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P.O. Box 502147, San Diego, CA 92150-2147: Tel 909-648-2120

Email: mondal@asbbs.org <http://www.asbbs.org>

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US AND ALLIES' RESPONSE TO CHINA'S OFFENSIVE IN AFRICA: THE COMPLEX EQUATION OF COOPERATION AND IMMIGRATION

Ablaye Camara
University of Detroit Mercy

ABSTRACT

This study uses the comparative statistical analysis of the number of inbound international students, the costs and benefits of education, the immigration laws and enforcement processes, and the foreign policy objectives to explain the growing number of African students in China and its political implications. China's "Going Out" policy focused on economic growth with little regard for world affairs. By 2010, as it matured and became the world's second largest economy, China's focus shifted to expansion, securing new sources for raw materials and securing markets for its exports. Therefore, it started a new "offensive" in underdeveloped nations, particularly in Africa, by developing a stream of cooperation in all sectors including education whereas a substantial number of Africans seek higher education in China. In their response to China's strategy, the United States, and allies, who have been losing influence in Africa in the last decade (2010-2020), promised to increase their investments in all sectors including education on the continent. However, the data show China increasing the number of African students while these numbers are either flat or decreasing for the US and Allies. The lower costs of education to Africans in China, its benefits, and the immigration laws and processes in both China and the West make this a complex equation for the US and its allies and may lead to China increasing its net influence in Africa.

Key Words: China, US, Sub-Saharan, Africa, students, immigration, policy.

INTRODUCTION

In 1978, after Deng Xiaoping acceded to power in the People Republic of China, the Communist Party's new leadership unveiled an ambitious socio-economic plan designed to help alleviate the suffering of the Chinese people. China's "Going Out" policy, as described by Shen and Mantzopoulos (2013), was based on the principle of "controlled liberalization and decentralization." Its aim was the gradual implementation of market economy within the confines of China's social and political frames. The liberalization of the farm industry, the permission for

residents to venture into business creation, and the permission for foreign direct investment in the country allowed China to embark on an impressive growth for decades. Moreover, as part of its gradual unrolling of the “Going Out” plan, China joined the World Trade organization (WTO) in 2001 and consequently experienced economic growth that led it to a mature economy and second largest economy status after surpassing Japan in 2010. Just like the USA and Western European nations, as a mature economy, China now must compete with all the top economies for resources and markets if it were to keep or improve this status. In doing so, China engaged in economic, social, and political cooperation with Sub-Saharan Africa nations, which will see it to become the most frequent destination for African students.

STUDENT MOBILITY

Using extensive data on mobility, Shields (2013) found that in comparison to other global networks, the flow of international students is closely related to world trade and increasingly to international government organizations. Hao Wei (2013) also reiterated this finding by noting that the volume of merchandise trade between countries facilitates international students' mobility across borders.

As more nations figured that taking down trade barriers might increase the total surplus for them and their trading partners, the world total trade volume has increased in the last 4 decades. Countries that trade with new nations open opportunities for increased cooperation between them and their new trading partners in sectors including security, healthcare, education, development, and culture. All these sectors of cooperation, at diverse levels, involve a flow of students more often from the underdeveloped nations to the “relatively advanced” nations.

As receiving nations continue to implant their firms in the underdeveloped nations, it becomes important for them to train and educate some locals about not only their language and culture, but also their way of conducting business. This becomes an opportunity for many young people, and some professionals, to seek education in the “relatively advanced” nation with the hope to return to better opportunities at home.

Additionally, the cooperation between the governments, as it extends beyond business transactions, leads to opportunities for scholarships for many local students to seek fully or partially paid education in the “relatively advanced” nations. Many of these scholarships are in fields of mutual interest of the cooperating nations, and sometimes based on the needs of the underdeveloped nations.

Moreover, as these opportunities open and information about the costs and benefits of education in the destination countries circulate locally, other students with the intention of seeking foreign education make their decisions accordingly. In this case, this second group of students, for lack of scholarship opportunities, will join their compatriots in the destination nations as privately funded students. Even though the total number of students flowing from one nation to another may

increase, an increasing number of privately funded students drives this because government-to-government scholarships are limited, controlled, and usually based on long-term promises with fixed yearly numbers.

For globalization, while nations continued to take down trade barriers, trade of goods and services has significantly increased since 1950 (https://www.wto.org/english/res_e/statistics_e/trade_evolution_e/evolution_trade_wto_e.htm), and since the late 1970's, the number of internationally mobile students has also increased (<https://www.bestcolleges.com/research/international-student-enrollment-statistics/#international-student-enrollment-trends>). In fact, according to the UNESCO Institute for Statistics, the number of international students estimated at 800 thousand in 1975 has been rising consistently for the last 45 years. Between 1980 and 1990, the number of international students increased from 1.1 million to 1.3 million, thus, an increase of 200,000. The net increase in the next decade was approximated at 700,000 while the 2000-2010 decade saw an increase of 1.6 million. By 2017, the number of international students had reached 5.3 million, up from 3.6 million in 2010. The last decade (2010-2020) was even more impressive as it accounted for an increase of 2.7 million new students for 6.3 million international students worldwide.

COSTS AND BENEFITS OF EDUCATION ABROAD: FINANCING EDUCATION ABROAD

The Push-pull model indicates that international students in general, in choosing to relocate for higher education, evaluate internal conditions with respect to those in the potential destination nations. Theory also states that economic agents make decisions by comparing the marginal benefit to the marginal cost of a specific action. For Sub-Saharan-Africa students (SSAIS), the inferior quality of education, the inadequate quality of education facilities, and the positive job prospects and opportunities afforded to those with degrees from developed countries are major factors in their decision for seeking higher education outside their native countries. International students make their decision to study abroad by comparing the costs to the benefits of doing so. Although this is the case for all students, it is more pronounced for African students because of the limited abilities of families in Sub-Saharan Africa, where 85% of people live on less than \$5.50 per day (World Bank. <https://blogs.worldbank.org/opendata/85-africans-live-less-550-day>), to cover the costs of enrolling their children in colleges overseas. For European students, North American students, some Asian students (China, Japan, South Korea, some Indian students), these processes can involve the use of savings and the opening of lines of credit at banks. The West and these Asian nations already have developed financial systems with highly competitive banks that allow students and their parents to borrow money to fund their education regardless of the destination nations. However, for African students, the financing of their international studies must come from sources other than lines of credit at local banks. Although this is rare and only available for a small part of the population, most do not have access to bank loans. Domeher and Abdullai (2012) noted that “many households and

businesses face credit constraints which limit their ability to undertake investments in various production-enhancing economic activities required to reduce poverty.” They attributed this phenomenon to the lack of qualified collaterals that can be acceptable to the lending institutions. Even for families that have units of land to put as collateral, they usually do not possess proper titles that are acceptable to the banks. In addition, land values in remote places in which most families own lands, are not sufficient to open credit lines of tens of thousands of dollars. Such families will sometimes resort to selling multiple units of land just to be able to finance the application fees, the visa fees, the plane ticket, and in most cases just the first semester or first year of studies if the student is going to a Western university. For those who do not own lands, family members pull their savings together to pay for the fees with the hope that soon he or she will reimburse them and eventually take care of the family. Despite the low GDP per capita and low average salaries in most Sub-Saharan nations, there are few people (business owners, non-governmental business operators, employees of international institutions, landowners in big cities, etc.) who can access lines of credit, or with legitimate means can finance the “prohibitive” costs of education in the West for their family members. You also have a few administrators in government institutions with modest salaries who finance the education of their families through corrupt means. Regardless of their financing procedures, as stated by theory, international students and their families make the decision to pursue education abroad based on the available information, and because the perceived marginal benefit of doing so is greater than its marginal cost. Depending on the category of students, the benefits include discovering new cultures, acquiring knowledge, acquiring capital, returning to better opportunities, and staying in the host country for better opportunities. For Sub-Saharan families, this is even more important as the students can provide more help for their families if they stay in Western developed nations after their studies.

Table 1: Comparative Cost of Education: China and the West

Yearly Public Education In China (<i>China Education Center 2023</i>)	Yearly Tuition Fees	Monthly Living Costs
Beijing	\$2,000-\$10,000	\$1000-\$1,200
Shanghai	\$2,000-\$10,000	\$850-\$1200
Other Cities	\$2,000-\$10,000	as low as \$600

For the major destinations of Sub-Saharan Africa international students (SSAIS), education cost is high depending on the destination country. In China, the public education costs vary between \$2500 and \$10,000 with the monthly cost of living (Beijing and Shanghai) between \$850 and \$1,200. Even though these costs of living may be steep for individual SSAIS, the costs in other cities can go as low as \$600 a month, which are also shared by more than two students in many instances. Nevertheless, the tuition costs and the quality of the education offered are the

crucially attractive factors for students, particularly for SSAIS, in making their choice of destinations.

In France, for instance, students must pay registration fees even though the government subsidizes the cost of education. Campus France, the institution that helps international students with the application processes, notes that the French government subsidizes two thirds of the cost of education for all international students enrolled in public institutions and lists the following final costs for the students.

Table 2: Cost of Tuition in France

Annual Tuition Costs In France (Source: Campus France 2023)		Type
Tuition		
€	2,770.00	Licence Level
€	3,770.00	Master Level
€	380.00	Doctoral Level
Cost of Living (Expenses)		Place
	\$13,500	Paris
	\$9,400	Rest of France

For nationals, European Union residents, refugees, and government sponsored students (scholarship) the costs can vary between zero and seven hundred Euros per year depending on the immigration status of the candidates, the level of study, and the field of study. Although these tuition costs are relatively low, the costs of living are still high for SSAIS who, if admitted to these institutions, manage with little by sharing living quarters, food, and amenities.

France's historical relationships with many Sub-Saharan- Africa countries, the low tuition costs in France, and the perceived quality of education offered within, naturally makes it attractive to many SSAIS. The only issue is that the university spots are limited and open to French nationals first. This limits the number of open spots for international students including those from Sub-Saharan Africa. Therefore, the competition is high, and the selection process starting from the application for admissions to the application for the visa is ever complex for African students. Because of high application, fees (registration and visas) and the unavailability of reliable administrative paperwork (birth certificate, enrollment history, transcripts, banking statements), many applicants are rejected or denied at one point or another in the process.

Tuition costs notably higher in the USA. The table below lists the costs of education and costs of living for both public and non-public (for profit, not-for-profit) institutions in the USA as of 2022. The in-state and out-of-state tuition costs for a 4-year public college in the US were respectively estimated at \$9,377 and \$27,279. In the US education system, international students are usually classified as out-of- state as it pertains to tuition and costs of living. The average cost of tuition for public 4-year colleges was estimated at \$27,279 with a living cost of

\$44,014. These figures were each \$10,000 higher for private 4-year nonprofit colleges.

Table 3: Cost of Tuition and Cost of Attendance in the public and private 4-year institutions of U.S.

Annual Cost of College, Public		
Institution Type	Cost of Tuition	Cost of Attendance**
4-Year In-State	\$9,377	\$25,707
4-Year Out-of-State	\$27,279	\$44,014
2-Year In-State	\$3,862	\$15,862
Annual Cost of College, Private		
Institution Type	Cost of Tuition	Cost of Attendance**
4-Year Nonprofit	\$37,641	\$54,501
4-Year For-profit	\$18,244	\$33,528
2-Year Nonprofit	\$17,968	\$33,270
2-Year For-profit	\$15,765	\$27,246
**Cost of Attendance does not account for potential lost income nor student loan interest.		
Source: Education Data Initiative		

In the US, although international students pay out-of-state tuition fees in most cases, Elizabeth Redden (2015) noted that some public institutions have introduced third tier costs specifically for foreign students. The University of Wisconsin (Madison, Platteville) added a \$1,000 surcharge for undergraduate international students. Other universities such as Ohio State, Purdue, Michigan State, and Penn State all charge a \$500 international student fee per semester. With these potential additional costs, the international student's tuition costs become high. For the USA and Australia, the students must cover tuition, living expenses, and course materials while their employment prospects are limited and restricted. For instance, in the USA, most international students who can find jobs are only allowed to work up to 20 hours per week. According to the International Services Office at the University of Detroit Mercy, international students must register full time to maintain their status and are only eligible for on-campus employment of no more than 20 hours per week, and only during periods when school is in session (<https://www.udmercy.edu/life/iso/employment.php>).

WHY DO STUDENTS STAY IN HOST COUNTRIES?

International students, just like many mobile groups of people, are subject to factors that affect their “return” or “non-return” rates. For the receiving nations that would like to control the flow and the number of immigrants on their territories, return rates are a crucial factor in their decisions of admission of foreign nationals. Assuming all equal, the lower the return rates of migrants from a particular nation, the more restrictive the visa policies become for future

applicants. In addition, these restrictions and requirements are likely going to decrease the number of visas delivered.

Why do they stay?

Literature indicates that the economic, political, and social conditions account for the major reasons for international students' decision to stay in the host countries. For instance, despite the limitations of the model, Bratsberg (1995), in an empirical analysis of the number of foreign students in the US, found that "the variation in non- return rates across source countries is explained by differences in economic and political conditions in the source countries." It is important to note that the number of non-returns may be underestimated in this model as it ignores the number of students who drop-out of the system and effectively become "out-of-status." Bratsberg's (1995) findings are supported by Bijwaard and Wang (2016), who, in their analysis of return rates of foreign students in the Netherlands, found that students leave faster when they became unemployed. They also found that finding a job upon return affects the students from underdeveloped nations more than those from developed nations. They additionally found marriage to make the students more prone to stay.

The non-return rates, if dependent on the economic conditions of the sending nations, should be more significant the poorer the sending nations are. Borjas and Bratsberg (1996) in their analysis of the 1980 Census and Administration from the US immigration and Naturalization Service found that "immigrants tend to return to wealthy countries that are not too far from the United States." In addition, Dustmann and Weiss (2007) used data from the UK to illustrate that temporary migrations are frequent. They found that, "taking the population of immigrants who are still in the country as the base, about 40% of all males, and 55% of all females have left Britain five years later." They also suggested that the return migration is pronounced for immigrants from the EU, the Americas, and Australia/New Zealand; it is much less pronounced for immigrants from the Indian sub-continent and from Africa. They finally noted that white immigrants have higher return rates propensities than non-white immigrants.

Moreover, literature suggests that student mobility depends on personal reasons, and available opportunities that can be attributed to increase trade cooperation between underdeveloped nations, developing, and developed nations. Furthermore, research contends that, although some students leave the host countries for destinations that can be their original countries or third countries, many of them stay or leave based on political and economic factors prevailing in their countries of origin. The non-return rates are less significant for Wealthy nations and white immigrants and more significant for immigrants of color in general and those of Africa and India in particular.

IMMIGRATION LAWS AND ENFORCEMENTS

International students' decision process to relocate to a different nation can be divided into two stages. The first stage consists of deciding whether to move to a different nation, while the second consists of whether to stay afterwards. Although

the candidates before departures can consider both, the second stage partially depends on factors that include the candidates' perceptions of the host countries' immigration laws and enforcements. The candidates, after evaluating the economic factors, will proceed to evaluate the risks versus rewards of a potential stay in the host countries. Therefore, the students' decision to stay may be different based on whether the host countries are wealthy, and democratic in their applications of laws.

For the USA immigration enforcement, Sager (2017) contends that even if restrictive immigration policies are permissible in principle, the attempt to enforce them leads to injustices that make them ethically unacceptable in practice. The Harvard Law Review (2013) which noted that contemporary immigration law is at war with itself and that there are tensions between state, local and federal institutions in the enforcement processes supports these findings. In fact, when a person who is already in the USA decides to stay, the process to resolve the case and see that the person returns can be costly in both resources and time. Human rights, the immigrants' rights, immigration laws, and years-long procedures can allow a candidate to take the risk of staying with the hope not only of delaying but to also resolving their case successfully. For such nations, because of internal political pressure, the governments resort to fighting irregular immigration sometimes at the source, meaning in the departing countries. The US and the European Union nations use processes that make it difficult for potential "stayers" to reach their territories through policies of visa restrictions and extensive vetting for the candidates. For instance, requiring proof of financial means that can cover at least a year of tuition fees and living expenses automatically excludes many candidates from Sub-Saharan Africa where 85% of the population lives on less than \$5.50 per day. Eric Neumayer (2006) noted that nation-states employ visa restrictions to manage the complex trade-offs between facilitating the entrance to their territory by passports holders from certain countries for economic and political reason and deterring the individuals from other countries for reasons of perceived security and immigration control. The paper concluded that visa restrictions manifest states unfaltering willingness to monitor and regulate entrances to their territory in a globalized world. Victor Johnson (2002) who also noted that it is harder to enter the US on a student visa than on a tourist visa after the September 11, 2001, terrorist attack supported these findings. Akanle et al (2013) studied how visa challenges for African academics and particularly Nigerian academics put them at the disadvantage in the dissemination and globalization of their found knowledge. They noted that one of the reasons for the visa denials is traced to the economic status of the continent where 90% of the people live on \$1 to \$2 a day. They suggest that, in the hope of escaping poverty, many commit application frauds by impersonating academics and this makes it difficult for embassies to distinguish between real academics and impostors. They also found that there are academics who abuse their visas by overstaying or "illegally" emigrating to the West and therefore making it difficult for any academics to be trusted during the application process.

In contrast to the United States, China is not yet classified as a developed nation in which African students intend to necessarily stay. As noted earlier, when they choose to go to developing nations, it is usually with the intent of going back home for better opportunities or relocating eventually to a third country. Also, China has already learned from the cases of the USA and Western Europe as they dealt with irregular migration issues. One can note that the requirements for international students in terms of paperwork are much the same on the US and China embassies' websites in Africa; however, China has a stricter tracking system for international students. China SSAIS' paperwork processes are very much controlled by the Chinese administration of the Ministry of Education and, sometimes at the cost of what may be viewed as privacy violation. However, these processes are accepted by the students and their sending governments. Moreover, law enforcement in African communities living in mainland China have also had some bad echoes on the continent in the last few years when Africans reported to be abused by agents of the state in concert with some local people. Such activities can have dissuasive effects on potential "staying" candidates as well.

These immigration policy differences between the West and China, and their respective wealth status (developed nation, developing nation), are leading to new status quos as it pertains to the number of SSAIS studying in their nations.

CHINA'S FOREIGN POLICY OBJECTIVES: AFRICA

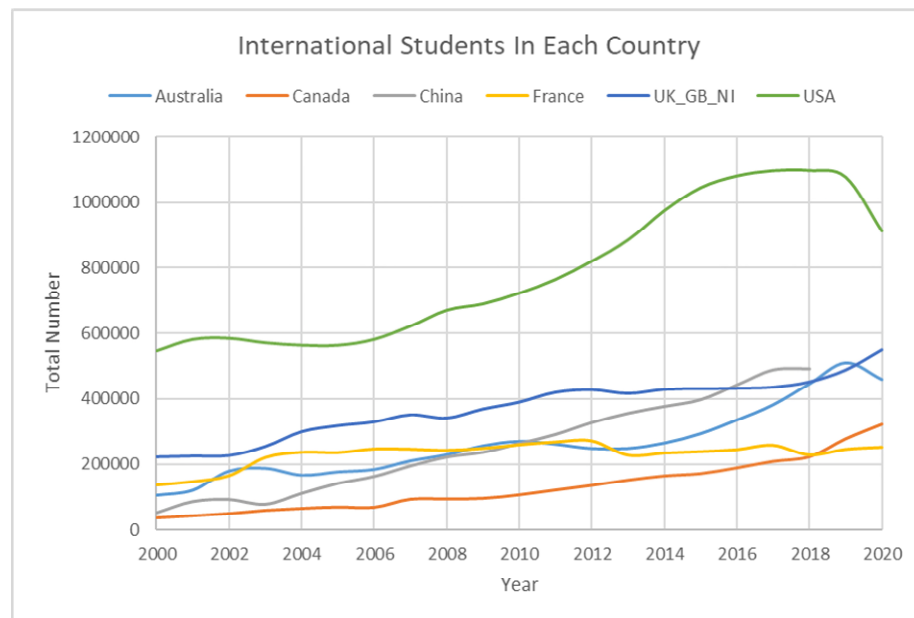
After accomplishing such a remarkable economic leap by using "capitalism" tailored to its political and social systems, China reached mature economy status in 2010. Because of its position as the second largest economy in the world, China has become an important player in global power structure. It must act not only to secure its sources of raw materials, but also to secure the markets for its exports. Although this challenges the global balance of power, China has adopted a "disputed" approach to increase its presence in underdeveloped nations including in those in Sub-Saharan Africa. The motives are disputed in terms of warnings to Africa by the West which qualifies China's intentions to be totally subversives towards global power structure and stability.

The Declaration of the Johannesburg Summit of the Forum on China-Africa Cooperation (2015) was detailed by the Ministry of Foreign Affairs of the People Republic of China (PRC). In this declaration, both sides affirmed their friendships and reiterated their commitment to one another for equality in cooperation (culture, civilizations, education, development, security etc.) and the promotion of prosperity. They noted the need to work together to reform the United Nations so Africa can have the deserved weight in the institution and to be a significant, resilient, and influential player and equal partner in global affairs. They mentioned the need for the United Nations to work to right the historical injustices done to Africa.

The foreign policy objective as cited by the Chinese leadership is to sow relationships with nations and to build friendships in trade and culture for a more prosperous world. Although the Council on Foreign Affairs suggests that China is

using these tools to secure resources and strengthen its political stance around the world, it noted that China's activities have had an impact on GDP (Gross Domestic Product) and growth in Africa. As the largest trading partner and source of foreign direct investment in Africa, China's total trade volume was approximately 200 billion USD in 2015. Cooperation in sectors like mining, infrastructure constructions, and health care have intensified in the last decade prompting a 65% favorability view of China on the continent (Council of Foreign Affairs, 2016). The Communique of "*China and Africa in the New Era: A partnership of Equals (2021)*" was also detailed by the Ministry of Foreign Affairs of the PRC. This one focused on Sino Africa relations as equals in sincerity and mutual respect in cooperation on matters of security, education, social development, and economic development.

Table 4: China - New Destination for International Students



In this context, China notes to have helped 30 African universities set up a Chinese language departments or majors. The report also lists the establishment of 61 Confucius institutes and 48 Confucius classrooms in Africa. China claims to have sent 5,500 Chinese language teachers and volunteers to 48 African nations. The report mentions exchanges in scientific and technological innovations, academic exchanges between think tanks, and non-governmental exchanges such as social groups, youth organizations, etc. The report provides information on media cooperation with efforts to provide satellite reception to 10,000 villages and programs produced in 600 languages to serve 13 million African users. The report finally highlights the debt cancellation for 15 countries during the Covid 19 crisis,

the availability of over 900 million USD the African Development Funds under the African Development Bank, and the prospects of the Belt and Road initiative to show the “pronounced intent” of helping Africa develop.

Included in China’s overall foreign policy objectives is cooperation in education. Although China’s relation and cooperation with Africa started in the early 1950’s, it sent science teachers to Mali and Guinea and donated funds and school materials to African countries (Changsong 2013). China has developed in the last decades programs that include scholarships to foster strong relations with the new trading partners as well as to promote Chinese culture and way of life on the continent. Consequently, this has led to thousands of privately funded African students, with much ease, to seek higher education in China.

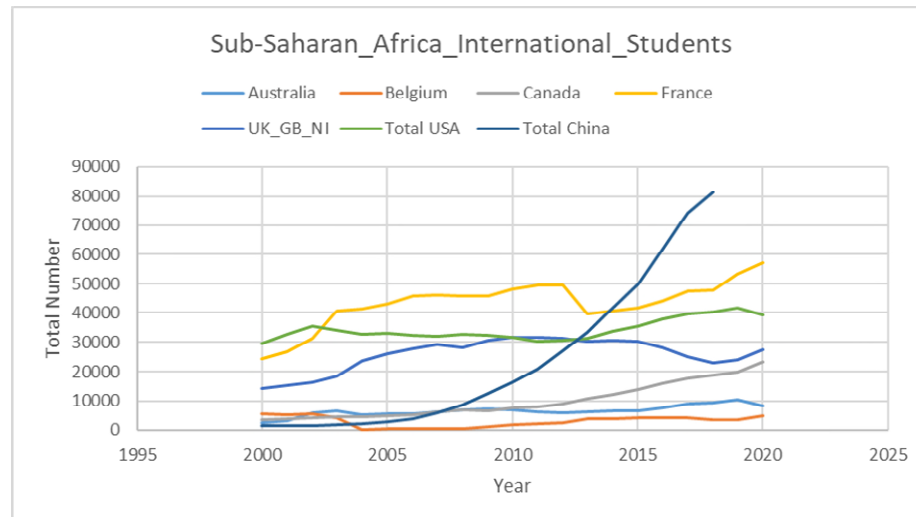
Throughout the two decades following the unrolling of the “Going Out” policy, China’s focus has effectively changed based on its economic status. However, after joining the World Trade Organization (WTO) in 2001, China’s political economy was reoriented not only in solidifying relations with existing trade partners, but in expanding cooperation with underdeveloped nations. In the process, the party leadership opened China to trade and increasingly allowed a considerable number of students to study in China. Because of scholarships programs (government sponsored), the low tuition costs, the relative ease of visa deliveries, the acceptable quality of education, and after-graduation prospects, China surpassed the UK (Great Britain and Northern Ireland) to become the second largest recipient of international students. Up to the year 2000, the USA and allies (UK, France, Canada, Australia) were by far the largest recipients for international students with the USA leading the chart at 547,867 international students in 2000. As described earlier, the trade volume facilitates the international mobility of students (Hao Wei, 2013), China’s accession to WTO was a catalyst for a tremendous increase in the number of international students in the following decades. Between 2000 and 2010, China increased its number of international students by 408% from 52,150 to 265,090. At the same time the USA, the world’s largest recipient of international students, increased its international student population by 175,040 students or 37%. In the beginning of the following decade, China surpassed France and Australia to become the third largest recipient, and surpassed the UK (Great Britain, + Northern Ireland) in 2016 to become the second largest recipient of international students. This growth in total number of international students may signal the strength of China’s trade with developed nations as well as underdeveloped nations.

CHINA: NEW DESTINATION FOR SUB-SAHARAN AFRICA INTERNATIONAL STUDENTS

Although China’s expansion has led it to become the second leading recipient of international students, the USA continues to be the favorite destination for international students including for hundreds of thousands of Chinese international students. The top-grade quality of education, the first-rate value associated with US institutions of higher education, and the after-graduation prospects are strong

determinants of the continued USA leadership in this market. However, the case is different for the Sub-Saharan African international student (SSAIS) population. For economic and political reasons, China's relationship with Africa has extended to the point that thousands of SSAIS seek higher education in mainland China.

Table 5: China - New Destination for Sub-Saharan Africa Students



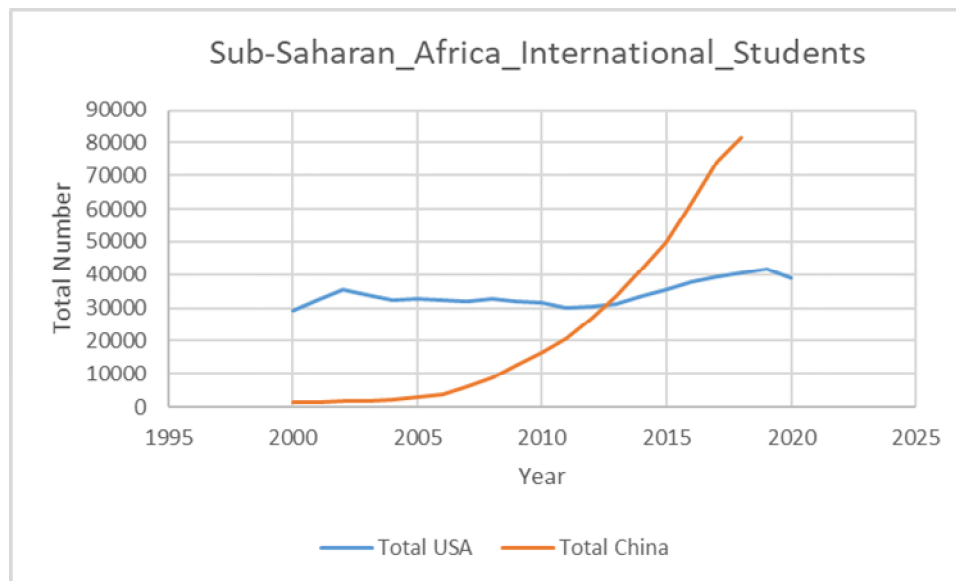
Kondacki (2011) and Hao Wei (2013) both contend that “international students from developing countries consider economic and academic factors when they choose to study in another developing country.”

M.A Jiani (2017) (China's future development prospects), Song and Liu (2014) (China improving and potential economic level, good bilateral trade relations, degree of bilateral mutual recognition agreement), and Fang (2015) (comparative advantage, construction, education cooperation policy, Chinese culture, development of the world's international education, “Chinese Craze”) all found that China's development prospect, trade relations, and culture were key factors attracting international students to study in China. Finally, Dong and Chapman (2008) found that participants in the study of African students in China are generally satisfied with their experiences in China and are positive about the impact of the program in building friendships with their home countries.

Prior to and until the year 2000, the number of SSAIS studying in China was notably below those of Western nations. In fact, China accounted only 1,388 SSAIS in 2000 while the leading nations were respectively the USA (29,390), France (24,473) and the UK (14,377). But, in the following decade (2000-2010), as the figures leveled off for the USA and allies, China's number of SSAIS started to increase sharply. With an average growth rate of 29.07%, the number of SSAIS will reach 16,403 in 2010. Even though France, USA, and the UK's figures were significantly higher, China's number of SSAIS grew at an average of 26% between

2010 and 2015, thus surpassing the USA (2013), the UK (2013) and France (2014). By 2015 the number of SSAIS in China reached 49,792 while France, the US and the UK respectively recorded 41,800, 35,564, and 30,093 SSAIS.

Table 6: Growth of Sub-Saharan Region Students in China



By comparing the figures for the USA and China, one clearly and distinctly notes the difference in slopes which may be the consequences of multiple intersecting policies for both nations. At this rate, and if all equal, the gap between the number of SSAIS in China and that in the USA will continue to widen for the near future, at least until the market hits a new equilibrium. Meanwhile, this observed gap certainly will have immediate and long-term political implications for global power balance.

A CALL TO ACTION

In the last decade, the West has lost some influence in Africa. For instance, against their own immediate interests, Central African Republic (CAR), Mali, and Burkina Faso have ended their military cooperation with France. Although this may have profound consequences on their security, the populations of Niger, Mali, Burkina have protested the presence of French troops who, they blame for many problems on the continent. They accused them of stealing their resources, of interfering in their internal affairs, of supporting dictators, and of “bigotry.” Some of these nations (Mali, Burkina, CAR) have gone as far as to build stronger relations with Russia and derived new relations with the mercenary group “Wagner” which is labeled by Western governments as a criminal organization. There is also the springing up of media outlets and internet podcasts that are increasingly critical of

the West and its presence on the continent. They use historical events as far back as the colonization era and the independence struggles era to stoke anti-Western sentiments in the opinion. The combination of these negative coverages and the advancement of China's interest in Africa is putting the US and Allies in a unique and complicated situation which requires an extremely difficult solution.

US AND ALLIES RESPONSE TO CHINA'S OFFENSIVE IN AFRICA: NEW FOREIGN POLICY

To counter these unrolling of events that can be damaging to world stability, the US and allies have crafted a robust set of policies for Africa. The US Strategy Toward Sub-Saharan Africa (2022) starts with the recognition that it is impossible to advance global priorities (security, trade, democracy, human rights, climate issues, etc.) without African contributions and leadership. This strategy has four pronounced objectives that include the fostering of open societies (governance, rule of law, justice, transparency), the advancement of security and democracy (counter terrorism, human rights, civil society, minority groups rights) and the advancement of Pandemic Recovery and economic opportunity (vaccine, detection and prevention of disease threats, promotion of economic development).

The U.S.- Africa Leaders' Summit (US-ALS) organized its second edition in 2022 while the first edition took place in 2014. According to the Carnegie Endowment for International Peace, in the same period, China and Japan each had organized eight summits with African nations. However, the highlight is that US pledged 55 billion USD for Africa while China and Japan pledged 40 and 30 billion USD, respectively. The Carnegie Endowment for International Peace also notes the fact that during the general summits, China had bilateral meetings with many individual leaders while the US had none. The second edition of the summit enlisted the full scope of the US government for better contact at every level. The US pledged support for Africa representation in global governance such as the G20. Besides the pledge of 55 billion USD which includes the support for key Pan-African initiatives, the US promised to move from the aid strategy to trade and investment.

However, as generous and expansive these policies are for Africa, it is necessary to note that the financial details of the pledged 55 billion USD reveal scholarship programs that are too small for the needs of Africa. In fact, there is a scholarship (up to 50) for a total \$90,000 to support summer work travel for exchange visitors from across Africa. The largest fund allotted to education is only 1.5 million dollars administered through the Department of Education to facilitate university exchanges, joint research, collaboration on academic administration, and public-private partnerships. With all the programs that are included in this fund, the prospect of having more SSAIS in the US cannot be asserted.

POLITICAL IMPLICATIONS

Despite the best efforts of the West to improve their relationships with Africa and to assist Africa in a responsible, secure, and sustainable economic and social development, the perception may be on the contrary negative. Edoho (2011) noted that China-Africa relations need to be understood as the logical outcomes of the marginalization of Africa in the age of globalization, and China is filling the vacuum in Africa created by Western disengagement from the region since the end of the cold war. Zeleza (2013) also noted that despite the election of Barack Obama's euphoric reception in Africa, little changed in substance in US-Africa policy in which African interests remain marginal and subordinate to US interests. These findings are supported by Van de Walle (2010) who mentioned that despite the tripling of American foreign aid to Africa, the weight of diplomatic presence in Africa continued to decline partially because of contradictions in policy. Sautman and Hairong (2007) moreover looked at the links between Africa and China in terms of aid, migration, foreign investment, infrastructure loans and development model (Beijing Consensus). By comparing the papers of the Council on Foreign Affairs and the PRC policies on Africa, they argued that aspects of China's links to Africa make the PRC seem a lesser evil than the West in terms of support for Africa's development and respect for African nations.

With these image and perceptions crises for the West, there may be a profound need for a more substantial, more adequate, and more measured response to China's offensive in Africa. Harris (2017) noted that Africa, with 54 countries and with nearly a billion people, will play a growing role in shaping international order and will affect the role and vitality of US leadership therein. Therefore, the competition for influence in Africa should be on all fronts including education. However, the cost of education, the US visa policies in Africa, the education exchange policies as described in the US-ALS, and the Strategy for Sub-Saharan Africa do not match the Beijing initiatives in terms of international students' mobility. If theory holds that education affects change in the society; and if Dong and Chapman (2008) findings hold true that "*African students in China are generally satisfied with their experiences in China and are positive about the impact of the program in building friendships with their home countries*", then China may increase its net influence in Africa, especially if western nations continue to neglect or ignore this numerous, young, dynamic, and impressionable stratus of African society.

CONCLUSION

China's growth between 1978 and 2010 was due to the 'Going Out' policy which allowed for efficiency in the allocation of scarce resources. After joining the WTO in 2001, China, through remarkable growth, would reach mature economy and second largest economy status in 2010. To maintain or improve this status, China developed cooperation with Sub-Saharan Africa nations that has led to an increasing number of young Africans to seek higher education in China. The

generous and strategic West's response to China's offensive does not address the potential increase in net influence that can emanate from the increase in the number Sub-Saharan Africa students in China. Because of the low return rates of African students, the high education cost, the immigration policies, and the foreign policies, the West is faced with a complex equation, which if not solved, will see a net increase of China's influence in Africa. Consequently, this may have profound political implications including on global power structure.

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INCLUSION OF DATA ANALYTICS IN THE ACCOUNTING CURRICULUM

Anwar Y. Salimi
University of Laverne

ABSTRACT

The inclusion of data analytics in the accounting curriculum is an important task that has been recommended by professional and academic accounting bodies as well as accrediting agencies. This research paper documents the results of a survey which investigated the extent to which data analytics is being included in various courses in the accounting curriculum and how universities are meeting the challenges of accomplishing this task. The survey was sent by email on October 20, 2019 to approximately 4,800 accounting instructors in the United States. The findings of the study indicated that most universities in the sample were including data analytics in their accounting curricula, and that AACSB accreditation seemed to influence the inclusion of data analytics. However, we found that some accounting programs were not including data analytics in their curriculum. The study indicated that AACSB-accredited schools were more likely to offer incentives to faculty to become knowledgeable about data analytics than other schools.

Key words: Data analytics, Integration, Survey, Accounting curricula, Accreditation, Software

INTRODUCTION

Increased inclusion of data analytics in the curricula of university accounting departments is likely to have a significant impact on teaching and learning in accounting (Tietz, 2019). The use and importance of data analytics in the field of accounting have increased tremendously, as they have in all areas of business (AICPA 2019). Carefully thought-out integration of data analytics into accounting curricula has the potential to enhance students' educational and professional outcomes (PWC 2015).

There is extensive documentation that indicates the importance of data analytics to accounting professionals. For example, the American Institute of CPAs (AICPA) in December 2019 published an Exposure Draft of a Practice Analysis of CPAs that recognizes the important role of data analytics for the CPA profession. The Institute of Management Accountants (IMA) has also incorporated data analytics into the Certified Management Accountant (CMA) exam. The IMA Management Accounting Competency Framework (2019) mentions data analytics as a competency required to manage technology and analyze data to enhance organizational success. Lawson (2020) points out that companies face an

overwhelming array of technologies that have the potential to change their business.

Accounting firms have emphasized the need for data analytic skills in accounting graduates. Big 4 accounting firms have expended considerable resources to instill more data analytic skills in accounting students. PricewaterhouseCoopers (PwC) and KPMG have both launched educational programs that emphasize data analytic skills. KPMG, for example, has collaborated with nine universities to create KPMG Master of Accounting with Data and Analytics programs (2019). Ernst and Young Foundation (2020) specifies the competencies and skills needed to succeed in a digital age, including technical skills and data intelligence and the ability to accumulate and make sense of data from various sources. Earley (2015) states that the tax and advisory practices of public accounting firms are increasingly using data analytics.

The Pathways Commission of the AICPA and the American Accounting Association (AAA) suggests that universities “transform learning experiences to reflect current and emerging technologies and global trends in business” (2014). The Association to Advance Collegiate Schools of Business (AACSB) has encouraged accounting programs to incorporate data analytics into the curriculum. In particular, for accounting programs with separate AACSB accreditation, Standard A5 requires that programs incorporate data analytics in the curriculum (AACSB, 2018). However, there is no clear guidance given as to how to implement this standard, and universities are using different approaches. The AACSB 2013 standards for business school accreditation (which were published in 2013 and revised in 2018) in Standard 9 encouraged technology agility and the infusion of current and emerging technologies, including data analytics, throughout the curriculum as appropriate. The AACSB 2020 standards for business school accreditation also require that “current and emerging technology is appropriately infused throughout each degree program.” Many accounting departments, including those that do not have separate AACSB accreditation, are including data analytics in their curriculum because it will increase the employability of their graduates. However, there are a variety of ways in which departments are trying to implement this change.

The present study offers the results of a survey of accounting instructors in the United States conducted to determine the degree of inclusion of data analytics in accounting curricula. The survey gathers information about whether respondents’ universities have AACSB accreditation, the extent to which data analytics is included in the accounting curriculum, and whether there is a separate data analytics course that accounting majors can take. Other questions gather information about resources or incentives provided to instructors by their universities to help them acquire knowledge of data analytics.

A number of other recent studies have addressed various elements of how data analytics is or should be incorporated into the accounting curriculum. Andiola et al. (2020) survey leaders of accounting departments that have separate accounting

accreditation about how they are including data analytics in their current program and what the implementation status and challenges are. They found that the AACSB standards for accounting accreditation were encouraging integration of data analytics into the curriculum but that the method of inclusion as well as the available courses varied across programs. The present study differs from the Andiola et al. study because it surveys individual faculty members and not just department chairs or leaders. This approach provides information about the perspectives of the specific faculty who teach the various courses in the curriculum regarding inclusion of data analytics. The present study is not limited to departments with separate accounting accreditation. It includes business schools that are accredited by AACSB but do not have separate accounting accreditation, as well as schools that do not have any kind of AACSB accreditation. Collecting responses from these different groups allows us to compare responses in these different types of universities. The present study asks additional questions about incentives offered to faculty by their universities for inclusion of data analytics in the curriculum. These questions enable us to compare responses across different kinds of universities with different levels of accreditation.

Dzuranin et al. (2018) present a survey of accounting faculty that asked about what data analytic skills should be taught, as well as how, when, and where these topics should be taught. The present study differs significantly from the Dzuranin study as we explore the status of inclusion of data analytics in current accounting curriculum. The present study investigates the role of AACSB accreditation and institutional support on the inclusion of data analytics in the accounting curriculum.

Lawson et al. (2014) emphasize learning outcomes for accounting graduates using a competency-based framework for success in the profession. Technological competency is one of their foundational competencies. Sledgianowski et al. (2017) use the framework of the Competency Integration for Accounting Education and map data analytics integration in instructional resources for these courses. To do this, they take various accounting courses and provide accounting, foundational, and broad management competencies for each course. They then suggest instructional resources for data analytics for each competency for each course. The present study differs from the Sledgianowski et al. (2017) study because it surveys accounting instructors about how they are actually including data analytics in their courses and schools.

In the present study, the phrase integration of data analytics is used specifically to mean that data analytics was integrated into various courses in the accounting curriculum. The phrases inclusion of data analytics and incorporation of data analytics are more general terms used in this paper to mean that data analytics was taught in some fashion in the accounting curriculum, either through integration into various courses, in a stand-alone course in data analytics, or both.

LITERATURE REVIEW AND RESEARCH QUESTIONS

Method of inclusion of data analytics in the curriculum

ACCSB (2013, 2018, 2020) accreditation standards do not specify a particular approach to implementing data analytics in the accounting curriculum. The competency integration framework for accounting curricula proposed by Lawson et al. (2014) has been used to support an integrative approach to incorporating technology into the accounting curriculum (Sledgianowski et al., 2017). However, other pedagogical literature that addresses including other topics (i.e., ethics) supports either a stand-alone course or integration into various courses in the curriculum (Blanthorne et al., 2007). Dzurainin et al. (2018) found that accounting faculty support a hybrid approach to including data analytics, whereby accounting programs include both a stand-alone data analytics course as well as including data analytics in various accounting courses in the curriculum.

Research Question 1: How is data analytics being included in accounting curricula? Is it via stand-alone courses in data analytics (offered by the accounting department or other departments), via integration in various courses in accounting curricula, or both?

Accreditation and data analytics inclusion

There have been numerous calls from academia and industry for accountants to develop stronger technology and data analytics skills (Chang & Hwang, 2003). The Pathways Commission report (2014) recommends teaching technology. Professional organizations such as the AICPA (2019) and the IMA (2019) have stressed the need for accountants to have strong data analytics skills. AACSB (2018) standards for accounting department accreditation have responded to this by specifying that data analytics should be included in accounting curricula. AACSB (2013, 2020) standards for business school accreditation encourage the use of current technology in accounting curricula. Andiola et al. (2020) surveyed accounting department chairs at AACSB-accredited schools that have separate accounting accreditation and found that AACSB Standard A7 (now A5; AACSB, 2018) had significant impact on the curricula at AACSB-accredited accounting programs. They conclude that their results suggest “that the comparable business accreditation standard (i.e., Standard 9) is likely to have a positive influence on raising the importance of teaching technology and data analytics across AACSB-accredited business schools.”

The present study seeks to determine the extent to which accreditation influences inclusion of data analytics in accounting curriculum, as well as whether there is a difference in the level of inclusion of data analytics at business schools without separate AACSB accounting department accreditation and those schools that have separate accounting accreditation.

Research Question 2a: Does AACSB accreditation have an effect on the inclusion of data analytics in accounting curricula compared to programs with no AACSB accreditation?

Research Question 2b: Is there a difference in inclusion of data analytics in the accounting curricula in programs with accounting department accreditation compared to programs where only the college of business is accredited?

Research Question 2c: Is there a difference in inclusion of data analytics in the accounting curricula in programs which offer bachelors degrees only compared to programs which offer bachelors and graduate degrees.

Incentives offered to instructors to learn/prepare for data analytics and characteristics of universities

AACSB accreditation standards (2013, 2018, 2020) may be an incentive for universities to include data analytics in the curriculum. But one of the challenges to incorporating data analytics into the curriculum is resources. There is a personal cost to faculty to learn about and incorporate curriculum change that faculty may consider as unrewarded (David et al., 2003). Watty et al. (2016) show that there may be faculty resistance to implementing technology into accounting curricula. In order to overcome these challenges, universities may offer incentives to faculty to incorporate data analytics into the curriculum or to gain additional knowledge about data analytics.

Research Question 3a: Do programs with AACSB accreditation offer more incentives to faculty to pursue additional training in data analytics than those without AACSB accreditation?

Research Question 3b: Do larger accounting programs offer more incentives to faculty to pursue additional training in data analytics than smaller programs do?

Research Question 3c: Is there a difference in incentives offered between programs with only bachelor's degrees compared to programs that offer bachelor's plus graduate degrees or only graduate degrees?

Research Question 3d: Do programs that offer incentives have more inclusion of data analytics in the accounting curricula than programs that do not?

METHODS

The present study offers the results of a survey of accounting instructors in the United States conducted to determine the degree of inclusion of data analytics in accounting curricula. The survey asks for demographic information of the respondents. It gathers information about whether the respondents' universities have AACSB accreditation. The study asks faculty how data analytics is actually being implemented in the accounting curriculum at their university, and, if there is a stand-alone course, whether it is offered by the accounting department or by another department. We surveyed faculty to find out what incentives are offered at

their school for pursuit of further data analytics training and try to determine whether there is a correlation between incentives offered and the degree of inclusion of data analytics in the curriculum. We also investigated whether there is a correlation between incentives offered and AACSB accreditation, the size of the program (because larger programs might have more resources), or the types of degrees offered. Programs with graduate degrees might, we hypothesized, offer more incentives than programs without graduate degrees, because they had more resources or because their students might need more technology training.

The survey was sent to accounting faculty members across all specialties. The survey was designed using Qualtrics and was sent out to accounting educators selected from the Hasselback Directory of Accounting Faculty. Faculty teaching at foreign universities or at foreign locations were excluded from the survey, as we desired to study the inclusion of data analytics in accounting curricula in the United States. Retired faculty were removed from the list because they might not have been involved with the inclusion of data analytics in current accounting curricula. The survey was sent out to 4,885 faculty by email on October 20, 2019. There were three follow-up emails sent 12, 26, and 136 days after the original email. There were 692 emails that were either undeliverable or duplicates. Thus, the final number of email recipients were 4,193. Out of these, 260 responses were received, giving an initial 6.2% response rate. However, 46 incomplete responses had to be eliminated because the respondents opened the survey but did not answer any questions. Thus, the final number of surveys was 214, representing a 5.1% response rate.

It must be noted that the survey for our study was sent out in October 2019, after the publication of AACSB (2018) standards for separate accounting department accreditation had been published. Standard A5 of this publication mentions the incorporation of data analytics in the curriculum. Thus, this standard may have had an influence on the level of inclusion of data analytics in the accounting curriculum at the time of the survey. The survey was sent out before the publication of the 2020 AACSB standards for business school accreditation, which require that “current and emerging technology is appropriately infused throughout each degree program.” However, the 2013 AACSB standards for business school accreditation, in Standard 9, encouraged technology agility and the infusion of current and emerging technologies, including data analytics, throughout the curriculum as appropriate. Thus, the 2013 AACSB business school standards may have influenced the inclusion of data analytics in the curriculum.

We checked to see if the findings of the study could be biased because of multiple responses from the same university. A check of responses received revealed that there were two universities with four responses each and nine universities with three responses each. The other universities had two or fewer responses. There were responses from a total of 200 universities before some responses were eliminated because of being incomplete. Thus, because of the large number of universities represented, there may not be a bias caused by multiple

responses from the same university. Any bias caused by multiple responses from the same university may also be offset by multiple responses from other universities with different demographics.

RESULTS

Accreditation status and data analytics inclusion

Table 1 presents data about the status of AACSB accreditation among the schools surveyed.

Table 1

Status of AACSB Accreditation

Accreditation	Count (%)	Accreditation type	Count (%)
With AACSB accreditation	174 (82.5%)	AACSB College of Business only accreditation	105 (49.7%)
		AACSB College of Business accreditation and accounting department accreditation	69 (32.7%)
No AACSB accreditation	37 (17.5%)		
Total	211 (100%)		

* No answer = 3

Table 1 indicates that about 50% of schools had only the college of business accreditation and 33% had college of business as well as accounting department accreditation. Thus 33% had gone through a supplementary accreditation review to achieve accounting department accreditation. Only 17.5% of the schools did not have any kind of accreditation, indicating that data analytics should be included in the curriculum at most schools, since the AACSB encourages inclusion of data analytics in the curriculum.

Table 2 below presents data about the number of schools integrating data analytics across the curriculum and also the number of schools offering a separate data analytics course for accounting students.

Table 2*RQ 1: Level of Integration of Data Analytics in the Accounting Curriculum*

Data analytics course offered ↓ / Integration →	Data Analytics is integrated	Data Analytics is not integrated
	Counts (%)	Counts (%)
Separate Data Analyticscourse for accounting students	59 (28.4%)	70 (33.7%)
No separate Data Analyticscourse for accounting students	28 (13.5%)	51 (24.5%)
Total	87 (41.8%)	121 (58.2%)

*No answer = 6

Table 2 indicates that most schools include some form of data analytics in the curriculum as only 24.5% of respondents teach in schools that do not integrate data analytics and do not offer a separate data analytics course. The rest, 75.5%, are offering data analytics instruction to their students either through integration across the curriculum, by offering a separate data analytics course, or both. The survey indicated that about 62% of schools (129 out of 208 schools) are offering stand-alone data analytics courses to their students, offered either by the accounting department or by another department. About 28% of schools are adopting a hybrid approach to inclusion of data analytics, integrating data analytics across the accounting curriculum as well as offering a stand-alone course.

*Accreditation and data analytics inclusion***Table 3**

RQ 2a and 2b: *Association between Accreditation and Level of Inclusion of Data Analytics in the Accounting Curriculum*

Accreditation ↓ / Inclusion→	Data analytics included	Data analytics not included	Row Total
No AACSB accreditation	19 (51.4%)	18 (48.6%)	37 (100%)
AACSB College of Business only accreditation	83 (80.6%)	20 (19.4%)	103 (100%)
AACSB College of Business and accounting accreditation	55 (82.1%)	12 (17.9%)	67 (100%)
Subtotal: All accreditations	138 (81.2%)	32 (18.8%)	170 (100%)
Total (with and without accreditation)	157 (75.8%)	50 (24.2%)	207

*No answer = 7 (if only one or both questions (inclusion and/or accreditation) were not answered, it's not included in the table).

Significant association between accreditation and inclusion of data analytics ($\chi^2 = 14.754$, $df = 1$, $p < 0.00012$).

No significant association between type of accreditation and inclusion of data analytics ($\chi^2 = 0.06$, $df = 1$, $p < 0.806$).

The total respondents in Table 3 add up to 207. This is less than the 208 respondents in Table 2. This is because one of the respondents who answered the question regarding data analytics integration in Table 2 did not answer the question regarding AACSB accreditation.

Table 3 indicates that having accreditation has an impact on whether schools teach data analytics or not. Eighty-one percent of respondents from accredited schools indicated that their schools include Data Analytics in the curriculum, while only 51% of respondents from non-accredited schools did so. Difference in inclusion between accredited and non-accredited schools was significant, which may be because of the greater importance given to data analytics by AACSB standards and the desire of schools to achieve AACSB accreditation with its attendant benefits. However, there is no significant difference in inclusion of data analytics between schools that have only college of business accreditation and those that have both college of business and accounting department accreditation. Thus, AACSB standards for accounting accreditation do not seem to be leading to more inclusion of data analytics even though AACSB (2018) Standard A5 for accounting department accreditation is more explicit than the AACSB (2013, 2020) standards for business school accreditation regarding data analytics inclusion in the curriculum.

Table 4*RQ 2c: Type of Degree Offered and Inclusion of Data Analytics*

Degrees offered ↓ / Inclusion→	Data analytics included	Data analytics not included	Row Total
Bachelor only	21 (77.8%)	6 (22.2%)	27 (100%)
Bachelor and/or Graduate degree	136 (75.1%)	45 (24.9%)	181 (100%)
Total	157 (75.5%)	51 (24.5%)	208

*No answer = 6 (if only one or both questions (inclusion and/or degree offered) were not answered, it's not included in the table).

Not significant ($\chi^2 = 0.088$, $df = 1$, $p < 0.76615$).

Table 4 indicates that universities that offer a bachelor's degree only and those with bachelor's plus graduate degrees are about the same with respect to the inclusion of data analytics in the accounting curriculum. Comparing this finding with Table 3, it seems that it is not the kind of degree (undergraduate versus graduate) being offered that makes a difference with respect to data analytics instruction, but rather whether the degree is from an accredited school or not. Thus, even though schools that have both a bachelor's and a graduate program may have more resources and more faculty expertise than schools with only a bachelor's program, they are both including data analytics in their curriculum. AACSB accreditation seems to be providing a powerful incentive for schools to include data analytics in the curriculum.

Incentives offered to instructors to learn/prepare for data analytics and characteristics of universities

Table 5

RQ 3a: *Accreditation and Incentives for Becoming Knowledgeable About Data Analytics*

Accreditation → / Incentives ↓	With AACSB accreditation	No AACSB accreditation	Row Totals
Course release/ Time off	7 (3.6%)	0 (0%)	7 (3%)
Stipend/ Monetaryreward	3 (1.5%)	0 (0%)	3 (1.3%)
Dept. willpay for training in Data Analytics	57 (29.4%)	3 (8.1%)	60 (26%)
Consideredfavorable for retention/tenure	27 (13.9%)	1 (2.7%)	28 (12.1%)
No Incentives	96 (49.5%)	33 (89.2%)	129 (55.8%)
Other	4 (2.1%)	0 (0%)	4 (1.7%)
Column Totals	194 (100%)	37 (100%)	

Significant ($\chi^2 = 20.08$, $df = 5$, $p < 0.00121$).

Responses are included in the cross-tabulation in Table 5 only if the respondent answered both the question regarding incentives and the question regarding accreditation. Thus the results may differ slightly from totals in other tables.

Table 5 shows that 55.8% of respondents said that their universities do not offer any incentives to become knowledgeable about data analytics. Thus about 44% of respondents indicated that their universities offer one or more incentives, with about 26% indicating that their university would pay for them to get training. Thus, less than half of all universities in the survey offered incentives and a little over half did not. This indicates schools may lack resources to devote to inclusion of data analytics in the curriculum. This information is further analyzed to see if there is a difference in incentives offered by various categories of schools. Breaking out the data between AACSB-accredited and non-accredited schools indicates that there is a significant difference in incentives offered between accredited and non-accredited schools. Of the accredited schools, 49.5% did not offer any incentives, compared to 89.2% of non-accredited schools. Chi-Square tests show that there is a statistical difference between accredited and non-accredited schools regarding offering incentives. This may be because accredited schools are more motivated to offer faculty incentives to study data analytics. Another possibility is that accredited schools may have more resources to devote to incorporating data analytics into the curriculum.

Table 6*RQ 3b: Number of Accounting Students and Incentives*

Number of majors → / Incentives ↓	None	1 – 200	201 – 400	401 – 600	601 – 800	801 – 1000	1001 +
Course release/ Time off	0 (0%)	1 (1%)	4 (5.7%)	1 (3.3%)	1 (7.7%)	0 (0%)	0 (0%)
Stipend/ Monetary reward	0 (0%)	1 (1%)	0 (0%)	0 (0%)	1 (7.7%)	1 (9.1%)	0 (0%)
Dept. will pay for training in Data Analytics	0 (0%)	15 (15.2%)	26 (37.1%)	12 (40%)	2 (15.4%)	6 (54.5%)	0 (0%)
Considered favorable for retention/ tenure	0 (0%)	10 (10.1%)	7 (10%)	6 (20%)	3 (23.1%)	2 (18.2%)	0 (0%)
No Incentives	6 (100%)	70 (70.7%)	31 (44.3%)	11 (36.7%)	6 (46.2%)	2 (18.2%)	3 (100%)
Other	0 (0%)	2 (2%)	2 (2.9%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
Column Totals	6 (100%)	99 (100%)	70 (100%)	30 (100%)	13 (100%)	11 (100%)	3 (100%)

Significant ($\chi^2 = 51.868$, $df = 30$, $p < 0.00787$).

The results from Table 6 indicate that the number of accounting students makes a significant difference in whether an accounting department offers incentives to faculty to learn about data analytics and incorporate these skills into the accounting curriculum. Among departments with 1–200 accounting students, 70.7% of respondents reported that their schools offered no incentives for further training. In the schools in most of the larger size ranges, this number was significantly lower, ranging from 18.2% to 46.2%, although it should be noted that all three of the respondents from schools with over 1000 students indicated that no

incentives were offered at their schools. This difference may be due to schools with more students having more resources with which to reward their faculty.

Table 7

RQ 3c: Type of Degree Offered and Incentives

Degrees offered → / Incentives ↓	Bachelor only	Bachelor and/or Graduate degree	Row Totals
Course release/ Time off	0 (0%)	7 (3.4%)	7 (3%)
Stipend/ Monetary reward	0 (0%)	3 (1.5%)	3 (1.3%)
Dept. will pay for training in Data Analytics	6 (22.2%)	55 (26.8%)	61 (26.3%)
Considered favorable for retention/ tenure	2 (7.4%)	26 (12.7%)	28 (12.1%)
No Incentives	19 (70.4%)	110 (53.7%)	129 (55.6%)
Other	0 (0%)	4 (2%)	4 (1.7%)
Grand Total	27 (100%)	205 (100%)	232

Significant ($\chi^2 = 3.785$, $df = 5$, $p < 0.58077$).

Table 7 indicates that there is no significant difference between incentives offered by bachelor's-only schools and schools with both bachelor's and graduate or only graduate degrees. This indicates that other factors such as accreditation status and number of accounting majors are more important in terms of whether a school offers incentives than whether or not the school has a graduate program.

Table 8

RQ 3d: Incentives Offered by Department/College and Inclusion of Data Analytics (aggregated data)

Inclusion ↓ / Incentives →	Some form of incentives	No incentives	Row Total
Data analytics included	88 (49.7%)	89 (50.3%)	177
Data analytics not included	12 (23.1%)	40 (76.9%)	52
Total	100 (43.7%)	129 (56.3%)	229

Significant ($\chi^2 = 11.596$, $df = 1$, $p < 0.00066$).

Table 8 indicates that a school including data analytics in the curriculum is more likely to offer incentives to the faculty. About 50% of the schools that included data analytics offered incentives and about 50% did not. However, only 23% of those schools that did not include data in their curricula analytics offered incentives, while 77% did not offer incentives. This may indicate that schools that

were motivated to include data analytics in their curriculum offered incentives to their faculty to become knowledgeable about data analytics. This may also indicate that faculty were motivated to include data analytics in their courses in schools that offered incentives.

CONCLUSIONS

The present study attempted to provide information about the inclusion of data analytics in accounting curricula. A survey was sent out to accounting instructors nationwide in the USA. The demographics of the survey indicated that most schools were AACSB accredited (about 82.5%) and only about 17.5% were not accredited.

Our survey found that most schools (75.5% of respondents) were teaching data analytics to their students, either by including data analytics in various courses in the accounting curriculum or via a stand-alone course (or both). Thus, most schools in this study were AACSB accredited and were also including data analytics in their curriculum. Consequently, this survey may be useful to accounting departments and faculty in providing information about the data analytics inclusion practices of AACSB schools that are including data analytics in the curriculum.

Statistical testing indicated the schools with accreditation were teaching data analytics significantly more than schools without accreditation. The implication of this is that AACSB standards have influenced the inclusion of data analytics in the accounting curriculum. As detailed above, the data analytics inclusion requirements for accounting accreditation (Standard 9 in AACSB, 2018) are more rigorous than the requirements in AACSB (2013, 2020) for business school accreditation. But the additional requirements for accounting accreditation do not seem to make a difference in schools' inclusion of data analytics. Statistical tests indicated no difference in data analytics inclusion between schools offering bachelor's degrees only and those offering graduate degrees. This indicates that schools with only undergraduate programs are responding to AACSB guidelines for inclusion of data analytics as much as schools with graduate programs. Thus, it is AACSB accreditation standards, and not the presumably additional expertise in faculty and additional resources that graduate programs may possess, that seem to make a significant difference in the extent to which data analytics are being taught.

The survey indicated that 55.6% of schools did not offer incentives for faculty to learn about data analytics. Statistical tests indicated that schools with accreditation were offering more incentives to faculty than those without accreditation. This may be because accredited schools want more faculty to incorporate data analytics because of accreditation requirements. Schools with more students were more likely to offer incentives to faculty. This may be because larger schools have more resources to invest in the development of their faculty. There was no statistically significant difference in incentives offered between

undergraduate-only schools and schools with undergraduate and graduate programs or graduate programs only. Thus, it seems that it is not the type of degree offered but rather accreditation that makes a difference in whether incentives for further study are offered by a school. Given the strong correlation we found between incentives offered by the school for data analytics training and higher rates of inclusion of data analytics instruction, it seems likely that whether or not incentives are offered may have a significant impact on a school's success in including data analytics in the curriculum.

One limitation of the study is that the response rate is low. It may be that many faculty did not respond because they either were not interested in data analytics or did not feel that they possessed enough knowledge of data analytics to provide a meaningful contribution to the study. Thus, the respondents may include a disproportionate number of faculty who were knowledgeable about and interested in data analytics. This may have affected the responses to questions about whether participants integrate data analytics into their courses or not and their degree of knowledge and preparation for data analytics. If so, the responses to these questions may be biased towards the high side because of the response bias in the sample. However, in spite of this possible bias, the study is useful in providing information from over 200 faculty about inclusion of data analytics in the accounting curriculum, even if they are those who were more interested in and/or knowledgeable about data analytics.

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EXAMINING CURRENT RESEARCH ON PERSONALITY ASSESSMENTS USED IN HIRING

Gary L Deel

American Public University System

Abstract

Personality assessments have been used by employers in hiring applications for more than a century; however, the integrity and efficacy of these tools as applied to hiring and recruitment efforts is not fully understood. The purpose of this paper is to examine the relevant literature to date on the different personality assessments that have been applied to hiring objectives in business and industry. From this analysis, the paper then summarizes the current body of knowledge in this area and identifies needs for further research and exploration on these topics. 24 recent research articles were reviewed, summarized, and analyzed. From this review, three themes were identified in the literature: 1) personality assessments may be reliable in some contexts, 2) assessments which purport to measure personality through indirect means may offer limited reliability and validity, and 3) faking is a serious threat to the reliability and validity of personality assessments.

Keywords: personality assessment, hiring, industrial and organizational psychology, faking.

INTRODUCTION

Today, personality assessments are used for a wide variety of applications to include psychoanalysis for clinical treatment, matching algorithms on dating and relationship web platforms, and individual fitness for certain types of groups and associations. However, one of the most ubiquitous uses of personality assessments today is in the industrial and organizational psychology context – and it involves the use of personality profiling and assessment to determine whether job applicants are an appropriate fit for employer openings based on alignment with team and organizational cultural variables.

Although personality assessments have been applied to hiring contexts by businesses now, their propriety and effects to date are not fully understood. The obvious aim of companies who utilize them is to leverage

psychological science in order to make better hiring decisions. However, it is not at all clear from the evidence emerging from the application of these personality tools that they are actually serving their intended purposes. Therefore, the research problem for this study is that personality assessments used in hiring have not been thoroughly vetted, and much of the existing research on this topic calls into question the legitimacy and efficacy of personality assessments used in such applications.

Research on this topic is vital to business and industry because personality assessments are used ubiquitously for hiring across different industries, yet their utility and propriety for such purposes has not been thoroughly established. And hiring decisions are obviously critically important to the success of businesses – so the effects of personality assessments (both good and bad) must be fully understood in order to appropriately leverage these tools.

This meta-analysis contributed to the field of psychology by organizing and analyzing the current body of knowledge around the use of personality assessment in industrial settings so as to identify themes and opportunities for future research. The general topic of this paper is also relevant to my own professional interests as I hope to be able to use my education and knowledge in industrial and organizational psychology for the purposes of teaching business and management classes with an I&O psychology component for several different universities. So understanding the implications of personality tests used in hiring will help me to better educate future business leaders on the potential consequences of these decisions – both good and bad – for the organizations they will run.

In the paper that follows, I will outline a history of personality assessments used in hiring contexts for business and industry. I will also highlight and explain three main themes identified in an exhaustive literature review on this subject; those themes are 1) personality assessments may be reliable tools for hiring decisions in certain contexts, 2) the reliability of personality assessments which are processed by machines and/or which analyze circumstantial applicant data without direct examination is questionable, and 3) a major problem for the reliability and integrity of personality assessments is that applicants can and commonly do fake responses in testing. Following this review of existing literature, I will identify some of the most pressing needs for future research and study in these areas in order to better understand the implications of personality assessments used in hiring contexts.

Literature Review Findings

The literature review for this meta-analysis consisted of an investigation into the history of personality testing in general, an inquiry into the most popular and widely used personality tests, and the current body of knowledge and research surrounding the application of such tests in hiring contexts, which included identification and discussion of the three themes identified in the research.

History of Personality Testing

The first uses of personality testing in hiring date back more than a hundred years to World War I when the United States Army began testing new recruits in an attempt to understand what kinds of soldiers might be most vulnerable to “shell shock” and psychological compromise on the battlefield. Since then, various personality testing tools have been adopted by business and organizations across virtually every industry with the aim of screening, identifying, and recruiting job applicants with the best fit for whatever organizational or team culture and environment they may be assigned to work in (Ozer & Reise, 1994).

Widely Used Personality Tests

There is a wide variety of personality models and personality tests that have been developed and deployed for the purpose of trying to analyze and taxonomize the abstract dimensions of human personality. Among these tests, some of the most prominent include the Myers-Briggs Type Indicator, the Five Factor Model (also known as the “Big Five” personality test), and the CliftonStrengths Assessment (formerly known as the Strengthsfinder personality assessment).

The Myers-Briggs Type Indicator is a personality taxonomy model, first published in 1943, that attempts to categorize personality dimensions based on four different dichotomous variables. First, there is the variable of extraversion versus introversion. Second is the variable of sensing versus intuition. Third is the variable of thinking versus feeling. And fourth, there is the variable of judging versus perceiving. Test subjects answer a number of questions that are designed to measure these variables, and then their relative strengths are mapped to identify each subject as one of 16 different personality types that are identified with letters reflecting the dominant component in each variable. For example, an “ISTJ” personality is an individual who tends to favor introversion, sensing, thinking, and judging (Murray, 1990).

The Five Factor personality model was developed in the 1980s and is an alternative perspective on personality dimensions to the Myers-Briggs Type Indicator, although the tests do share some similarities with respect to the variable they measure. As the name implies, the Five Factor Model looks at five key personality attributes: extraversion, agreeableness, conscientiousness, neuroticism, and openness to experience. Like the Myers-Briggs test, subjects are asked a series of questions, which different questions coded to measure each of the five different dimensions. At the end of the test, subjects are provided results that indicate which of the dimensions are most prominently detected in their personality (Montag & Levin, 1994).

Finally, the CliftonStrengths Assessment was developed by educational psychologist Donald Clifton in collaboration with the Gallup organization in the 1990s. The CliftonStrengths Assessment consists of a 177-question written exam that probes subjects on 34 different personality traits or attributes. Those traits are: analytical, intellection, communication, individualization, relator, futuristic, strategic, focus, harmony, achiever, input, context, developer, ideation, empathy, adaptability, comparison, includer, restorative, positivity, activator, connectedness, belief, discipline, maximizer, self-assurance, woo, competition, significance, responsibility, learner, deliberative, consistency, and command. At the conclusion of the test, subjects are apprised as to their top five most prominent attributes from the list (Asplund et al., 2007).

Obviously, the use of any one of these personality assessments in a hiring context is predicated on the assumption that the results of such assessments could guide hiring managers to make better decisions about which applicants would or would not be the best choices for recruitment. However, the problem with this assumption is that none of these assessments has been truly vetted for this purpose. And as the results of my literature review revealed, success with this strategy is limited at best.

Theme #1: Personality Assessments May be Reliable and Valid in Some Hiring Contexts

To be fair to these assessment tools, the research on their use in hiring does seem to suggest that they may be reliable and valid in specific circumstances and under specific conditions. For example, one study used the Five Factor Model and applied it to personality evaluation for high school teachers in Malaysia. The study compared personality test results with job performance evaluation scores to look for correlations. The results from that study indicated that certain personality dimensions from the Five

Factor Model (name agreeableness and openness to experience) were in fact positively correlated with job performance for this specific occupation and setting, while other dimensions (neuroticism) were negatively correlated with the same (Binti Rusbadrol et al., 2015). Separately, another study looked at correlations between personality dimensions in the Five Factor Model and, not job performance, but job engagement. The study examined personality results and job engagement survey data for municipal workers in South Africa. The results of the study indicated that several Five Factor dimensions (conscientiousness, extraversion, agreeableness, and intellect) were positively correlated with job engagement, and neuroticism was negatively correlated with the same (Mhlanga et al., 2021).

Two prior studies actually looked at the efficacy of personality assessments for hiring in the healthcare and medical industries. First, a study applied a personality assessment to neurosurgical residents in the healthcare industry to understand whether there might be correlations between personality characteristics and other attributes such as job performance in this field. What the study found was that peculiar extraneous factors, such as the number of scholarly papers a surgeon had published, were correlated with the dominance of certain personality dimensions that could in turn affect job performance. (Lubelski et al., 2016). Then, another study looked at correlations between personality and performance for another group of surgeons, but this study used two personality tests: the Five Factor Model and the Grit Scale personality test. The results of the study indicated that certain Five Factor dimensions (extraversion, conscientiousness, and emotional stability) were positively correlated with surgical resident job performance. However, no such correlations could be identified between job performance and the results of the Grit Scale (Hughes et al., 2019).

A few studies have also attempted to better understand the perceptions of subjects who take personality tests pursuant to hiring processes, insofar as they concern topics such as fairness and justice. For example, one study also looked at the Five Factor Model, but the aim with this study was to compare personality test results with perceptions of social justice toward the testing process itself. The experiment was run on applicants for teaching jobs in Norway – and subjects were asked to complete both the Five Factor assessment and a questionnaire related to social justice perceptions. The results of the study indicated that the dimensions of extraversion and neuroticism are significantly correlated with perceptions of social justice from test takers in the personality assessment process (Bye & Sandal, 2015). A second study also sought to understand perception of test subjects about fairness and the circumstances of social

justice in testing. This study recruited job applicants in South Africa and conducted a personality assessment, but after the assessment was concluded they also asked the subjects about their perceptions toward the testing process. Most subjects had generally positive views toward the testing, but interesting, native African test subject views were significantly more positive than other applicant groups. These results suggest that race may in fact be an important moderating variable in certain personality assessment applications (Visser & Schaap, 2017).

There have also been studies that have looked at the potential moderating or confounding effects of external variables, such as test subject attributes. For example, one study applied the Five Factor Model to two different test cohorts that were divided by gender, and the goal was to compare results across the two groups. The results did reflect some differences in average personality characteristics between males and females as would be expected, but it also established predictive validity for the test in this setting and suggested that gender should not be a confounding variable with the Five Factor Model (Berry et al., 2013). And a second study examined the relationship between IQ and job performance and satisfaction, and also whether personality types had a moderating effect on such relationships. The study examined IQ, personality, and job performance and satisfaction data for university employees in Pakistan. The results indicated that IQ can be predictive of both job performance and job satisfaction, but more importantly, personality does indeed moderate the strength of predictive validity in this relationship (Murtza et al., 2021).

The results and conclusions from this collection of studies seem to suggest that personality assessments can be valid and reliable in some contexts, but there are – at minimum – a number of moderating factors which affect the extent to which these assessments can serve their intended purposes.

Theme #2: Assessments which Purport to Measure Personality through Indirect Means May Offer Reliability and Validity

Many personality assessment hiring applications involve direct testing of subjects with quantitative instruments. But some test models purport to assess applicant personalities through indirect measures such as analysis of social media profile information and post activity, or interview questions that are not designed for personality assessment or explicitly disclosed as utilized for such purposes. And these methods may in fact offer limited reliability and validity in terms of personality taxonomy.

Personality assessment through social media presence and content has become a popular strategy for testing, and consequently, a key focus for exploratory research in this area. For example, one early study looked at whether dimensions of the Five Factor Personality Assessment Model could be inferred from a comprehensive scan and analysis of given individual's publicly available social media information, including post content. The study used a computer algorithm to scan and analyze social media content from nearly 200 job applicants, and the results indicated that there was evidence in the social media material for the presence of certain Five Factor dimensions – namely extraversion and agreeableness (Stoughton et al., 2013). And in another similar study, researchers aimed to examine whether Twitter post or “tweet” data specifically could be used to extrapolate the prominence of Five Factor dimensions in different job applicants. The study look at the Twitter feeds of more than 150 subjects, and in the end the computer algorithm used for the analysis (similar to that of the 2013 study discussed previously) was able to detect the presence of several of the “Big Five” dimensions to a degree of statistical significance (Rosen et al., 2018). In a third social media-based study, researchers looked at LinkedIn profile and post data to determine if computer algorithms could detect the presence and strength of different target attributes, which included cognitive metrics, specific skills, and finally, personality dimensions as articulated by the Five Factor model. Insofar as the personality component is concerned, the results of the study indicated that the extraversion personality dimension could be reasonably accurately inferred from an analysis of job applicant LinkedIn data (Roulin, & Levashina, 2019).

Of course, social media content is not the only means through which personality assessments might seek to measure key personality attributes. Responses to other questionnaires and interview segments are other sources of data through which these efforts can be made. For example, one study investigated whether computer algorithms could analyze responses to open-ended interview questions in the ordinary course of a job applicant's interview process (that is to say, questions that are not ordinarily intended for use in personality assessments) and extrapolate the presence and strength of Five Factor personality dimensions therefrom. The results of the study indicated these computer analyses could fairly reliably identify Five Factor dimensions based on the open-ended question responses (Jayaratne & Jayatilleke, 2020). And another study aimed to understand whether automated video interviews for job applicants – which recorded audio/video responses to Five Factor Model personality test questions and then analyzed them using computer processing and algorithms – could be reliable and valid. The study looked at video data and machine output from more than

1,000 applicants, and found that reliability and validity was context-specific, and at best inconsistent (Hickman et al., 2021).

The consensus of results from this data seems to suggest that these kinds of indirect methods of assessing personality may in fact be effective in certain circumstances – but they should be used with caution as their reliability and validity across different applications and different settings has not been thoroughly vetted. The validity of personality assessment in different contexts is an ongoing subject of debate amongst practitioners and researchers.

Theme #3: Faking Is a Serious Threat to the Reliability and Validity of Personality Assessments

I've already outlined how personality assessments used in hiring can be useful in certain very specific contexts. However, one serious threat to the reliability and validity of these tools is the vulnerability to “faking” and the corruption of test results by applicants who respond with answers that they think are most favorable to their chances of being selected for the job in question rather than answers that are sincere and unmoderated by external goals or concerns.

As an example of this kind of faking behavior, a question on a personality assessment might be geared toward measuring a test subject's extraversion versus introversion tendencies, and the question might inquire as to, say, how friendly or gregarious or outgoing the test subject is. Now, introverted test subject might not perceive themselves to strongly identify with any of these kinds of attributes – that is to say, that might not actually consider themselves to be very friendly or gregarious or outgoing. However, if they are applying for a job and they believe that the hiring recruiters will want to select the most extroverted applicants – either because the job is best suited to these kinds of individuals or because the company culture is consistent with this kind of disposition – then the applicant might be inclined to answer dishonestly and say that they perceive themselves to be very outgoing or friendly or gregarious even though this isn't really true.

This kind of faking obviously carries the threat of completely undermining the integrity of personality tests, since the results of the assessments and any attempted matching or alignment efforts that are predicated on them would be compromised by fraudulent data. A number of studies have attempted to examine the effects of faking on personality assessment models.

First, a fair amount of research has focused simply on measuring how common faking actually is in order to determine the true extent of the problem. For example, one study sought to understand how common faking behavior is and whether job applicants who fake on personality tests are predisposed to have lower or higher average job performance. The study looked at more than 150 pharmaceutical salespeople and compared hiring personality assessment data with job performance score at different intervals post-hiring. First, the study found that roughly half of all the employees in question exhibited some level of faking behavior in their personality assessments. And secondly, the study found that most employees who engage in faking will actually have worse average on-the-job performance over the long run (Donovan et al., 2014). Similarly, another study looked at whether the phenomenon of faking is more prevalent in situations where the stakes are perceived by test subjects to be high. The study examined the responses of more than 1,600 personality test subjects split into two groups – individuals who were completing the personality test pursuant to an application for a job, a membership, or some other desired status, and individuals who were not completing the personality test for any such goal. In terms of results, the researchers found that faking behavior among applicants was more common and more severe among the applicant group, and that this reflected an aim to appear more hireable or socially desirable (Anglim et al., 2017). And lastly, a third study sought to better understand faking behavior and whether it is more prevalent in situations where there are high perceived stakes for the test taker. The study examined the responses of more than 500 medical students who completed the Five Factor Model personality test as part of an application for a competitive internship program. In terms of results, the researchers found that faking behavior among applicants was once again more common and more severe in situations where the subjects perceived that there was a lot to lose or gain from the outcome of the application process (Anglim et al., 2018).

Next, researchers have also looked at the peripheral characteristics of common “fakers” in personality assessments, in order to determine if certain characteristics might mean that an individual is more predisposed for faking. For example, a 2013 study tried to identify what kinds of personality or character attributes might be common among those personality test subjects who would be most inclined to engage in faking behavior. The study evaluated test behavior and responses from nearly 200 job applicants and identified that individuals lower in certain qualities – namely honesty-humility, integrity and morality – were more likely to engage in faking behavior. Also, individuals with a high tolerance for risk or a propensity for risk taking behavior might also be predisposed for faking

on personality tests as well (O'Neill et al., 2013). Another study wanted to examine the extent to which faking behavior might be linked to emotional intelligence in job applicants. The study looked at personality test responses from more than 100 different applicants who were each applying for one of two key jobs – attorney or file clerk. Comparing these results with other metrics, the researchers established that faking behavior was indeed positively correlated with emotional intelligence, suggesting that those who are highest in emotional intelligence might be most prone to engage in faking tactics (Pelt et al., 2018). A third study then looked at whether faking on personality tests might be associated with either competitive attitudes or cognitive abilities in general. The study examined data from personality tests, cognitive ability assessments, and other inquiries for more than 500 test subjects who were split up into three different cohorts. Data and responses for measurements of cognitive ability, competitive attitude, and faking propensity were then analyzed for correlations, and no such connections between and of these three variables could be found (Schilling et al., 2020).

Researchers have also looked closely at the tactics that test fakers employ in detail, and whether the effects of the faking behavior truly compromise the integrity of personality assessments. For example, one study attempted to look at the kinds of strategies that fakers would employ on personality tests and why. The study observed the faking behavior of more than 300 job applicants completing a personality test pursuant to different types of jobs and job descriptions. The results from the study indicated that when job descriptions were worded to seek out “stronger” job candidates, applicants would tend to select responses to scaled personality questions that were more toward the extremes. And inversely, when job descriptions were worded to seek out more “balanced” candidates, the applicants tended to select more midpoint responses on scaled personality questions (König et al., 2015).

In terms of the impacts of faking behavior on personality assessment integrity numerous experiments have been run to attempt to measure and quantify this. For example, one study aimed to better understand how faking affects the integrity and utility of personality tests in hiring. Specifically, researchers wanted to understand whether faking would diminish the predictive validity of job performance as derived from personality testing. The study examined a multitude of personality test results from job application settings and analyzed them against job performance data for the same subjects after being hired. What the work found is that, generally speaking, faking on personality tests does indeed reduce the predictive

validity of such tests for job performance purposes – that is to say, faking makes it more difficult to tell whether a particular applicant is likely to do well in a prospective job or not (Lee et al., 2017). And similarly, another study examined whether faking in general consistently reduced the validity and reliability of personality assessments. The study examined personality test responses on the Five Factor model personality test from nearly 1,000 college students. As far as results, certain factors (i.e. conscientiousness) remained significantly correlated with metrics like job performance. However, more to the point, the prevalence of faking did fairly seriously undermine the validity and reliability of the original instrument (Martínez et al., 2021).

Finally, researchers have also explored in detail whether faking can be accurately detected in real-time during personality test-taking scenarios, and whether it could be mitigated or neutralized with different types of deterrent strategies. For example, in one study researchers looked at faking behavior and potential ways to thwart it in applicant responses. The study observed behavior from both job applicants and students applying for membership to an organization. The study used computers to try to identify faked responses and warn subjects that faking may result in disqualification from the application process. And the results seemed to indicate that certain computer algorithms may be able to successfully identify and dissuade faking behavior with the proper identification and warning techniques (Fan et al., 2012). In a second study, experts sought to examine whether electronic warnings in computer-based personality assessments could be effective at curbing faking behavior. The researchers observed job applicants taking computer-based personality tests, and the computers displayed warning messages whenever faking behavior was detected. The results of the study suggested that strongly worded warnings (especially with negative wording and admonishments) were the most effective at dissuading faked responses. However, the “negative” warnings can also lead to increased levels of test anxiety – which can manifest their own concerning consequences (Burns et al., 2015). And in a third study, experimenters aimed to understand whether personality tests questions and constructs could be masked or camouflaged in such a way that respondents would not recognize them in a way that would allow for faking behavior. The study examined personality test results from nearly 300 subjects who were split into two groups: a control group which took personality tests with standard and traditional question design, and a test group which took personality tests with “covert” questions and constructs designed to hide the metric that the question intended to measure. The results of the study

seemed to suggest that these covert questions could in fact help to mitigate the frequency and severity of faking behavior (Vidotto et al., 2018).

The general direction of these study conclusions seems to indicate that faking on personality assessments is a ubiquitous problem with unique characteristics and serious consequences. There are a number of different potential strategies for mitigating faking behavior, but none appear to be bulletproof at this point.

Methodology

This study employed a search of the relevant and recent academic literature using established parameters in an effort to identify and analyze scholarly research publications that inform the current body of knowledge about personality testing used in hiring contexts.

Search Sources

The search for relevant literature pursuant to the purpose of this study consisted of queries made through three major scholarly publication databases: 1) the American Public University System online library database, 2) the University of Central Florida online library database, and 3) the Google Scholar online index of scholarly publications and other works. In order to find literature that is current and relevant to the modern understanding of personality assessments and their use in hiring applications, a publication date filter was applied to all search parameters for works that were no older than ten years.

Keywords

A number of keywords were used in different combinations and for the purposes of locating recent and relevant research articles. These included general terms such as “job application,” “hiring,” “testing,” “personality assessments,” and others. Specific tests names such as “Myer-Briggs Type Indicator” and “Five Factor Personality Model” were also used as keywords to try to zero in on research related to well-known and widely used personality assessment tools as identified in the previous section. Additionally, key personality metrics identified by some of these personality tests were also used as search criteria as well.

Other Selection Criteria

Other criteria for selection and discussion of research publications included a contribution of original research and a reliance on well-established quantitative analysis methods to analyze the relationship

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between different variables – studies that relied purely on qualitative methods were not included in this meta-analysis. Also, the vast majority of research that was included in the review for this study utilized sample populations that were anywhere from several hundred to several thousand subjects. While a number of sample characteristic variables can still obviously affect the generalizability of any study's results, these large sample sizes at least bolstered the likelihood that any conclusions from the research were not skewed by a myopic lens.

Results

The 24 studies that were reviewed as part of this research obviously spanned a diverse group of objectives and perspectives on the general subject of personality assessments as applied in hiring contexts. As such, a number of different conclusions resulted from the different studies insofar as they examined different relationships between different concepts and variables related to this topic.

Theme #1 Results: Relationships between Personality and Job Performance Are Complex and Multifactorial

Within the context of the first theme identified by the data, which was that personality assessments may be valid and reliable in some contexts, the research indicated that the relationship between personality and job performance can be complex and multifactorial (Lubelski et al., 2016). However, some constructs within the Five Factor Personality Model may be correlated with job performance and job engagement in some industries – to include surgeons, municipal workers, and others (Hughes et al., 2019; Mhlanga et al., 2021). Studies also found that gender is not necessarily a confounding variable in the assessment of personality for hiring purposes (Berry et al., 2013), but race may have a moderating effect on the way that test subjects view the purpose and fairness of cognitive and personality tests (Visser & Schaap, 2017). Also, IQ can serve as a fairly accurate predictor for both job performance and job satisfaction, but the relationship between these variables is moderated by the dynamics of personality (Murtza et al., 2021). Finally, one study found that personality was also correlated with the ways in which test subjects view social justice around the context of the personality test itself (Bye & Sandal, 2015).

Theme #2 Results: Personality Assessment Through Indirect Means Has Limited Utility

With respect to the second identified theme, which was that assessments which purport to measure personality through indirect means

may offer limited reliability and validity, a number of studies seemed to indicate that social media data from platforms such as Twitter (Rosen et al., 2018), LinkedIn (Roulin, & Levashina, 2019), and others (Stoughton et al., 2013) could be analyzed to accurately assess personality indirectly to a certain degree. Results from other research also indicated that open-ended interview question responses could potentially be used to assess personality characteristics as well (Jayaratne & Jayatilleke, 2020). However, if interviews are conducted in an automated format via video, the reliability of personality measures that are extrapolated therefrom is questionable (Hickman et al., 2021).

Theme #3 Results: Faking Is a Serious Problem for Integrity and Validity in Personality Assessment

Finally, with respect to the third theme identified in the literature, which was that faking is a serious threat to the reliability and validity of personality assessments, the research was voluminous and the implications for the damage that faking can do were ominous. Several studies indicated that faking behavior is common and prominent in job application contexts (Anglim, Morse, et al., 2017; Anglim, Bozic, et al., 2018). Additionally, the research indicates that faking reduces the validity of and reliability of personality assessments (Martínez et al., 2021; Lee et al., 2017) and that job applicants who fake responses on personality tests tend to exhibit lower average on-the-job performance (Donovan et al., 2014). Faking behavior is not necessarily correlated with any particular level of competitiveness of cognitive ability (Schilling et al., 2020), but test subjects with higher levels of emotional intelligence and other personality characteristics tend to be prone to faking and to be more proficient at it than others (Pelt et al., 2018; O'Neill et al., 2013). Research also showed that some computer algorithms may be able to accurately detect faked responses from subjects (Fan et al., 2012), and certain tactics such as covert question design (Vidotto et al., 2018) and electronic warnings (Burns et al., 2015) may be somewhat effective at curbing this kind of behavior. However, sophisticated tactics and approaches from test subjects may make detection of faking difficult or impossible (König et al., 2015), so there is as yet no perfect solution to neutralizing the damaging effects of faking on personality assessments.

Discussion

Personality assessments can be useful and reliable in certain contexts, but there are a multitude of potential pitfalls and considerations to ensure optimal efficacy. Choices around testing design, analysis protocol, and strategies for mitigating faking behavior are of paramount importance.

The first theme of this study was that personality assessments may be valid and reliable in some contexts. There seems to be a decent amount of evidence in the literature that personality test results can be correlated with job performance and job engagement – especially with respect to the Five Factor Personality Model. This relationship is obviously critical as it is the primary reason why any employer would want to utilize personality tests for hiring in the first place. The whole exercise of personality assessment in this context is predicated on the assumption that, if companies can only identify and select those candidates with personalities that are most suitable to the job or the culture of the organization (or both), then they can improve the performance of their workforce through optimal alignment.

Confounding and Moderating Variables

However, the role of confounding of moderating variables is concerning and deserves further exploration in future research. Gender was not necessarily identified as a confounding variable in the relationship between personality and job performance. However, it is well-established that there are key differences between the typical personality of males and females. Those differences likely matter insofar as it relates to the alignment between an individual's personality and the parameters of a job or the culture of a company – so they should not be ignored in the testing design. Similarly, the prior literature which suggests that race may affect the way applicants view the utility and fairness of personality tests is equally concerning. Predisposition toward testing at the onset carries the potential to skew test results from different applicants, so this must be considered as well.

Potential Discrimination and Legal Implications

One other important point to mention on the subject of variables like gender and race and the extent to which they might affect personality test results and consequent hiring decisions is the legal ramifications of such testing paradigms insofar as they may lead to discrimination. Federal law prohibits discrimination based on certain protected classes – and those classes include both race and gender, among others. That said, if there are meaningful personality differences between groups that correlate with these protected classes, then a business that selects for them preferentially (one way or the other) may expose themselves to liability for disparate impact discrimination. This is the kind of discrimination that is inadvertent and unintentional but nonetheless illegal if it is found that a facially neutral employment policy has the *effect* of creating discrimination based on a protected class. In other words, it doesn't matter whether the employer

intended the discrimination. If their personality testing creates a provable funnel of preferential selection that is associated with a protected class, they can be held accountable without any *mens rea*. Therefore, it is absolutely critical that any personality testing strategy intended for use in a hiring process is first thoroughly vetted through exhaustive pilot testing on large samples of individuals before it is actually deployed.

IQ as a Moderating Variable

Now, IQ was yet another characteristic shown in the literature to have been correlated with job performance and job satisfaction – and insofar as IQ is not a protected classes or sufficiently correlated with any protected class, then employers would theoretically be free to preferentially select for IQ brackets that best fit the needs of their organizations. There is a good faith question as to whether the correlation between lower IQ and certain cognitive disabilities (as defined by the Americans with Disabilities Act) would create a potential concern for illegal discrimination based upon a disability status. Nonetheless, the fact that personality seems to play a moderating role in determining the quality of the relationship between IQ and job performance/job satisfaction further reinforces the need for thorough testing to ensure that illegal discrimination does not occur in IQ testing strategies either.

Finally, future research should further explore the diversity of views that different subjects have toward the utility and fairness of personality tests used in hiring – as well as the ways in which those perceptions may affect the integrity of personality test results. The relationship between test perceptions and test performance has been well-established for decades. So it stands to reason that if certain subjects have apprehensions about a testing situation, those feelings might skew the outcomes and affect the quality of results. These relationships must be better understood in order to optimize fair and effective testing paradigms.

Ethics and Legality Around Privacy and Lack of Informed Consent for Indirect Assessment

The second theme identified in the literature was that assessments which purport to measure personality through indirect means may offer limited reliability and validity. The evidence from the research that open-ended interview questions in hiring and even social media data may be used as an indirect means of assessing personality is interesting. There are a number of ethical questions that arise around this proposition – not the least of which are privacy and a lack of informed consent to a personality

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assessment being conducted covertly. Legally speaking, any publicly available data (such as social media post content that is not restricted or private) can be used for any lawful purpose, so there wouldn't necessarily be any legal concerns with those models. However, it goes without saying that not everything which is legal is ethical. So companies should think long and hard about how they want to approach these kinds of strategies.

The idea of using open-ended interview questions for personality assessments – to the extent that the personality assessment intent is not disclosed to the applicant – is more concerning, because such answers as offered by the applicant are not necessarily to be considered publicly available information. So in these contexts, businesses would probably do well to simply disclose their intended use of the data beforehand and obtain consent for such testing.

One question that has not been clearly answered by the existing literature is how the accuracy of personality assessment predicated on indirect measures such as these compares with direct personality assessments through questions that are deliberately engineered to measure certain established variables. A key opportunity for a future research study would be to conduct both types of assessments in parallel on the same set of test subjects, and then compare the results to determine

One other curious question that arises from the current body of knowledge is why personality assessments that are predicated on answers to interview questions asked in an automated interview setting don't seem to be as reliable as personality assessments derived from interviews in other contexts or modalities. It's unclear why this would be, but future research could further investigate the dynamics in both methods and determine which might be more effective and how reliability can be optimized.

The third and final theme identified in the existing literature is that faking is a serious threat to the reliability and validity of personality assessments. The literature pretty clear indicates that faking is a major problem for the efficacy of these efforts, so this is a problem that needs to be addressed one way or another if these tools are going to continue in broad use for hiring applications.

Detection and Mitigation of Faking Behavior May Be Possible

One key point from several of the studies reviewed in this paper is that it may be possible to detect faking behavior in some fashion for the sake of either admonishing fakers and correcting the behavior or, at minimum, to be able to identify faked responses and discard them from

whatever analyses are being done. However, it's not necessarily clear how reliably faking can be detected, what the best tools are for catching fakers, and how to optimally leverage them. Several studies talked about identifying faked responses through a pattern or trend of extreme answers or midpoint answers on scale-based questions. But it still remains to be explained how any analysis, whether done by human or computer, would be able to reliably tell whether such answers are faked or just the coincidental sincere responses of an applicant.

This is a real quandary since there is no truly bulletproof way of identifying an inauthentic answer aside from directly asking a respondent if they lied – and even then the respondent could of course simply lie about having lied. Indeed, unless we're prepared to break out the polygraph machine or the sodium pentothal after each and every personality assessment, we have a problem of reliance on human honesty, which we know is imperfect at best. And added to this problem is the fact that we are aware of external pressures placed on test subjects in job application settings that can and probably do influence decisions about honesty. It is estimated that 78% of job seekers will lie at some point during the hiring process in the interest of trying to be selected for a job, and this would include telling lies about verifiable statements like employment history, education credentials, or recreational drug use. So there is every reason to believe that applicants would happily tell lies about personality attributes that really cannot, as a matter of practical endeavor, be verifiably disproven.

But lies are fatal to the personality assessment endeavor. If these tests are to have any useful value at all, there must be a way of policing honesty in the process and verifying authenticity of the results. That said, future research in this area should focus heavily on exploring the phenomenon of faking more deeply in order to better understand how we might be able to best detect and stop it – if such a thing is truly possible at all. For as long as humans have a capacity for dishonesty and the ingenuity and innovation to deceive each other, it would seem that completely eradicating this problem will remain an unlikely eventuality.

A Potential Alignment Problem

Following from all of the many challenges inherent in optimizing personality assessment reliability and integrity, a final point of potential concern revolves around the purported calibration of alignment between the personality attributes of job applicants and the personality attributes that are a “best” fit with the culture of the organizations with which they are seeking to be employed.

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For example, hiring recruiters might attempt to use personality assessments for the purposes of identifying applicants with personality attributes that they *believe* are compatible with their organization or most conducive to optimized productivity and efficiency. But what are those beliefs really based upon? In all of the 24 studies reviewed as part of this meta-analysis, none identified any sound methodology through which recruiters in any organizational context have sought to determine what their companies really need and why.

A natural first step to any organizational improvement initiative – to include talent recruitment and management – would be to first identify what works and what doesn't in the organization, and why. A recruiter might be tempted to simply assume that outgoing, extraverted, conscientious, and agreeable people are what is needed for a company to succeed. But this ignores all of the contextual variables of different operating environments and different teams. So the first thing that a recruiter would be wise to do, if he or she is truly interested in optimizing their organization's human capital, is survey the internal personality demographics of the *existing* employee workforce.

From this kind of analysis, a recruiter will understand the predominant attributes within the organization, and if further breakdown is warranted, he or she could conduct separate analyses within individual departments or work teams. The second logical step, as a follow-on, would be to ask difficult questions as to which functions are performing acceptably and which are not. In other words, the recruiter needs to know which teams are working well together and which are not.

This is important because it should be the catalyst that determines that kind of personality attributes that are sought in future hiring initiatives. For example, if an accounting team is comprised of introverted and conscientious individual, and the team is performing extremely well (i.e., meeting all company goals and satisfying all stakeholders), then clearly this would indicate that the status quo is working. And as such, if a recruiter needs to fill future openings in such an accounting department, he or she should probably look for individuals who fit a similar profile – because the organization knows that works.

But on the other hand, if, say, a sales team is comprised of extraverted, neurotic, and non-conscientious individuals – and the sales team is consistently underperforming when compared with company expectations or competing teams – then this would indicate to an HR recruiter that a change might be needed. In other words, maybe extraversion

and/or neuroticism and/or non-conscientiousness is *not* what is needed for optimal performance in this kind of environment. And perhaps future hiring efforts should seek people that are different.

Admittedly, there may be a bit of trial and error needed in order to determine which combinations of attributes are responsible for different outcomes in different situations. For instance, in the sales team example above, a recruiter might know that the team is underperforming, but she might not know whether the underperformance is solely attributable to one of the three personality qualities that characterize the current team, or some combination of them working with a synergistic effect. And the only way to really pinpoint better cause-and-effect relationships would be to test different team compositions with different members and different personality attributes in order to observe what “moves the needle” and what does not.

Still, notwithstanding how tedious this kind of process might be, it is absolutely critical that workforces take the time to understand their current baselines of personality dynamics before making broad assumptions about what is needed and what should be sought in new applicants. To do anything else is to risk wasting a lot of time and energy looking for the wrong qualities in the wrong people.

Personalities Are Endlessly Complex

A final point of consideration on the subject of personality assessments of any kind, which purport to taxonomize human personality dynamics for any purpose, is the endless complexity of human cognition and consciousness, and lack of consensus regarding even the broadest themes of categorization and order.

This study reviewed recent literature that explored the use of several prominent personality assessment tools that are in wide use. However, each tool approaches the concept of personality (and its subcomponents) in materially different ways. And there is no conclusive evidence within the literature to suggest that any one of them objectively more “right” about the ways in which a personality can be parsed than any of the others. Similarly, there is no overwhelming consensus within the professional psychology community about which tool might be best and why.

The reality of human personality dynamics is such that, we are each so unique, and our constituent qualities and causes therefore so diverse, that any effort to categorize human personalities into five variables, or even five hundred for that matter, seems laughably ambitious. Even individuals who

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are identical twins, with identical DNA, and who are raised under vastly similar circumstances, with many of the very same experiences and influences, can still grow up to have startlingly different personalities. So while we know that personality manifestation is epigenetic (i.e., it is the product of genetic information inherited from birth and environmental stimuli to which an individual is exposed during life), accounting for all of the unique differences between people and the ways in which these differences express themselves, is a herculean undertaking. And all of this is to say nothing for the next leap, which is to then attempt to understand how different personalities mesh or clash, and how interactions can be constructive or destructive under different external environmental circumstances.

This is not by any means to suggest that there are no objective truths to be known about human personality, or that we should cease trying to understand human personality dynamics as best we can. But rather, this discussion is a respectful call for caution among industrial and organizational psychologists who might seek to use personality assessment tools for the purposes of matching individuals with organizations. The fact is that these decisions are important – with lasting ramifications not just for the organizations, but also for the individuals who are hired (or not as the case may be). Insofar as this importance is not trivial, the author would argue that there is an ethical obligation to make sure that these initiatives are done right, and with a strong backing of evidence and sound reasoning. Insofar as personality science is still its nascent stages, it might be prudent to move slowly with applications for these tools.

Conclusion

Concluding, this meta-analysis contributes to the body of knowledge on the subject of personality assessments used in hiring contexts by summarizing the relevant and recent literature that exists, and by compiling the consensus of data and opinion around the use of these tests to understand what is known about them to date.

The current body of knowledge on personality assessments used in hiring contexts has revealed three prominent and important themes, including limitations on test validity and reliability, questions about the propriety and efficacy of personality assessments that are predicated on indirect data like social media content and interview question responses, and serious concerns over applicant faking of answers that threaten to corrupt the entire enterprise. These themes were analyzed and discussed thoroughly herein.

Future research needs to continue to explore these topics so as to better understand the current landscape and best directions forward. This paper has presented several pertinent opportunities for future research, which include further investigations into optimal testing design, analysis protocol, and strategies to mitigate or eliminate faking behavior.

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FRAUDS DO NOT PAUSE FOR A PANDEMIC

Darwin L. King

Michael L. McLanahan

Carl J. Case

St. Bonaventure University

ABSTRACT

The COVID-19 pandemic has created global hardship on individuals and businesses alike. This paper provides a brief history of the frauds and scams discovered over the pandemic period of 2020 through 2022. During this difficult period, fraudsters continued to wreak havoc using trickery and deception to cause financial harm to both individuals and businesses. This paper begins with a brief examination of the COVID-19 timeline and various agencies definitions of fraud. Next, the authors discuss key pieces of legislation passed during the COVID-19 years. The final portion of this paper contains a brief summary of various pandemic-era frauds including an examination of the first COVID-19 fraud that was discovered in 2020. Several material frauds from 2020 through 2022 will conclude the review.

Key Words: Fraud, Pandemic, COVID-19, Funding

INTRODUCTION

Frauds and scams continued and even increased in variety and number during the pandemic years of 2020 to 2022. Unethical individuals fashioned audacious fraud schemes that utilized government programs, meant to aid individuals and businesses in financial distress, to fill their own pockets. For example, government funds that were earmarked for employee payroll and necessary business expenses were diverted into the pockets of business owners for the purchase of houses, cars, and extravagant vacations. The extremely sad thing about pandemic frauds is that government program funds were used, not to aid those businesses and individuals experiencing financial hardship, but instead to benefit unethical individuals lacking moral values.

From late 2019, until 2022 the entire world was struggling to financially survive the COVID-19 Pandemic. The U.S. Government, in an attempt to aid suffering individuals and businesses during this period, passed a number of pieces of

legislation aimed at reducing financial hardship. This legislation, including the Paycheck Protection Program (PPP), is discussed later in this paper.

What follows is a short summary of when and where the pandemic originated. According to the Center for Disease Control's (CDC) COVID-19 timeline, on December 31, 2019 the World Health Organization (WHO) reported an unknown virus that causes shortness of breath and fever connected to China's Huanan Seafood Wholesale Market. This market was closed on January 1, 2020 following numerous people at the site reporting pneumonia type symptoms. On January 10th, the WHO announced that the outbreak in Wuhan, China was caused by the 2019 Novel Coronavirus (2019-nCoV). In less than one month, the virus had traveled halfway around the globe.

The virus continued to spread at an astronomical rate and on March 11, 2020, the WHO declared COVID-19 to be a pandemic. On this day, the WHO reported more than 118,000 cases in 114 countries and 4,291 deaths (CDC, 2023). It did not take the unethical fraudsters long to attempt to capitalize on the pandemic environment. On April 3, 2020, the, "CDC warns the public about phone scams and phishing attacks that appear to originate from the CDC and ask for donations from individuals. This is government impersonation fraud— federal agencies do not request donations from the public" (CDC, 2023).

According to the CDC timeline, a milestone was reached on May 12, 2022, with "the number of recorded deaths due to COVID-19 in the U.S. reaching one million" (COVID-19, 2023). Further, the CDC adds that, ". Experts and disability advocates worry that the long-term consequences of this virus are underappreciated."

The second topic included in this introduction is a discussion of the various definitions of fraud from sources such as the Association of Certified Fraud Examiners (ACFE) and the Internal Revenue Service (IRS). A concise, accurate definition of fraud is often difficult to locate as many government agencies put their own spin on the definition. According to the Association of Certified Fraud Examiners (ACFE), "fraud" is any activity that relies on deception in order to achieve a gain. Fraud becomes a crime when it is a "knowing misrepresentation of the truth or concealment of a material fact to induce another to act to his or her detriment" (Black's Law Dictionary). In other words, "if you lie in order to deprive a person or organization of their money or property, you're committing fraud" (ACFE, 2023). This straightforward definition of fraud (lying) is evident in all of the pandemic era frauds discussed below.

A second definition of fraud comes from the Internal Revenue Service (IRS). The IRS Fraud Manual states, “Deception by misrepresentation of material facts, or silence when good faith requires expression, which results in material damage to one who relies on it and has the right to rely on it. Simply stated, it is obtaining something of value from someone else through deceit” (IRS, 2021).

A third definition of fraud comes from the Federal Bureau of Investigation (FBI). The FBI defines fraud as, “The intentional perversion of the truth for the purpose of inducing another person or other entity in reliance upon it to part with something of value or to surrender a legal right. Fraudulent conversion, obtaining of money or property by false pretenses, confidence games, and bad checks, except forgeries and counterfeiting, are included” (FBI, 2019).

Finally, a fourth definition of fraud comes from the U.S. Department of Justice (DOJ). The Justice Department does not attempt to define fraud. Instead, the Justice department states that, “The statute does not define the phrase “obtained by fraud.” Fraud is defined by nontechnical standards and is not to be restricted by any common-law definition of false pretenses.

Clearly, a concise, clear definition of fraud is difficult to locate. Fraud is as old as falsehood and as versatile as human ingenuity. The four definitions agree with the fact that fraud is intentional, not accidental. They also come in all shapes and sizes and are only limited by human imagination. Unethical, unscrupulous individuals designed the COVID-19 era frauds that often preyed on governmental programs intended to benefit employees and businesses during this devastating three-year pandemic.

PANDEMIC LEGISLATION (2020-2022)

This section of the paper will outline the various laws and regulations that were enacted in response to the COVID-19 Pandemic. The Coronavirus Aid, Relief, and Economic Security (CARES) Act of 2020 maintained a series of provisions that established numerous programs designed to aid Americans throughout the pandemic.

Within Division A of the CARES Act, the Paycheck Protection Program (PPP) is outlined. Per the U.S Department of the Treasury (USDOT) the Paycheck Protection Program (PPP) is defined as follows “The Paycheck Protection Program established by the CARES Act, is implemented by the Small Business Administration with support from the Department of the Treasury. This program provides small businesses with funds to pay up to 8 weeks of payroll costs including benefits. Funds can also be used to pay interest on mortgages, rent, and utilities. The Paycheck Protection Program prioritizes millions of Americans

employed by small businesses by authorizing up to \$659 billion toward job retention and certain other necessary expenses.” (USDT, Paycheck Protection Program, 2) Necessary expenses included items such as salaries, wages, employee benefit costs, and other employee related costs necessary for business operations. Loan applicants were required to make numerous certifications verifying that loan proceeds were necessary for the survival and operation of the business during the pandemic.

While PPP loans were a main source of funding, the CARES act also contained requirements for Economic Injury Disaster Loans (EIDL). Per the SBA, an EIDL loan is a “loan directly from SBA that must be repaid.” (SBA-About COVID-19 EIDL, 1). Similar to PPP loans discussed above, EIDL loans were intended to be utilized by business who needed to cover necessary operating expenses during the pandemic. To aid individuals EIDL loans had a below average interest rate and the loan could be repaid over a maximum of 30 years,

The second piece of legislation that emphasized providing aid to individuals is the Families First Coronavirus Response Act which was signed into law on March 18, 2020. Provision B of the Act was related to child nutrition and allowed the Secretary of Agriculture the flexibility to modify the Child Nutrition Program, so that reimbursable meals could be served outside the traditional cafeteria setting. This allowed meal providers to still be reimbursed for their costs associated with providing meal assistance to students and families during this challenging time.

While the programs introduced above were designed to aid and assist struggling individuals and business, during a challenging time, this legislation would ultimately become another avenue for individuals to attempt to manipulate the system and commit fraud. COVID-19 frauds increased with such rapidity that the Department of Justice would establish the COVID-19 Fraud Enforcement Task Force on May 17, 2021. This task force was a collaborative effort between numerous federal state and local agencies to combat some of the more aggregates and pervasive COVID-19 related frauds. Examples of these frauds are outlined in the cases below.

2020 Fraud Case Examples

This section of the paper will examine fraud cases that were uncovered in the years, 2020, 2021, and 2022 respectively. Each case examined will include, a description of the main individuals involved, a brief outline of the facts of the case, and current status of the case.

The first reported case in which individuals attempted to exploit the COVID-19 economic relief programs and legislation introduced by the government was uncovered in May 2020. Mr. David A Staveley, aka Kurt D. Sanborn, and David Butziger of Warwick Rhode Island were conspirators who attempted to execute a

plot to fraudulently obtain government assistance offered to business through the PPP loan and SBA programs introduced by the CARES Act in March 2020. Subsequent to the introduction of the loan assistance programs Mr. Staveley and Mr. Butziger worked together to submit fraudulent applications requesting financial relief and assistance for businesses owned and negatively impacted by the COVID-19 pandemic. Mr. Staveley requested a PPP loan in excess of \$385,000, claiming these proceeds would be utilized to compensate employees at one of three restaurants in which Mr. Staveley allegedly held an ownership interest

In a similar manner, Mr. Staveley's co-conspirator, Mr. Butziger, filed his own PPP loan application where he requested financial assistance in the amount of \$105,381. Mr. Butziger would indicate on the application, and in a phone call with an undercover FBI agent posing as a bank representative, that the funds requested would be utilized to compensate full-time employees for Mr. Butziger's alleged company, Doc Wireless.

Subsequent investigations into both men would reveal that the statements and claims made within the loan applications were false and fraudulent. At the time of filing Mr. Staveley was not operating any of the restaurants outlined in the documentation, and none of the alleged employees interviewed had heard of Mr. Butziger's company Doc. Wireless.

This case would be resolved between 2020 and 2022. In September of 2020, Mr. Butziger would plead guilty to conspiracy to commit bank fraud, and would receive a sentence on February 9, 2022 of three years supervised release, with the first six months to be served in home confinement with electronic monitoring. Mr. Staveley would plead guilty on May 17, 2021 to charges related to conspiracy to commit bank fraud and charges related to failure to appear in court. Mr. Staveley was sentenced on October 7th, 2021 to fifty-six months in federal prison followed by three years of supervised release. It is worth noting that in addition to the bank fraud charges, Mr. Staveley also violated a home confinement order and attempted to flee the state of Rhode Island using a stolen identity after the IRS investigation began in May of 2020.

This case reflects the first two individuals in the nation charged with COVID-19 fraud. When commenting on the case, Special Agent in Charge, Kristina O'Connell, of the IRS-Criminal Investigation (IRS-CI) Unit said, "Defrauding a government program designed to provide financial assistance to small business owners during the Coronavirus pandemic is tantamount to taking money directly out of the pockets of those who need it most" (IRS 2020, 1). One important distinction of this case is that while the individuals involved set out to defraud

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federal programs, law enforcement was able to intervene early enough where no funds were actually dispersed to Mr. Staveley or Mr. Butziger.

The second case from 2020 will focus on Chinese Nationalist Muge Ma. In a manner similar to the conspirators outlined in the Rhode Island case, Mr. Ma would apply for numerous PPP, SBA, and EIDL loans from a number of financial institutions. Within these applications, Mr. Ma would claim to be the sole owner and executive director of various companies, including NYIC and Hurley based out of New York City. Along with the applications, he would supply fraudulent and misleading documentation, including doctored payroll and insurance records, and fraudulent financial statements. This supplemental documentation was all designed to provide the illusion that Mr. Ma employed numerous individuals and incurred millions of dollars in expenses. The reality of the situation was quite different. In a stark contrast to claims made on the loan applications, a subsequent investigation would uncover that instead of having numerous employees and a multi-million-dollar payroll, Mr. Ma was the only employee of NYIC and the Hurley company had no employees.

In total Mr. Ma would receive EDI loans in the amount of \$500,000 and \$150,000 for NYIC and Hurley, respectively. In addition, an \$800,000 PPP loan was deposited into Mr. Ma's account in relation to the Hurley company.

Once Mr. Ma was arrested in May of 2020 in connection with the fraudulent activity the funds deposited into his account were frozen. This case would ultimately be resolved with a guilty plea by Mr. Ma in May of 2021 and on April 22nd, 2022 he would be sentenced to 52 months in prison. Had the scheme been successful Mr. Ma may ultimately have collected upwards of \$20 million in COVID-19 relief funds. Damian Williams, District attorney for the Southwestern District of New York, summarized the situation accurately by saying, "Within days of Congress authorizing billions of dollars to help small businesses struggling to make ends meet during the COVID-19 pandemic, Muge Ma saw it as an opportunity to enrich himself by applying for millions of dollars in funds to pay wages to hundreds of employees that never existed" (DOJ, 22, 1).

Darelle Thomas was another individual who would attempt to exploit the COVID-19 relief programs for personal gain. Per an IRS press release, between the months of April 2020 and August 2020, Mr. Thomas would submit a PPP loan application for each of his fourteen businesses. These applications would certify that each business was in operation as of February 14, 2020, and that the proceeds from any funding received would be utilized to cover necessary expenses. A subsequent investigation would return similar results to those seen above in the Muge Ma case and the Rhode Island case. Similar to the fraudsters before him, Mr. Thomas would

fabricate documentation to present the illusion that his companies employed a number of individuals and met the qualifications to receive between \$700,000 and \$850,000 in PPP loans for each of his fourteen companies.

In total, Mr. Thomas received approximately \$11.1 million dollars in PPP loan proceeds. However, instead of spending the funds on operational expenses, funds were instead, squandered on personal expenses including luxurious vehicles and jewelry. Following an investigation, Mr. Thomas would plead guilty to one count of conspiracy to commit bank fraud, and wire fraud, as well as one count related to money laundering. One condition of the plea agreement was that Mr. Thomas would have to surrender items acquired as a result of the fraudulent activity, including the aforementioned luxurious cars and jewelry.

Darelle Thomas executed a fraud that, if successful, would have resulted in him receiving upwards of \$14.7 million. Included in this amount was the \$11.1 million of PPP loan funding, \$1.5 million of EIDL loans, along with another \$2.4 million pertaining to automobile loans. In describing the fraudulent activity Keri Farley, Special Agent in Charge of FBI Atlanta, summarized the events by saying, "Thomas orchestrated a massive fraudulent scheme to greedily line his pockets with stolen government funds that were intended to provide relief to small businesses and their employees during the COVID-19 Pandemic" (IRS, 2022, 1). Darelle Thomas would ultimately be sentenced to fifteen years in prison followed by five years of supervised release. It is worth noting that Darelle Thomas orchestrated this case with a network of conspirators comprising upwards of 40 additional individuals accused of or implicated in the fraud.

SHENG-WEN CHENG, a/k/a "Justin Cheng," a/k/a "Justin Jung". Mr. Cheng is another individual who thought he had developed a scenario that would enable him to exploit and manipulate COVID-19 relief legislation and programs for personal gain. To orchestrate the scheme, Mr. Cheng would first engage in identity theft by assuming the identities of other individuals and business proprietors. Mr. Cheng would attempt to manipulate the system, by presenting the façade that these other individuals owned and operated several of his companies. In total, Mr. Cheng would attempt to obtain upwards of \$7 million from at least five financial institutions between the months of April 2020 and August 2020. Mr. Cheng wanted to create the illusion that these companies had a combined total of 200 employees and over \$1.5 million in payroll. Upon investigation, it appears that at no point in time did Mr. Cheng have over 14 employees at all his establishments. Mr. Cheng would follow similar patterns to the other fraudsters mentioned above, including developing fraudulent documentation and engaging in lavish spending once the COVID-19 relief funds started to be deposited into his accounts. Once the

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fraudulent scheme was uncovered and Mr. Cheng was investigated, he was sentenced to 72 months in prison.

Also relevant to this case is the fact that Mr. Cheng had a criminal history prior to engaging in COVID-19 fraud. Per the Department of Justice release “In addition to the COVID-19 pandemic loan fraud described above, from at least in or about 2017 through at least in or about 2019, CHENG committed securities fraud by soliciting and obtaining approximately \$400,000 in investments in Alchemy Coin Technology Limited and related companies” (DOJ, 2021, 2). Mr. Cheng also had prior criminal charges relating to the misuse of funds he obtained from startup companies for which Mr. Cheng was supposed to be assisting and helping secure potential investors. Mr. Cheng would plead guilty to one count each of wire fraud, bank fraud, and securities fraud, and was sentenced in August of 2021 to six years in prison followed by three years of supervised release. Like in the Darelle Thomas case, Mr. Cheng was also required to forfeit any luxury items acquired as a result of the fraud. The behavior of Mr. Cheng both before and during the COVID-19 pandemic demonstrates patterns of deceit and deception.

On the topic of deceit and deception, another case that originated in 2020 worthy of attention is related to Liberian National, Steven Jalloul. Mr. Jalloul, was a tax consultant. Like the aforementioned fraudsters, Mr. Jalloul attempted to utilize a time of economic uncertainty and instability as a mechanism to manipulate and mislead clients. Mr. Jalloul would utilize his tax practice, and a roster of clients as a means to file over 160 PPP loan applications, of which almost 100 were approved, under the guise of trying to help his clientele remain financially stable. However, Mr. Jalloul was really exploiting his clients, charging substantial commissions ranging from 2-20% on all PPP loan applications completed. In total Mr. Jalloul would secure almost \$12 million in PPP funds allegedly on the behalf of his clients by engaging in tactics to misrepresent the true nature and extent of his client’s expenses by inflating their payroll rosters. The motivation behind the misrepresentation was greed. Of the \$12 million secured on the behalf of his clients under false pretenses, Mr. Jalloul received almost \$1 million of this money back from his clients who were paying these excessive fees. Upon investigation, Mr. Jalloul would be criminally charged in September of 2020. He would admit to engaging in the deceptive practices outlined above when he plead guilty to one count of, engaging in monetary transactions using property derived for unlawful activity. Mr. Jalloul would be sentenced to 10 years in prison. In a manner similar to Mr. Cheng, Mr. Jalloul also had a prior criminal history. At the time of sentencing in the COVID-19 fraud case (April 2022), he was already serving a prison sentence stemming from a pre-pandemic conviction related to tax fraud. When addressing this case U.S. Attorney Chad E. Meacham, said the following, “Mr. Jalloul callously exploited the Paycheck Protection Program, which was

designed to keep struggling businesses afloat during the pandemic. He took money out of the hands of businesspeople who truly needed it" (IRS, 2022, 1).

2021 Fraud Case Examples

The first example of a COVID-19 case where the fraudulent activity stretched into 2021 was Elias Eldabbagh. Mr. Eldabbagh saw the federal relief programs as an opportunity to engage in unethical and unscrupulous tactics. From July of 2020 until May of 2021, Mr. Eldabbagh would attempt to secure COVID-19 relief funding for his company, Alias Systems. In total he would submit applications exceeding \$30 million. A subsequent investigation by federal, state and local authorities would reveal that Mr. Eldabbagh made false representations regarding his business. These deceptive practices included, identity theft, and falsification of financial records, to obtain the COVID-19 relief funding. Once the fraudulently obtained proceeds were received, Mr. Eldabbagh would squander them on lavish and luxurious items instead of utilizing the funding for the necessary business expenses indicated in the documentation.

Following an investigation by the IRS, Mr. Eldabbagh would plead guilty in August of 2022. He would be sentenced on September 30, 2022 to ten years in prison. He was required to return the fraudulently obtained proceeds along with a number of luxury items purchased including a Tesla Model 3. U.S Attorney Matthew Graves summarized the cases by saying, "this defendant shamelessly took advantage of a global health crisis to create his own get-rich scheme at the expense of the government's COVID relief programs." (IRS, 2022, 1).

The next example of pandemic related fraud that spanned into 2021 is Amanda J. Gloria of Altus, Oklahoma. Like other fraudsters during the pandemic, Ms. Gloria saw the economic relief funding as a way to manipulate a global health crisis for personal benefit. After an investigation by the IRS, Ms. Gloria admitted that between May of 2020 and June of 2021, she either submitted or aided in the submission of over 153 fraudulent PPP loan applications. These fraudulent applications were completed on the behalf of approximately 111 business entities and amounted to approximately \$43.8 million. Of this amount, approximately \$32.5 million was obtained and deposited. A total of \$1.7 million was personally acquired by Ms. Gloria for her own personal use. The methods utilized by Ms. Gloria to submit the fraudulent applications are consistent with other pandemic fraudsters. These include misrepresenting the number of employees on payroll and doctoring financial and tax documents to support these fraudulent claims.

In addition to the fraudulent activity outlined above, Ms. Gloria admitted to a separate scheme where she and a Mr. Adam D. Arena conspired to obtain a PPP

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loan of \$954,000 for ADA Auto Group, a Florida based company that had previously been inactive. Ms. Gloria would ultimately plead guilty to one count of conspiracy to commit bank fraud, and one count of money laundering and faces up to 30 years and 10 years respectively for each charge when sentenced.

The next case involves a husband-and-wife couple. Richard Ayvazyan, and his wife, Marietta Terabelian. They were the leaders of a COVID-19 fraud ring based out of the Los Angeles California area. The goal of the fraud ring was to obtain approximately \$20 million in COVID-19 relief payments. In executing these schemes, Mr. Ayvazyan and Mrs. Terabelian would engage in identity theft to pose as numerous individuals, including senior citizens, foreign exchange students, and even deceased individuals, and would then submit PPP and EIDL loan applications based on fraudulent and falsified documents. Once the funds were obtained, Mr. Ayvazyan and Mrs. Terabelian used the proceeds to purchase luxury items including but not limited to, gold coins, watches, diamonds, imported furnishings and other extravagant items. The couple was convicted by a federal jury in June 2021 of leading the COVID-19 fraud ring with the intent to defraud COVID-19 relief programs of over \$20 million. After the guilty verdict was rendered, the couple fled the country for Montenegro. Per a November 18, 2022 press release, the couple was ““sentenced in absentia” (DOJ, 2022,1). Mr. Ayvazyan received a prison term of 17 years and Mrs. Terabelian received 6 years. Around the same time as publication of the press release, the couple was extradited back from Montenegro to the United States to serve their sentences.

The next case involves Carl Bradley Johansson of Newport Beach, who engaged in COVID-19 fraud while on pre-trial release in a tanker explosion case. Mr. Johansson was the owner of several trucking companies. In the years prior to the start of the COVID-19 pandemic, he would encounter several legal battles stemming from a 2014 tanker explosion which resulted in the death of a worker. Mr. Johansson would instruct the employees of National Distribution Services, Inc. (NDSI), his company involved in the incident, to aid him in misleading investigators. This pre-pandemic deceptive behavior would extend into the pandemic and the various COVID-19 financial relief programs.

In April of 2020, Mr. Johansson was free on bond from charges stemming from the aforementioned tanker explosion case (IRS,2022,2). It was during this time that he would direct Western Distribution LLC, another trucking company he controlled, to apply for PPP loan funding. Between the months of April 2020 and March of 2021, Mr. Johansson would employ a number of strategies to secure approximately \$954,000 in COVID-19 relief funding. Rather than use the proceeds to pay the employees, Mr. Johansson elected to layoff the employees in May and June of 2020. Then on paper, he would reallocate employees from his other

businesses to Western Distribution LLC to make it appear as if the proceeds from the PPP loan program were allowing the company to continue operations. Mr. Johansson was arrested in July 2021 for charges related to the COVID-19 fraud. In September 2021, he would plead guilty to multiple charges of bank fraud. At the same time, he would plead guilty to a number of charges in the tanker explosion case. On November 29, 2022, Mr. Johansson was sentenced to 120 months in federal prison and was required to pay \$1,252,979 in restitution. This sentence encompasses charges related to both the tanker explosion and the COVID-19 relief fraud cases.

2022 Fraud Case Examples

In 2022, the Department of Justice discovered what it called, “Largest COVID-19 Fraud Scheme in the Nation” (DOJ 2022, 1). Aimee Bock, the founder and executive director of Feeding Our Future, a nonprofit organization participating in the Federal Child Nutrition Program, was accused of helping oversee a substantial and complex fraud scheme that involved exploiting a program designed to aide and assist students and families during the COVID-19 pandemic.

As mentioned in the legislation section, the Federal Child Nutrition program relaxed and eased the guidelines for what situations and circumstances would allow for children and families to obtain meals reimbursable by the federal and state government. The primary purpose of the legislative changes was to allow easy access for individuals that needed meals during the uncertain and somewhat turbulent times. However, relaxing these guidelines had had the unintended consequence of becoming an environment for fraud.

Allowing for more unconventional meal sites enabled the individuals working with Feeding our Future to enact an intricate and complex scheme. Executing this fraud included setting up shell companies, and fictitious nonprofit organizations. These organizations claimed to be operating meal sites that were providing reimbursable meals. From 2020-2022, Feeding our Future took advantage of the relaxed guidelines claiming to have opened over 250 sites and would receive approximately \$240 million in Federal Funds related to the Child Nutrition Program. To put this number into perspective, prior to the start of the pandemic, Feeding our Future received approximately \$3.4 million of Federal Funding related to this program in 2019.

A subsequent investigation would determine that the rapid growth and expansion was the result of a carefully orchestrated fraud scheme. The scheme emphasized creating fictious meal counts and fictional program participants.

The Feeding our Future fraudulent scheme is currently being prosecuted by the Department of Justice in six subdivided cases. About one month after the initial indictment, several individuals have already started to enter guilty pleas. One example of this is Abdul Abubakar, who in his guilty plea, “admitted that from December 2020 through January 2022, he knowingly and willfully conspired with others to participate in a fraudulent scheme to obtain and misappropriate millions of dollars in federal child nutrition program funds.” (IRS, 2022, 1).

In describing the Feeding our Future scheme, U.S. Attorney Andrew M. Luger for the District of Minnesota, said the following when the initial indictment was published by the Department of Justice in September 2022, “These defendants exploited a program designed to provide nutritious food to needy children during the COVID-19 pandemic. Instead, they prioritized their own greed, stealing more than a quarter of a billion dollars in federal funds to purchase luxury cars, houses, jewelry, and coastal resort property abroad. I commend the work of the skilled investigators and prosecutors who unraveled the lies, deception, and mountains of false documentation to bring this complex case to light” (DOJ 2022, 1).

The case examples presented above from 2020 through 2022 represent only a fraction of all fraud cases discovered during the pandemic period. The cases selected represent some of the more material, and financial damaging fraud schemes. It is sad to consider that these unethical, unscrupulous swindlers diverted government funds away from the individuals and businesses that needed it to survive and funneled it into their own pockets. These cases demonstrate that fraud schemes are limited only by the imagination and creativity of the fraudster. Frauds, indeed, do come in all sizes, shapes, and colors.

Summary & Conclusions

The purpose of this paper was to demonstrate that even during a time of global health and financial uncertainty, there exist unscrupulous individuals attempting to take advantage of the difficult situation for personal gain. In particular, greedy individuals defrauded government programs meant to assist financially distressed individuals and businesses. For example, the cases discussed earlier, where PPP loans were secured for nonexistent businesses and employees show outrageous, unethical behavior on the part of the fraudsters. The materiality of the frauds is astonishing when several nonexistent companies and hundreds of ghost employees are involved in the massive fraud schemes. The individuals either accused, or convicted of committing fraud during the COVID-19 pandemic represent a wide array of backgrounds, in terms of gender, nationality, ethnicity, and socio-economic status. Just as there is no one-size fits all definition for fraud, there also

is no singular identifying characteristic or trait that separates fraudsters from the ethical, law abiding citizen.

In conclusion, a global pandemic is a very rare and unique situation. Given this set of circumstances, it is understandable how some of these frauds were allowed to occur. First, the various pieces of COVID-19 legislation were passed hurriedly during a period when many employees were working remotely or had resigned. With fewer workers to review and process payments, such as PPP loans, the normal system of internal controls was not operating appropriately. This is especially true for auditing controls, which would have investigated the existence of both the firm and its employees. The government's goal was to get funds as quickly as possible to financially distressed individuals and businesses. With speed being the key driver, the process of auditing and investigating the legitimacy of the details on the loan applications was apparently often overlooked. The legislation enacted in response to the COVID-19 pandemic was designed to ensure the United States was able to continue to function during a challenging period. This legislation attempted to ensure the economy maintained some level of normalcy. Unfortunately, unscrupulous individuals ensured that frauds did not pause for the pandemic.

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ONLINE PARTICIPATION AND PERCEPTION OF ONLINE PRIVACY AND SECURITY IN THE UNITED STATES DURING THE GLOBAL PANDEMIC

Leah A. Schultz

Mark A. Adams

Tarleton State University

ABSTRACT

The global pandemic changed many things from the way we do business to how we consume services. This article examines participation in various online activities before and during the COVID-19 pandemic. In addition, participant opinions about security and privacy opinions are compared in survey results before and after pandemic lockdowns. Responses to questions covering online activities and perceptions about privacy and security from the NTIA Computer and Internet Use Survey from November 2019 and 2021 were analyzed using Chi Square tests. Findings indicate that participation in online activities increased across most categories and that opinions of online security and privacy changed as well. Participants were less concerned about security risks like identity theft and banking fraud and were more concerned with privacy issues of data tracking by online services and the government.

Key Words: COVID19 Pandemic, online participation, online banking, telemedicine, social media

OBJECTIVE AND INTRODUCTION

The purpose of this paper is to determine if participation in activities such as online banking, telemedicine, social media, and e-commerce changed during the COVID-19 pandemic. In addition to participation levels, using data available from National Telecommunications and Information Administration, changes in opinions about privacy and security of each of these activities will also be examined for changes during the period of November 2019 to November 2021 which covers the main period of lockdowns in the United States.

Since its inception, internet usage and participation has increased significantly in the United States. As of 2022, the United States ranks as one of the top users of the internet, behind only China and India. With over 307 million users, day to

day life is significantly impacted by the internet (Statista.com, 2022a). Almost 905 billion dollars of ecommerce was completed in 2022 and is expected to come close to doubling by 2027(Statista.com 2022b). Social media participation has risen to approximately 82% of the U.S. population, and online services such as banking and telemedicine are becoming common parts of American life. (Statista.com, 2022c).

With this opportunity, comes risk and the concepts of privacy and security become even more important as use of the internet increases. In 2021, more than 4100 data breaches were detected and reported. These security incidents exposed over 22 billion records, with most reported in the health and financial industries (Security Magazine, 2021). In the United States, there are laws that require institutions to report data breaches but many times, these are underreported or even undetected.

In early 2020, the COVID virus began to spread around the globe and many areas in the United States went into quarantine. Universities and public schools sent students to online classes while many companies changed the way they did business. Many employees worked from home and other businesses like retail and restaurant establishments looked for ways to survive. Customers who had never tried remote services like telemedicine, meal delivery or grocery curbside pickup, found themselves turning to online services to adapt to a new way of life.

By early 2021, COVID vaccines began to be widely distributed and more people began to return to pre-pandemic behaviors. During this time, however, did internet usage in the United States change significantly as expected and did this increase in use of online services change the way people thought about privacy and security?

BACKGROUND

Risk is a concept that most people are familiar with. In an online environment, risk is many times associated with the potential for real or imagined harm. Financial loss, identity theft, loss of credibility or personal information are just some of the types of risks involved with online activities (Jacobson, Lin, & McEwen, 2022). Perception of risk is many times categorized into five areas of risk: financial, physical, performance, psychological, and social (Forsythe & Shi, 2003). Online users' self-perception had little to do with their perception of risk but knowing someone who had experienced online issues increased perception of risk significantly (Jacobson, et. Al, 2022). Other researchers have discovered correlations between skill and time online that lead users to believe the contradictory idea that institutional actors (businesses, governments, etc.) work hard to protect users' online privacy while at the same time selling and distributing that information to partners and advertisers without their consent (Turow & Hennessey, 2007).

In perceiving risks, online users must also make decisions about the risk vs. benefit and in many studies, users were willing to accept risk in exchange for the convenience in areas like banking (Chellappa & Sin, 2005). However, when presented with information about security risks, some participants indicated that they would be more vigilant in their internet use in the future (Davinson & Sillence, 2010). Users that are more concerned about potential security threats are also more likely to take countermeasures such as use of anti-virus software. However, participants that did not perceive their online actions as risky were less likely to take countermeasures against security and privacy concerns (Jacobsen, et. al, 2022).

Trust in the success of an e-commerce provider is a result of the environment presented. Issues that can lead to loss of trust are inherent in the medium in which transactions are taking place. Customers are unable to view the goods in person, cannot talk to live people in many cases, and may be less likely to be familiar with a particular seller (Reichheld & Scheffer, 2000). As a result, businesses must build trust as it is an important factor in the success of e-commerce (Kim, Ferrin & Rao, 2009). The ability to build trust with online consumers may be affected by many different variables such as education level, gender, and age (Öcel & Arslan, 2019; Mumu, Saona, Mamun & Azad, 2022).

Without the basic trust in the platform, customers may be unwilling to provide personal information or trust the security of financial transactions (Amin, Razael, & Tavaa, 2015). Without the ability to accept payments and the increasing reliance on personalization through customer data, many companies would be unable to compete. There are many things e-commerce providers can do to increase trust and participation from professional web design, content, privacy and security (Ranganathan & Ganapathy, 2002). Research shows that once customer trust is compromised, it can be repaired for sellers with high reputations but is very difficult for sellers with lower reputations (Deng, Weiquan, & Lim, 2022).

Online banking and investing are services that have been developing over many years and are utilized by many. During its development, online banking was adopted at a slower rate than online shopping (Eriksson & Nilsson, 2007). Banks many times touted security guarantees to alleviate user concerns, although fine print, which was difficult to understand and comply with could easily overwrite any guarantees (Mannan & Oorschot, 2008). Initially, it was believed that adoption was slow to due perceived ease of use as well perceived usefulness.

Trust in online banking, is a significant factor of ease of use but findings show that usefulness is more likely to lead to adoption of internet banking than ease of use and that ease of use is no longer predictive of intent to use (Reepu & Arora, 2022). Additional studies have found that privacy concerns of users of online banking were not correlated with intention to participate (Chechen, Huang, & Hsieh, 2016). When given options to increase security with more secure authentication options,

users expressed acceptance and preference for single authentication due to convenience and past experience (Weir, Douglas, Richardson, & Jack, 2010)

Privacy in social media, as opposed to ecommerce and online financial services, differs in the willingness of participants to provide personal information. The concept of social media depends on participants sharing details of their lives and their opinions. Posting personal photos and videos are also popular activities on many social media websites. The voluntary dissemination of personal data combined with vague privacy policies can open users to various security risks and scams. Studies have been conducted about privacy concerns in social media and show that many are willing to give up privacy in order to participate, though some studies show that as users age, they post less personal information and worry more about privacy (Tsay-Vogel, Shanahan, J. & Signorielli, N, 2018; Nosko, A., Wood, E., & Moelma, S., 2010). Cain and Imre (2022) found that users of social media did want control over their personal information and were frustrated with hard to understand and changing policies on social media sites. Ultimately, Gilman Ranogajje, Badurina, Cupar and Aparac-Jelušić (2021) found that privacy concerns in social media are subjective and have no correlation to sharing behavior or understanding of site privacy policies.

While health information websites have been around for a long time, the addition of providing medical services online is a relatively newer service that has its own concerns with trust and privacy. During the pandemic, when providers were wanting to limit exposure to potentially infected patients as well as patients wanting to avoid waiting rooms with many other sick patients, telemedicine gained in popularity (Kyle, Blendon, Findling, & Benson, 2021). Kato-Lin & Thelen (2022) found that first time patients in telemedicine appointments expressed privacy concerns more than patients who had previously participated. However, these privacy concerns were highly correlated with patients that intended to continue use of telemedicine due to environmental risks associated with COVID-19. Overall, services were determined to be satisfactory on many aspects of health care included concerns, communication, usefulness and reliability. Patients also indicated that time saved, accessibility, cost, and convenience, were positive outcomes of telemedicine visits during COVID-19 (Nanda & Sharma, 2021).

METHODOLOGY

Data was obtained from the Computer and Internet Use Survey, which is sponsored biennially by the National Telecommunications and Information Administration. This is a supplement to the Current Population Survey, which is administered by the US Census Bureau. Survey data from November 2019 and November 2021 was used to examine changes of interest before and after the COVID-19 lockdown period.

Survey results were restricted to those respondents who affirmed that there was internet use by at least one person in the household either in the home or at a remote location such as a library, e-café, etc. Households for which the only internet use was at work were not included as restriction of online activities by employers might affect responses.

Questions in the supplemental survey relating to internet usage for health-related purposes and concerns about internet usage were asked to a single respondent about the entire household and all related persons within, with a response of Yes signifying an affirmative for one or more persons in the household. For these questions, there were 40,966 responses from November 2019 and 36,262 responses from November 2021.

Other responses taken from the survey were completed only for a single random respondent over the age of 15 in each household and thus do not reflect the overall activity of the household. For these questions, there were 41,344 responses from November 2019 and 36,559 responses from November 2021.

Survey questions covering specific activities included participation in social networks, publishing content to blogs and other sites that the respondent created, using services from other people (e.g. Uber), providing services, selling products, buying products, and using financial services. In addition to these activities, questions regarding health related activities including medical records, communication with a health professional, searching for health information, and using electronic monitoring devices. For specific survey questions, please consult NTIA Internet Use Survey Datasets (n.d).

Data was analyzed using STATA using Chi-Square Difference in means to compare the responses from the 2019 survey to responses in 2021.

RESULTS

The results of analysis indicate that six of the activities surveyed experienced significantly higher participation in 2021 than in 2019. Social media, using services online, offering services online, buying items online, and using financial services all increased during this period. While posting blogs, videos and other content also increased, the findings were not significant. The only activity that experienced a significant decrease in participation during the pandemic was the selling of goods. Results here represent the responses of the person contacted for the survey, whereas health information in the next section was more encompassing and covered household data instead of the single individual responding to the survey.

Activity	Percent answering “Yes”			X ² p-value
	November 2019	November 2021	Diff. (2021-2019)	
Social Networks	71.74%	72.54%	0.80%	0.044
Posting Blogs, Videos, or Other Content	15.51%	15.66%	0.15%	0.641
Requesting Services	33.16%	41.82%	8.66%	<0.001
Offering Services	7.54%	8.61%	1.07%	<0.001
Online Shopping/Reservations	72.27%	74.07%	1.80%	<0.001
Selling Goods	11.24%	10.41%	(0.83%)	0.001
Financial Services	70.46%	74.56%	4.10%	<0.001
Health Records	40.73%	53.45%	12.72%	<0.001
Communication with Doctor	30.45%	48.51%	18.06%	<0.001
Medical Information (ex. WebMD)	50.10%	52.99%	2.89%	<0.001
Health Monitoring Service	6.06%	8.70%	2.64%	<0.001

All health related services and information sites experienced significant increases in participation with some of the largest percentage increases in the survey occurring with accessing health records and communicating with health care providers.

When asked about security concerns, increased participation did not result in an increase in concerns about privacy and security.

Variable	Percent answering “Yes”			X ²	p-value
	November 2019	November 2021	Diff. (2021-2019)		
Financial	22.77%	18.55%	(4.22%)	<0.001	
Buying Online	15.34%	13.85%	(1.49%)	<0.001	
Posting Photos	15.27%	13.79%	(1.48%)	<0.001	
Expressing Opinion	13.33%	13.29%	(0.04%)	<0.001	
Searching	9.21%	8.84%	(0.37%)	<0.001	

From 2019 to 2021, fewer respondents indicated concerns about security of financial transactions, online shopping, posting photos, expressing opinions, and search behavior. All decreases were found to be statistically significant with concerns about financial transactions like banking showing the sharpest decline.

When asked about what privacy and security issues concerned participants the most, there were some significant increases and decreases in responses in the two-year period. Concerns about identify theft and credit card or banking fraud decreased significantly during the time period studied. Concerns about data collection by online services and data collection by the government significantly increased as well as concerns about personal safety. However, loss of control over personal data showed a slight increase that was not statistically significant.

Variable	Percent answering “Yes”			X ²	p-value
	November 2019	November 2021	Diff. (2021-2019)		
Identity Theft	54.26%	51.67%	(2.59%)	<0.001	
Credit Card or Banking Fraud	44.38%	42.76%	(1.62%)	<0.001	
Data Collection or Tracking by Online Services	25.92%	26.89%	0.97%	0.012	
Data Collection or Tracking by Government	18.38%	19.37%	0.99%	0.007	
Loss of Control over Personal Data	23.34%	23.47%	0.13%	0.729	

Threats to Personal Safety	12.58%	13.11%	0.53%	0.059
Other	3.35%	3.30%	(0.05%)	0.728

While discussing security and privacy concerns, participants were also asked to indicate if they had been the victims of a security breach, identity theft, or a similar crime, and responses indicated that a significant decrease occurred during the time period studied.

Variable	Percent answering "Yes"			X ² p-value
	November 2019	November 2021	Diff. (2021-2019)	
Experienced Breach	18.87%	17.62%	(1.25%)	<0.001

DISCUSSION

As the results from the survey indicate, there were significant changes in participation in certain activities during the pandemic lockdown as well as changes in attitudes about issues surrounding online security and privacy. Participation increases in some areas are no surprise in that the consequences of lockdowns would likely lead to increases in certain activities. People who no longer had easy access to health care due to restrictions from providers as well as concerns about leaving the house and interacting with other ill people who may have the virus would turn to online options. Similarly, changes in retail operations that resulted in curbside services only during lockdown would potentially drive some to use online shopping for the first time. These changes in behavioral patterns when people were either unable to or unwilling to leave their homes changed the way people carried out their day-to-day tasks.

One of the more difficult changes to explain is the increase in offering of services online but not a corresponding offering of products online. While many workers lost their jobs during this time or had more free time while working from home, it could be assumed that some workers tried new jobs such as uber driving or working online at home through services sourcing sites like fivver. One might also predict that these same people, either through necessity or free time due to lockdowns, would also sell items during the pandemic, but the survey data does not support that. Although sites like eBay report higher earnings during the pandemic (Rana & Destin, 2021), it seems that new individual sellers were not the main drivers behind those increases.

Overall, with a few exceptions, the increase in participation in various online activities during the pandemic lockdowns is not surprising. Many populations that

might have been slow to adopt online technologies may have been forced into some of these activities through necessity. Older adults who might not have been participants in many online services may have had to schedule online doctor's appointments, purchase groceries, or communicate with family members via social media or teleconferencing applications. Families that might not have had internet access before the pandemic many times had to accommodate online learning by getting internet access as best as they could to support their children. In other words, there were many reasons people had to use online services when they might not have done so before the pandemic lockdowns.

What is surprising though, are the changes in attitudes towards privacy and security. With more participation in more activities, one would think that the newness or the potential forced participation might make people more cautious about their online data and personal security. However, the opposite appears to have happened. Perhaps, because people became more comfortable in an online environment with few problems, their concerns about privacy and security were lessened. What is interesting about this is that security related concerns such as identity theft and financial fraud decreased, privacy related concerns about tracking from governments and other online entities increased. This difference could account for the fact that increases in use of online shopping and online financial services saw higher percentages of growth as opposed to more modest increases in sharing of content and using social media.

Additionally, because fewer people reported security issues such as identity theft or fraud, it might be that consumers have a stronger sense of trust, whether they should or not. When identity theft or banking fraud occurs, the victim is generally aware of the tangible effects of incident. With privacy concerns of companies and governments tracking information, the effects and the extent are less transparent. Most people are unaware of what data is being collected about them and how it is potentially being used. This state of unknowing during an unstable time could be the explanation for why these concerns increased during the pandemic.

Future research in this area should strive to discover more about new adopters during this time. Understanding their motivation, their persistence in using once lockdowns were ended, and how they operate as new customers and participants in digital environments can be beneficial for businesses and others offering services online. Additionally, more research needs to be done to understand the decline in concern about very real threats in the digital age. Are participants becoming savvier at thwarting threats through technology solutions such as anti-virus software and awareness of social engineering tactics or are they naively believing that these threats will not happen to them because they have been lulled into complacency through familiarity?

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IMPROVING EMPLOYEE PERFORMANCE THROUGH CORPORATE EDUCATION

Gary Lorenzo Wash
Strayer University

ABSTRACT

Due to increased awareness by organizations of strategic human resource [HR] development as a key driver for business performance, more demands are being placed on internal HR groups to incorporate effective employee development programs. The ensuing expectation is these programs are both aligned with company strategies and efficient to create added value. Effective training and employee development solutions are investments, not expenses, as they pay for themselves through competitive advantage and increased performance. Many organizations, sometimes through performance consultants, implement performance improvement strategies to grow their operations. HR departments play crucial roles in designing corporate education around employee development programs with expansive developmental opportunities for their workforce such as succession planning tools, career development solutions, mentor and coaching offerings, and higher education solutions, just to name a few. Some notable features of corporate education programs might include career development systems, coaching and performance management, management development solutions, organizational development interventions, and job enrichment programs. Understanding and finding ways to leverage these features to influence the careers of employees in organizations is integral to employee and business growth. Any one or a combination of the features and strategies for corporate education programs should be considered by business leaders as additional interventions to address the organization's current and future business needs. This paper's purpose is to review current and recent research on employee development programs as well as creating and improving these programs to enhance organizational effectiveness. Conclusions will emphasize the overall importance of a corporate education strategy and make recommendations for future business implications. The antecedents, consequences and strategies affecting corporate education quality and implementation are reviewed. A future point of view on the concept is offered.

Key Words: employee development; planning; needs analysis; education

INTRODUCTION

The growth and relevance of employee development activities within organizations today cannot be understated. Human resource development teams and their corresponding people development strategies are playing an increasingly key role in helping organizations assess themselves. In most business and academic institutions, the need for such assessment goes without saying if the organizations want to impact their competitive status. Thus, consideration for effective corporate education planning focused on employee development solutions becomes critically relevant to organizational value. HR Leaders and their human resource development [HRD] managers, in partnership with company managers must address the organization's current and future business needs. Improving the employee development function and aligning the improvements with the business strategy can help increase value creation and profits for the business. In a business or organizational setting, the term performance might be characterized as executing actions or functions that help to achieve objectives and goals. This may also be the case with HR development. Addison, Haig, and Kearney (2009) suggest that performance helps to create measurable value within organizations. Many organizations, sometimes through HR performance consultants, implement performance improvement strategies to grow their operations. The overall importance of implementing corporate education solutions as drivers of competency development and increased organizational performance is well documented in the research.

According to Society for Human Resource Management [SHRM] (2022) learning and development [L&D] helps to create employee development by both reskilling and upskilling organization employees. This ultimately leads to increased performance but as well, the retention of talented workers. SHRM adds that "more than 8 in 10 HR managers believe training is beneficial to attract (83%) and retain (86%) talent, and many employees (48%) agree that training opportunities were a factor in choosing their current company". Additionally, it is noted by McKinsey (2020) in their global research on reskilling the workforce that 87% of executives are noticing skill gaps in their companies or expect them in the next few years. The research found that upskilling and reskilling in more versatile ways can also help companies meet undefined needs. Research presented by Heinsch (2020) also reveals that in contrast to workers at the individual contributor and senior leader levels, a greater proportion of entry-and mid-level employees are targeted for development in hard-to-find and new skills. Nearly half, 45%, of organizations offer training and development in new skills to at least 50% of their entry-level roles. As well, 46% of organizations offer training and development in new skills to at least 50% of their mid-level roles.

It is increasingly clear that achieving operational success in organizations, requires HR groups in organizations count on established training processes used to determine who needs training for development and culminating with evaluating

the effectiveness of the training. Additionally, the ability to differentiate employee development solutions like career development, coaching, and succession planning, and then recommending appropriate solutions takes on added dimensions for HR professionals and performance consultants. The research for this report, both present and quite recently explores employee development strategies and solutions that may be leveraged to create and implement the corporate education strategy for most organizational structures.

GETTING STARTED CREATING EMPLOYEE DEVELOPMENT PROGRAMS

Employee development program initiatives are learning-related actions that companies should take to help it achieve its short- and long-term business goals (Noe, 2020). HR performance consultants must be charged with executing key corporate education strategies with the end goal being to create high performers and organizational value. Werner and DeSimone (2012) suggest that human resource development [HRD] practitioners develop strategies to align strategic employee development solutions with the organization's overall objectives and goals. Such an alignment will have at its core an extreme focus on competency development and performance improvement. Such focus begins with assessing the current internal situation around employee development. One alignment strategy for assessment looks at an open system for training used to evaluate current employee development programs and designate key program outcomes. Figure 1 presents such a system.

Figure 1. Training as an Open System

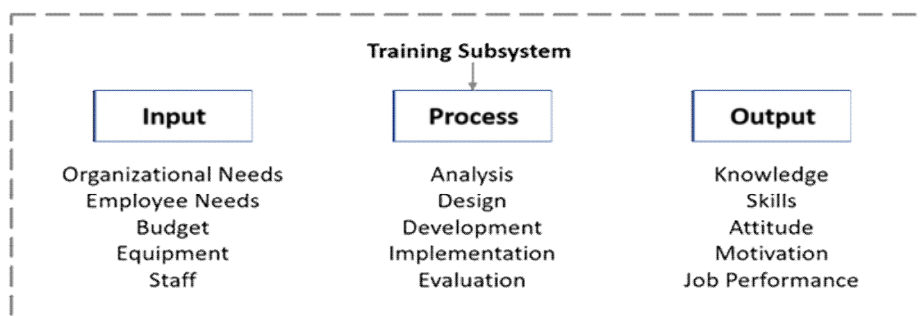


Figure 1. Open systems for organizational training have a dynamic relationship with their environment where system inputs call for process appropriateness that thus produce key outputs. Adapted from "Training System and Processes" by P.N. Blanchard and J.W. Thacker, Effective Training: Systems Strategies, and Practices, 2013. Upper Saddle River, NJ: Pearson Learning Solutions

Key to the open system is the training subsystem that can be used to analyze an organization's employee development program needs prior to designing,

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developing, and implementing the revised or new programs (Blanchard & Thacker, 2013). A need for change is identified on the “front end,” and business and performance results are achieved on the “back end”—but what happens in the middle to generate this result brings together front and backend results (Robinson & Robinson, 2008)

As a final perspective, evaluating current employee development programs will invariably lead to either a revision of the programs or the creation of new programs altogether. Whichever the case, the outcomes will be predicated on factors identified from a thorough assessment as in the training open systems model. Such factors include business needs, current budget and resources, and analysis for training needs. Evaluating the current employee development programs using the training open systems approach can also serve several purposes within the organization. Balakrishnan & Srividhya (2007) suggest a few of the purposes one of which begins with determining whether a program is accomplishing its objectives. Equally important is identifying the strengths and weaknesses of corporate education programs, which can subsequently lead to needed internal changes. Finally, determining the cost-benefit ratio of any employee development program solution since efficiency and value are equally as important as effectiveness.

EVIDENCE-BASED DEVELOPMENT PROGRAMS ADD VALUE

After input, process, and output (outcomes) within the organization’s training subsystem have been identified and implemented the type of employee development solutions should be considered. HR teams in partnership with company management teams should consider conceptualizing, designing, and developing evidence-based employee development programs. While definitions vary, evidence-based programs generally indicate those interventions and activities that evaluations have shown to be effective at addressing outcomes (HHS.gov, n.d.). The assumption made for this report is decisions have been made and agreed upon to focus on three current components of an organization’s employee development program. For example, those components could be (1) Employee Development & Succession, (2) Career Development, and (3) Department-Specific Training. It is assumed the target groups and program specifics as well are also identified. Specifics of each component are highlighted at table 1.

Table 1

Proposed Employee Development Plan

Program Component	Target Group	Program Specifics
Employee Development & Succession	<ul style="list-style-type: none"> Company managers, directors, and senior management Eligible non-manager employees identified for promotion 	<ul style="list-style-type: none"> Management and leadership development courses/education Succession planning & management Supervisor training and development
Career Development	All employees	<ul style="list-style-type: none"> Individual counseling and career discussions (HR-led) Assessment tools and activities Higher education
Department-Specific Training	<ul style="list-style-type: none"> All non-manager employees Some manager level employees 	<ul style="list-style-type: none"> Process and performance improvement training Policies and procedures training

Note. Adapted from "Designing an HRD Programme" by L. Balakrishnan and S. Srividhya, 2007, Human Resource Development, Mumbai, Copyright 2007 by Himalaya Publishing House

Revisiting the previous definition of what makes a program evidence-based helps to affirm that the employee development program components in table 1 can be deemed validated evidence-based solutions. First, employee development and succession strategies have been assessed and used in organizations throughout the years (Ballaro & Polk, 2017; McIntyre & Lansdell, 2017). These strategies and their implementations have long addressed value creation in people and processes within organizations. Next, career development or career management is important for the organization and for their employees. Organizations and HR leaders have long held this belief that is also abundant in the literature. Dumitru and Voinea (2015) suggest that career development envisages both the career planning process and the ensuring of managerial succession. Good career development programs can also help the organization avoid productivity and disciplinary problems associated with employees who are in stagnated jobs (Lussier & Hendon, 2019). Lastly, the support for department specific training being evidence-based is quite apparent. Department training may include training categories such as basic skills/literacy, technical, and interpersonal and these categories are often considered basic workplace competencies (Werner & DeSimone, 2012). Sales, safety, and customer service training derive from these categories and evidence has suggested the need for each within organizations over time.

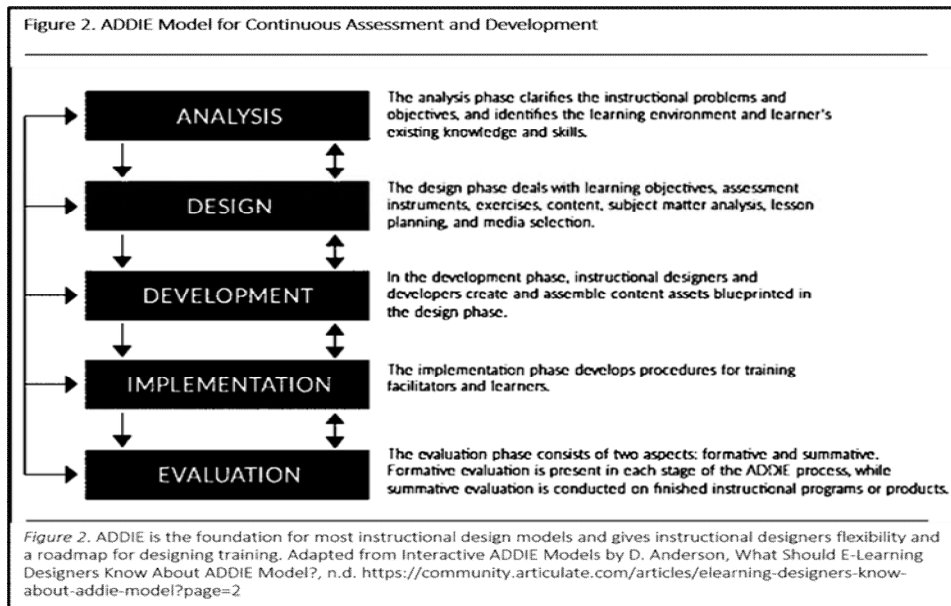
NEEDS ANALYSIS PLAN AND CONTINUOUS ASSESSMENT

As Werner (2017) suggests, needs can exist on any of at least three levels, considering the organization, the job/task, and the individual. Each level of analysis measures different aspects of the organization and correlates specifically with the need for organizations to develop employees to sustain value creation and growth. This report more specifically outlines the three levels of needs analysis below.

- Strategic/organizational analysis suggests where in the organization training is needed and under what conditions it will occur.
- Task analysis explains what must be done to perform a job or complete a process successfully.
- Person analysis reveals who needs to be trained and what kind of training they need. An increasing focus today is on important competencies needed by employees to do their work (Werner, 2017, p. 123).

Implementing the above levels of analysis requires implementing specific methods to gather information. McConnell (2002) suggests using a combination of methods, such as interviews, questionnaires, or having discussions in meetings with key stakeholders. An additional perspective underlying effective needs analysis are the approaches that can help in undertaking training needs analysis and ensuring effectiveness of training programs. HR groups must understand how training needs assessment, analysis, learning culture and training effectiveness strengthens the overall employee development program within the organization. (Mukerjee, 2019).

When developing a corporate education strategy for determining employee development solutions, organizational, task, and person analysis is enhanced by asserting the use of an instructional methodology well known throughout theory and practice. Along with the concepts previously noted herein (training process subsystem at figure 1 and levels of needs analysis), it is recommended that organizations accept assessment and development procedural elements associated with the use of the ADDIE model. Salas (2018) suggests that integrating the analysis, design, development, implementation, and evaluation framework helps to not only enhance the overall learning experience but also improves employee performance and value creation in organizations. Anderson (n.d.) outlines descriptions of the ADDIE process steps at Figure 2.



The overall goal for employee development efforts is to affect behavioral change and skill development in employees being considered for key roles or to increase performance. Having a well-rounded needs analysis structure provides a process to ensure appropriate development opportunities are provided to the right employees at the right time (Aziz, 2013).

SOLUTIONS EXAMPLES FOR CORPORATE EDUCATION

One idea for a corporate education solution is succession planning. Organizations historically have had to prepare for the retirement of their leaders. Enhanced performance helps to create measurable value within organizations, so developing succession plan solutions is advisable. Consideration must first be given to the current theory and practice surrounding the use of succession planning models. A decision-based strategy for succession planning may center on four important aspects that require decisions to be made before moving forward with the full succession strategy. These aspects include:

1. Identifying Current Talent
2. Metrics for Succession Plans
3. Computerized Succession Planning Models
4. Common Succession Planning Mistakes (Mathis et al, 2017 pp. 332-334).

Rothwell (2010, p. 51) has opined “succession planning is traditionally a strategic change effort designed to prepare people for promotion within an organization by

emphasizing internal talent development.” As in any strategic plan, priorities must be made explicit, policy and procedures defined, and individuals and groups directed and motivated toward the action defined in the plan (Luhn-Wolfe, 1996). This report examines three program planning perspectives on succession management: (1) Refining the Program [Rothwell], (2) Developing High-Potentials [Noe et al] and (3) Getting Started with Succession Planning [Adams]. Though not an exhaustive examination, each perspective can be leveraged to help begin the development of a succession strategy that can be utilized to help close gaps in manager and leader roles.

First, succession planning should include a well-designed development system to support employee development. This belief makes sense when considering Mathis et al (2017) contention that it takes two to three years to develop qualified successors. To ensure the well-designed system, Rothwell (2005) thus believes that beyond startup, some additional steps will usually need to be taken before a systematic succession planning and management (SP&M) program becomes operational. These steps include:

- Preparing a program action plan
- Communicating the action plan
- Conducting SP&M meetings
- Training on SP&M
- Counseling managers to deal with SP&M issues uniquely affecting them and their work areas (p. 156)

Additionally, succession planning focuses on high-potential employees. Not many in the employee development field would argue that assertion. The typical approach to developing high-potential employees is that they go through individual development programs (Noe, Hollenbeck, Gerhart, & Wright, 2016) which may be derived from the spectrum of career development activities. Key to successful succession planning models will be how organizations go about accomplishing three essential stages that are embedded within the succession strategy: (1) selecting high potentials, (2) creating developmental experiences, and (3) active involvement with company executives. And finally, in preparation for succession planning, it will be critical for stakeholders of the process to agree on terminology that will be used to frame succession planning solutions. The goal, as Adams (2010) suggests, is regardless of the terms or words used, there should be agreement that the organization seeks a plan to sustain effective leadership over time and multiple leadership changes. Some terminology that may be universal across organizations include:

- Leadership sustainability planning. This promises a goal of ensuring effective leadership over time by preparing the organization for both planned and unplanned leadership changes.

- Emergency backup succession planning. Planning to facilitate rapid transfers of duties and authorities to designated individuals if the current executive or other key leader is unable to function.
- Leadership planning. This frames succession planning as readiness for staff and board backup and succession. This approach emphasizes defining who leads in your organization.

Another idea for a corporate education solution is developing competencies for high potentials. Derr, Jones, and Toomey (1988) have suggested in that organizational leaders must find ways to manage high potential employees and that many managers equate the term 'high-potential' with executive ability. Today, some might suggest high potentials can also be lower-level supervisors or managers capable in the short run of roles as director and vice-president level employees. This report assumes organizational leaders would agree that high potentials exist among throughout the management ranks...even their lower-level managers. As such, a focus on developing competencies for high potential is desirable. The key business stakeholders can agree to leverage the research and theory behind Schoenfeldt and Steger's (1990) work on what they call threshold competencies, meaning competencies all managers should possess to be effective across manager levels. The selected competencies are seen at table 2.

Table 2 Clusters and Competencies for High Potentials

Cluster	Competencies
Human Resource Management	Use of socialized power Positive regard* Managing group processes Accurate self-assessment*
Leadership	Self-confidence Use oral presentations Conceptualization Logical thought*
Goal and Action Management	Efficiency orientation Proactivity Concern with impact Diagnostic use of concepts
Directing Subordinates	Use of unilateral power* Spontaneity* Developing others*
Focus on Others	Perceptual objectivity Self-control Stamina and adaptability Concern with close relationships
Specialized Knowledge	Memory Specialized job knowledge*

*Identified as "threshold competencies," that is, characteristics essential to performing a job, but not causally related to superior job performance.

SOURCE: Schoenfeldt, L. F., & Steger, J. A. (1990). Identification and development of managerial talent. In Ferris, G. R., & Rowland, K. M. (Eds), *Organizational entry*. Greenwich, CT: JAI Press, p. 210.

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To help achieve competency success consideration may also be given to internal job rotations and job-related certifications. Job rotation helps to develop new knowledge and skills internally and it is believed that greater variety of jobs/work adds to motivation (Werner & DeSimone, 2012). The obvious advantage of job rotation is that it helps develop employees' capabilities for doing several jobs. Job rotations might prove very useful as employees from very departments can learn and practice skills across department sections. Clear policies that identify the nature of job rotations and provide the appropriate training are more likely to make the job rotation a successful strategy (Mathis, Jackson, Valentine & Meglich, 2017). Job-related or industry-specific certifications as part of a complete employee development strategy can further strengthen the corporate education program. Management development is overall training that has an immediate and a long-term organizational benefit and there are many external resources and educational options available for management development (Frost & Wallingford, 2011). Professional organizations like the Society for Human Resource Management (SHRM), the Association for Talent Development (ATD), and the American Society for Quality (ASQ) offer a variety of high-quality programs for employee development. It should be noted that the programs focus more on HR professional and employee development.

In addition, the Human Capital Institute [HCI] is also a great source for HR employee development programs and certifications. According to the organization's website, it is built on the principle that human capital management is the most powerful lever for performance and growth (HCI, n.d.). This is especially significant considering organizations rely on strong management development programs that grow managers who will create organizational value and achieve business success. Many of the employee development solutions at HCI are found within their HR certification programs. These certifications include the following employee development solutions.

- Strategic HR Business Partner (Most Popular)
- People Analytics for HR
- Coaching for Engagement and Performance
- Leadership Development and Succession Strategist
- Empowering People Leaders (HCI, n.d.).

Each of the professional organizations mentioned focuses more on employee development aimed at HR or quality professionals. However, organizations may still leverage the sources to conceptualize and create specialized learning solutions for non-HR managers and employees.

REFLECTIONS, RECOMMENDATIONS, AND CONCLUSION

Employee development programs can provide organizations with a competitive advantage. They are used to develop all levels of employees to fill needed leadership roles, replace retiring or removed employees, and create positions due to organizational changes or new facility demands. Strategic HR business partners in organizations will be challenged to add value to organizational operations. Improving the employee development function and aligning the improvements with the business strategy can help increase value creation and profits for the business. Such improvements also help HR groups build capacity and create positive credibility among the organization's key stakeholder groups. A consensus among today's organizations and academic literature is effective HRD implementation aids in performance improvement for employees, processes, and systems. To ensure a proper wholesome coverage of human resource development practices for the organization, the most important task would be for HR groups to set up a human resource development department capable of addressing the needs simultaneously of the organization and its employees.

In crafting the overall policy for the company's management development plan the focus should be on three key elements: (1) approaches to employee development, (2) systems for career management, and (3) development-related business challenges. Throughout each of the elements, there will be much attention given to details such as administrative requirements, timing recommendations, staff and supervisor training, and other pertinent items. These aspects of development are characteristics of a well-planned succession planning and management strategy. Succession planning is a business imperative that provides for the organization's sustainability and success. However, an effective succession planning strategy is only as good as its component parts, namely, data-gathering through needs assessment, career development activities, training and education solutions, and upper-level senior leader support.

As organizations struggle to keep pace with its competition, they must find differentiators that set them apart. Many today would argue that effective talent management solutions are a substantial differentiator, or 'X-factor' for competitive advantage. Most organizations believe that competitive advantage is achieved through a talented and dedicated workforce. They also believe that effective talent development solutions can be leveraged to sustain talented, motivated, and dedicated employees. It is recommended that once a strong employee or management development program is in place, HR teams continue aligning development processes, tools, and associated metrics with established organizational outcomes. The Association for Talent Development (2005) states "the most successful formal learning programs have a great deal of accord between the material, results, and processes, and the least successful have significant discord" (sec. 3).

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DATA ANALYTIC TOOLS RELATING TO SELECTED COVID-19 PANDEMIC FRAUDS

Carol Sullivan

Southeastern Oklahoma State University

ABSTRACT

This research provides information related to the use of data analytic tools for preventing and detecting COVID-19 pandemic frauds. The IRS-CI (Internal Revenue Service – Criminal Investigation) Agency continues to conduct investigations involving billions with these frauds. With the data analytic tools, people can be stopped from fraudulently taking advantage the government during critical life or death times.

Keywords: COVID-19 pandemic frauds, data analytics, and PPP loans

INTRODUCTION

The COVID-19 pandemic created an environment of chaotic business environments as well as unexpected governmental assistance given to citizens who should have been most adversely affected by it. While many people were helped with the assistance, some people fraudulently took advantage of the crisis. The purpose of this research is to present a few interesting fraud cases and to suggest that data analytics could have prevented them from happening in the first place and will probably at least detect them eventually. As of the first quarter of 2022, the IRS-CI (Internal Revenue Service – Criminal Investigation) Agency has conducted more than 660 investigations involving estimates of \$1.8 Billion. With the data analytical concepts learned, professors can share the information with the students in the future so that they can understand how analytical tools can possibly stop people from fraudulently taking advantage the government and during critical life or death USA historical times.

LITERATURE REVIEW

The entire world is experiencing an increase in financial frauds during recent years. Kadova, Khan, Narumoto, and Watanabe (2021) conducted a nationwide survey in Japan that investigated the socioeconomic and psychological profiles of victims of fictitious billing fraud, loan guarantee fraud and refund frauds. The study found that the victim profiles were diverse – married males and financially less satisfied people were more often victims of billing fraud while less anxious people were

more likely to experience loan guarantee fraud while older, asset-holding, and less-income-generating respondents were more likely to be refund fraud victims. The overall results of the study were that the diversity reflect the idea that a 1-size-fits-all policy cannot effectively combat financial fraud.

Kamensky (2021) studied white collar crime during the COVID-19 pandemic. As nations simultaneously cooperate and compete in efforts to create vaccine, enhance national public healthcare regimes, regulate border control and passenger traffic, fraudulent behavior becomes more aggressive as white-collar criminals operated on a bigger scale than ever before. Their study created analysis of these issues related to economic crime in the globalized pandemic-effected environment and identification of right solutions for this challenge. Cohn (2022) provided information related to the IRS adding more filters to catch business tax fraud during the pandemic as fraudsters were taking advantage of global vulnerabilities. Levi and Smith (2022) investigated the common characteristics of frauds associated with pandemics and tried to identify any unique risks. The study found some novel crime types and methodologies arising during the current pandemic that were not seen in previous pandemics. These changes may have resulted from public health measures taken in response to COVID-19, the current state of technologies and the activities of law enforcement and regulatory guardians. It showed that many frauds would occur anyway, but some specific frauds occur during pandemics. Because of large scale government assistance programs to businesses and individuals, far more opportunities were created from COVID-19 than in previous eras.

Ma and McKinnion (2022) also found that the emergence of the coronavirus has threatened physical and mental health, and changed the behavior and decision-making processes of individuals, organizations, and institutions worldwide. As many services move online due to the pandemic, COVID-19-themed cyber fraud grew. This article explored cyber fraud victimization and cyber security threats during COVID-19 using psychological and traditional criminological theories. It also provided a COVID-19-themed cyber fraud typology using empirical evidence from institutional and agency reports. Al Shehab (2022) incorporated cost/benefit consideration as they provided a framework for fraud risk management. Luttati (2020) described how the IRS was launching campaigns to prevent tax fraud even in the midst of the COVID-19 pandemic. Campaign priorities were high income non-filers, **tax** shelters, and virtual currencies, as well as the updates to the voluntary disclosure practice. Stutts (2022) reported that President Biden signed 2 pieces of legislation designed to extend the statute of limitations (from 5 years to 10 years) for fraud causes that involved pandemic relief programs. One of them would have a particular impact on Paycheck Protection Program (PPP). "Too much of small-business relief funding, which was passed by the Congress, ended up in the hands of those who either didn't need it, or criminal syndicates who outright

stole the money," Biden said at a White House signing ceremony. "The watchdogs are back. "The second law signed by Biden enables prolonged government scrutiny of funds distributed through the Emergency Injury and Disaster Loans program. The Department of Justice has already brought more than a thousand cases related to **pandemic** relief funds and has alleged losses over \$1.1 billion, with most cases alleging that individuals created shell companies or inflated employee numbers to claim larger loan amounts. But investigators may have only scratched the surface on loan **fraud**, according to various estimates. Representative Nydia Velázquez, a Democrat from New York who sponsored the **PPP** legislation, cited reports that found most loan **fraud** under the program originated with nonbank lenders and fintech companies. "Anyone that took advantage of a once-in-a-lifetime economic and public health crisis to enrich themselves must be held accountable," Velázquez said in a written statement. "This bill will give law enforcement agencies the time needed to bring these bad actors to justice." In March 2020, Congress enacted legislation that created federal programs to quickly dole out an unprecedented amount of government aid to individuals and businesses. Just two weeks after the Paycheck Protection Program launched, the Small Business Administration had disbursed \$343 billion across 1.7 million loans. The Department of Justice now estimates that at least 10% of applicants for both the **PPP** and EIDL program may have obtained loans "that were inconsistent with income eligibility requirements," DOJ Inspector General Michael Horowitz said during congressional testimony in June. "These funds were allotted with few, if any, controls," Horowitz said. The Small Business Administration "lowered the guardrails" for lenders to verify loan applications in order to "put an emphasis on getting the money out quickly," said Linda Miller, a risk and compliance advisor at the auditing firm Grant Thornton. Miller, who worked for 10 years at the U.S. Government Accountability Office, said that the **pandemic**-relief programs were "rife with **fraud**" when she joined the **Pandemic** Response Accountability Committee last year to help with oversight. But banks and fintechs were not "simple bystanders," and some may have even exacerbated **PPP** loan **fraud**, Miller said. "Banks were making loans and receiving a lot of fees in making those loans," she said. "We saw some very unusual activity by fintechs and other lenders in approving loans under such a fast time frame. It seemed unlikely that they followed full due diligence requirements." Congress relied on banks and other lenders to disburse **pandemic** loans to borrowers quickly, said Kevin Toomey, a financial services lawyer at Arnold & Porter. "It would have been unreasonable for anyone to think there would not be some degree of **fraud** in these programs," Toomey said. "Unless egregious facts exist, I think it would be inappropriate for government agencies to focus on lenders. "Banks were generally more prepared to manage loan applications from businesses that, in many cases, were already their clients, according to Toomey. Some fintechs, which face less government oversight, "saw an opportunity, but

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may not have had the compliance infrastructure necessary to keep up with demand," he said.

Davison (2021) reported that the U.S. Department of Justice has seized \$626 million as result of its criminal and civil investigations, but it represents less than 1% of the potential \$84 billion identified. A memo, from Democratic staff on the Select Subcommittee on the Coronavirus Crisis, said that President Donald Trump's administration failed to establish safeguards to prevent criminals from claiming the small business funding meant to help companies that were struggling during **pandemic** shutdowns. "These programs have played a crucial role in helping small businesses keep their lights on and keep workers on the payroll during the **pandemic**, preventing the nation's economic crisis from becoming even worse," the staff members said in the memo. "However, the Trump administration refused to implement basic controls in **PPP** and EIDL despite warnings from the Select Subcommittee and others, leading to billions of dollars in potential **fraud**." The **PPP** and EIDL programs, which were charged with getting money to small business quickly at the start of the **pandemic** last year, quickly became targets for fraudsters because of the lax application requirements and security checks. The Small Business Administration implemented more stringent requirements as the programs continued but after billions of dollars had already gone out the door. The lack of protections during the loan and grant application process has meant that that law enforcement agencies have been responsible for tracking down funds from dishonest claims. The Small Business Administration Inspector General has received 1.34 million referrals for suspected **fraud**. Nearly 149,000 complaints have come into the watchdog's hotline, a 19,500% increase compared with previous years, the memo said. There are 212 open SBA Inspector General investigations regarding **PPP** and EIDL **fraud** as of March 18, and there are 32 law enforcement agencies involved in probing small business **fraud** in **pandemic** relief programs, the staff added in the memo.

2020 CARES ACT LEGISLATION

The CARES Act was signed into law during 2020 as an avenue to provide emergency financial assistance to millions of Americans suffering from job loss and other serious economic effects of the COVID-19 pandemic. A major part of this relief package involved authorization of about \$349 billion through the Paycheck Protection Program (PPP) legislation. There was additional Congressional authorization for over \$300 billion in April 2020. A third authorization for about \$284 billion was authorized in December 2020 for a total of almost \$1 trillion in unexpected government funding/spending.

The Paycheck Protection Program (PPP) was designed to allow qualifying small businesses and certain other organizations to receive loans with an interest rate of 1% over 2-5 years. These businesses were required to use the PPP loan proceeds for payroll costs, interest expense on mortgages, rent or utilities. There is a loan forgiveness provision if the businesses spend the proceeds on these expenses within a set time period as well as use at least a certain percentage of the loan on their payroll expenses.

Additionally, the CARES Act created an oversight organization called the Pandemic Response Accountability Committee. This Committee had a very challenging oversight responsibility due to the large dollar value of the relief and because the program needed to be functional before it could even before it could even start reviewing the spending. The PPP funding/spending was taking place so fast that the Committee was basically trailing the activities from the very beginning of this vulnerable period in USA history.

UNEMPLOYMENT INSURANCE AND OTHER FRAUD OPPORTUNITIES

(source: <https://nypost.com/2022/06/24/the-trillions-in-covid-relief-money-led-to-billions-in-fraud/>)

According to the Department of Labor information, at least \$163 billion of the \$873 billion allocation for unemployment insurance benefits was spent at least “in error” (not necessarily fraud) and very little of this missing money has been recovered. While it has yet to be determined, it is alleged that a significant portion of this \$163 billion was given to fraudsters in both the United States and even foreign countries like China and Russia.

One serious problem with the government programs involved the design of the program as it motivated workers. It was logical that the federal government boosted state unemployment benefits at the beginning of the pandemic when contagion was so problematic, the \$600 per week benefits were excessive in nature. With these benefits, approximately 76% of the workers receiving these benefits made more money by not working than by working. The benefits were also extended long after the USA economy reopened and the serious danger was over. There were also 3 more rounds of payouts (\$1,200, \$600, and \$1,400) given to people who had already received the enhanced employment benefits or to people who had never lost their jobs. Only 15% of the people receiving the first round of checks reported that they had spent it or planned to spend it. Finally, there were more benefits given along with checks.

Finally, billions of dollars were given to corporations as well as state and local governments. Airline bailouts and Payroll Protection Program money provided shareholders with government handouts that they did not need while much of the

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PPP funding went to companies whose workers were never at risk of losing their jobs since they could easily work remotely. State and local governments had already collected most of the property taxes for the 2020 year and most of the public schools were closed. Many corporations and governmental entities experienced revenue growth or at least had revenues equal to pre-pandemic levels.

INTERESTING PANDEMIC FRAUDS TO STUDY

Case #1: San Fernando Valley family members

One (unnamed) family from San Fernando Valley, California is alleged to have used stolen and fictitious identities to submit 150 fraudulent applications for COVID-19 relief funds. They created phony payroll records and tax documents to the Small Business Administration administering the PPP funds. The family then used the funds to purchase luxury homes, gold coins, and designer fashions. When brought to court for these crimes, they cut their ankle monitoring devices and left the USA prior to their sentencing hearing in November 2021. They abandoned their 3 teenage children and joined the European jet-set lifestyle with much of the fraudulent funds. In February 2022, they were arrested in Montenegro to be extradited back to the USA.

Case #2: A Couple of Florida Businesses

According to court documents, Keyaira Bostic obtained a PPP loan of \$84,515 for her company, I Am Liquid Inc. of Pembroke Pines. The loan was based on false information about her company's number of employees and average payroll as well as false supporting tax and bank documents. Ms. Bostic also paid about \$21,000 to an alleged co-conspirator, James Stote, as a kickback for assisting, preparing, and submitting the fraudulent loan application. Stote submitted fraudulent PPP loan applications for other loan applicants, seeking more than \$3.3 million in loans and receiving almost \$2 million in PPP loan proceeds. Bostic was found guilty of conspiracy to commit bank and wire fraud and received a sentence of almost 4 years.

A second Florida case involved a transplanted Massachusetts resident who filed fraudulent applications in order to obtain \$2.5 million in the Paycheck Protection Program (PPP) funds made available with the CARES Act. Vinicius Santana, of Boca Raton, Fla. was charged with one count of wire fraud and one count of unlawful monetary transactions. Santana was previously arrested and charged by criminal complaint with the single wire fraud offense in June 2022, but the Court has not scheduled a plea hearing. His company, Complete Home Care LLC (CHC), is a painting company actually based in Massachusetts. On behalf of CHC, Santana submitted 4 different PPP loan applications. The first 3 applications were denied and he simply allegedly listed 5 employees and an average payroll between

\$10,000 and \$18,000. Ironically, the 4th application was accepted and it allegedly claimed to have 154 employees with an average monthly payroll of \$1 million. With this application, a bank issued a \$2.5 million PPP loan based on the false representations. Allegedly, Santana misused the loan proceeds to invest in cryptocurrency and to buy real estate and cars.

Case #3: A Couple of Dallas-Fort Worth Area Cases

In Dallas, Texas, there was a Liberian national who designed a fraud scheme that resulted in more than \$23 million PPP loans that would eventually be forgiven. Tax consultant Steven Jalloul was charged in September 2020 and pled guilty in October 2021. Acting U.S. Attorney Chad Meacham made a statement about the case: "The Paycheck Protection Program was designed to help hardworking businesspeople keep their companies afloat during the pandemic – not to line the pockets of unscrupulous accountants. The Justice Department will prosecute anyone who attempts to exploit pandemic-era financial programs. There are countless businesses ravaged by COVID-19 that deserved this money; Mr. Jalloul did not."

Dinesh Sah of Coppell, Texas was charged with 3 counts of wire fraud, 3 counts of bank fraud, and 1 count of money laundering for his alleged participation in a scheme to file fraudulent loan applications seeking approximately \$24.8 million in forgivable PPP loans. Sah allegedly submitted 15 fraudulent applications, filed under the names of various purported businesses that he owned or controlled, to eight different SBA-approved lenders seeking almost \$25 million in PPP loans. In his applications, Sah claimed that these businesses had numerous employees and hundreds of thousands of dollars in payroll expenses when, in fact, no business had employees or paid wages consistent with the amounts claimed in the PPP applications. The allegations state that Sah submitted fraudulent documentation in support of his applications, including falsified federal tax filings and forged bank statements for the purported businesses. Sah ultimately received more than \$17 million in PPP loan funds and used the proceeds primarily for multiple homes and luxury cars, including a 2020 Bentley convertible, and sending millions of dollars in international transfers. Sah plead guilty in March 2021 and received 11+ years in prison as well in addition to an order for him to pay more than \$17 million in restitution.

DATA ANALYTICS AND OTHER INFORMATION SYSTEM-RELATED PREVENTATIVE MEASURES SO THE FRAUDS COULD HAVE BEEN AVOIDED

Data Analytics is an interesting area of business that can create both opportunities and detect problems with pattern recognitions. One easy technique that would have helped prevent the frauds involve simply analyzing the year-to-year data with

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respect to employees. Does it make sense that many small businesses increased their numbers of employees exponentially from previous years? The IRS had these companies' payroll data from previous years and it could have been required information before a PPP loan was approved. Additionally, salary information was a line item on the small business tax return information whether it be a basic Schedule C for a sole proprietorship, Form 1065 for a partnership, or Form 1120 for corporate tax returns. Again, does it make sense that salary expense increased exponentially during the pandemic for these companies fraudulently applying for the PPP loans? Ratios such as Salary Expense/Sales Revenues or Salary Expense/Net Income would have created red flags that loan officers or SBA employees could have used to prevent loans from being approved for the fraudsters. Finally, simply checking brick-and-mortar locations or websites for legitimate business locations and practices could have helped the SBA administrators who had a general understanding of businesses in their territories.

**DETECTIVE MEASURES THAT MAY SOON CATCH
FRAUD: IRS-CI STATEMENTS ABOUT THE CURRENT
INVESTIGATIONS**

(source: <https://www.irs.gov/compliance/criminal-investigation/irs-ci-releases-latest-covid-related-fraud-investigational-statistics>)

In the aftermath of the funding/spending the IRS- CI has become involved in terms of investigating and prosecuting cases. "The Coronavirus Aid, Relief, and Economic Security (CARES) Act was signed into law nearly two years ago as a safety net for Americans in light of an unprecedented health crisis. Unfortunately, even during times of crisis, criminals pop their heads out to look for ways to take advantage of those in their most vulnerable state. Thanks to the investigative work of IRS-CI special agents and our law enforcement partners, we've ensured criminals who try to defraud CARES Act programs face consequences for their actions," said IRS-CI Chief Jim Lee. Those consequences include a 100% conviction rate for prosecuted cases with prison sentences averaging 42 months.

Actually, the problem revealed vulnerabilities with the IRS information systems that can easily be corrected with time and that is what is happening now with more than 660 cases being investigated by the IRS-CI. Again, the following measures will eventually detect the frauds: 1) designing an Information System that links the federal tax returns submitted in the applications to the tax returns submitted to the Internal Revenue Service and 2) an Information System that links employee payroll record information (including Social Security Numbers) back the W-2 information and payroll tax records that had been previously submitted on behalf of employees.

CONCLUDING REMARKS

This research describes the federal government vulnerabilities during the COVID-19 pandemic as well as how the use of data analytics could have prevented some of the frauds. These tools may eventually detect and prosecute these frauds as the IRS-CI continues to investigate. The situation can best be described by Don Fort, Chief of the IRS Criminal Investigation, when he made this recent remark: “Criminals try to take advantage of our most vulnerable times and our most vulnerable populations. But because we have seen many of these criminals and schemes before, we know how to find them and we know how to expose them. The IRS is working domestically and with international partners to track down scams.” This study provides ideas as to how to prevent and detect the frauds. Data analytics can help!

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FINANCIAL STATEMENT ANALYSIS: A CLASSROOM EXERCISE FOCUSING ON ETHICAL AWARENESS

Charlene Foley Deno
SUNY Oneonta

ABSTRACT

In the continuing quest to enhance the ethical wherewithal of the professional accounting student, this exercise is intended to provide avenues to increase student ethical awareness. Such awareness is expected to enhance their ethical decision-making abilities and their capacity to evaluate ethical failures and the corresponding impact on the financial condition of the company. As a future certified public accountant (CPA), critical thinking, financial statement analysis and evaluation of internal control effectiveness should be routine; therefore, this requisite knowledge is crucial. This paper proposes a classroom exercise based on real financial data requiring all accounting majors to review recent news reports and articles, select an instance that describes a fraudulent activity and thoroughly research that incident as well as the company and all related entities. Students should be able to articulate the ethical fracture and the impact on the financial condition of the company as well as the impingement on the investors and culture. The common framework requires that each student answer the same four main questions: what was discovered, how was it discovered, what is the impact on the financial statements and what solutions could be put in place to prevent future occurrences. The aim is to provide each student with ample opportunities to develop their critical thinking skills, problem solving techniques, and communication skills while continuing to improve their auditing skills and strengthen their ethical awareness toolkit. The classroom can be used to provide the required auditing skills and fact-based content, which will set the foundation for a successful Problem-Based Learning (PBL) undertaking.

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Key Words: Ethics, Ratio Analysis, Internal Controls, Student Engagement, PBL

INTRODUCTION

Business ethics continues to be of the greatest importance and thus elevating ethics awareness in the business realm requires a continued, comprehensive, and integrated approach throughout the academic curriculum. Even though Sarbanes-Oxley (SOX) is over 20 years old it is the perfect kickoff for internal control conversations. Pre SOX scandals {which included Enron, Tyco, Adelphia, Waste Management, HealthSouth, WorldCom, American International Group (AIG), Lehman Brothers, Bernie Madoff, and Freddie Mac} serve as the educational benchmark for ethical awareness we are able to incorporate the SOX structure into classroom discussions. Internal controls and business ethics are intended to raise the consciousness of the business community so the obvious lack of personal and professional integrity of the past will not be an example of history repeating itself. In addition to misleading the public via falsification of financial information, business history reveals unethical activities such as price gouging, bribing, granting favors, use of inside information, ignoring health and safety regulations, as well as polluting the environment to mention but a few ethical fractures. Post SOX scandals that continue to judder the confidence in business professionals and the business world include Wirecard AG, Wells Fargo, Luckin Coffee, Granite Construction, FTE Networks, Ernst and Young Cheating Scandal, Deloitte, Nissan and Carlos Goshen and Kraft Heinz, among others. This hands-on exercise allows students to familiarize themselves with the background of the organization from an historical perspective and understand the operations, policies and procedures including internal controls. Additional important components include climate, the market and competitors as well as a complete financial statement review including a ratio analysis. This is a comprehensive and successful activity because the students work with real financial data as well as a real fraudulent newsworthy item and is accomplished by students approaching the analysis from a fact-based position.

BACKGROUND AND LITERATURE REVIEW

Ethical behaviors have been the topic of important conversations for centuries and how to produce ethical leaders has accompanied those conversations. The Securities and Exchange Commission (SEC) has been the backbone of ethics since the 1930's. The Sarbanes–Oxley Act of 2002 (SOX) was an extremely important piece of legislation which has served to heighten the regulations for publicly traded operations and can be applied to private businesses. For near a quarter century SOX (SOX 2002), comprised of 11 complex sections, has successfully implemented mandates for an annual compliance obligation to establish and maintain financial reporting standards and benchmarks. Three main mandates are oversight, auditor independence, and corporate responsibility which lend themselves to sufficient and effective internal controls. Accountants rely on these SOX safeguards because they support the accuracy of the financial information and ensure that adequate controls are and remain in place. “Accounting firms are responsible for ensuring ethical financial reporting of businesses; it is of interest how the firms themselves employ leadership style to influence firm culture and how both leadership style and organizational culture work together to establish and support an ethical work climate within the professional accounting firm” (Buchan et al., 2020). Ethics plays a starring role in the interpretation of data as well as internal control processes a company uses to document, test, maintain and review activities. Drumea (2019) discusses how quick reward has smothered business protocols with the violation of ethical principles and the proliferation of ill-practices on the rise, the economy has suffered.

The question remains, can ethics be taught? If so, how? “Ethics can’t just come up in an ethics class. It needs to be put into context, as well, and be presented consistently throughout the program. Students need to see a culture of ethics across the institution that mirrors the kind of culture we would like to see in the business world” (Weybrecht 2016). To ensure ethics is presented to our students in a fashion that will strengthen their knowledge of the theory as well as appropriate application we need to carefully craft the content. Gong (2017) describes how the decision-making approach in accounting strikes a balance between theory and practice. Academic professionals charged with inspiring students to understand theory and apply the concepts must stretch past a contained course to ensure a solid

foundation which they will carry into the work world. In addition, the consistency of ethics incorporation into the curriculum in a variety of manners and methods in which it is presented will be instrumental to the desired outcomes. Burton et al., (1991) performed a study that clearly demonstrates the level of exposure and method of exposure had a direct correlation to and a significant impact on ethical attitudes and perceptions as well as long range applications.

To best serve our students and continue their ethical growth, in addition to a stand-alone course, weaving ethics into all aspects of the academic curriculum will prove to strengthen their ethical awareness and continue their knowledge accumulation while preparing for their professional career. "Business's increasing influence, reach, and impact makes it more important than ever to empower graduates with the tools to be able to make better decisions" (Weybrecht 2016). Lack of ethical leaders is an ongoing dilemma and since there is not one answer to solve this shortcoming, perhaps we could better serve the business community by providing them with students that have an effective ethical barometer. These students then become employees that are receptive to and competent with the ethics plan adopted by the firm, thus becoming ethical champions. Kaptein (2014) clearly states that a business that has adopted an ethics program documents less frequent unethical behavior therefore the struggle is what to adopt, when to adopt it and how to foster education. Without an ethics program in an organization, the fraud triangle is less protected. "Three factors must generally be present for employees to commit fraud: pressure, opportunity and rationalization. These three factors represent "The Fraud Triangle," a theory founded by criminologist Donald Cressey" Hagan (2014). Opportunity is closely correlated with internal controls and the operations of the business however pressure and rationalization are intrinsic. Another interesting aspect is what do employees expect from their employers, meaning the fraud triangle could play a less important role if the expectations of the employee were being met. "Two thirds of our respondents expected their employer to provide both intrinsic (career development) and extrinsic (good salary package) rewards. Those who expect career development and an opportunity to advance from their employer focused specifically on their expectation that the company would provide them opportunities to grow in their career, a finding consistent with the fact that our sample was comprised of knowledge workers" (Duxbury

2020). This is indicative of the importance of ethics education and the need for a dedicated and comprehensive approach as well as a robust internal control program supported by policies and procedures and a culture of growth.

Furthering the incorporation of ethics and ethics awareness into the business curriculum remains extremely important. Flynn et al., (2019) presents findings that students may not be properly equipped to decipher complex and uncertain ethical dilemmas. In addition to a cross curricular approach, Problem-Based Learning (PBL) allows the student to exercise learned competencies in an academic environment, preparing them for the post-graduation world. “The classroom can be used to provide the framework and fact-based content, which will set the foundation for a successful PBL undertaking” (Sirianni et al., 2019) and “Any subject area can be adapted to PBL with a little creativity and planning. While the core problems will vary among disciplines, there are some characteristics of good PBL problems that transcend fields” (Duch et al., 2001). In addition to writing a paper, each student prepares a presentation type document, upon completion of the project they present their findings to the class for detailed discussion. This is an extremely rewarding activity because it allows each student an opportunity to identify with various dilemmas and reconcile each of them to their own version of ethics or their ethical barometer. “Explaining concepts to their peers helps students shore up their content knowledge and improve their communication skills”. (Manfre 2021). By applying a common financial statement analysis frame of reference, which focuses on ratio analysis, we will be able to provide standardization and factual correlations allowing the students to identify areas for consideration and investigation. DeSimone (2016) boosts perceived similarities between critical thinking and ethical decision-making warrants the use critical thinking in measuring ethical decision-making competence. “The areas of immediate investigation would be whether there is a breakdown in students’ ability to consistently apply ethical frameworks to analyze specific situations; and whether there is a disconnect between consistent reasoning (once achieved) and consistent application of the reasoning used to determine the final action choice” (Buchan et al., 2020). In the opinion of this author, real life experiences are paramount, therefore a PBL approach that incorporates live data into the classroom environment allows for application and excellence.

PROBLEM-BASED LEARNING APPROACH FOR FINANCIAL STATEMENT ANALYSIS

The CPA Exam is focusing more attention on the problem-solving approach, therefore incorporating PBL into the accounting curriculum will prove beneficial as we prepare future accountants. The teaching methodology that is the foundation of PBL, utilizes simulations and case studies, so in accounting I focused our project on real-life ethical mishaps and the corresponding impact and/or possible impacts on the financial statements. To foster the connection between textbook scenarios and real-life problems, focusing on financial statements data and ratio analysis provides a clear understanding of trends to be explored and explained. The aim is to provide each student with ample opportunities to develop their critical thinking prowess, problem solving techniques, and communication skills. The classroom can be used to provide the audit framework and fact-based content, which will set the foundation for a successful PBL undertaking. This research-based classroom exercise requires all accounting majors to report on a recent fraudulent activity that has been reported via a reputable news outlet. Once an article has been selected, the student is to describe the fraudulent activity in detail, then complete a thorough financial analysis and historical background survey of the company/corporation and all related entities, including this incident and all ramifications of the incident. Remembering to utilize a 360 approach, some additional important considerations include the climate, the market and competitors, human resources, training programs, and minutes from board of directors. The next step is extremely challenging for students because it requires them to not only understand internal controls but interpret the application of internal controls as well as understand operations, policies and procedures. Students should be able to articulate the ethical fracture and the impact on the financial condition of the company. First step will recap the fraudulent activity and include all the salient points from the article or source document. Second step is simple mathematics, line by line differences as compared to the prior year(s). The third step requires utilization of ratios which will allow scrutinization of financial statements. Ratios were introduced in the very first accounting class and are categorized in four distinct groups: stock market, liquidity, profitability, and solvency. It is important that the students complete all ratios individually as well as by category, so the condition of the company is transparent. Completing the ratio analysis with this live data is not like a textbook exercise because it requires interpretation of each variance, carefully looking at the general ledger and supporting documents to determine the reason for the variance.

Not every variance is fraud or an error, often a reason exists for the variance, it is our job to determine what that reason is. Students will need to exercise their knowledge of the relationships between the statements based on the accounting equation and utilization of all the research they completed on the company which will enable them to derive the source of each transaction and formulate an erudite conclusion as well as a plan of action, ex post.

This hands-on experience will assist each student as they complete their individual project, but to ensure the best opportunity to learn from each other and enhance their auditing toolkit, a four-part audit rubric is established as the baseline. This common framework requires that each student is to answer four main questions: what was discovered, how was it discovered, what is the impact on the financial statements and what solves could be put in place to prevent future occurrences and/or a reoccurrence. Applying real world audit experiences via this successful PBL approach allows students to gain confidence in their abilities while gaining important audit experience because they must be able to identify the fraudulent activity, interpret the financial impact and recommend appropriate solutions. The internal control umbrella is comprised of detective, preventative, and corrective categories, each distinct and independent. Although internal controls are heavily talked about, students often only have a cursory understanding of them. For example, an internal control students identify with is Separation of Duties, which is an extremely important one however often misinterpreted by students as hiring more employees. With respect to the solves, in this PBL exercise, hiring more employees cannot be the solution. Thus, it forces each student to thoroughly investigate the Fraud Triangle, evaluate all internal controls, as well as effective and efficient operations and focus on ethically and financially sound solutions.

THE PBL PROJECT FOCUS

Continuing to heighten the importance of ethics, the identification of ethical dilemmas, impact on the financial condition of the company while ensuring an increased understanding of ethics for our future accountants and business professionals is a daunting task. Applying this thinking in their familiar academic setting will be a comfort and foster growth. This PBL requires research to be completed by each student as they identify a recent fraudulent activity or news article that reports an ethical dilemma and/or internal

control weakness. Locating and evaluating real life situations will allow students to grow by applying textbook knowledge and learned critical thinking skills to a situation that has many tentacles. And because we will complete the exercise in a classroom presentation style, each student will be exposed to a battery of different types of fraud and/or ethical fractures as well as appropriate audit proof elucidates. We have been discussing ethics and textbook scenarios since the first accounting course and now it is time to jump out of the textbook and into the real world. The students will enjoy the identification of a current event that describes an incident that strikes them as fraudulent. This is essential, it allows for enhanced student engagement because they pick something that is important to them or a company/business that rings familiar or perhaps region of the world that piques their interest. The newsworthy item could be straight forward financial misappropriation, corporate malfeasance, environmental misconduct, a human resource issue or other malefaction that demonstrates an ethical misstep. All ethical interpretations have consequences, by following our comprehensive approach students can identify, evaluate, and apply their knowledge of internal controls as well as brainstorm several different possible solutions. The magnitude of the incident is key, and the students can gain a full appreciation by completing the aforementioned mathematical enumeration and effectuating a complete ratio analysis that will provide quantitative insights into changes in the financial position of the company. At this point the financial statements come to life for the students, fostering critical thinking and requiring them to investigate all the variances and justify their findings. This is not teaching ethics but is raising awareness which is an extremely important step for students because it may lead to the identification of a fraudulent activity. "Ethics can't just come up in an ethics class. It needs to be put into context, as well, and be presented consistently throughout the program. Students need to see a culture of ethics across the institution that mirrors the kind of culture we would like to see in the business world" (Weybrecht 2016). Continually exposing students to real life ethical dilemmas will better prepare them to identify, discuss, educate and deliver solutions with poise and confidence as well as appropriately measure the impact on the financial condition.

GUIDEPOSTS, FUTURE DIRECTION AND CONTINUED PROJECT FOCUS

In a profession that is heavily regulated, extremely rule-based, and has access to numerous resources to address the myriad of situations and business occurrences, it is important that students incorporate resources into their toolkit. In addition to the Internal Revenue Service (IRS) and U.S. Securities and Exchange Commission (SEC), we have several other helpful standards and regulatory bodies, including The Public Company Accounting Oversight Board (PCAOB), American Institute of Certified Public Accountants (AICPA), Governmental Accounting Standards Board (GASB), Financial Accounting Standards Board (FASB), International Financial Reporting Standards (IFRS), Committee of Sponsoring Organizations of the Treadway Commission (COSO) and Sarbanes-Oxley Act (SOX). Those mentioned above are examples of resources that provide a baseline, instruments for ethical awareness and are intended to guide actions. Despite the reality that ethics is a foundational component of all business transactions and accountants serve as the ethical stewards, the lack of personal and professional ethical behaviors has allowed corporate greed, egregious fraudulent activity and perpetration of scandals and scandalous activities to be near commonplace. Resources available to assist our students in their quest for accounting and auditing excellence, including ethical awareness and internal control applications, are vast and varied. It is extremely important that academic coursework continue to incorporate ethical awareness and a wide range of ethical dilemmas, governance, scandals, legal liability and professional accounting & audit issues enabling our students to be prepared for the complicated business environments of today. It has been said by many ethics cannot be taught, this author agrees because our ethical profile is defined by values and morals and how we apply them to daily issues, both personal and professional. This paper continues to support raising awareness and identification of real-life issues which will provide insight, so that the development of robust business patterns and strong ethical behaviors are the new norm yielding a positive impact on the business culture. Utilizing a PBL approach will serve to expand the learning experience by showcasing real-life ethical dilemmas, highlighting key readings and resources as well as focusing on news articles which describe ethical missteps. Further, having the students present their findings to the class enhances their communication and presentation skills.

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An interesting twist that will require additional research and will manifest itself in innumerable ways will be related to the enhanced use of technology for operations, reporting and financial statement preparation as well as audit findings and data analytics. Clearly, green visors, file cabinets and manual general ledgers are a thing of the past.

CONCLUSION

PBL is an effective and efficient way to incorporate critical thinking and ethical decision making which would yield competent and resourceful professionals who are sufficiently educated and motivated to make sound business decisions. Ethics is intrinsic, we are relying on a personal barometer to guide a professional encounter or transaction. As we forge ahead, we must continue to provide tools, examples, education, guideposts, and much more to assist accounting and business students to develop into ethical leaders equipped with a better understanding of the theory and application yielding a sound ethical decision-making operation. The business world and the world along with its' occupants deserves better ethical leaders.

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