayers to receive a refund on excess withholding, as well as the ability to take advantage of programs and credits of which they otherwise might not be aware. Moreover, income tax filing is one of the key indicators that the federal government uses to account for its citizens for items like issuance of emergency funds (e.g., The Economic Impact (COVID Stimulus) Payments). With thousands of sites across the nation, VITA has a strong foothold and continues to build upon its humble beginnings dating back to 1971 (*Need Help With Taxes? Many Places in the Bay Area Offer It for Free*, 2018). The United Way has tallied the number of sites to be 3,200 in 2022 (*Support the Volunteer Income Tax Assistance Program / United Way Worldwide*, 2022). This is remarkable for a volunteer operation, and The United Way (2022) goes on to describe the near one million low to moderate income households that received refunds of approximately \$2 billion. Partner organizations are crucial and include non-profits, local municipalities, and institutions of higher learning. We suggest that institutions of higher learning have unique abilities to provide access to VITA programs in an ongoing and expanding fashion. This paper provides suggestions for enhancing outreach and maintaining the vitality of this crucial program.

SERVICE-LEARNING IN HIGHER EDUCATION

Offering or requiring service-learning or other experiential learning opportunities as a part of undergraduate or graduate degree completion has a long history outside of business program settings. Particularly in the health care field, service-learning has been investigated as to its benefits to both the student and the organization or individuals served. Tyndall, et al. (2020) describe the benefits to both students and community partners of a program involving nursing students and a rural elementary school. Participants described the experience as empowering when giving back in tangible ways to communities. Xavier and Jones (2021) point out that service-learning in healthcare education is crucial in developing and assessing core competencies necessary for healthcare providers to demonstrate compassionate and competent care for patients. Vogel and Seifer (2011) found that the positive impacts of service-learning could be grouped into categories including increased community engagement, improved community-university relations, and recruitment of students interested in community engagement opportunities.

Vogel and Seifer (2011) suggest that service-learning may play a large role in building trusting relationships that become a foundation for community-university partnerships. Additionally, Miron and Moely (2006) found that the number of students involved in service-learning activities impacts the relationship between the perceived benefits to the community partners and the partners' perception of the university. Institutions of higher learning that are looking to expand community relationships may successfully do so via service-learning opportunities. "Public universities in particular ... are charged with positively engaging the surrounding regions. Service learning enhances their ability to accomplish this by providing yet another tie with the community ..." (Gerlach and Reinagel, 2016, p. 136).

Applying this to business education programs, Chika-James, Salem, and Oyet (2022) investigated whether service-learning opportunities contribute value to the larger society and they found evidence that the skills business students offer can provide much practical benefit to both nonprofit and for-profit organizations. In addition, individuals working with the students during the service-learning exercise reported personal benefits such as enhanced communication skills from student interaction, along with positive feelings of joy and excitement. Aldridge, et al. (2015) studied the impact of offering a tax preparation service-learning program similar to VITA and found empirical support for positive impacts of service-learning on students' abilities to apply academic concepts to complex real scenarios requiring judgment and problem solving skills. The study also found perceived benefits to the users of the service, and a high level of satisfaction by the students who participated in the program.

VITA AS A SERVICE-LEARNING COURSE

In the United States, the VITA Program is a grant program, spearheaded by an Internal Revenue Service (IRS) initiative that supports free tax preparation and filing for the underserved through various partner organizations. The IRS provides the program support designee, site inspection, approval and authorization(s), signage, lanyards, regulations, compliance, printed materials, training modules, certificates of completion, as well as the software, secure electronic filing, and refund via direct deposit. As explained on a governmentally sponsored web page (*Volunteer Income Tax Assistance (VITA) / Benefits.gov*, n.d.), the general VITA criteria include one or more of the following for individuals to be eligible to use the program: earn moderate income or less, be disabled, not speak English well, or be a senior citizen. Serving traditionally underserved or disadvantaged individuals is an excellent growth experience for students.

Because of the research indicating the benefits to both students and community partners of service-learning opportunities, we suggest higher education broadly as an ideal partner organization for VITA

programs to have the support and infrastructure that will allow continued service to the community while simultaneously providing excellent growth opportunities for students to develop professionally. Offering VITA as a credit-bearing course provides institutional support, incentives for students to step outside their comfort zones, and continuity of physical location. Hill and Hammond (2023) discuss the importance of “institutional structuring” of service-learning and call for both higher level administration involvement and more direct faculty involvement in the administering of service-learning programs. As an institution, the college or university shapes the opportunities for students and structures the spaces in which students can learn to apply and develop skills learned in the classroom.

In our particular case, the structuring of spaces took on a very literal meaning, and the benefits have been striking. As we began the process of establishing a VITA experience as a service-learning credit-bearing course, the classroom environment had some limitations and drawbacks related to gathering of client information, ability to serve multiple clients simultaneously, and overall projection of professionalism as the students engaged with community members (clients) throughout the process. Since the program’s inception as a service-learning course, the university has renovated the building housing the business department and the result is a more welcoming and professional space with a lobby area for greeting clients, separate small rooms for client meetings, a centralized computer lab for preparation of tax returns, and a dedicated office for the VITA faculty leader and student coordinators. Such support at the institutional level allows the delivery of a more refined student-community member interaction and provides the means for enhancing student professional development in large and small ways that also serve to solidify and improve interactions between the university and the community.

Institutions of higher education are located in various markets which serve varying populations. In states with well-developed state university infrastructures, the ability for higher learning institutions to reach significant percentages of the state population enhances our call for VITA programs to be affiliated with universities where practical. We advocate for increased awareness along with informed decision making and strategic action on the following items, discussed more fully below: expanded outreach and identification efforts, enhancements of basic sites and development of new basic sites, and additional training avenues and advanced site development.

Expanded Outreach and Identification Efforts. Outreach is the backbone of the VITA program. The United Way was established in the late 1880s, with a clear vision to help communities become stronger. The organization has been involved in the VITA initiative since its inception. Building on that momentum, the program continues to foster partnerships with other not-for-profits, municipalities, universities, and community minded organizations. Populations that are associated with these community centric organizations will be able to avail themselves of this and many other beneficial services. Rural communities would be the hardest to reach and in the most need. Once a foothold is in place, repeat clients, along with recruitment of new clients, will be easier. We, as members of the planet, only know what we know, and experience suggests that people get prickly when you start to mess with their food or their money. This means that barriers will absolutely exist; it will be a delicate dance to chip away at such natural barriers while formulating a bond of trust. Outreach success will depend heavily on the appropriate community partner, which will require VITA coordinators to complete a great deal of investigation to ensure partnership availability and synergy. Communities in densely populated areas appear to have more access to support organizations, so enhanced communication strategies should be sufficient and should somewhat easily support expansion. Those strategies could include a poster campaign with placement in all public access areas, including municipal and not-for-profit buildings (e.g. Post Office, Department of Motor Vehicles, Department of Social Services, American Red Cross, Libraries, Town Clerk, Recreation Centers, and Veterans Affairs). These posters could also be placed in department, grocery, and home improvement stores. Additionally, all religious or faith-based groups and civic organizations could prove to be fruitful outlets, because they already have a sense of ‘community.’ In addition to the location of rural populations,

another large issue we will need to address is limited English speakers and/or those with limited ability to read and/or comprehend the outreach documents.

Basic Site Enhancements and Additional Training Avenues. This tax preparation and filing service is free for its intended population, so spreading that word would speak volumes. Commercial tax preparers, for profit tax preparing businesses or software packages come with a cost to the client, whereas VITA is free – free consultation, free return preparation, and free filing of the return. Enhanced communication would ensure community members fully understand that the IRS provides site and operational support in a battery of ways. The aforementioned support includes guidance, issuing policies, networking and peer group alignment, software, and electronic filing as well as training modules. Making these sites more accessible to the elderly and those that have limited mobility will attract more clients to the site. In addition, extended and varied site hours will allow more individuals to take advantage of this service. Training is provided, via Modules, courtesy of the IRS. Tax credits and dependents are examples of tricky areas that may require additional training for the volunteers. To that end, development of some local training (which is based on the IRS guidance and modules that would be more engaging and perhaps entertaining) may benefit the student preparers so that they are more likely to make appropriate correlations and employ such newly acquired skillsets in the preparation of each tax return. Many states require taxpayers to file a state return, so any additional state training will require access to appropriate resources. This training would focus on credits available to residents of that state as well as variations from the federal return.

Advanced Site Development. Development of advanced sites would broaden our reach and enhance our service to our community. Examples include taxpayers that live in more than one state during the tax year, the ability to process migrant farm worker tax returns as well as employment-related and educational expenditures. Additionally, advanced sites would assist taxpayers that are struggling with lost earnings and have had to sell or liquidate assets to tide them over. Taxpayers that are recovering from illness or another catastrophic event would also fall into this category.

CHALLENGES

We note two specific challenges in the current environment in which our VITA program operates. The first is the ever-increasing effort to improve communication. Transparent communication is essential. Most taxpayers realize that they will have to produce documents in order to do anything with a government funded or sponsored initiative. As clearly delineated on the VITA checklist page (*Checklist for Free Tax Return Preparation / Internal Revenue Service*, n.d.), the following items are required: A valid driver's license or photo ID, Social Security, or ITIN cards for all listed on the tax return, birthdates for all listed on the tax return, as well as income statement forms: (e.g. W-2, 1099, etc.). Additionally required are all records of expenses such as tuition, mortgage interest or real estate taxes, copies of last year's state and federal returns, and for direct deposit the financial institution routing and account details. All the aforementioned are necessary to completely and timely file the return for each client. If clients do not have all the items with them, return completion will be delayed and there is a very high likelihood the client will have to retrieve items and make a second trip to the preparation site. An important focus moving forward should be placed on expansion efforts into rural and/or remote communities. This will require carefully crafted communications and calculated outreach efforts to ensure that clients bring all necessary documentation to the VITA location upon the initial meeting.

A second challenge is the variability of comfort levels with technology among the community members served by the VITA program. We need to develop methods and action items that will relieve anxiety and uncomfortableness for the non-tech-savvy taxpayers that come to our site. Indiana University is fine tuning a way to dispel rumors and focus on the identification of false or fraudulent information (Indiana University,

2018). Perhaps, a unique combination of humor and confidence will allow student coordinators to utilize a version of fake news/no fake news to put taxpayers at ease.

EVALUATION

In addition to the emerging site our program oversees, VITA appears to be located on many campuses and in many communities. Via an assigned IRS regional contact, site coordinators have access to communications, trainings, certification materials, outreach, and monitoring. They maintain data on the quantifiable aspects of the operation, meaning the number of returns attempted, completed, and submitted as well as the length of time to complete a return and error correction statistics. All of these are extremely helpful and useful teaching moments, but that is not a comprehensive understanding of the entire operation. It is important to incorporate data from a qualitative point of view, as well. Development of a tool that addresses information from onsite protocols and interactions would allow us to evaluate, measure, and incorporate the softer side of this important business function and professional environment.

CONCLUSION

The success of VITA is vital, to that end let us take the best of the best and initiate a train-the-trainer program. Currently, our university is activating a micro-credential certification for students participating in the VITA program. Growth, recognition, and prestige that accompanies micro-credentialing should boost program success and student participation. The current plan, to earn a micro-credential badge, requires successful completion of the training modules and chronicling accurate return completion. While we advocate for the growth and success of the VITA program at large, we also simultaneously advocate for those with no voice or perhaps just a weak voice to benefit from this grass roots movement. We highlight three large takeaways: 1. There must be expanded outreach, 2. There must be support and recognition for those that answer the call, and 3. We must continue to raise awareness. Higher education provides a platform and could potentially become the home for VITA programs. Based on facilities, access, community outreach and the success of our humble VITA site, we push for higher education to become that home for VITA because it instills community well-being in our outreach efforts, and it provides an opportunity for students to extend a hand to help those that need our help.

VITA has the potential to help instill a new respect for being part of the community, and we hope to (re)introduce our students to the social and philanthropic aspects of service-learning while supporting engagement, teamwork, customer service, collaboration, and synergy. Byrd, et al. (2021) indicates that students “gained both career building work skills and community and social awareness, while community participants increased their personal satisfaction.” The authors also noted that hands-on experiences, especially service-learning opportunities, provide accounting students with an abundance of skill building and utilization outlets (Byrd, et al., 2021). “Entrepreneurial philanthropists” (Harvey, et al., 2011) has meant top tier magnets of the likes of Carnegie and Morgan, but it would be interesting to incorporate some of their approaches, thinking, and successes to VITA, allowing for a new crop of philanthropists to develop, grow and thrive.

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AN ANALYSIS OF STUDENT LEARNING FROM A BUSINESS AND TOURISM-BASED EXTRACURRICULAR PROGRAM

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ABSTRACT

This research explored what students learned through their participation in four extracurricular activities. A mixed methods approach was used to cluster themes from a qualitative text-based analysis of students' anecdotal comments. Seven clusters emerged from the analysis. Results revealed that students' learning included soft skills relevant to career progression, from self-development through to career and life management. They also benefited from experiential learning linking classroom theory to practical real-life examples. Their learning experiences were consistent with two microsystems in the Jones Model (2018): Extra Curricula Activity and Preparing for Life after Graduation. Research findings were consistent with previous research focusing on the value of extracurricular activities in bridging the gap between classroom learning and practical experience. They also confirm the value of extracurricular activities in enhancing students' self-efficacy relative to job search and success in finding a career position.

Keywords: Extracurricular activities, Undergraduate student learning, Career planning, Qualitative research, Delphi technique

INTRODUCTION

The purpose of this research was to explore the most important learning take-aways of student participants in a university-based extracurricular activity program, called the Learning Passport (LP) program. Extracurricular activities (ECAs) refer to "the broad range of activities that students engage with beyond the requirements of their degree" (Hardosy & Clark, 2018, p. 415). The LP program is offered to students taking business administration, tourism, and/or hospitality management courses at a Canadian university. The LP program is held each fall and winter academic term. Students have the option of participating in the program, enabling them to personalize their learning. Students must complete ECAs to gain bonus points in participating courses. The LP program was developed by the Department of Business and Tourism in 2009. The LP program has grown to include several ECA providers including the Department of Business and Tourism, Library, Career Services, Learning Strategist, Chamber of Commerce, Centre for Women in Business and volunteer opportunity providers. Combined, these providers offer over 30 ECAs are offered per term.

This paper focuses on student learning from the following four ECAs provided by the Department of Business and Tourism in the Fall 2018 academic term.

- **Learners & Leaders Conference:** A business and tourism themed conference including speaker panels, keynote speakers, workshops and breakout sessions. Attendees to this event include business leaders, students, and faculty. The day-long event is followed by a gala dinner. This event

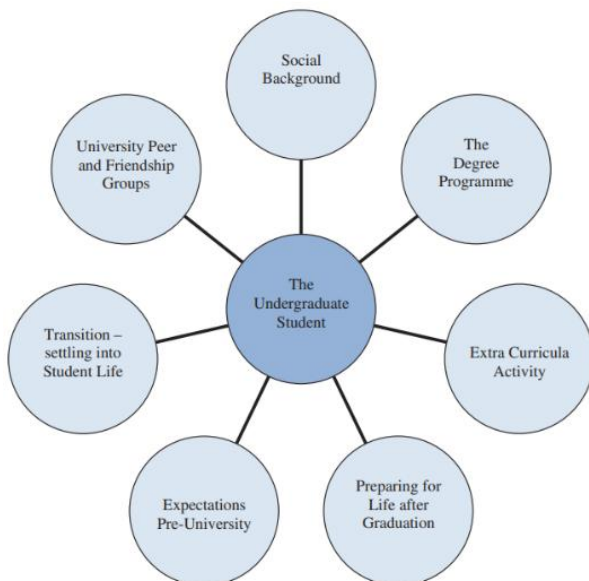
is offered on-campus every fall term. Over 150 people participate in this conference annually. The data set for this study had feedback from 100 students.

- Tourism and Hospitality Management Career Panel: This panel features industry experts from the tourism and hospitality sector, including CEOs, general managers, and human resource managers. This activity is offered each term and may be held on-campus or via distance technology. Over 50 students take part in this panel each year. The data set for this study had feedback from 59 students.
- Sustainable Business Tour: Students tour sustainable enterprises in various business and tourism venues. This tour is offered in person every fall term. Over 50 people participate in this tour each year. The data set for this study had feedback from 63 students.
- Local Entrepreneur and Cultural Tourism Tour: Students tour a variety of local businesses that operate unique and sustainable operations, as well as some that have cultural relevance (e.g., culture and heritage centers, etc.). This tour is offered every fall term. At least 35 students participate in this tour each year. The data set for this study had feedback from 49 students.

LITERATURE REVIEW

A great deal of research has explored the experiences of post-secondary university students. A theory developed by Jones (2018) identified seven microsystems that influence student experience. These include the students' pre-university opinions and beliefs, how they transition into student life, development of social relationships within the university setting, influences from their social and family background, their program of study, their participation in ECAs, and how they prepare for life after they graduate (Jones, 2018). The undergraduate student is located at the center of the model.

Figure 1. The Undergraduate Student Experience (Jones, 2018)



Jones described microsystems as interacting with each other to shape the undergraduate student experience, but that students also have agency in that they can choose to engage in various aspects of each microsystem. Students learn through their interactions with the microsystems. As they move throughout their educational journey, their experiences will shape their beliefs and ideas. Jones noted that participation in ECAs is an important part of student engagement (Jones, 2018). ECAs are often associated with enhancing employment skills, but they also contribute to personal growth, enhanced academic achievement, and critical thinking skills (Bakoban et al., 2015, Blotnick et al., 2022, Jones, 2018). The Jones Model (2018) appears in Figure 1.

There are limitations to academic learning provided in the classroom. A key consequence of classroom learning is the lack of opportunity to connect concepts and theories

with the real-world environment. Huffman et al. (2019) described the relevance of ECAs in expanding student experience outside of the classroom and enhancing student experience and learning. Research has shown that students, who engage in ECAs, are able to learn more about the world and their role within it (Kahu, 2013; Zepke, 2014). This leads to greater personal development. Huffman et al. (2019) noted that students “evolve” by combining traditional classroom learning with the experience gleaned from participating in ECAs (p. 132).

Mansi (2023) noted that students who participated in ECAs had advantages when applying for career-related positions. Those with more ECAs on their resumes were generally rated more favourably due to the

breadth of experience obtained from their ECA experiences. Students whose ECAs were related to their area of major were even more highly valued. Those with greater ECA participation were also regarded as being more aware of the workplace and themselves (p. 142).

A key aspect of higher education in the professions is linking classroom learning with professional practice. This is a challenge for many professional educators, including those in the business and tourism sector. It is essential for institutions and faculty to find creative ways to link classroom learning to real-world practices and skills sets. A number of researchers are critical of the ability of universities to deliver relevant higher education in professional studies. Much of the criticism is focused on the classroom experience, questioning the ability to link course pedagogy to practical learning needs (Amblee et al., 2023; Bennis & O'Toole, 2005; Costigan et al., 2015; Landa et al., 2021). Bratianu et al. (2020) noted that more engaging pedagogy is required to bridge the gap including experiential forms of learning, case studies, and other creative pedagogical tools that link theory to practice (p. 2).

Korniienko and Barchi (2023) maintain that students must possess both hard and soft skills in order to compete in today's job market. They define hard skills as "academic abilities, experience, and degree of competence" (p. 16). Hard skills are essentially the learned knowledge from university courses as students move through their programs of study. Soft skills are defined by Korniienko and Barchi (2023) as those which are "self-developed, interactive, communicative, human, and transferable" (p. 16). If hard skills are more common deliverables of university professional programs, soft skills may be harder to facilitate and may require different kinds of teaching and learning opportunities.

Jackson and Chapman (2012) explored various behaviors linked with managerial competencies. These behaviors included soft skills such as conflict resolution, emotional intelligence, self-awareness, and social intelligence (p. 549). These behaviors require graduates to empathize with others and respond sensitively in certain situations. Graduates should be motivated by personal values and behave with integrity while also displaying emotional self-regulation, the ability to manage challenges, and to function well in demanding situations (p. 549). There is also the expectation that future managers will be able to engage in self-reflection, demonstrate social responsibility, be responsible for their own actions, and create and maintain a positive work-life balance (pp. 549-550).

Chulanova and Bogdan (2019) noted that soft skills are becoming increasingly important in professional organizations. They described soft skills as consisting of both personal and interpersonal competencies, including time management, social interaction, negotiating skills, emotional intelligence, and leadership (pp. 178-179). In response to employers' concerns about graduates lacking soft skills, they concluded that ECAs are an important addition for most university students in the development of these skill sets.

METHODOLOGY

A mixed methods approach was used to complete this analysis. Research methods used included case study and a mixture of quantitative and qualitative approaches to gain an understanding of anecdotal evidence provided by students who participated in the four ECAs provided by the business and tourism department. The case study method enables the use of both qualitative and quantitative analyses of a bounded entity or experience. This approach allowed researchers to focus their investigation on specific ECAs offered in the Fall 2018 term, providing an in-depth analysis of the program, its offerings, students' responses, and learning (Creswell, 2003; Marshall & Rossman, 2016).

Students who wish to receive bonus points in their classes must register for the LP program. Once they have done so they can choose to participate in pre-approved ECAs. To receive credit for participating a student must complete a short survey about their experience with the ECA. Each survey includes an open-ended question asking what the most important thing was that they learned from the ECA. The first step in this

analysis was completion of a qualitative text analysis of students' anecdotal responses to the question about their most important learning. In the first stage, anecdotal responses were imported into Excel where researchers reviewed each comment and extracted text fragments. A single sentence could consist of more than one text fragment, each of which was assigned a specific thematic code. An iterative process was used to create guidelines to interpret thematic codes, which were assigned to describe each salient aspect of the response.

Text-based content analysis was conducted to enable deeper exploration of the anecdotal data. A quantitative approach was applied to measure the frequency of thematic codes. Given that ECAs with more participants generated a greater number of text fragments, standardization was required. Researchers addressed this by calculating the percentage of text fragments attributed to each code across all four ECAs.

The next step of the research required clustering the thematic codes so that codes that co-occurred in the data set could be examined as a group. A correlation analysis was required to create an initial grouping of the codes prior to further analysis. To do so, the percentage of text fragments for each code was subjected to a correlation analysis. Given the qualitative nature of the data a non-parametric methodology was required. Researchers used the Spearman correlation to identify codes that were clustered together in the data set (McDonald, 2014, pp. 209-212). To overcome sample size limitations a bootstrap method was used within IBM SPSS software (Version 29). Correlations with p-values of .05 or better were grouped into clusters for further analysis. Codes were then examined to be sure that their co-occurrence in the cluster was positively correlated. Only codes that were grouped in clusters of three or more were retained for further analysis.

Researchers explored the thematic codes to complete the qualitative content analysis of the text in each cluster. This analysis was iterative, involving various ways of engaging with the text data, reflecting on its meaning, and reassessing its context. Maietta et al. (2021) described this approach as "sort and sift, think and shift" (p. 2045). They described the process as first "diving in" to the data to gain a basic understanding of its meaning, or "sorting and sifting" (p. 2046). This is followed by a second stage of analysis described as "stepping back" from the data, or "thinking and shifting" (p. 2046), which allowed researchers to better reflect on the data and to examine how themes move and connect throughout the text.

The Delphi technique was used to facilitate the sorting/sifting and thinking/shifting processes to understand the clusters created from the text fragments. The Delphi technique is an iterative method, which is designed to facilitate group discussion and understanding. The first phase requires exploring concepts related to the issue under study. The second phase involves gaining an understanding of the issue. The third phase involves more study and reflection, including the discussion and resolution of differences in interpretation or evaluation. The last Delphi iteration results in a final evaluation and sharing of information (Linstone & Turoff, 2002).

For the first Delphi iteration, all anecdotal comments from students were placed into clusters, but the thematic codes for each were removed. The clusters, with anecdotal comments, were distributed to the researchers, who were each asked to individually read over the anecdotal comments for each cluster. Researchers were asked to reflect on the overall meaning of the comments presented. Researchers could use their own approaches for reflection. Some sought out keywords to define the cluster while others looked for the story being told by the comments in each cluster. For the second Delphi iteration, each researcher shared their analysis with the group electronically. Researchers were asked to read over each other's comments and reflect on them for each cluster. The third Delphi iteration was completed over two online meetings where researchers reflected on the clusters as a group, differences in interpretation were addressed, and the spirit, relevance, and meaning of each cluster were discussed. Meeting notes were summarized by one of the researchers, who then wrote descriptions of each cluster based on the notes. Each cluster was given a name reflective of its description. A detailed summary of the meeting notes was then distributed back to the researchers. The detailed summary contained the meeting notes, the cluster descriptions, and sample text fragments for each cluster. The fourth and final Delphi iteration involved an online meeting

where the detailed meeting summary was discussed. This step resulted in consensus for the final cluster descriptions and names. The final clusters provided a lens for understanding the main learnings that students took away from the business and tourism ECA offerings in the LP program.

RESULTS

The analysis of LP program business and tourism ECAs resulted in 61 thematic codes emanating from 475 text fragments. The breakout of the text fragments across the four ECAs appears in Table 1. The percentage of text fragments per theme appears in the Appendix.

Table 1. Text Fragments Across ECAs in the Business and Tourism ECA Data Set

ECA	Number of Text Fragments	Percent
Learners & Leaders Conference	204	42.9
Tourism & Hospitality Management Career Panel	128	26.9
Local Entrepreneurial and Cultural Tourism Tour	80	16.9
Sustainable Business Tour	63	13.3
Total	475	100.0

The correlation analysis resulted in statistically significant correlations between 55 out of the 61 thematic codes. Of these, 18 resulted in negative correlations and/ or correlations with fewer than two other codes. The remaining 37 codes were positively correlated and included in clusters of three or more. Seven clusters emerged from the data. Five were larger clusters consisting of four or more codes (clusters 1 through 5) and two were clusters of three (clusters 6 and 7). The initial clusters and their codes appear in Table 2.

Table 2: Learning Clusters for Students Participating in Business and Tourism ECAs

Cluster	Number of Text Fragments	Thematic Codes
Cluster 1	45	Adaptability, connections, new, skills, social media, teamwork
Cluster 2	86	Advice, approach, attitude, caring, engage, LinkedIn, stress
Cluster 3	116	Business, entrepreneur, local, marketing
Cluster 4	82	Employee/employer, future, interview, personality, preparation, relationships, search, volunteer
Cluster 5	13	Friendship, online, professionalism, study, time (general), time management
Cluster 6	4	Critique/criticism, giving back, information
Cluster 7	7	Resources, use, way

The Delphi process confirmed the first five clusters (clusters 1 through 5), but the two smaller clusters (clusters 6 and 7) were removed from the analysis when researchers determined they did not add additional insights. Key themes in clusters 6 and 7 were subsumed across clusters 1 through 5.

The analysis revealed that while clusters often had similar key words, an examination of the anecdotal comments revealed different contexts and meanings. The five remaining clusters were renamed as follows:

Cluster 1: Self-Development, Cluster 2: Self-Expression, Cluster 3: Entrepreneurial Toolkit, Cluster 4: Self-Positioning, Cluster 5: Career & Life Management.

Given that all of the ECAs studied were offered by the Department of Business and Tourism, the overall focus was on future jobs and careers and how to best pursue such opportunities. However, all five clusters differed contextually by focusing on different aspects of student growth and development, essentially relating to two microsystems in the Jones Model: Extra Curricula Activity and Preparing for Life after Graduation (Jones, 2018).

The first cluster (Cluster 1: Self-Development) focused on self-development and personal growth by developing soft skills. Key reflections from researchers included the following kinds of self-growth: engaging with others; embracing change; building self-confidence; trying new things and being adaptable; gaining experience and connecting with community; building personal relationships by reaching out to others and expressing empathy; having a positive attitude that is internally mediated and that drives future development. Sample anecdotal comments from student feedback included the following:

- Being adaptable to changes is the most important thing I have learned.
- Success is never ending. It is not a fail(ure), but a learning opportunity.
- Always building relationships.
- Stay focused when something goes wrong.
- Don't forget empathy.
- You have to be able to adapt to problems that will arise as often as daily when you are working in the tourism industry.
- Learn how to care and empathize with customers.
- It is important to take every opportunity and encourage yourself to try something new, because you will always benefit by these valuable experiences.
- Must have the proper attitude, they can teach skills.

Researchers noted that this cluster of learning take-aways enabled students to learn about themselves as the “product”. How do they develop their own skills and resourcefulness to meet career goals? This cluster had an underlying context of embracing change and going boldly (fearlessly) forward.

The second cluster (Cluster 2: Self-Expression) focused on self-expression in search of job and career opportunities. Key reflections from researchers included the following kinds of self-expression: being engaging, pleasant, and caring; showing a positive attitude towards other (externally mediated); being personable and non-judgmental. This cluster related consistently to how to present oneself to be attractive to a future employer, essentially showing students how to “package” oneself for success. Sample anecdotal comments from student feedback included the following:

- “Hire the smile, train the skill”. Don't get discouraged if you don't have the skills or past experience. A good attitude outweighs someone with experience without a good attitude. Skills can always be taught.
- Everyone said it's all about attitude, skills can be taught, so don't stress about not having certain teachable skills.
- Present your own brand to the world.
- Take the risk. Educated risk.
- Engaging attitude during interview process.

Researchers noted that this cluster of learning take-aways enabled students to learn about how to package themselves for future success in industry. How do they create the correct packaging to market themselves (the product) to potential employers? This cluster contained more soft skills and aspirational themes related to self-expression. It was more about self-discovery than creating a checklist for how to succeed.

The third cluster (Cluster 3: Entrepreneurial Toolkit) focused heavily on business strategy and entrepreneurship. This cluster had the largest number of text fragments and the most reflective comments from researchers. Key reflections from researchers included: how to do business and how to be a successful entrepreneur; entrepreneurship is character-building; understanding risk and reward; having a sense of purpose and passion for the business; understanding the importance of business in the community and supporting local businesses. Sample anecdotal comments from student feedback included the following:

- I learned the qualities to be a leader in the business world.
- The most important thing I learned is that it's important to support local and there are many more steps that go into running a business than consumers see.
- This session helped me to understand the importance of the quality of the product, methods of marketing and small business organizations.
- How much work goes into a small business and the impact they have on our province/community.
- That persistence and market research are key when starting a business.
- How passion is a major driver when starting a business.
- The impact entrepreneurship has not only on one's own business but also affects the entire local economy.
- That it is very important to support small businesses and how such a big company can come from one small idea.

Researchers noted that this cluster of learning take-aways enabled students to relate their classroom learning to real-life business practices in their local community. This cluster was more about how to operate a successful business in a variety of industrial settings than about finding employment.

The fourth cluster (Cluster 4: Self-Positioning) focused on how to get a job in a desirable career and how to position oneself to be successful in the job search (a personal playbook). Key reflections from researchers included: how to find the right career – one that matches your personal values; how to match your personal brand to career opportunities; how to prepare for the job search; and how to position yourself for success. Sample anecdotal comments from student feedback included the following:

- I learned the qualifications employers are looking for and how to succeed.
- The most important thing I learnt was online presence and how I can brand myself online for my potential employers.
- I learned that how you present yourself truly has an impact on how others perceive you. Self-image and strong personal values are key.
- Just how important it is to make a good first impression when showing up for an interview and how important your first conversation is with the interviewers.
- How much importance is placed on volunteer experience and how important it is to be yourself. Staying true to your values as long as you are in the industry.

Researchers noted that this cluster described a checklist, or recipe, for navigating the job search process. While the second cluster focused on self-expression, this cluster focused on how to position oneself in the job market. The second cluster consisted of more aspirational themes, while this cluster focused more on readiness and procedure. While both clusters 2 and 4 dealt with promoting one's personal brand and finding the right fit, cluster 4 focused more on how to do so effectively.

The fifth cluster (Cluster 5: Career & Life Management) focused on how to manage one's career and life. Key reflections from researchers included: being self-aware by engaging in self-reflection and introspection; being professional and treating others with respect; managing one's time and resources appropriately; achieving a positive work-life balance; creating and maintaining a good reputation. Sample anecdotal comments from student feedback included the following:

- Importance of building relationships and maintaining a reputation of professionalism and respect.
- I learned that the importance of time.
- I learned studying is the foundation of a future career.
- How to learn more about myself. How to find a more suitable job for me.
- I learned how we can manage our time for study and work.

Researchers noted that this cluster of learning take-aways enabled students to see the big picture and to look beyond simply finding a good job after graduation. The context of this cluster was future-oriented focusing on long term goals. Students learned the importance of developing an internal locus of control and how to take agency over their lives and careers.

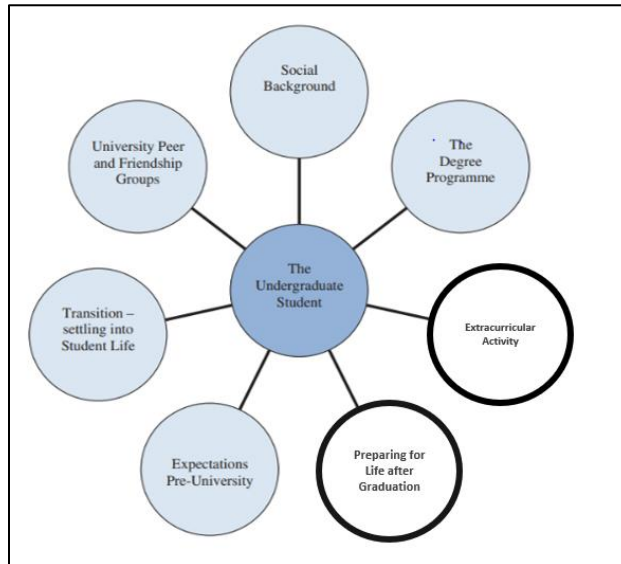
CONCLUSION

The main learning take-aways for students who participated in the four business and tourism ECAs in the LP program focused on different aspects of future success. Results showed that most student learning focused on soft skills rather than hard skills. Many of the soft skills evident in student feedback included those noted by Chulanova and Bogdan (2019), Jackson and Chapman (2012), and Korniienko and Barchi (2023). These soft skills included critical characteristics for modern day managers including self-development, self-awareness, emotional and social intelligence, time management, and leadership. These skills are essential for team building, conflict resolution, negotiation, career management, and life management. Jackson and Chapman (2012) also noted the importance of personal integrity and leading a values-driven lifestyle, where individuals take responsibility for their own actions. Managers with these qualities can lead by example and will treat others with dignity and respect, while remaining true to their personal values.

The results of this analysis revealed that the LP ECAs offered by the Department of Business and Tourism helped students to realize the importance of soft skills, which is the first step in developing them. The results also confirmed two microsystems within the Jones Model (2018). While the ECAs offered fit within the Extra Curricula Activity microsystem, the results also linked to Preparing for Life after Graduation microsystem. These results appear in Figure 2.

The Jones Model (2018) demonstrates that student experience is enhanced by the adding ECAs to a traditional classroom-based curriculum delivering “cultural integration, leadership, and teamwork” (Blotnick, et al., 2023, p. 550). This research demonstrated that soft skills are part of this enriched student experience.

Figure 2: Relevant Microsystems in Jones Model (2018) for Business and Tourism ECAs



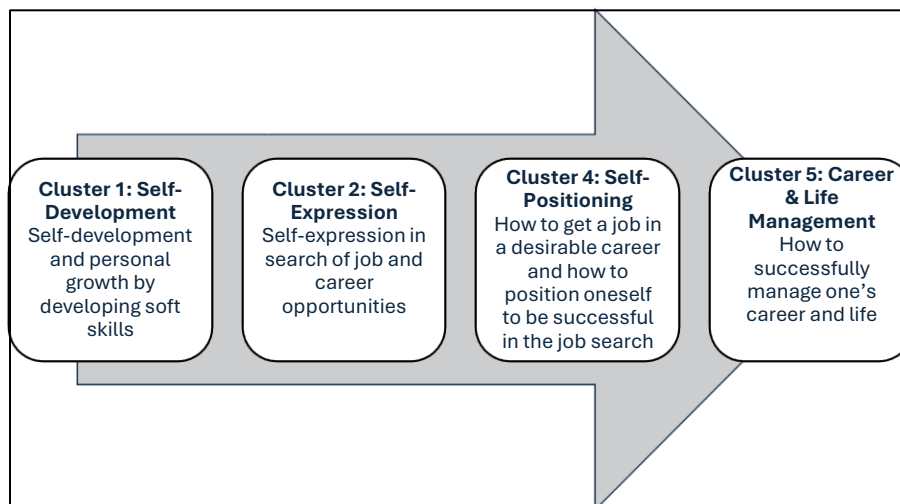
This was followed by the need to develop one's persona in the second cluster. Cluster 2 (Self-Expression) focused on personal branding, but on a macro level. Self appearance towards others was at the heart of this cluster, focusing primarily on externally mediated expression and behavior. Essentially, students learn to grow beyond the self-development in the first cluster, to becoming more externally self-aware in the second cluster. The focus of this self-expression was on making one marketable in the job search. It also focused on the importance of one's values-orientation in choosing a career.

This was followed by the fourth cluster in the progression. Cluster 4 (Self-Positioning), focused on how students position themselves effectively in the job search process. This was a checklist-

oriented learning process where students learned what was required to effectively network, to find appropriate career opportunities, and how to make a good first impression and manage a job interview. The learning from clusters 1 and 2 flow into the essential job search playbook in this cluster.

The last cluster in the career progression was the fifth cluster. Cluster 5 (Career and Life Management) focused on how to manage career relations (respect, professionalism, dignity). It also included time management and achieving a positive work/life balance. This cluster was big picture oriented and focused on lifelong success. A diagram of career progression learning from clusters 1, 2, 4, and 5 appears in Figure 3.

Figure 3: Career Progression Learning in Business and Tourism ECAs



Kanar and Bouckennooghe (2020) described self-efficacy in the student job search process as consisting of two different kinds: employment and job search. Employment self-efficacy relates to a student's ability to find a job, while job search self-efficacy refers to a student's ability to engage in the job search itself (p. 162). They note that both kinds of self-efficacy are important to student success and that both are enhanced by experience. In addition, their research showed that students who participated in ECAs had enhanced self-efficacy for both job search and employment when compared to students who had not experienced

ECAs (p. 168). These findings confirm the value of ECAs in helping students develop self-efficacy related to employment and job search, both of which appear to be delivered within the career progression learning provided in the business and tourism ECAs.

Cluster 3 (Entrepreneurial Toolkit) did not fit within the career progression learning evident in the qualitative analysis. This cluster focused primarily on business strategy, qualities of entrepreneurs, and an understanding of the importance of small business to the local economy. This cluster enabled students to relate their classroom learning to real-life business practices. As noted earlier, researchers have questioned the ability of traditional university classroom-based learning to deliver practical education in the professions (Amblee et al., 2023; Bennis & O'Toole, 2005; Bratianu et al., 2020; Costigan et al., 2015; Landa et al., 2021). The business and tourism ECAs were able to deliver experiential based learning that may link students' classroom learning to practical examples, which is in keeping with learning evident in the third cluster.

This research used a mixed methods approach to analyze the most important learning reported by students who experienced various ECAs activities offered by the Department of Business and Tourism. The results revealed that student learning captured issues and ideas focusing on career progression from self-development through to career and life management, as well as providing practical real-life examples of business operation relative to what is learned in a traditional classroom. It also reflected two areas of student experience captured in Jones Model (2018) microsystems: Extra Curricula Activity and Preparing for Life after Graduation. This research shows that the business and tourism extracurricular offerings in the LP program add value to the learning of students while also enhancing their student experience.

There are limitations to this research. This research is a case study focusing only on a specific set of extracurricular activities, at a specific point in time. This research was limited only to those students who participated in the LP program who had also completed a required survey about their participation to claim bonus points in eligible classes. Therefore, it is possible that the experiences differed for students who did not participate fully by completing the survey and/or providing feedback on their most valuable learning take-away. However, the results are very encouraging, and they provide more evidence in support of the value of ECAs in adding to student experience, providing a bridge between practical experience and classroom learning, and enhancing the employment and job search self-efficacies of undergraduate university students.

This research focused only on the ECAs delivered by one service provider: the Department of Business and Tourism. The LP program includes ECAs from other service providers as well, including Library, Career Services, Learning Strategist, and volunteer opportunity providers. Future research should focus on analyzing the main learning take-aways for ECAs offered by these partners. Also, future research could explore student learning in the post-pandemic environment. There may be changes in student take-aways from current ECA offerings compared to student experiences before COVID-19. Such research would lead to a better understanding of the overall value of the LP program and how it benefits students.

This paper examines the influence of extracurricular activities (ECAs) on student engagement, satisfaction, and post-graduation outcomes. It suggests that institutional strategic planning should prioritize student engagement and satisfaction by integrating opportunities for meaningful involvement in ECAs. Such strategic frameworks are instrumental in shaping university policy. The findings underscore the necessity for higher education policies to emphasize the student experience as a critical component in preparing graduates for life after graduation.

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APPENDIX

The percentage of text fragments for each of the themes occurring from the text-based analysis appears in the table below. Themes in italics had both statistically significant correlations with other themes and were included in the final cluster analysis. Themes that are not italicized were not included in the cluster analysis due to having non-significant correlations with other themes, having significant negative correlations, or having fewer than three correlating themes for a cluster. Themes that were not significant are noted with single asterisks (*) and those that were negatively correlated and/or not part of a cluster of three or more themes are noted with double asterisks (**).

Percentage of Text Fragments by Thematic Code Across the Four Business & Tourism ECAs (Sample size = 4 activities)				
Theme	Minimum	Maximum	Average	Std. Deviation
<i>Adaptability</i>	0.0%	3.1%	0.9%	1.5%
<i>Advice</i>	0.0%	0.8%	0.2%	0.4%
<i>Approach</i>	0.0%	0.8%	0.2%	0.4%
<i>Attitude</i>	0.0%	12.5%	3.1%	6.3%
<i>Business</i>	1.6%	38.8%	20.5%	20.8%
Career**	0.0%	9.4%	3.5%	4.2%

<i>Caring (to be caring towards something or someone)</i>	0.0%	0.8%	0.2%	0.4%
Communication**	0.0%	1.5%	0.9%	0.7%
Communities**	0.0%	8.3%	2.4%	4.0%
Confidence**	0.0%	2.0%	0.8%	1.0%
<i>Connections</i>	0.0%	2.3%	1.1%	1.3%
<i>Critique/criticism</i>	0.0%	1.7%	0.4%	0.8%
Different**	0.0%	3.3%	1.7%	1.5%
<i>Employee/employer</i>	0.0%	4.9%	1.8%	2.3%
<i>Engage</i>	0.0%	0.8%	0.2%	0.4%
<i>Entrepreneur</i>	0.0%	28.8%	8.0%	13.9%
Experience outside of the classroom**	0.8%	8.8%	4.5%	4.0%
Find*	0.0%	2.5%	1.5%	1.2%
Focus*	0.0%	1.6%	0.7%	0.8%
<i>Friendship</i>	0.0%	1.0%	0.2%	0.5%
<i>Future</i>	0.0%	2.9%	1.3%	1.5%
<i>Giving Back</i>	0.0%	1.7%	0.4%	0.8%
Goal**	0.0%	3.9%	2.3%	1.9%
Theme	Minimum	Maximum	Average	Std. Deviation
Impact*	0.0%	6.7%	1.8%	3.3%
Important**	4.4%	14.2%	9.9%	4.1%
<i>Information</i>	0.0%	1.7%	0.4%	0.8%
<i>Interview</i>	0.0%	7.8%	3.5%	4.1%
Jobs**	0.8%	7.0%	3.7%	3.2%
Leader**	0.0%	1.5%	0.7%	0.8%
<i>LinkedIn</i>	0.0%	1.6%	0.4%	0.8%
<i>Local</i>	0.0%	18.8%	8.6%	9.7%
Management**	0.0%	2.5%	1.6%	1.1%
<i>Marketing</i>	0.0%	5.0%	1.8%	2.3%
Networking**	0.0%	12.3%	4.2%	5.5%
<i>New</i>	0.0%	0.8%	0.3%	0.4%
<i>Online</i>	0.0%	2.9%	0.7%	1.5%
Opportunity**	0.8%	11.7%	4.9%	4.9%
Passionate**	0.8%	2.5%	1.6%	0.8%
Persistence*	0.0%	10.0%	2.7%	4.9%
<i>Personality</i>	0.0%	2.5%	1.0%	1.2%
<i>Preparation</i>	0.0%	5.4%	1.9%	2.6%
<i>Professionalism</i>	0.0%	1.5%	0.4%	0.7%
Professionals (industry)**	2.5%	7.5%	5.1%	2.1%
<i>Relationships</i>	0.0%	1.5%	0.6%	0.7%
Research**	0.0%	1.7%	0.9%	0.7%
<i>Resources</i>	0.0%	1.3%	0.3%	0.6%
<i>Search</i>	0.0%	1.5%	0.6%	0.7%
<i>Skills</i>	0.0%	9.4%	3.8%	4.6%
<i>Social media</i>	0.0%	1.6%	0.5%	0.7%
Strategy/STARS**	0.0%	3.8%	1.1%	1.8%
<i>Stress</i>	0.0%	0.8%	0.2%	0.4%
<i>Study</i>	0.0%	1.0%	0.2%	0.5%

Successful*	0.8%	5.0%	2.0%	2.0%
<i>Teamwork</i>	0.0%	0.8%	0.3%	0.4%
<i>Time (general)</i>	0.0%	0.5%	0.1%	0.2%
<i>Time management</i>	0.0%	1.0%	0.2%	0.5%
Tourism**	0.0%	7.8%	4.2%	4.0%
Understand*	0.0%	1.7%	0.7%	0.9%
<i>Use</i>	0.0%	1.3%	0.3%	0.6%
<i>Volunteer</i>	0.0%	2.9%	0.9%	1.4%
<i>Way</i>	0.0%	2.5%	0.6%	1.3%

PERSONAL FINANCIAL MANAGEMENT IN A CHANGING ECONOMY

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ABSTRACT

The United States (U.S.) economy is undergoing significant changes. Consequently, personal financial management requires an understanding of economic changes and new strategies for the future. This paper begins with a brief review of the U.S. economic performance over the last five years and a study of U.S. economic outlook for the next five years. It is followed by a discussion of the importance of a good financial plan and the advantages of strategizing for the future. Our discussion includes an overview of economic cycles, performance during economic fluctuations, and taking a long-term perspective. It also includes preparing and reviewing personal financial positions, which outlines total assets, total liabilities, and net worth. We discuss the usefulness of the financial tools which are easily available and their application in preparing effective financial plans. Risk management is an essential part of financial planning which necessitates a review and reorganization of the investment portfolio with a goal of earning competitive rates of returns at a reasonable level of risks. Overall, a good financial plan is emphasized for achieving peace of mind and maintaining and improving good living standards.

Key words: Economic changes, personal financial plan, financial management, risk management.

INTRODUCTION

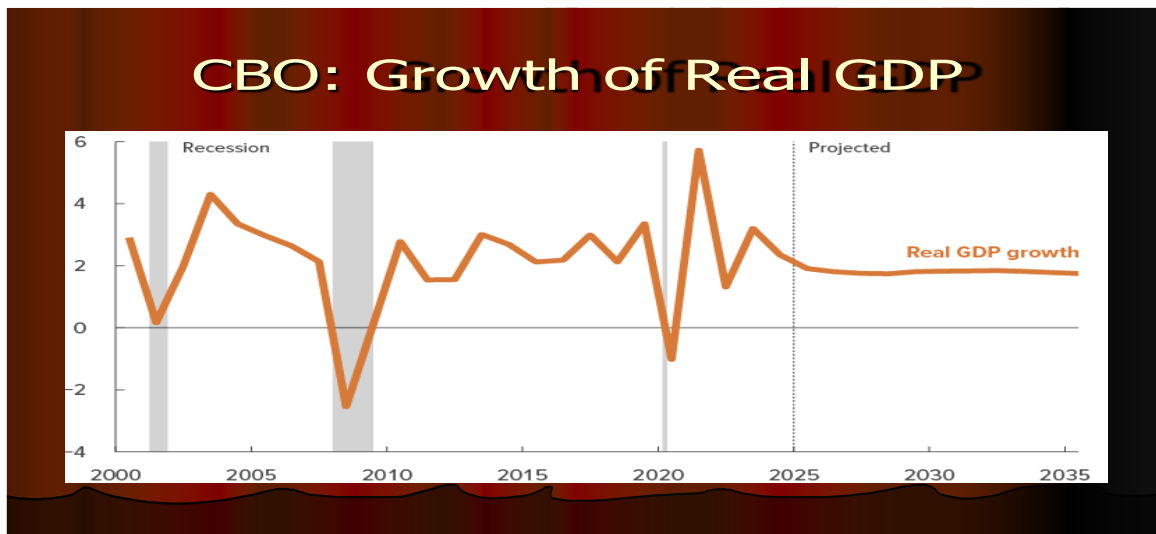
The U.S economy has been experiencing fluctuations for the last few years, especially during the last couple of years. In 2023, the World Economic Forum's survey for its Chief Economists Outlook report showed that two-thirds of the economists believed that a recession was likely in 2023. However, the economy performed better than expected and there was no recession. In 2024, the gross domestic product (GDP) grew by 2.8%, the inflation was 2.9%, and the unemployment rate was 4.1% which appears to be a good performance for our economy. In 2025, the economic outlook for our economy is continued growth but there are uncertainties about the policies as recently indicated by markets. Dow Jones started the month of February 2025 at its highest level of 44,882 on 30th January and closed at 42,521 on 4th March 2025 with several swings within this period. More recently, Dow Jones started the month of April at 42,225 on 2nd April, went down as low as 37,645 on 8th April, and rose again to 42, 212 on 11th April. The fluctuations in our economy and the uncertainties in the markets call for consumers to be cautious and plan for future.

United States Economic Performance and Outlook

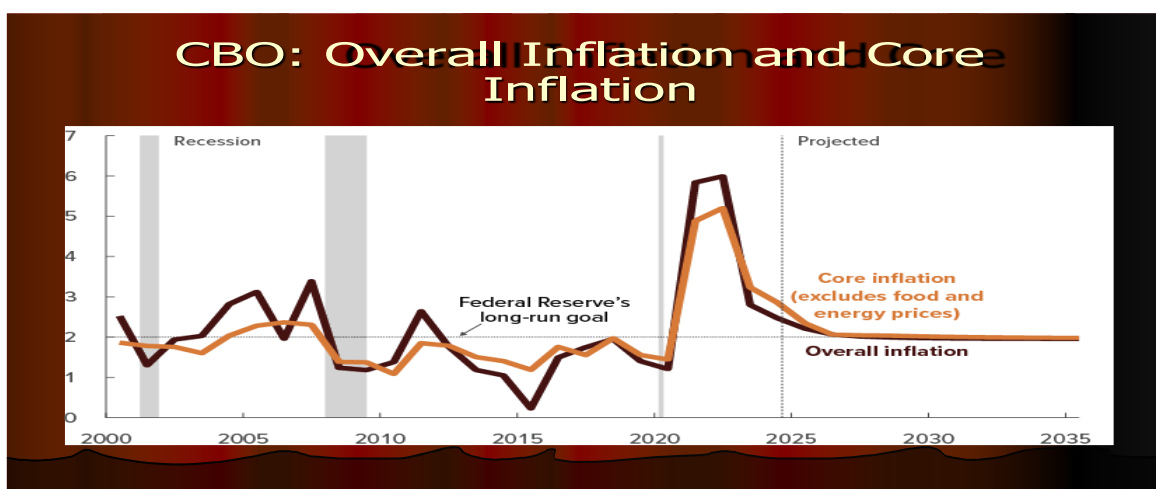
Congressional Budget Office (CBO) is a nonpartisan federal agency, and it provides budget and economic analysis to Congress. According to The Budget and Economic Outlook: 2025 to 2035 published by CBO, Gross Domestic Product (GDP) is expected to moderate in 2025 and is

projected to continue to grow at a moderate rate in 2026 as consumer spending slows. Inflation (price increase) is expected to be lower (2.2%) in 2025 than 2024 (2.5%). CBO is expecting that FED will lower the federal funds rate in 2025 and 2026. The unemployment rate is expected to increase to 4.3% by the end of 2025 and 4.4% by the end of 2026. In later years, the unemployment rate is expected to be 4.3% at the end of 2035.

The following are the more details about the CBO projections:

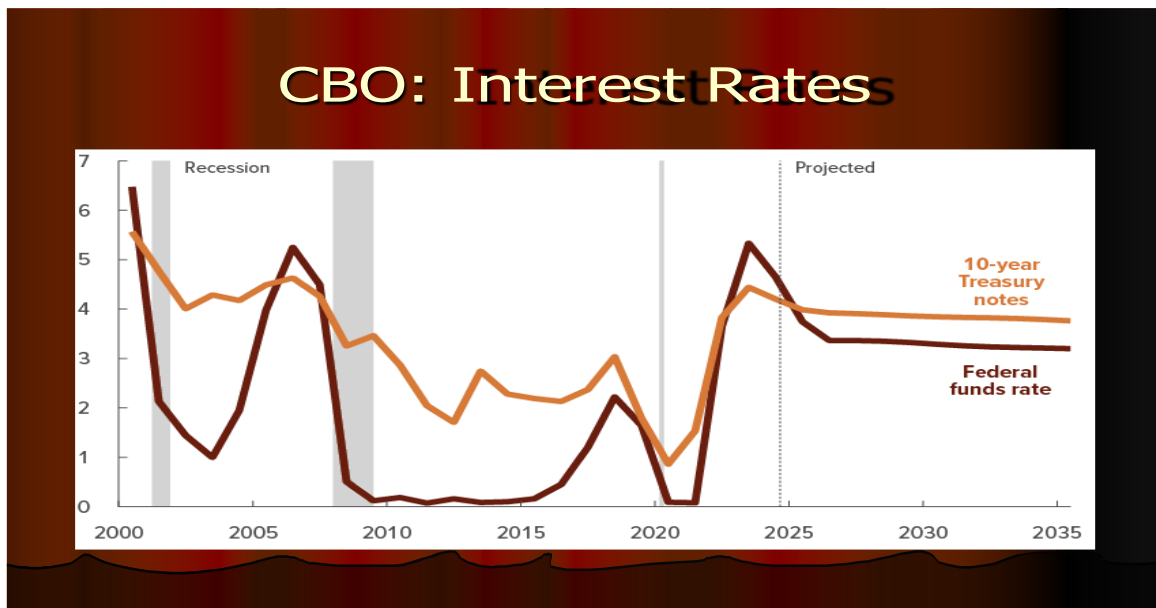


Gross Domestic Product (GDP) indicates the value of goods and services produced by a country during a specific period. The GDP adjusted for inflation is called real GDP and is shown in the above chart. The US real GDP is expected to increase at a moderate rate of a little more than 2% in 2025 and continue to grow at this moderate level in 2026. The moderate growth is expected to prevail in coming years. The inflation and core inflation (inflation excluding food and energy prices) are also expected to be at a moderate level as shown in the following chart:

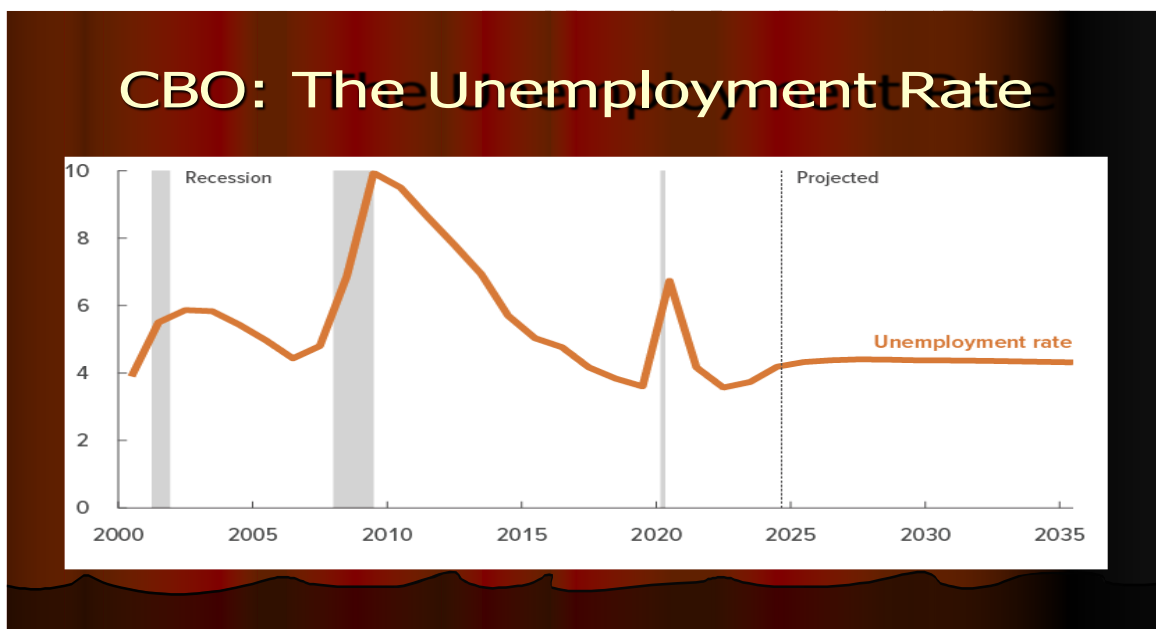


We have experienced high inflation of 6 to 7 percent accompanied by rising prices in previous years but inflation is expected to be under control and close to the Federal Reserve goal of about

2%. This is good news for our economy and for our consumers because high inflation causes high cost of funds or interest rates, constrains consumer spending, and slows down the economy. The interest rates are also expected to stabilize as shown in the following graph:



In addition to the interest rates, the unemployment rate is also going to be at a moderate level. The normal unemployment rate is about 4 to 6 percent and it reflects full employment level. At this level, all or most of the citizens looking for work can find work and are employed. As shown in the following chart, the current unemployment rate is about 4.3% and is going to be about 4.3% or 4.4% in coming years:



The Importance of a Good Financial Plan:

The importance of a good financial plan cannot be overemphasized. It prepares us to operate in a fluctuating economy and uncertain environment as we are currently experiencing. We would like to continue to enjoy good living standards and focus on our lives, families, and things dear to us as our economy realigns to the new environment. A good financial plan also allows us to take advantage of opportunities that might be available from time to time. For example, we can use our savings and invest in safe and undervalued securities as financial markets react to new events in our economy and on the global stage. I still think about the real estate market in 2008 and 2009 and wish that I could have invested in real estate during those times. It would have helped me a great deal with my financial position and retirement planning.

Just starting to think about financial planning can bring good feelings to us. Some of us might have never thought about a financial plan and how important it is for us to maintain and improve our living standards. So, as we sit down and look at our financial picture, which includes our assets, liabilities, income, and expenses, we might be happily surprised that we have been doing good, and we can do even better if we work a little harder on managing our finances. Or we might be looking at a financial picture that is not very pleasant and accept it as a challenge. We can prepare a plan to achieve our long-term and short-term goals with the resources currently available to us and utilize our resources more effectively and efficiently in future. Either way, we will be working towards a brighter future and be comfortable so that we are making our best efforts to be financially successful.

Knowledge of our current financial position and clear long-term and short-term goals will be beneficial in confidently making our financial decisions. For example, we can clearly decide if we can take more risks, invest in risky securities, and increase our rates of return. For another example, we can be unhesitant in deciding when to retire from our hectic lives. We may not have to be so concerned or worried as we spend money on our preferences such as undertaking home improvement projects, supporting charity organizations, helping our family, etc. On the other hand, if the financial picture is not so great, we can tighten our belts and rest assured that we will be able to build a good financial future by working on a good plan.

A good financial plan also has a good psychological impact on our daily lives. Our feelings and reactions to the new developments could be more positive or less negative. Any anxieties and stress would have a minimal impact knowing that we are financially prepared. We can imagine the impact on investors and consumers as our current administration-imposed tariffs on foreign countries and they reacted to our tariffs. Although the financial markets recovered after the initial sell-off, our lives would be less stressful if we were financially prepared for such events which are expected in the current environment.

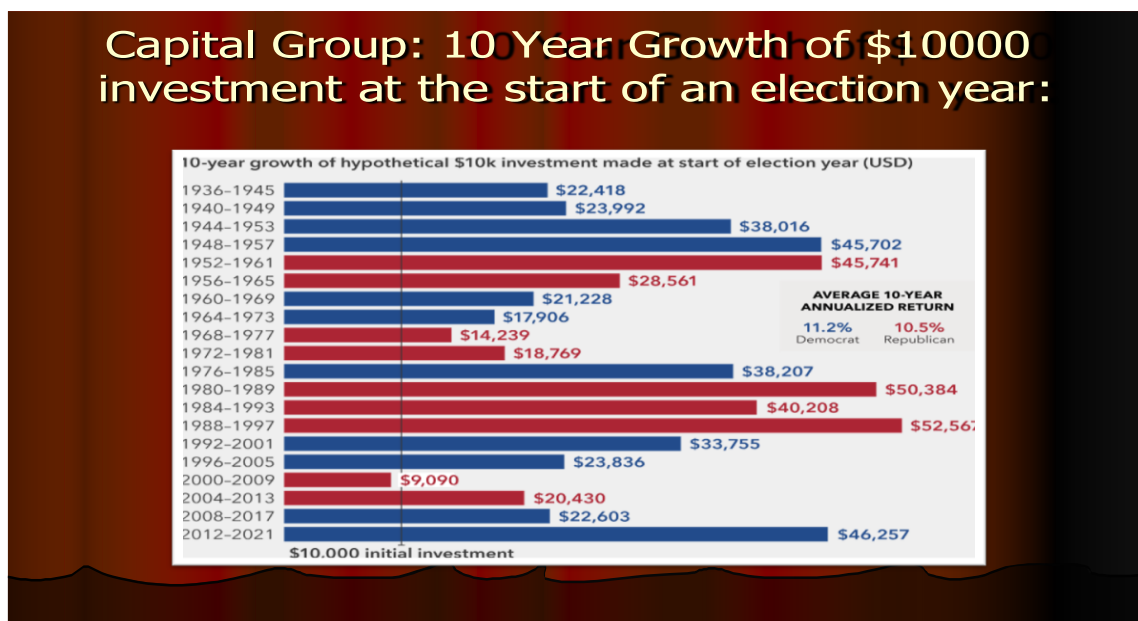
Our behavior also impacts our society in that we interact with other members of society in our daily lives. So, we spread confidence and happiness if we are happy, and it could at least partially be attributed to our financial security. Our family and new generation will also be happy as we become financially secure, generate wealth, and provide financial resources for them. It seems that all these benefits are worth sitting down and spending some time on preparing a good financial plan.

Managing Personal Finance:

We have been watching and listening to the news. We are concerned about the fluctuations and uncertainties in the financial markets. We do not know what is going to happen with new tariffs and new policies our new administration is going to implement. We want to be aware of what is happening around us and the current developments, but we should not repeatedly watch the news. The news organizations are doing their jobs and providing us with the current news. It might be a good idea for us to review our financial position and plan for future if we have not already done so.

We can manage our concerns by remaining calm when we get the news so that we can make logical financial decisions. One of the strategies could be to know more about the situation, research possible solutions to the issues we want resolve, and select the best possible option. In the context of financial uncertainties, it might be a good idea to study and gain some knowledge about the economy, financial markets, and our specific goals and objectives. We are not trying to be finance experts, but knowledge is helpful in recognizing our current situation and finding ways to achieve our goals despite the fluctuating financial markets. Of course, we can seek help and hire finance experts, but we should be able to effectively communicate with them so that they can help us.

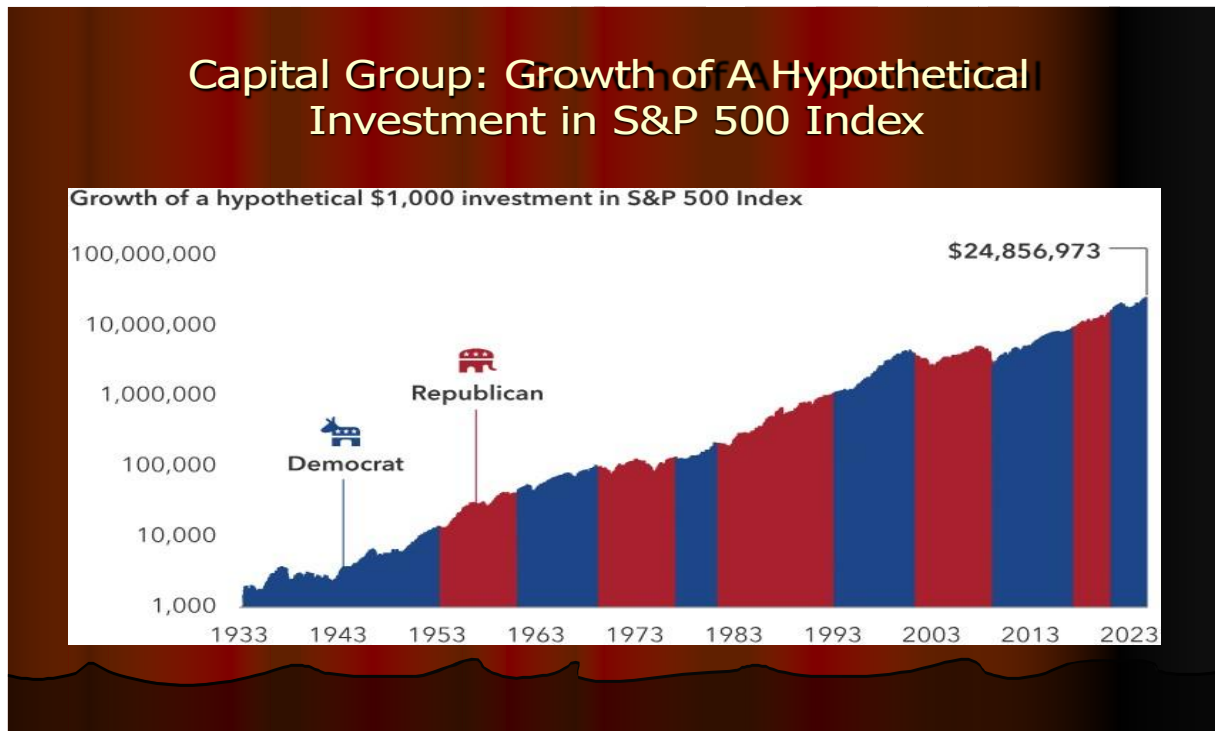
As we start or review our financial planning amid the current financial uncertainties, we want to start on some positive note by reviewing the historical information. Let us not forget that we have been through the Great Depression in 1930s and, more recently, the Great Recession in 2008. We have survived these times which were much more difficult than what we are experiencing today and, therefore, it should not be very hard to operate in the current situation. So, let us look at some historical financial information:



The above chart published by Capital Group shows the growth of \$10,000 investment over 10-year periods. The good news is that the investment has been growing every

10-year period since 1930s under both Democrat and Republican administrations. So, our economy has been producing good results over the long term although there have been swings during the short term. The point is that we should take a long-term perspective as we manage our finances and plan for the future.

The following graph published by Capital Group shows the growth of investment in S&P 500 Index :



Once again, the investment in S&P 500 Index continued to grow since 1930 despite cyclical ups and downs in our economy and under both Democrat and Republican administrations. Therefore, we should keep in mind that the fundamentals of our economy are strong although we must go through the economic cycles.

After looking at the big picture such as historical information which is a comfortable feeling, current state of the economy and economic indicators such as GDP, inflation, interest rates, unemployment rate, etc., we want to get to the specifics of our personal financial position. We can update the financial position if we have been preparing our personal financial statement or we can just get started, it is never too late to start thinking about our financial future.

Our financial statements include balance sheet and income statement. In the balance sheet, we include all of our assets such as cash, checking and savings account balances, investments in short-term and long-term securities, retirement (401K) accounts, real estate investments including the house we own, automobiles, and any other assets might own. On the other side of the balance sheet, we include our liabilities or the money we owe such as home mortgages, amount owed on home equity line of credit, car loans, student loans, credit cards, unpaid taxes, any other unpaid

expenses, etc. The difference between the total assets and total liabilities is equal to our net worth. It simply means that we have this amount of money available to us after paying off all of our debts. In the income statement, we include income such as salary, income from other jobs, income from other work such as consulting, income from investments such as interest or dividends, rental income, etc. We also include expenses in the income statement such as rent, groceries, car expenses, fuel, insurance, personal expenses, etc. The income statement shows us whether our income is more or less than our expenses. If our income is more than our expenses, which should be the case because we should not be spending more than our earnings, we should think about savings and investments, and it should be a part of our financial planning.

It might be a little difficult, especially if we are just getting started, to prepare our personal financial statements. The good news is that there are several personal financial statements templates available online and we can download them to prepare our personal financial statements. All we need to do is update the items according to our needs and fill in the amounts and we are done! Here is an example of a personal balance sheet template that can be downloaded from www.wallstreetmojo.com

Balance Sheet as at			
Assets	\$	Liabilities and Net Worth	\$
Cash in Hand	\$0.00	Real estate Mortgages	\$0.00
Cash in Bank	\$0.00	Loan taken Against Life Insurance	\$0.00
Real Estate	\$0.00	Car Loans	\$0.00
Automobiles	\$0.00	School Loans	\$0.00
Savings Account	\$0.00	Credit Cards	\$0.00
Notes Receivable from Business	\$0.00	Unpaid Taxes	\$0.00
Non-Readily Marketable Securities	\$0.00	Other Liabilities	\$0.00
Retirement Accounts	\$0.00	Net Worth	\$0.00
Other Assets	\$0.00		
Total Assets	\$0.00	Total Liabilities	\$0.00

Interested readers may download an income statement from this website.

Personal Financial Planning:

Once we know our current financial position and our income and expenses, we can plan for our future to make sure that we continue to enjoy our current living standards and probably improve our living standards. We should start by setting clear short-term and long-term goals. They might include buying a house, buying a car, sending our kids to schools and universities, savings for retirement, making contingency plans to pay for unexpected expenses or emergencies, taking vacations, traveling, paying off debt especially high-interest rate credit cards, etc. We

should make sure that our goals are realistic and are achievable based upon our current financial position, income, expenses, and savings.

After setting clear and realistic goals, we should develop plans of actions for achieving the goals. For example, it is good to talk to a real estate agent and get some information if we want to buy a house. But before doing so, we should take some time and think about several variables such as the location, size, type of the house (single family, single or double story, condominium), etc. After getting clear ideas about these variables, we should carefully review our financial position and see if we can afford our dream house. We really do not have to be finance experts to analyze our financial position and evaluate the house we can afford. There are many online tools available, and they are very easy to use. A mortgage calculator needs only some input such as mortgage amount, mortgage term, interest rate, etc., and can provide us with the information we can use to evaluate about the affordability of a house. For example, the following mortgage calculator from www.mortgagecalculator.org is available online:

MORTGAGE CALCULATOR

ENTER VALUES		LOAN SUMMARY	
<i>Loan amount</i>	\$300,000.00	<i>Scheduled payment</i>	\$1,610.46
<i>Interest rate</i>	5.00%	<i>Scheduled number of payments</i>	360
<i>Loan term in years</i>	30	<i>Actual number of payments</i>	11
<i>Payments made per year</i>	12	<i>Years saved off original loan term</i>	29.08
<i>Loan repayment start date</i>	4/19/2025	<i>Total early payments</i>	\$0.00
		<i>Total interest</i>	\$12,431.66
<i>Optional extra payments</i>	\$0.00	LENDER	

PMT NO	PAYMENT DATE	BEGINNING BALANCE	SCHEDULED PAYMENT	EXTRA PAYMENT	TOTAL PAYMENT
1	4/19/2025	\$300,000.00	\$1,610.46	\$0.00	\$1,610.46
2	5/19/2025	\$299,639.54	\$1,610.46	\$0.00	\$1,610.46
3	6/19/2025	\$299,277.57	\$1,610.46	\$0.00	\$1,610.46
4	7/19/2025	\$298,914.09	\$1,610.46	\$0.00	\$1,610.46
5	8/19/2025	\$298,549.10	\$1,610.46	\$0.00	\$1,610.46
6	9/19/2025	\$298,182.59	\$1,610.46	\$0.00	\$1,610.46
7	10/19/2025	\$297,814.56	\$1,610.46	\$0.00	\$1,610.46
8	11/19/2025	\$297,444.99	\$1,610.46	\$0.00	\$1,610.46
9	12/19/2025	\$297,073.87	\$1,610.46	\$0.00	\$1,610.46
10	1/19/2026	\$296,701.22	\$1,610.46	\$0.00	\$1,610.46

This calculator requires us to only input the loan amount, interest rate, loan term in years, and payments made per year, and gives us information about the monthly payment, the breakdown of the payment into amount of interest paid and the repayment of the principal, etc. Similarly, there

are other financial calculators available online which can be used to calculate payments for car loans, student loans, etc. There are also online tools available which can be used for retirement planning. The idea is, as we have discussed earlier, that we should be knowledgeable about and actively participate in planning for our future. We gain knowledge and peace of mind knowing that we have a strong financial plan, and we can withstand the fluctuations in our economy.

CONCLUSION

An important part of our financial planning is risk management. We must have contingency plans to get us through any difficult times. For example, we should have a comfortable level of funds available to pay for any emergencies such as layoffs, health issues, etc. The level of funds we should have depend upon our location, living standards, family situation, etc. but it is very important to have some funds available and it should be a part of our financial planning. These funds do not have to be in cash but can be invested in liquid securities so that they can be easily converted into cash at a very short notice, at market value, and still earn some returns on our investments. A good option is to have some lines of credit such as home equity line of credit (HELOC) which provide us with funds when needed but we do not have to pay any interest unless we borrow funds. We should also review and update our insurance policies from time to time to make sure that we are sufficiently covered against any eventualities. The premiums we pay for insurance also keep changing and we should make sure that we get the best possible insurance coverage at a competitive price. For example, insurance companies usually change coverages and premiums after some acts of nature such as wildfires and earthquakes because they have to pay significant amounts of money to the insured. We should regularly, especially after the insurance companies change their policies and premiums, review and update our insurance policies.

Another important part of our financial planning is our investment portfolio management. The market conditions change continuously, especially in today's dynamic environment, and we must keep up with the current environment. The securities that we selected in the past may not be so conducive to our current financial plans. There might be new and better opportunities more suitable to our needs. The level of risk we are willing to take also changes with the economic environment. For example, in today's fluctuating economy, we may not want to invest in very risky securities because the potential losses could be much more than we are prepared to afford. Our risk tolerance also changes with time as we get closer to retirement. We are usually able and willing to take more risks during young ages because we have time to make up for any lapses before we retire. But we may not be prepared to take high risks if we are close to retirement because our retirement plans could be adversely impacted if we incur any significant losses. It is a good idea to get some help from a financial advisor, but we should work closely with them to make sure that our investment portfolios fit well in with our financial plans.

The knowledge of our current financial position, clear short-term and long-term goals, and realistic financial planning should be helpful in achieving peace of mind that we will be able to maintain and improve our living standards. It is very important to keep up with our healthy lifestyles to deal with any anxiety and stress caused by the recent economic events. So, let us take a long-term perspective, remember that fundamentals of our economy are strong, and we are going through a natural economic cycle.

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SIDETRACKING THE NURSING SHORTAGE: KEY DRIVERS

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ABSTRACT

This data driven case study reveals the processes used by Debbie Burns, a HR Business Partner, employed by the nonprofit Lincoln-Kennedy Hospital, who attempts to meld her experience with what she learns from professional meetings, peer interviews, and data compiled on advertisements used to recruit registered nurses (RNs). She is savvy enough to know that there are major forces at work that impact the supply and demand of RNs and in consulting her peers finds they are in some agreement as to factors that affect the impending nursing shortage—estimated at more than one million by the end of the decade. To that end, she examines some selected data on the number of candidates taking the NCLEX-RN examination over time, reviews the Willis Towers Watson Global Workforce Reports, conducts interviews with human resource specialists from a local hospital and an assisted living community. In the final analysis, she examines nearly 250 statements extracted from nursing advertisements and places them into multiple organizational categories: Intrinsic and Extrinsic Motivators; Mandatory and Voluntary requirements; and Attraction, Retention, and Engagement drivers. The story invites the reader to join into a larger discussion of nursing shortages and what is happening generally in the U.S. health care industry and invites a robust discussion of what can be done to alleviate the impending nursing shortage crisis. The case concludes with a probative set of **Questions and Instructions** and invites an analysis of how these many factors might fit into a sustainable engagement analysis]

Keywords: Registered Nurses, Health Management Issues, Intrinsic and Extrinsic Motivators, Sustainable Engagement, Medicare and Affordability Care Act

The Foundation for an Analysis of The U.S. Nursing Shortage Problem

Debbie Burns, HR Business Partner at Lincoln-Kennedy Hospital, spends much of her workday strategizing the hospital's plan of action in response to an impending nursing shortage in the United States. As a member of the American Nursing Association (ANA) she frequently consults with other human resource departments about the forecasted shortage of registered nurses (RN's). As an attendee to a recent regional conference of clinic, hospital, assisted living, and other health care organizations, a director of nursing stated that the upcoming nursing shortage in the United States could reach one million nurses over the next decade, due mainly to "baby boomer" retirements, an overall aging population (50.9% of RNs are over 50 years of age), an increased patient load and nursing experience deficit. Additionally, nursing separation levels are high due to their dissatisfaction with patient quality of care and their own quality of personal life. Simultaneously, the Medicare rolls have increased as Baby Boomers age, the Patient Protection and Affordable Care Act (PPACA) brought more patients into the health care system, and nurses are finding many new specialties for their talents in the field of geriatrics, informatics and care coordination. And finally, in an aging nation with the number of U.S. residents projected to jump to 83.7 million, the nursing care for individuals with chronic diseases and comorbidities will become more pronounced.

Debbie reviewed the data presented during her session, as shown in Table 1, and found the information displayed for the years 2008 through 2019 to be informative and, simultaneously, disconcerting. She wondered what major organizational forces that might be at work if the nursing shortage were to be addressed nationally, and more specifically, what might she do at her own facility. Debbie learned at the conference that registered nursing was in the top job-growth categories used by the Bureau of Labor Statistics (BLS) and was projected to grow from 2.9 million RNs in 2016 to 3.4 million RNs by 2026—a 15 percent increase or the need for 438,100 new nurses.

Table 1. Top Attraction Drivers by Degrees

Table 1. Number of Candidates Taken the NCLEX-RN® Exam												
First-Time, US Educated Candidates Only												
Program	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
2018 Diploma	3,666	3,677	3,753	3,476	3,173	2,840	2,787	2,607	2,745	2,222	1,968	2,247
Baccalaureate	49,739	52,241	55,414	58,246	62,535	65,406	68,175	70,857	72,637	75,944	79,235	84,298
Associates	75,545	78,665	81,618	82,764	84,517	86,772	86,377	84,319	81,653	79,511	82,000	84,794
Total	128,950	134,583	140,785	144,486	150,225	155,384	157,339	157,843	157,035	157,677	168,238	171,387
% Passing	86.70%	88.42%	87.41%	87.89%	90.34%	83.04%	81.78%	84.53%	84.57%	87.11%	88.29%	88.18%
Source: NCBSN, 2008 through 2019												

Compounding the shortage of qualified nurses, Debbie found that there were an insufficient number of qualified faculty, classroom space, clinical sites and preceptors, and to exacerbate the problem, U.S. nursing schools had turned away 64,067 qualified applicants from baccalaureate and graduate nursing programs in 2016, and 75,000 in 2018. Yet, and paradoxically, there were 49,000 vacant seats in baccalaureate and graduate nursing programs in 2018. To offset this trend, Debbie found that at least one nursing school in her state had taken steps to ensure employers have a direct pipeline of qualified prospective employees. The school increased enrollment caps and moved toward an on-line, accelerated education program to reach as many interested individuals as possible. In addition to offering on-line programs, arrangements with several four-year colleges and universities allowed nursing students to attend affiliate institutions for three years, and then, to complete a BSN at a nursing school in fifteen months.

Debbie went to the academic and professional literature and found data from Willis Towers Watson, a leading global advisory multinational risk management company, information which employers need to understand in order to develop talent and reward programs for growth. She found three areas of guidance recommended for employer hiring practices that would be in alignment with employees' expectations: Attraction, Retention, and Engagement drivers.

The goal of recruitment is to get well-qualified, prospective employees to consider the job opening. These drivers include the reputation of the employer, base salary, job security, and, among others, advancement opportunities. The second driver is engagement – once an employee has been onboarded, specific initiatives must be implemented to keep the employee connected to the organization. Engagement factors are largely controlled or significantly influenced by the employee's manager through factors such as job assignments, trust, recognition, and day-to-day communications. The last driver is retention – how to retain the employee for the long term. These drivers can be placed into intrinsic motivators (how the employee perceives their efforts and overall contribution), and extrinsic motivators (external to the work itself and beyond individual control; that is their magnitude and provision and are usually financial), or both.

Debbie found much of the literature she had surveyed to reinforce her own experiential judgment. For instance, she felt prospective employees who have an “intention and opportunity to join” an organization are interested in wage/salary, job security and advancement opportunity and that Millennials were particularly interested in having job work/life balance and flexibility, challenging work, and working for

an organization that has a good reputation on social, economic and environmental issues. In summation, Debbie's views on recruitment were succinctly presented in her frequent admonition to colleagues: "Remember, retention is the new form of recruitment!"

After reviewing this information, Burns had several lengthy discussions with colleagues at similar-sized facilities and asked her peer human resource specialists how they were planning to deal with the shortage of RNs in the future.

Interviews with HR Managers

In order to gain some perspective on the current state of RN recruitment and what her peer, regional organizations were doing to attract, retain and engage their staff, Burns reached out to Jane Carter, a HR Specialist at a local hospital and Carol Bennett, a HR Manager at a local senior living community. She asked both of them what they emphasized in their job postings to attract applicants. They were in agreement that "...in addition to the duties, skills, and educational requirements that are standard for a job posting, it is important to include information about the culture of the organization, the type of work environment the applicant can expect to work in, and the benefits that are offered." Bennett described her job postings as "invitations" to an applicant since her facility wanted to be "employer of first choice for RNs" looking for a job. Additionally, both Carter and Bennett referenced similar qualities they look for in the pool of applicants beyond holding a current RN license: the license must be in good standing, meaning no disciplinary action by the state board of nursing. They also emphasized the importance of having previous experience in their respected setting (the hospital or in long-term care), and that tenure (length of service) with their current and/or previous employers was preferred.

Debbie then inquired into the sensitive issue of whether either facility was experiencing difficulties or challenges in finding qualified RNs. In this area they were at different ends of the motivational spectrum: Carter said that because their pay and benefits offered at the hospital, which is above the regional level, they have a significant applicant pool. Whereas Bennett said they have had a difficult time finding RNs but had success from internal referrals which she thought was due to the low unemployment rate and the number of openings for RN positions in the area. Since pay and benefits have been positive attractors for Carter, she did not foresee any changes in the available RN workforce over the next 5-10 years. Bennett however, said that since they were experiencing challenges now, they anticipate those challenges to continue. She also said it was important to support staff who wanted to pursue their RN license through associate or bachelorette degree programs. In addition, she mentioned the importance of networking and collaborating with local high schools and community colleges, and that these relationships might pay dividends and attract qualified candidates in the future.

Once the applicant is hired, the onboarding experience becomes very important. In this area, Carter and Bennett took different paths to retaining and engaging their staff. At the hospital, Carter said there are a number of financial benefits offered to RNs, such as wage step increases, shift differential, vacation pay, holiday pay, monetary awards for completing certifications, and scholarships for continued education. Bennett said that in her community they focus on providing a supportive environment for their staff, especially if they are dealing with difficult life issues. They also offer events and awards for employees, and have a store where employees can donate and take items for no payment. However, they both agreed that to strategically prepare for the upcoming shortage, they needed to focus on three specific drivers that had been identified in the literature: attraction, retention, and engagement of prospective and current employees.

Debbie's interview with the human resource specialists also revealed that they were familiar with many of the "modernized recruitment and retention" strategies that they had heard from their nursing staffs. They viewed many of the inducements mentioned as "perks." The following items, were mentioned by Carter

and Bennett, and illustrate the wide range of benefits that were discussed in staff meetings dealing with recruitment: Subsidizing to free housing, tuition reimbursement, loan repayment, specialty nursing certifications, shared governance programs, knowledge bonuses (high level education, experience and need job skills), strong mentoring and preceptor programs, relocation costs, sign-on bonuses, employee referral bonuses, scholarship programs, transition programs, team work, and, of course, the traditional recruitment fairs and events. Although, the list of novel ideas was excitingly entrepreneurial and innovative from Debbie's vantage point, given the limited financial resources of Lincoln-Kennedy they were little more than "Pie-in-the sky" suggestions.



In wrapping up interviews, the interviewees noted that simple arithmetic calculations would show that all baby boomers will at least reach the age of 70 by 2030, and that the U.S. population in the age bracket of 85 and older would more than double by that same time. Collectively, they wondered about the relationship between the number of RNs required and the increased aging population covered by Medicare (with access to health services), the expected high rates of diabetes, asthma, heart disease, Alzheimer disease, and other chronic, and debilitating diseases, and the complications associated with staffing underserved areas and populations of the United States. They were especially concerned about nursing availability in rural and small-town areas, places of high poverty rates, opioid addiction, depression and other mental health problems. Of course, they concluded, these complex variables would affect nursing supply and demand. Nevertheless, for now, they would stay in their own "lanes" deal with those key issues facing recruitment and retention that they could directly influence in their own health care organizations.

Major Workforce Drivers: Attraction, Retention and Engagement

Whether looking from an employer or an employee viewpoint, a 2016 Willis Towers Watson report found many of the attraction drivers are important to both groups. Apart from the organization's mission, vision and values from an employer's perspective, and health care and wellness benefits from an employee's view, the same attraction drivers that are important to employers are also important to prospective employees. This finding demonstrates to employees that their employer understands and places importance on the drivers they value. Noteworthy, however, is the high rankings by employees of the importance of wages and salary and job security, contrasted with their lower ranking of importance by employers. Although not ranked in the top seven factors for management, *healthcare and wellness benefits* were in the top attraction rankings for employees.

Table 2. Top Attraction Drivers by Job Categories



Figure 1. Top global drivers of attraction

	 Attraction drivers – employer view	 Attraction drivers – employee view
1	Career advancement opportunities	Base pay/Salary
2	Base pay/Salary	Job security
3	Reputation of the organization as a great place to work	Career advancement opportunities
4	Challenging work	Challenging work
5	Job security	Opportunities to learn new skills
6	Organization's mission, vision and values	Reputation of the organization as a great place to work
7	Opportunities to learn new skills	Health care and wellness benefits

Retention drivers are used by employers to reward and retain the "best and the brightest" employees. These drivers used by employers must match what employees view as important; otherwise, employers run the risk of losing top performers to other employers with retention drivers more in line with the employees' view. Once more, there was a disconnect between the rankings of employers and employees on the top retention drivers. For example, the ability to manage work related stress and trust/confidence in senior leadership were ranked by the employees surveyed, but did not make the top ranking by employers. Otherwise, both groups had similar views on the importance of base pay/salary and job security.

Table 3. Top Global Retention Drivers

Figure 2. **Top global drivers of retention**

	 Retention drivers – employer view	 Retention drivers – employee view
1	Career advancement opportunities	Base pay/Salary
2	Base pay/Salary	Career advancement opportunities
3	Relationship with supervisor/manager	Physical work environment
4	Ability to manage work-related stress	Job security
5	Opportunities to learn new skills	Ability to manage work-related stress
6	Flexible work arrangements	Relationship with supervisor/manager
7	Short-term incentives (e.g., annual bonus)	Trust/Confidence in senior leadership

Effective leadership is key to employee engagement. A great leader will eliminate barriers to employees' success, determine high and low performers while treating everyone with respect, and communicate goals in a clear, concise manner. Leadership is the top driver of sustainable engagement. The employee's view of an organization's leadership is a key factor in the decision to remain working where they are or leave for another opportunity. In the Towers Watson study, they note the importance of engagement to performance and found that 40 percent of employees surveyed were highly engaged, but the rest felt either disengaged (35%), detached (17%) or unsupported (19%).

Table 4. Top Global Engagement Drivers

Figure 4. **Top global drivers of sustainable engagement**

	Sustainable engagement drivers
1	Senior leadership
2	Clear goals and objectives
3	Supervision
4	Image and integrity
5	Workload and flexibility

An Examination of Drivers Found in Recruitment Advertisements

Debbie was an adamant reader of advertisements for registered nurse positions and was particularly concerned with factors that health care organizations highlighted as welcoming in their advertisements and on their web sites. In consort with the Lincoln hospital board of directors, she compiled, over the years, a list of recruitment, retention, and engagement drivers used by a myriad of other hospitals, clinical and long-term care facilities. In her efforts to compile a comprehensive listing of items that human resource departments felt were important to mention or emphasize in their ads, she discovered her listing had become exhaustively long and multifaceted. To synthesize the material, she broke the items into two general categories: *Intrinsic* and *extrinsic* motivators. Next, she examined the list and placed each item into two types of compensation: *Mandatory compensation*—required by law; and *voluntary compensation*—factors often aligned with the need for retention.

Finally, she thought about and then abandoned the idea of delineating the items into the two broad categories of compensation and benefits with their accompanying subgroups: Security, retirement security, health care, financial/insurance, family-oriented, time-off, social, and recreational. Based on her many discussions with her board of directors, she learned that overall benefits account for 35-40% of actual pay, and the

benefit package is also influenced by what her competitors are providing. Also, she understood that if benefits were to be non-taxable, they must meet all Internal Revenue Service guidelines and requirements. In the final analysis she used, as shown in Tables 5, 6, and 7, the drivers identified in the 2016 Willis Towers Watson report: Attraction (N=53 items), retention (N=90 items) and engagement (N=10 items). Overall, the *intrinsic* motivational factors dominated in the area of engagement, and there was a mixture of both *intrinsic* and *extrinsic* motivational factors for the attraction and retention drivers. Lastly, the task of placing the items into predetermined categories became increasingly complicated by the fact that some of the varied advertisements were for nurses recruited to work in different areas of the economy: public, nonprofit (plural) and private.

When Debbie Burns had completed the complicated task of pressing the many items she had identified in the advertisements into the organizational categories discussed above, she felt she was in reasonably good shape to see what other hospitals and health care facilities thought were important factors in recruiting and retaining nurse applicants.

QUESTIONS AND INSTRUCTIONS

1. Which five (5) factors, in your opinion, are the most important attraction factors for a hospital, a clinical setting, or a long-term facility?
2. Which five (5) factors, do you think, are the most important for employee engagement at a hospital, a clinical setting, or a long-term facility?
3. Which five (5) factors are, in your judgment, the most important for employee recruitment at a hospital, a clinical setting, or a long-term facility?
4. Create a job posting for a registered nursing position. What are some of the drivers you would include in the job posting?
5. Please sample a few advertisements for RNs made by a local hospital, clinic or long-term care facility in your city, county or state. What sort of motivators and drivers they mention? Please elaborate.
6. There are many ways that the items listed in Tables 5, 6 and 7 may be placed into organizational categories for analysis. Using the criteria for sustainable engagement established by Towers Watson Global Workforce Study and their Global Talent Management and Rewards Study, please place the items into the following five categories: Leadership (builds trust and confidence), Goals and Objectives (how job connects with organizations goals), Workload/Work life (work flexibility and work/life balance), Organization's Image (reputation), and Empowerment (participation in decision making/listens to employees). What does your analysis show and why is the information you have gleaned important to Debbie Burns as she develops her nursing recruitment strategy? Please explain.
7. Listed below are fifteen (15) items from the advertisements reviewed and not reported in Tables 5, 6, and 7. To what extent are the following statements relevant to a successful RN recruitment campaign? Please select three items that are of importance to you and three that are irrelevant and comment on their meaningfulness.
 1. "You want it, we have it!"
 2. "...discover the real awards of caring in our state-of-the-art facility."
 3. "...combines system staff and the latest in technology to deliver quality patient care."

4. "...our staff is second to none."
5. "...changing health care for the better and nurses' careers forever."
6. "...the best in cardiac patient care."
7. "...an enjoyable and supportive medical teamwork environment."
8. "...seeking health care professionals who want to make a difference."
9. "...offers abundant recreational and cultural activities in a safe, clean, well-educated community setting."
10. "Healthy working environment that values service, human dignity, presence and wisdom."
11. "Values, excellence, dignity, justice, integrity and stewardship permeate the culture"
12. "Serenity...of charming beach town a place of natural beauty."
13. "Get paid within about two hours of your shift on your own Visa card."
14. "Business-casual work environment."
15. "Staffing coordinators take the time to actually get to know you by name."

Table 5: Top Attraction Drivers

Recruitment Drivers	Type:	Intrinsic/ Extrinsic:
1. Multiple benefit options	MC/VC	I/E
2. PPT employees receive full benefits Pro-rated	VC	E
3. Medical HMO/PPO, Dental/Vision	VC	E
4. Health Insurance/no monthly premium	VC	E
5. 125-Cafeteria benefit plan	VC	E
6. \$44K and up (Based on experience)	VC	E
7. Nursing jobs 24/7	VC	E
8. Per diem rate - \$30	VC	E
9. Excellent retirement plan	MC/VC	E
10. Vacation days 18 - 25 days	VC	E
11. Five sick days per year	VC	E
12. Free use of recreation center and pool	VC	E
13. Transitional Housing	VC	I/E
14. Nestled near the beautiful mountains of Southern California	N/A	I
15. Named 100 Hot Growth Companies	VC	E
16. Rapidly growing company	N/A	I/E
17. Sign-on Bonus between \$5,000 - \$8,000	VC	E
18. \$5000 in tuition reimbursement	VC	E
19. Progressive hospital benefits start 1st of the month following start date	VC	E
20. Daily Pay	VC	E
21. Trip Wages	VC	E
22. Travel and registry positions available	VC	E
23. Employee stock purchase plan	VC (cost of transfer agent)	E
24. Employer-funded pension plan	VC	E
25. Equal Employment Opportunity Employer	MC	I
26. Close to international airport	N/A	I
27. Relocation assistance	VC	E
28. Employer of the year award	N/A	I
29. Paid internship program	VC	E
30. Full or part-time positions/Full-time days & part-time weekends/Full-time days & part-time weekends	N/A	I/E
31. \$38 per hour contracts	VC	E
32. On-line application	VC	E
33. Licensed bed capacity of 245	N/A	E
34. Top 25 Best Places to work in Hawaii	N/A	I
35. Recreational/cultural activities in a safe, clean, well-educated setting	N/A	I
36. Recently graduated RNs encouraged to apply	N/A	I
37. Malcolm Baldrige National Quality Award	N/A	I
38. World's leader in sports and orthopedic medicine	N/A	I
39. A cool lifestyle and even cooler career	N/A	I
40. State Quality Award for Excellence	N/A	I
41. Adventure awaits you	N/A	I
42. Hospital who cares changing health care for the better & nurses' career forever	N/A	I
43. Level IV trauma center	N/A	E
44. World-renowned health care spending environment	N/A	I
45. Nation's largest, most respected/successful N-P health care systems	N/A	E
46. More than 25 years of success	N/A	E
47. Outstanding healthcare facility	N/A	E
48. Best in cardiac patient care	N/A	E
49. Not-for-profit regional hospital	N/A	E
50. Provides the finest healthcare available in an eight-county area	N/A	E
51. Remarkable people in five remarkable facilities	N/A	E
52. Values, excellence, dignity, justice, integrity and stewardship permeate culture	N/A	E

Table 6. Retention Drivers

Recruitment Drivers	Type:	Intrinsic/ Extrinsic:
1. No state income tax (Alaska)	MC	E
2. Commitment of providing medical excellence & compassionate care to patients	VC to N/A	I
3. 12-week paid vacation	VC	E
4. Healthy work-life balance	VC to N/A	I
5. Integrated clinical software	VC	I/E
6. Automated reuse systems	VC	I/E
7. Centralized a/b delivery	VC to N/A	I
8. Magnet Medical Center	N/A	I
9. Shift differential up to \$4.80	VC	E
10. 1,000,000 acres of buildings	N/A	I
11. State-of-the-art hospital	N/A	I
12. Magnificent mountains and forest	N/A	I
13. Small town living	N/A	I
14. Low crime rate	N/A	I
15. Good schools	N/A	I
16. Four seasons of beautiful weather	N/A	I
17. No low census cancellation	N/A	I/E
18. Excellent nurse to patient ratios with nursing assistants and ancillary support	VC to N/A	I
19. Business-casual work environment	N/A	I
20. Float pool available	VC to N/A	I/E
21. Recipient-employee of choice designation	VC	I/E
22. Generous PTO	VC	E
23. Uniform allowance	VC	E
24. 401K with employer matching	VC	E
25. Nature AM preference applicable	N/A	I
26. Nursing loan repayment plan	VC	E
27. Great Place to Learn and Work	N/A	I
28. Metropolitan environment	N/A	I
29. Excellent public and private sectors	N/A	I
30. Access to major sporting events	VC to N/A	I/E
31. Multiple scheduling options (little as 4 hr. per day)	N/A	E
32. 25% Sunday premium pay	VC	E
33. Nursing scholarship	VC	E
34. 10+ Holidays	VC	E
35. Holiday premium pay	VC	E
36. Legal services	VC	E
37. 10-11% night shift differential	VC	E
38. Generous PDO package	MC/VC	E
39. Computer loan program	VC	E
40. Cancer policy	VC	E
41. Professional tuition allowance program	VC	E
42. \$2.00 per hour for certification	VC	E
43. Nursing refresher courses	VC	E
44. Continuation Education Opportunities	VC	E
45. Monthly leave	N/A to VC	E
46. Holiday bonus	VC	E
47. Flexible schedules/assignments with 12-hour work schedule	N/A	I
48. 100% online courses (using work time-see Cisco systems)	VC	E
49. Family Medical Leave Act (FMLA)	MC	I/E
50. Social Security (w/other retirement plans)	MC/VC	E
51. Direct Deposit Pay	N/A	E
52. Free parking	VC	E
53. On-site child/infant care	VC	E
54. Healthcare and wellness programs at local gym paid	VC	E
55. Local store discounts for medical Personnel	N/A or VC	E

56. Concierge benefits and services	VC	E
57. Finder's Fee program	N/A	E
58. Professionals (RN's) are considered non-Exempt for overtime pay	VC	E
59. Life insurance paid by employer	VC	E
60. Financial counseling	VC	E
61. Company car	VC	E
62. Disability Insurance paid by employer	VC	E
63. Long term care insurance	VC	E
64. Military paid time off	VC	E
65. Paid jury and election leave	VC	E
66. World class ski resort	VC	E
67. Ski pros discount	VC	E
68. 12-week paid program	VC	E
69. Promotes a drug and tobacco free workplace	NA	E
70. One of the most fabulous resort communities in the world	NA	E
71. Ski season positions pay \$4.00/hour (nights different)	VC	E
72. Housing available for ski season	VC	E

Table 7. Engagement Drivers

Engagement Drivers	Type:	Intrinsic/ Extrinsic:
1. Staffing coordinators take the time to actually get to know you by name	NA	I
2. Have leading and shared responsibility with people you respect	NA	I
3. Individual talents and abilities of each nurse valued everyday	NA	I
4. Enjoyable and supportive medical teamwork environment	NA	I
5. A diverse recreational and cultural environment	NA	I
6. Family-like atmosphere	N/A	E
7. Great career opportunity	N/A	I
8. Caring managers	N/A to VC	I
9. Safe patient-staff ratio	VC	I/E
10. Advancement opportunities	N/A	I
11. Team hospital	N/A	I

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SOLE PURPOSE: INNOVATION IN SHOE ENTREPRENEURSHIP

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ABSTRACT

Aspiring entrepreneurs entering the retail industry must decide between launching an independent business or investing in a shoe store franchise. Franchising offers the advantage of operating under a recognized brand, reducing startup risks and increasing the chances of success. For years, it has appealed to small business owners seeking a competitive edge in an established market. This research aims to provide prospective franchisees with relevant data, financial metrics, and operational insights. The goal is to equip investors to make strategic, informed decisions in the competitive footwear retail sector. This paper examines the financial and operational aspects of major shoe franchise opportunities in the U.S., focusing on Fleet Feet, Shoe Sensation, The Athlete's Foot, and Foot Solutions. Each franchise model is analyzed and compared with The Shoe Dept., a corporate-owned retail business, to highlight key differences between franchised and non-franchised operations (Lord, 2014). Key financial factors evaluated include startup costs, royalty fees, advertising expenses, and average monthly revenues. These metrics offer insight into the profitability, sustainability, and financial commitments required for each business type. By comparing leading franchises with a corporate-owned model, this study provides a clear overview of potential earnings and recurring costs. The analysis draws from industry data and previous research to help investors assess the bottom-line implications of each opportunity.

Key Words: shoe franchise, footwear retail, return on investment, entrepreneurship

INTRODUCTION

Caves and Murphy (1976) defined a franchise as “one lasting for a definite or indefinite period of time in which the owner of a protected trademark grants to another person or firm, for some consideration, the right to operate under this trademark for the purpose of producing or distributing a product or service” (p. 572). Franchising offers entrepreneurs a chance to operate businesses under recognized brand names, reducing the risks often associated with starting from scratch (Calderon-Monge et al., 2017). While previous research has focused heavily on fast-food and service franchises, the retail sector—particularly shoe stores—presents unique and lucrative opportunities, especially for those focused on family-oriented markets. This study explores shoe franchise opportunities in the United States, with a particular emphasis on family-focused footwear franchises. This research aims to give potential franchisees a solid base of relevant data and performance indicators. Providing a comprehensive analysis of the top 4 shoe-related franchise opportunities that cater to family needs and compare them to The Shoe Dept., a non-franchise retail model is the research objective of this paper. By examining key financial data, market appeal, and return on investment (ROI) potential, I aim to offer prospective franchisees the information necessary to make strategic, informed investment decisions in the competitive footwear retail sector.

Top 4 Shoe-Related Franchise Opportunities in the USA

1. Fleet Feet

- **Focus:** Running and athletic shoes
- **Market:** Active families, runners, and sports enthusiasts
- **Investment:** \$300,000 - \$500,000
- **Competitive Advantage:** Known for personalized shoe fittings and community engagement, Fleet Feet is popular with families seeking comfort and performance in footwear.

2. Shoe Sensation

- **Focus:** Family footwear, including casual, dress, and athletic shoes
- **Market:** Small to mid-sized markets
- **Investment:** \$400,000 - \$650,000
- **Competitive Advantage:** Offers a wide selection of brands for all ages, making it a go-to for families looking for variety and affordability.

3. The Athlete's Foot

- **Focus:** Athletic and lifestyle footwear
- **Market:** Active families, teens, and young adults
- **Investment:** \$100,000 - \$350,000
- **Competitive Advantage:** Known for high-quality athletic footwear and branded sportswear, it appeals to families focused on fitness and fashion.

4. Foot Solutions

- **Focus:** Orthopedic and comfort footwear
- **Market:** Families, especially those with medical or comfort-focused needs
- **Investment:** \$100,000 - \$200,000
- **Competitive Advantage:** Specializes in foot health and comfort, which is especially appealing to parents and elderly family members.

Shoe Department: A Non-Franchise Retail Model

Shoe Department, here's the breakdown:

- **Focus:** Offers a wide variety of affordable and trendy footwear for men, women, and children.
- **Market:** Families and budget-conscious shoppers
- **Investment:** N/A
- **Competitive Advantage:** Strong brand recognition, product range, value pricing

Shoe Department (Shoe Dept. or Shoe Dept. Encore), part of Shoe Show, Inc., operates numerous footwear stores across America. While it is not currently a franchise, it offers an interesting point of comparison. Its corporate ownership model ensures consistent and centralized decision-making, making it a reliable destination for affordable family footwear.

- **Brand Recognition:** Comparable to Rack Room Shoes and Payless Shoe Source, Shoe Department is well-known, especially in mall-based locations.
- **Product Range:** Offering a wide variety of footwear for men, women, and children, it appeals to families seeking affordable and trendy shoes.
- **Affordability:** Positioned as a value-oriented retailer, it competes directly with budget-conscious brands.

- **Ownership Model:** Operates under a corporate ownership structure, allowing for consistent management and centralized decision-making.

Financial Analysis and Comparison

To evaluate the profitability and ROI potential, an analysis was conducted on the average monthly revenues, fees, and operating expenses for each franchise. The evaluation expands to include an assessment of the ROI for each franchise, while also conducting an examination of the operational differences that exist between franchised businesses and Shoe Department's corporate model.

Fleet Feet Monthly P&L Estimate:

- Per Month Sales: \$150,000
- Royalty Fee (7%): -\$10,500
- Advertising (3%): -\$4,500
- Labor (25%): -\$37,500
- Utilities (5%): -\$7,500
- Misc. Expenses (5%): -\$7,500
- Total Expenses: \$67,500
- Franchisee Bottom Line (w/o Mortgage): \$32,000
- Mortgage Payment: -\$10,000
- Franchisee Bottom Line (w/Mortgage): \$22,000

Shoe Sensation Monthly P&L Estimate:

- Per Month Sales: \$130,000
- Royalty Fee (6%): -\$7,800
- Advertising (4%): -\$5,200
- Labor (26%): -\$33,800
- Utilities (5%): -\$6,500
- Misc. Expenses (5%): -\$6,500
- Total Expenses: \$59,800
- Franchisee Bottom Line (w/o Mortgage): \$30,200
- Mortgage Payment: -\$10,000
- Franchisee Bottom Line (w/Mortgage): \$20,200

The Athlete's Foot Monthly P&L Estimate:

- Per Month Sales: \$120,000
- Royalty Fee (5%): -\$6,000
- Advertising (3%): -\$3,600
- Labor (24%): -\$28,800
- Utilities (5%): -\$6,000
- Misc. Expenses (5%): -\$6,000
- Total Expenses: \$50,400
- Franchisee Bottom Line (w/o Mortgage): \$29,600
- Mortgage Payment: -\$10,000
- Franchisee Bottom Line (w/Mortgage): \$19,600

Foot Solutions Monthly P&L Estimate:

- Per Month Sales: \$100,000
- Royalty Fee (5%): -\$5,000
- Advertising (3%): -\$3,000
- Labor (23%): -\$23,000
- Utilities (5%): -\$5,000
- Misc. Expenses (5%): -\$5,000
- Total Expenses: \$41,000
- Franchisee Bottom Line (w/o Mortgage): \$24,000
- Mortgage Payment: -\$8,000
- Franchisee Bottom Line (w/Mortgage): \$16,000

Shoe Department Monthly P&L Estimate:

- Per Month Sales: \$140,000
- Corporate Management Fees: -\$12,000
- Labor (26%): -\$36,400
- Utilities (5%): -\$7,000
- Misc. Expenses (5%): -\$7,000
- Total Expenses: \$62,400
- Corporate Bottom Line: \$27,600

Return on Investment (ROI) Comparison

Fleet Feet and Shoe Sensation demonstrate strong ROI potential due to their focus on niche markets and community engagement. The Athlete's Foot also shows promising ROI, with a lower initial investment. Foot Solutions appeals to a specific market, offering stable but modest returns. Shoe Department, while not offering franchise opportunities, shows a competitive bottom line due to centralized corporate management.

Fleet Feet – Traditional Franchise: Fees & Monthly Bottom Line

Fleet Feet was founded in 1976 and has since grown into a leading retailer specializing in running shoes and athletic apparel. Known for its personalized shoe fittings and community-driven approach, Fleet Feet offers strong franchisee support, including marketing resources, operational training, and technology tools.

To own a Fleet Feet franchise, potential franchisees need an initial investment ranging from \$300,000 to \$500,000, which covers startup costs, inventory, licenses, supplies, and working capital. The franchise fee is approximately \$35,000 for a legally binding agreement. In addition to the upfront costs, franchisees are required to pay ongoing fees, including a 7% royalty fee on monthly sales and a 3% advertising/marketing fee.

The average annual revenue for a Fleet Feet store is around \$1.8 million. Using these figures, Table I outlines Fleet Feet's projected monthly bottom line, showcasing the potential profits a franchisee could expect.

Shoe Sensation – Traditional Franchise: Fees & Monthly Bottom Line

Shoe Sensation, founded in 1984, specializes in family footwear and offers a diverse selection of casual, dress, and athletic shoes. With over 200 stores across the U.S., Shoe Sensation focuses on small to mid-sized markets, providing franchisees with an opportunity to serve underserved communities.

The initial investment for a Shoe Sensation franchise ranges from \$400,000 to \$650,000, which includes startup costs, inventory, licenses, supplies, and working capital. The franchise fee is about \$40,000. Franchisees also pay ongoing monthly fees, including a 6% royalty fee and a 4% advertising/marketing fee.

The average annual revenue for a Shoe Sensation store is approximately \$1.56 million. Using these figures, Table I outlines Shoe Sensation's projected monthly bottom line, highlighting potential earnings.

The Athlete's Foot – Traditional Franchise: Fees & Monthly Bottom Line

The Athlete's Foot, founded in 1971, is a global athletic footwear retailer known for its high-quality sneakers and sports apparel. With a focus on active families, teens, and young adults, The Athlete's Foot provides franchisees with strong brand recognition and comprehensive support.

An initial investment for The Athlete's Foot ranges from \$100,000 to \$350,000, covering startup expenses, inventory, and working capital. The franchise fee is close to \$30,000. Franchisees pay a 5% royalty fee on monthly sales and a 3% advertising/marketing fee.

The average annual revenue for The Athlete's Foot is around \$1.44 million. Table I outlines The Athlete's Foot's projected monthly bottom line, providing an estimate of potential profits.

Foot Solutions – Traditional Franchise: Fees & Monthly Bottom Line

Foot Solutions, founded in 2000, specializes in orthopedic and comfort footwear, catering to customers with specific foot health needs. Known for its personalized service and focus on wellness, Foot Solutions offers franchisees a niche market with strong demand.

The initial investment for a Foot Solutions franchise ranges from \$100,000 to \$200,000, including startup costs, licenses, and working capital. The franchise fee is around \$30,000. Franchisees pay a 5% royalty fee on monthly sales and a 3% advertising/marketing fee.

The average annual revenue for Foot Solutions is close to \$1.2 million. Table I outlines Foot Solutions projected monthly bottom line, illustrating potential franchisee earnings.

Shoe Department – Corporate-Owned Model: Fees & Monthly Bottom Line

Shoe Department, part of Shoe Show, Inc., operates under a corporate ownership model, which means there are no franchising opportunities available. As a corporate-owned retailer, Shoe Department handles all operational costs and management decisions centrally. The average annual revenue for a Shoe Department location is around \$1.68 million. While there are no franchise fees or royalty payments, Shoe Department incurs corporate management fees and centralized operational costs. Table I outlines Shoe Department's projected monthly bottom line, providing insight into its profitability.

ROI Analysis Summary

Analyzing the ROI across these franchises reveals distinct opportunities and challenges:

- **Fleet Feet** stands out for its strong community engagement and high average revenues, offering franchisees robust support and the potential for significant returns. The personalized service model and niche focus on running shoes provides a competitive edge.
- **Shoe Sensation** appeals to value-focused families in underserved markets, with strong brand recognition and a broad product range. Its higher initial investment is balanced by solid average revenues and market reach.
- **The Athlete's Foot** offers a lower initial investment, making it accessible to new entrepreneurs. The focus on athletic footwear and sportswear positions it well in an active market, though competition can impact ROI.
- **Foot Solutions** caters to a niche market with specialized needs, leading to steady but moderate returns. The lower initial investment and specific customer focus make it attractive for entrepreneurs interested in the wellness sector.
- **Shoe Department** operates under a corporate model, eliminating franchise fees but centralizing operational decisions. While franchisees can't invest directly, the model provides stable returns without the complexities of franchise ownership.

Overall, Fleet Feet and Shoe Sensation offer the most promising ROI potential due to their market niches and strong brand support. The Athlete's Foot and Foot Solutions provide accessible entry points with steady growth potential, while Shoe Department remains a profitable, centrally managed retail option.

Conclusion

This comparative analysis highlights the profitability and ROI potential of four leading shoe franchises against the corporate-owned Shoe Department. Prospective franchisees can use this data to make informed decisions based on investment costs, revenue potential, and market appeal. While franchises offer ownership and equity opportunities, corporate models like Shoe Department provide stable returns without the complexities of franchise fees and agreements.

When analyzing the profitability of these shoe franchises, it's important to consider several factors beyond the raw financials. One of the most critical elements is the level of support provided by the franchisor. Strong support networks can make a big difference in a franchisee's success (Loonam, 2010), offering guidance in areas such as marketing, operations, purchasing and staff training. Fleet Feet, for instance, is known for its community engagement programs and personalized customer service, which help franchisees build loyal customer bases. This support can lead to higher customer retention and increased sales over time.

Another key consideration is market positioning. Each franchise occupies a unique niche within the broader footwear market. Fleet Feet focuses on athletic footwear and caters to running enthusiasts, while Foot Solutions targets consumers with orthopedic needs. Understanding these niches can help prospective franchisees align their investment with their personal interests and local market demand.

The working model also plays a significant role in profitability. Franchises like The Athlete's Foot and Shoe Sensation benefit from established supply chains and strong brand recognition, which can reduce operational costs and increase marketing effectiveness. In contrast, The Shoe Dept., with its corporate-owned model, benefits from centralized decision-making and consistent branding but lacks the local ownership incentive that often drives franchisee-operated stores to excel.

The evolving retail landscape, especially the rise of e-commerce, must also be considered (Shukla & Misra, 2021). Franchises that effectively integrate online sales with brick-and-mortar operations can gain a competitive edge. Fleet Feet has made significant strides in this area, offering online fittings and virtual consultations, which have expanded their customer reach and boosted sales.

Moreover, the impact of location cannot be stated strongly enough. High-traffic areas can lead to increased sales, but they also come with higher rent and operational costs. Franchisees must balance these factors to optimize profitability. Foot Solutions, for instance, often choose locations near medical centers or wellness hubs, aligning with its target market.

Lastly, the long-term growth potential of each franchise should be evaluated. Some franchises, like Fleet Feet, are expanding and offer opportunities for multi-unit ownership, which can significantly increase a franchisee's earning potential. Others, like Foot Solutions, focus on specialized markets, which may offer steadier but slower growth.

In conclusion, investing in a shoe franchise involves careful consideration of many factors, including financial performance, market positioning, franchisor support, and long-term growth potential. This comprehensive analysis provides a framework for evaluating these opportunities, helping prospective franchisees make informed decisions that align with their financial goals and personal interests.

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