Spring 5-4-2024

Understanding The Accounting of Agilysys' Current Business Model and Other Economic Activities

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UNDERSTANDING THE ACCOUNTING IMPACT OF AGILYSYS' CURRENT BUSINESS MODEL AND OTHER ECONOMIC ACTIVITIES

by

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A thesis submitted to the faculty of The University of Mississippi in partial fulfillment of the requirements of the Sally McDonnell Barksdale Honors College.

Oxford

May 2024

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ACKNOWLEDGEMENTS

Foremost, I would like to express my gratitude to our Honors College Dr. Victoria Dickinson for the support and willingness to work with me. I really appreciate the guidance throughout the construction of this thesis. My completion of this thesis could not have been done without you.

I would also like to give special thanks to Roderick Russ, Danielle Gonsoulin, and Grace Shaefer as they were major contributing factors to this thesis and presentation. You all helped me research and construct the information used in this thesis. Without your help, this thesis would not have been possible. To all of my other classmates, your comments and suggestions were always incorporated with much thought, and without your help, I would not be in this stage of the process.

Also, I thank my second reader Dr. Dean Wilder. Thank you for taking time out of your busy schedule to help accommodate any questions I had. Thank you to all of the other Patterson School of Accountancy staff, you have all influenced this thesis and I would not have made it to this stage in my academic career without you all.

Finally, I would like to thank God and my family for the opportunity to utilize my knowledge to provide others on my thoughts surrounding this thesis topic. Your support has not been overlooked.

ABSTRACT

UNDERSTANDING THE ACCOUNTING IMPACT OF AGILYSYS' CURRENT BUSINESS MODEL AND OTHER ECONOMIC ACTIVITIES

Agilysys operates out of the hospitality software industry and has seen a recent incline in volume due to the convenience and advancements of technology. They point of sale systems make it simple to conduct transactions; therefore, while the hospitality companies were negatively impacted during Covid-19, they were still able to sustain. Agilysys is posed a threat from operational risks, such as global climate change and rising interest rates as their products are many times located in luxurious environments; however, their current business model allows them to reduce this risk. From an auditor's perspective, there are riskier accounts, and without a defined cybersecurity defense Agilysys could be at risk to losing their ability to operate. Rather than being negatively affected by these factors, Agilysys is able to take advantage of them and continue to increase their following and partnerships with other companies.

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INTRODUCTION

Every couple of weeks, we were given a list of information to research that pertained to Agilysys. Much of the information and research that was done was made to seem as if it was from the perspective of an auditor. Many times, we included our own suggestions or potential improvements that could be made to their current business model that would improve the effectivity of their products and software. Agilysys has been able to increase their partnerships with other companies, such as hotels, cruise lines, and resorts. With that being said, they were forced to operate during Covid-19, which was difficult considering many of their partners were not receiving any business. However, with the increase in research and development, Agilysys found ways to incorporate new products into the market and continue to have volume.

CHAPTER I: COMPANY STRUCTURE AND OPERATIONAL RISK

Task for the Week

This week we formulated an assessment of operational risk for our company, Agilysys, Inc. Before analyzing any risk factors, we examined the structure of the overall company, as seen in Figure 1, and outlined the geographical, organizational, and subsidiary structures for Agilysys, as seen in Figure 2. Our assessment of the company includes not only identifying economic, political, and global factors posing possible risk to the income of Agilysys but also analyzing specific characteristics of these factors and the potentially detrimental effects they presented for the company. With all of these factors facing Agilysys, we determined the most severe threat to the company. Assessing risk for Agilysys allowed us to better understand how the company works and how improvements could be made to minimize risk and improve operations.

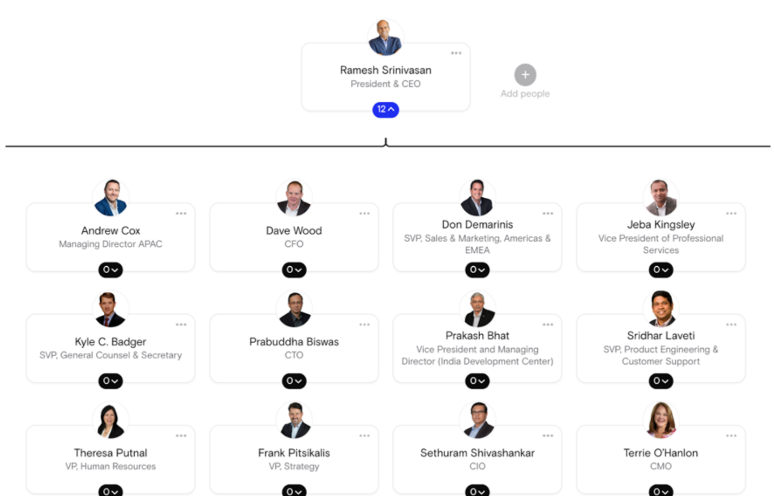

Figure 1: Organizational Structure

Agilysys Subsidiaries		
Acquisition	**Reason for Acquisition**	**Date Acquirred**
ResortSuite	With heightened safety protocols and reduced physical interaction being top priority, ResortSuite delivers a fully mobile-enabled hospitality experience that empowers guests to create their own personalized itinerary with minimal human contact for the ultimate guest experience.	12/16/2021
TimeManagement Corp.	TimeManagement's TMx labor management solution gives hospitality operators the tools they need to improve the efficiency and productivity of the workforce through precision staff scheduling and management.	6/10/2013
Triangle Hospitality Solutions	Triangle Hospitality Solutions operates as a reseller of point-of-sale software and solutions.	4/9/2008
Eatec Corporation	Eatec Corporation is a developer of inventory and procurement software.	2/19/2008
InfoGenesis	InfoGenesis is an independent software vendor and solution provider to the hospitality market, offering enterprise-class point-of-sale solutions that provide end-users a highly intuitive, secure and easy way to process customer transactions.	6/4/2007
Innovativ Systems Design	Innovativ Systems Design is the largest U.S. commercial reseller of Sun Microsystems servers and storage products.	5/30/2007
Stack Computer	Stack Computer is a premier technology integrator with a strong focus in high availability storage infrastructure solutions.	4/3/2007
Visual One Systems Corp.	Visual One Systems Corp. provides expertise around the development, marketing and sale of Microsoft® Windows®-based software for the hospitality industry, including additional applications in property management, condominium, golf course, spa, point-of-sale, and sales and catering management.	1/25/2007
The CTS Corporations	The CTS Corporations is a leading services organization specializing in IT storage solutions for large and medium-sized corporate and public-sector customers.	6/1/2005
Inter-American Data	Inter-American Data is a leading developer and provider of software and service solutions to the hotel casino and destination resort segments of the hospitality industry.	2/20/2004
Kyrus Solutions Inc.	Kyrus Solutions Inc. is a leading provider of retail store solutions and services with a focus on the supermarket, chain drug and general retail segments of the retail industry.	10/1/2003
IG Management Company Inc.	Subsidiaries include InfoGenesis, Inc. and InfoGenesis Asia.	6/18/2007
Dickens Data Systems	Dickens Data Systems is a distributor of I.B.M. computer systems, peripherals and services.	1/16/1998
** Information derived from Crunchbase, ResortSuite, Businesswire, Hospitalitynet, njbiz, seekingalpha, sec		

Figure 2: Organizational Subsidiaries

Throughout the completion of the task, we learned and employed research skills using a variety of search engines to find appropriate information and verify if that information is a relevant and fair representation of Agilysys' health. Additionally, while researching, we were able to obtain a more in-depth understanding of the specific operational risks that Agilysys currently faces. Furthermore, the task called upon us to consider the wide variety of domestic and international effects that impact a company's financial performance as well as how they overlap. For example, when considering the effects of the unpredictable political climate of today on Agilysys' business proceedings, many of the impacts caused by the political climate involve other factors discussed, such as how the party in power will deal with inflation, interest rates, and global unrest, all of which could individually have significant impacts on the supply chain. Overall, the task outlined in the case study allowed us to gain a deeper understanding of how interconnected the world is in terms of economic consequences and volatility, as well as improve our knowledge of the inner workings of Agilysys and its key economic relationships.

Potential Risk Factor: Inflation

The operational risk caused by inflation for Agilysys is driven primarily by the basic economic principles of disposable income and luxury goods. Agilysys' clientele comprises hotels, resorts, casinos, tribal gaming, cruise lines, food services, sports, entertainment, and restaurants. All of these industries are considered luxury purchases, therefore, as prices are driven up by inflation, the general population must devote increasing levels of their income to basic goods, leaving less disposable income available for purchases related to the aforementioned industries. As a result, when these industries receive less business, fewer customers become available for Agilysys. However, Agilysys pitches some products based on their proclaimed ability to vastly cut down labor costs through the streamlined process offered by the technology in order to combat increases in food prices.

On Agilysys' income statement as of the fiscal year ending March 31, 2022, the largest single component of the company's revenue stream comes from support, maintenance, and subscription services. This data indicates that the majority of Agilysys' income comes from existing clients. Despite this, income from product sales and taking on new clients would still decrease. Therefore, inflation may potentially lower net income.

Potential Risk Factor: Interest Rates

As a result of high inflation, interest rates have increased. The Federal interest rate has increased from 2.25 to 2.50, which makes it harder for organizations and clients who finance heavily with debt to borrow money. Therefore, they will have less money to spend on luxury products that Agilysys and its competitors provide.

Concurrently, in Agilysys' March 31, 2022 annual filings, the company reported that the change in interest rates increases the volatility of Agilysys stock. This means that the stock price is going to increase or decrease at a more rapid rate. Since investors tend to prefer consistent stock prices in line with expectations, an increase in interest rates could potentially affect market interest in Agilysys.

Potential Risk Factor: Energy Prices

Increasing energy prices could potentially push Agilysys clients out of the hospitality industry. Currently, energy prices have been on the rise worldwide, and many companies have begun exploring other options. The products that Agilysys provides are luxury items for luxury businesses. For example, the advanced technology that some hotels, casinos, and cruise ships have been using was recommended by Agilysys for additional safety and convenience. The clients of Agilysys use large amounts of electricity to power their operations. The use of natural and renewable energy through solar panels is possible; however, it is very expensive to implement the new strategy, and solar panels require a large amount of space for installation. Businesses in the hospitality industry would have to raise the prices charged to consumers, causing fewer people to indulge in the luxuries of the hospitality industry. This could negatively affect the returns of Agilysys if some of its clients go out of business during this potential crisis. However, Agilysys has begun developing software that will reduce the prices of procurement for their clients.

Increasing energy prices will cause Agilysys' clients to become more cautious of their spending due to their own energy prices rising. That is a large threat to the continuing market dominance of Agilysys and many other companies within the hospitality software industry as well.

Potential Risk Factor: Supply Chain

Supply chain management is an important strategy that Agilysys needs to implement in order to control the market and retain high returns. A supply chain issue within the hospitality software industry poses a very large risk because technological parts are a necessity for Agilysys. They have developed a Stratton Warren System that automates the inventory for customers and makes acquiring products for their respective clients more efficient. Agilysys is able to pitch this idea to their customers on the potential benefits and has the opportunity to increase client numbers during times of supply chain crisis. Agilysys does not currently have any long-term contracts with its suppliers, so if a crisis were to occur now, Agilysys' income and client numbers would decline. In the event of a catastrophe or pandemic, a company would see a decrease in the supply of materials needed to create their product and stalled distribution to their customers.

Potential Risk Factor: Political Climate

The unpredictability of our current political climate and elections pose implications that could have strong effects, detrimental or positive, for Agilysys and the business world as a whole. Many of the issues stemming from risks of the political climate are discussed in prior sections such as inflation and energy prices. Depending on the political party that wins upcoming elections, the federal agenda may affect Agilysys. For example, according to recent historical trends, it can be expected that with a Democratic majority in power, there will be a stronger emphasis on clean and renewable energy with limits placed on fossil fuel collection. These policies would increase energy prices due to the forced investments into alternative sources of energy, which would then impact Agilysys operations as described above.

Potential Risk Factor: Global Unrest

Potential global unrest poses a variety of impacts on Agilysys' financial performance. The clearest effect for Agilysys is the rapidly increasing tensions between the United States and China which presents great operational risk for the Agilysys office located in China. In regard to the conflict with China, the political climate and results of elections will impact this global unrest tenfold. Additionally, global unrest in general can increase disruptions in the supply chain, as well as increase volatility in the stock market which can cause investors to sell off shares in order to mitigate risks to a portfolio in times of uncertainty.

Most Severe Threat to Success

The income stream for Agilysys is based on nonessential services; if our clients in the entertainment industry lose their customers, Agilysys loses money. Additionally, the products themselves provided to luxury industries can be considered luxury products. Due to economic recessions, people have less disposable income to spend on nice resorts, restaurants, or excursions. Eating at restaurants has even become more expensive. For Agilysys, this means our clients' businesses are providing fewer services and products. Therefore, having the entire business model tied to one general industry, hospitality, presents the most severe threat to success.

When a company is dependent upon one industry, its success is parallel to the success of that one industry. While Agilysys operates primarily in the hospitality industry, the company serves a variety of clientele within the industry. Agilysys has expanded strategically to reduce risk to its success; however, the fact remains that the company serves many nonessential clients.

One possible avenue of mitigating this severe risk is to expand current software systems to more essential businesses. For example, one of the many software systems that Agilysys offers is a system that focuses on inventory and procurement processes, so if the company was able to adjust the already existing system and form a partnership with an essential industry, such as pharmaceuticals, Agilysys would be placing itself in a safer position in the event of declining disposable income for the general population.

During a recession, many industries falter. If Agilysys were to expand into another industry, forming a conglomerate, the company would be in a safer situation with less risk to their income from clientele simply by increasing clientele. Acquiring more clientele, preferably those in a stable industry, reduces the effect each client has on the overall health of the company.

CHAPTER II: ESG AND CYBERSECURITY

Task for the Week

Throughout the week, we learned which risk management tactics can be helpful for our company, Agilysys, to further employ. With a unique opportunity to do well in both the ESG and cybersecurity categories, Agilysys may eventually be looked to for guidance in the industry.

As a result of the recent pandemic and technological trends, ESG ratings and cybersecurity are becoming increasingly important topics across all industries. For the first part of this week's case, we analyzed the opportunities and risks associated with Environmental, Social, and Governance factors (ESG). As industry-leading asset management companies and influential accounting firms, such as Deloitte and KPMG, have begun to incorporate ESG metrics, other companies across the U.S. have followed suit. While ESG scores can provide useful nonfinancial information to potential investors, the metrics involved in computing ESG scores are subjective. The process for assessing a company's compliance with ESG is led by MSCI, an independent body providing investing insight. This week we deepened our understanding of ESG and deciphered whether or not the ESG metric rightfully carries weight in the financial industry.

In addition to assessing ESG, we also investigated the cybersecurity risks facing companies today. In a world of constantly evolving technology, threats to a company's well-being and sustainability can strike at any time, and it is important we mitigate these cybersecurity risks. As a hospitality software company, Agilysys is committed to protecting its customers' online data. It is crucial for Agilysys to take the necessary actions toward maintaining client relationships and company image in order to continue to grow its client base. With large quantities of personally identifiable information and financial data, Agilysys has the ability to become a leader in the cybersecurity department for online software management entities.

The public accounting industry is in a unique position with ESG becoming increasingly popular. Accounting firms could begin auditing ESG ratings in addition to the current scope of auditing financial statements. ESG ratings now have a strong foothold in investors' and creditors' opinions of companies' overall health, and it would be wise for accounting firms to broaden their expertise. Auditing ESG would allow accounting firms to earn additional revenue. However, with little standardization, it is hard to understand the additional costs that would go into auditing ESG.

The lack of information about ESG could lead to additional liabilities and risks in the accounting industry. ESG's growing influence may incite quick decision-making in an attempt to stay ahead of the curve. Potential risks include a lack of thoroughness and diligence in the field. Regulations need to be established in order to create a level playing field for all companies providing ESG ratings as well as the criteria for these ratings. Since ESG is now a growing factor in investing and financial decisions, large companies may begin absorbing smaller companies based on their ESG ratings in hopes of improving their own; however, this strategy ignores other crucial aspects of a company's health. Eventually, ESG ratings may be disclosed on the actual financial statements. In this case, GAAP would have to expand to cover the standardization of ESG so there would be no manipulation of the scores.

The fundamentally divisive issue surrounding ESG is the challenge in its measurement. Due to long-standing practices of financial reporting and analysis, there are definitive and objective measurements that are employed when determining a company's financial viability. However, when it comes to ESG ratings, there is no such standardization of measurements or a single overarching checklist. High volumes of data that must be sorted through when analyzing a firm's environmental, societal, and governmental impact further contribute to the difficulty of standardization. Additionally, it is difficult to quantify or place a monetary value on benefits produced through sustainable industry practices that could boost the ESG score, especially when contrasted with impacts on the bottom line caused by typical shifts in business practices. Furthermore, no single organization currently exists that has the authority to determine on what basis ESG should be measured. Although MSCI and Sustainalytics have become the most popularly used providers for ESG ratings, they are still independent companies that are not controlled or partnered with a distinct governmental organization or agency.

The increasing prominence and relevance of ESG ratings, despite their lack of regulation, poses several economic and political risks for Agilysys as well as the United States as a whole. In regard to the economic risks facing the nation, if companies spend high volumes of resources on improving their ESG rating, based on the form of analysis that holds the most popularity at that specific moment in time, their profits may suffer as their resources are not being devoted to improving the bottom line. While improved ESG ratings may attract investors in the short term, without a continued focus on improving profitability, an economic downturn will occur. Furthermore, increased investments due to ESG ratings rather than true financial performance will lead to overvaluation in the stock market which will only work to increase the degree of possible economic recession.

In regard to the political risks associated with ESG, parties could stand on the platform of improving the aggregate ESG ratings for the economy under the banner of aims to improve the environment and sustainability as a whole. However, due to the lack of standardization of ratings, if the results did not reflect the stated desires, a new system of measurement could simply be employed and broadcasted as a false political victory. Furthermore, there are both economic and political implications if a party were to push automation as a means of increasing sustainability. One example would be large-scale job losses. The aforementioned political and economic effects would have large impacts on any publicly traded firm such as Agilysys. Additionally, if key members of the supply chain for Agilysys were assigned poor ESG ratings, those suppliers could be lost due to increased investments, or Agilysys' own stock could suffer through a decreased ESG rating through association. There is a fine line between the benefits and risks of wide-scale ESG ratings, and the benefits will not be stable until there is a concrete standardization for ESG ratings that is controlled by an unattached organization, not a publicly traded company whose own stock is affected by the ratings assigned.

The World Economic Forum defines itself as an international non-governmental and lobbying organization. Essentially, many types of people such as professionals, journalists, company leaders, etc. meet to make important decisions about agendas all across the world. The World Economic Forum has a positive view of ESG and pushes for its application. Strategic Intelligence states that “at its root, ESG is about expanding our appreciation of a firm’s performance and impact” (Forum, 2022). However, the Forum also recognizes the current problems of ESG such as its lack of measurement principles.

In order to solve this prominent issue, the Forum takes a leadership role in ESG and provides “Stakeholder Capitalism Metrics”. As discussed in earlier points, the main downfall of ESG ratings is that there is no common measurement metric such as the Generally Accepted Accounting Principles. Listed on the World Economic Forum’s website is a set of “21 core and 34 expanded metrics and disclosures” that “reflect a six-month consultation process with more than 200 companies, investors and other interested parties” (“Explore the metrics,” 2022). There are four main categories in this metric: people, planet, prosperity, and governance. Each category has multiple sections each with its own set of core metrics and their related expansions. Examples of core metrics are listed in Figure 3 below. One example of a core metric under governance is “setting purpose”, which defines what a purpose is and states that a company’s purpose must create value for all stakeholders. Its expanded metric is “purpose-led management”, which states that how a company’s purpose is integrated with a company’s strategies and goals is also measured in its ESG score. The World Economic Forum is encouraging companies to consider sustainability and other ESG factors when disclosing information to stakeholders and developing investment insights.

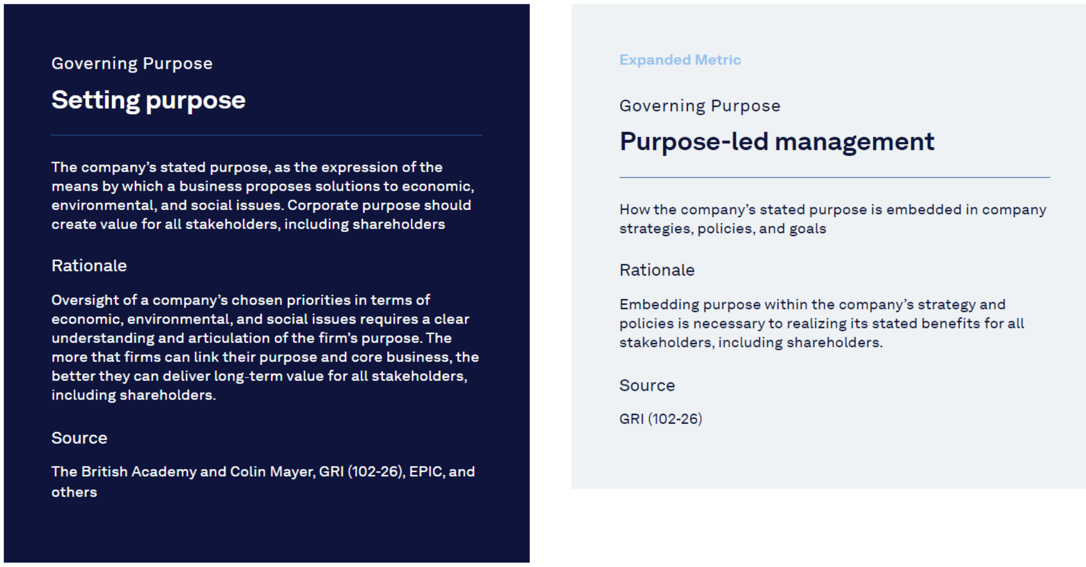

Figure 3: ESG Metrics

Prominent asset management companies such as Blackrock, the world's largest asset manager, are supportive of the shift towards using ESG. Pam Chan, the Chief Investment Officer and global head of the Blackrock Alternative Solutions Group, says company leaders need to start thinking differently now that society is paying more attention to a company's sustainability efforts. The Vanguard Group, a major investment management company, offers a fund that specifically invests in companies screened for certain ESG criteria. Vanguard is also the largest owner of Agilysys stock, which gives them some influence over Agilysys proceedings. If large Agilysys investors push for Agilysys to focus more on raising their ESG score, this may impact how the company operates for better or for worse. For example, if Agilysys does not meet Vanguard's ESG criteria, it may receive decreased funding. This could potentially lead Agilysys to sacrifice profits in exchange for earning a higher ESG score.

So far, as reported by the World Economic Forum, 170 companies have adopted the Stakeholder Capitalism Metrics and 70 companies have reported against them. All of the Big Four accounting firms are among the 170 with KPMG and Deloitte quoted on the World Economic Forum website. Our group believes that developing a common set of metrics to reference when creating ESG scores is a necessary step in the rapidly shifting investment climate. However, these metrics will only become truly useful if they are standardized for the entire United States economy. Any major shift in the social and economic climate will have a period of time when businesses are playing catch-up with the rapidly changing needs of their investors. The World Economic Forum is attempting to take charge with its metrics, but we will have to wait and see how its leadership will unfold.

Agilysys operates in the hospitality software industry, so they already maintain a very low amount of carbon dioxide emissions; however, they do hold meetings at least three times a year to explain their steps to more sustainable processes. The use of heat sensors to track occupancy, paperless workflows, and energy-efficient lighting in the rooms of guests has allowed for a downstream increase in sustainability. The changes that Agilysys makes, however, are not implemented all at the same time. They introduce small steps over different periods in order to allow better adaptability and see how stable the work environment becomes after a change. Many of their procurement processes have become standardized to avoid waste, especially at their clients' food service establishments. By digitizing the inventory method, clients can better recognize what needs to be replaced depending on activity level during a certain period.

Furthermore, during the pandemic, many companies began shifting their focus from sustainability to cleanliness, so the elevated use of personal protective equipment increased the creation of plastic waste. On the other hand, by making use of contactless technology, both cleanliness and sustainability can be practiced simultaneously. For example, Agilysys has begun using mobile check-in kiosks to limit plastic usage at their clients' resorts. Agilysys has been taking many steps to become more environmentally friendly, and its committee fully supports Agilysys' decisions.

Currently, ESG is not regulated, but it has become an increasingly popular metric with which to judge companies. As potential standardization of ESG occurs, there could be many changes on the horizon for Agilysys. From financial reporting and raising capital to the company's position within society, many factors are uncertain. Without a favorable ESG rating, it may become difficult to raise capital from shareholders and stockholders. Investors are constantly looking for opportunities to buy into competitive companies. In order to stay competitive, companies must understand and excel in ESG. Additionally, investors may not look into companies unless an ESG rating is stated clearly and accurately. For Agilysys, a company with relatively low emissions and waste, sustainability comes naturally, but its clients, being luxury hospitality companies, have a focus on single-use, no-contact factors that improve cleanliness but not sustainability. Will Agilysys' ESG fall due to the actions of its clientele? Possibly. As regulations slowly churn out, Agilysys needs to build relationships with government regulators as well as its clients, suppliers, and creditors.

ESG is on its way to becoming a vital part of financial reporting. When a metric carries so much influence, it must be standardized in order to be a fair judgment of a company’s performance. If ESG were required on the financial statements, this could increase the time spent by accounting firms to audit and advise. ESG can affect a company’s position in society with social and governance factors. It is important for a business to make a positive impact on the community around them by using their resources in order to build relationships and increase valuation, which ESG attempts to measure. On the other hand, increased ESG regulations could harm some relationships. For example, suppliers could be forced to increase prices due to heightened costs from sustainability efforts. This would in turn cause issues in the supply chain and could possibly force Agilysys to pass on these increased costs to its customers. Agilysys would likely then lose business, and revenues would decrease.

Cybersecurity Risk Assessment

Within the hospitality software industry, cybersecurity is an important implementation that should be monitored daily. In 2017, there were 1,579 breaches, a record number, that released over 150 million sensitive records reported by the Identity Theft Resource Center as disclosed by Agilysys. The risks of having a cybersecurity breach are extremely prevalent today because of information that could be revealed to hackers, including financial and personal information of clients and companies

Securing the property management system (PMS) can highly reduce the effect of a cybersecurity attack. Being proactive and developing firewalls that will maintain the safety of information is difficult in this industry and for our company because of strenuous effort and high costs to determine the weaknesses of a security system. With the shift to more technologically advanced systems, less paper is used, so Agilysys and other companies that operate within hospitality software are more prone to becoming victims of a cybersecurity attack. For example, if a hacker gained access to Agilysys' online information, then a lot of Agilysys' clients would be at risk, which would cause a downstream reaction of information loss. Having a reactive approach is not effective because, by the time the hacker was revealed, the information would likely have already been compromised. Cybersecurity failures do happen and companies like Agilysys are primary targets because their information is not as well protected as hospitals or banks. Also, these companies open a large variety of victims to choose from for the hacker; therefore, third-party security partners would be a great addition to have.

According to Verizon's 2021 Data Breach Investigations Report (DBIR), 70% of cybersecurity breaches are financially motivated. Therefore, people who commit cybersecurity crimes are likely to steal a company's information for monetary gains. For example, someone may hack into Bank of America's online database containing the bank account information of their clients in order to transfer money out of the breached accounts. As a software company providing services to clients who cater to people with higher disposable incomes, a hacker looking for money may be inclined to illegally access Agilysys' online databases.

Concurrently, a company may hire third parties to steal their competitor's online information in order to gain an unfair advantage or leak private information to reduce their competitor's credibility. At some point, one is likely to receive a spam call from an unknown entity. One may wonder how this entity acquired its information. The companies making these spam calls may have breached a website's or another company's cybersecurity systems in order to obtain clients' contact information. These shady companies may be especially interested in Agilysys as their clients have collected contact information from people who will have at least some disposable income. For example, one of Agilysys' clients is the Kiawah Island Golf Resort. Malicious parties looking to gain private information about wealthier individuals would be highly interested in breaching Agilysys software at this resort.

The industries served by Agilysys's products cause cybersecurity to be a significant risk for the firm. The majority of Agilysys' products are used as digital interfaces for resorts, hotels, casinos, and restaurants for services such as check-ins and orders. As a result, the customers in these industries are inputting high-risk personal information such as names, credit card numbers, and addresses. This creates a large cybersecurity risk due to data privacy and identity theft. These potential breaches pose risks not only for Agilysys but also for the people whose information has the potential to be stolen as well as the actual institution to whom Agilysys provides services.

In addition to the tangible losses that could be caused by security breaches related to private information, Agilysys faces substantial brand and reputation risk in the form of cybersecurity threats. If it became public that multiple resorts, hotels, or casinos supported by Agilysys suffered identity or credit card theft, the firm's stock would plummet, many existing contracts would likely be terminated, and new customers would become increasingly difficult to acquire. Furthermore, cyber-attacks on the automated systems used by the supply chain could cause devastating impacts on Agilysys's ability to continue producing its products in order to meet the demand of current and future customers. Another element to consider is that the automated industry itself has an increased susceptibility to cyber-security risks as the fundamental business process could be broken down by a cyber-attack from anywhere around the world. While Agilysys has committed to increased use of capital to limit the leaks of personal information, cybersecurity remains, and will continue to be, a substantial risk in the business model of an automated-centric firm.

Agilysys is committed to protecting itself against cybercrime. As an online software company, a majority of the company's information is stored online; therefore, a cybersecurity breach would be devastating. Since Agilysys recognizes the threat cybercrime poses to the industry, the company has taken precautions to safeguard against loss of data, privacy, and trust. Employees are regularly trained on scams such as phishing and masquerading to mitigate unintentional disclosure of data. With this proactive approach, Agilysys isn't a sitting target waiting to be tested. Agilysys states that "by selecting solutions provided by experienced technology vendors with a focus on innovation and who keep their clients top of mind, you will reduce risk and be in a great position to protect your property" (Agilysys, 2019).

Agilysys also has its own secure financial transaction entity called "Agilysys Pay," which uses special encryption and requires a specific key to decode, thereby eliminating the need for storing credit card information within the systems. While Agilysys has done a good job securing personal information and teaching employees how to avoid scams, with today's technology and hackers' innovation, there is always more Agilysys can prepare for. Our team thought it would be an interesting challenge for Agilysys' own company to hire people to try to bypass Agilysys' security systems. This exercise would provide a controlled opportunity for Agilysys to see its shortcomings and improve upon them.

CHAPTER III: AUDIT RISK AND PLANNING

Task for the Week

Throughout the week, we learned about the different types of audit risks and how to account for them within Agilysys. By examining Agilysys' 10-K, we were able to determine the materiality of the accounts on the balance sheet and income statement to decide which accounts would influence investors' decisions. In order to provide useful yet relevant information, we had to decide which accounts needed to be audited in order to provide reasonable assurance that the financial statements were free from material misstatement. When choosing which accounts to research this week, our group looked for accounts that were strategically important to Agilysys. As a hospitality software company, the revenue, intangible assets, and product development accounts were the most material accounts with a significant chance of misstatement.

In order to further break down the individual accounts, we researched the types of risks associated with each account and how auditors discover these misstatements. We investigated the substantive tests used to sample the account balances when gathering evidence and found that it is increasingly difficult to test the intangible accounts. When the products and services revolve around virtual software, it can be difficult to track the increases in these accounts with a high degree of accuracy. Instead of tracking concrete assets, many of Agilysys' accounts are audited based on consistency between financial documents, such as contracts, and other evidence.

In addition to account balances and substantive tests, we learned about data visualization and how increasing automation and technology could benefit the auditing process. In the case of Agilysys, a larger company with many contracts and transactions, auditors would find it extremely helpful to be able to access technological aids such as a data query that could assist in the audit process. With the ability to complete the audit in a timelier manner, the auditor and the company would both benefit.

Revenue: Risks Associated with Misstatement

According to Generally Accepted Accounting Principles, known as GAAP, revenue can be recognized when it is both realized and earned. Revenue is usually earned when a performance obligation determined in a contract is performed, such as the deliverance of a product or the completion of a service. In recent years, a new set of revenue recognition rules was introduced in Accounting Standards Codification Topic 606: Revenue from Contracts with Customers ("ASC 606"). According to one rule, goods and services in a contract need to be appropriately classified as distinct deliverables or bundled together in a single performance obligation (Terrell, 2016). Agilysys' three sources of revenue are product sales; support, maintenance, and subscription services; and professional services. According to Agilysys' recent 10-K, most of their transactions are recorded via contracts. Support and maintenance revenue is recognized as a single performance obligation as providing telephone calls and technical support is a stand-ready obligation with the same pattern of transfer to the customer. Subscription fees to access Agilysys' software are bundled with support and maintenance revenue because customers must have access to the software in order to benefit from maintenance performed on it. Professional services, such as consulting, installation, and integration fees, are kept separate because Agilysys believes that their professional services provide a benefit outside of the goods promised in the contract and do not affect a customer's ability to use other products and services.

As a software company providing numerous intangible products, there are risks associated with how Agilysys classifies some revenue as distinct while bundling others. For example, can professional services such as training customers to use the provided software truly be kept separate from the other revenue categories? Customers may not be able to properly access the software without the related training. Since Agilysys provides these services, we must check to make sure revenue is properly recognized as distinct or not within the context of its related contract. Each good or service must be evaluated to see whether or not it should be classified as a separate performance obligation (C*hallenges to consider in auditing revenue recognition*, 2020). Additionally, when transaction prices are determined in a contract, there is risk involved in prices being properly allocated amongst each separate performance obligation. For instance, if both support and maintenance service and professional service obligations are established in the same contract, more prices could be improperly allocated towards one of the two, which would lead to inappropriate figures on the income statement.

Furthermore, the timing of recognizing revenue and the existence of certain transactions can be a significant risk for Agilysys. As auditors, we need to check to make sure revenues are being properly allocated in the periods that benefited. For example, revenue from professional services should be recognized as the services are performed in the periods they are performed in. Contracts and related transactions must be thoroughly analyzed to ensure they agree with one another. The existence of transactions is also a severe risk as Agilysys could boost their support and maintenance revenue by claiming, for instance, more telephone services were provided than they actually were. Recognizing revenue in compliance with GAAP as a software company is difficult as estimates of future obligations are subjective, and we must exercise increased caution to ensure that investors are receiving information that is a faithful representation of Agilysys.

Revenue: Critical Internal Controls

Internal controls are a vital part of ensuring the accuracy and management of a company's accounts. The two internal controls that can help mitigate the risks associated with the revenue account are proper authorization and adequate documentation. With revenue, it is important to investors that the right amount is reported. Companies may want to understate revenue in order to accumulate a cushion balance in case earnings decrease in subsequent years. On the other hand, a company may overstate revenue in a bad year in an effort to keep investors engaged even when profits do not look as promising as in a prior period.

Proper authorization of transactions is an integral part of ensuring activities and transactions have passed through the proper channels and guidelines established for reporting revenue. Agilysys would want to make sure that products are being sold at a consistent price in order to state revenue accurately on the income statement. When auditing revenue, it is important to track dates of input, termination of contracts, and amounts of transactions in these contracts. We must ensure that the data was correctly entered and that the amounts recorded are logical prices for the services provided. If the fees associated with the transaction seem unreasonable, there is the risk that a kickback may be occurring. A kickback is where individuals receive compensation for manipulating numbers in a transaction. While reviewing the revenue transactions, we need to ensure that transactions were accurately documented by Agilysys at each step: recording, approving, and reconciling.

Adequate documents and records can corroborate transactions and financial statements. Without the supporting documentation for recording transactions, we cannot be sure that the revenue is accurate. Revenue can be checked with invoices, and these invoices must be dated and inputted into the records in a timely manner in order to recognize the revenue at the appropriate time. It is also important to examine a company’s contracts in order to make sure they have not expired or been terminated and that the amounts being recorded are from services or products currently being provided. Records are an important feature to keep track of when auditing because they should be referenced multiple times.

Revenue: Substantive Tests

There are multiple tests auditors can perform to ensure revenue is properly stated in a company’s financial statements. To perform a popular test, the test of details, an auditor will gather a long list of revenue transactions and select a sample from that list. The sample size depends on a test of controls: if a company has done well in prior periods in stating account balances correctly and having good internal controls, the sample size will be smaller. Since Agilysys uses contracts in their revenue-related activities, the auditor would find the contract related to each transaction in the sample and recalculate each of the three revenue categories. Finally, the company calculations would be compared to the auditor's calculations to ensure that the correct numbers are being reported on the income statement.

In addition to a test of details, an analytical test of procedures can be performed. An analytical procedure is a type of substantive test that focuses on ratios and gross margins. An auditor would compute ratios related to the three types of revenue reported by Agilysys over multiple periods and look for trends. The auditor would see if the periods were comparable and make sense numerically. For example, if revenue peaks by a significant amount in one period, the auditor will dig deeper and ask the company questions about why revenue was so high during that period. By doing both quantitative and qualitative substantive tests, an auditor can ensure that investors are receiving information that is a faithful representation of Agilysys.

Revenue: Data Analytics

Data visualization can be used to help cover more transactions in a shorter period of time when auditing. With revenue specifically, there are multiple transactions in any given period and performing substantive tests manually can consequently consume significant amounts of time and resources. A data query would allow auditors access to the company's data and/or general ledger where they would then use the query function to pull specific data needed to answer any questions related to the accuracy of transactions. By writing a program to pull information together, the query then allows us to use data visualization to interpret the transactions. Data visualization would allow for Agilysys to improve its relationship with its auditor through communication and learning, real-time monitoring of data, and incorporation of feedback. The audit team can use data analytics to work with Agilysys leadership in order to gain an eye-level understanding of their reporting. Overall, data analytics provides a unique and modern approach for a company's leadership to use while working with auditors to provide relevant information in a timely manner, preventing a waste of time and other resources.

Intangible Assets/Goodwill: Risks Associated with Misstatement

The primary risks associated with the misstatement of intangible assets and goodwill are their valuation. According to the annual report provided by Agilysys in 2022, goodwill and other material indefinite intangible assets are identified and valued as follows:

Goodwill represents the excess purchase price paid over the fair value of the net assets of acquired companies. As of March 31, 2022 and 2021, the carrying amount of goodwill was $32.8 million and $19.6 million, respectively. Goodwill is tested for impairment on an annual basis, or in interim periods if indicators of potential impairment exist, based on our one reporting unit. The Company evaluates whether goodwill is impaired by comparing its market capitalization based on its closing stock price (Level one input) to the book value of its equity on the annual evaluation date. Based on testing performed, the Company concluded that no impairment of its goodwill has occurred for the years ended March 31, 2022, 2021 and 2020. The Company is also required to compare the fair values of other indefinite-lived intangible assets to their carrying amounts at least annually, or when current events and circumstances require an interim assessment. If the carrying amount of an indefinite-lived intangible asset exceeds its fair value, an impairment loss is recognized. (*Agilysys, Inc Form 10-K, 2022*)

Valuation risks stem from the necessity for estimates. The fair value of net assets of acquired companies requires complex estimates to determine the new fair value price that could be achieved in the event of a sale, and estimations bring in an element of subjectivity that can raise concerns regarding the faithful representation of accounting records. Furthermore, the sheer magnitude of goodwill for Agilysys, 15.30 percent of total assets, necessitates its audit risk assessment. Additionally, Agilysys has assessed zero impairment of its goodwill for the past three fiscal years. For other intangible assets, the issue of estimates once again becomes prevalent as different methods can be employed for the valuation of assets that do not have concrete and material book values such as patents for new products and systems undergoing development. The misstatement of goodwill and other intangible assets can mislead potential and current investors by misrepresenting the value of assets held, and therefore the worth, of the company.

Intangible Assets/Goodwill: Critical Internal Controls

The two most critical internal controls that can be employed to mitigate the risks associated with the misstatement of goodwill and other intangible assets are adequate documents and records as well as independent checks on performance. Maintaining adequate documents and records allows for checks of estimates, valuations, and consistency for business transactions such as acquisitions of companies and assets that lead to the recording of goodwill. Furthermore, diligent record-keeping forces a company to keep track of current fair values and will expedite the impairment process so that goodwill and intangible assets can be reported accurately. Independent checks on performance mitigate the risk of misrepresentation through increased reliability as estimates and valuations of the fair value of intangible assets must be verified before they are reported in financial statements. Additionally, consistency in independent checks can preemptively prevent cumulative issues in valuations as the error will be caught before it is officially recognized as the value.

Intangible Assets/Goodwill: Substantive Tests

The substantive audit tests for intangible assets present a unique challenge compared to an account such as inventory as there is no tangible count that can be performed in order to verify the account's reliability and accuracy. Rather, many of the tests revolve around consistency in financial statements and records. For auditing goodwill, records from the acquisition must be examined and verified for key elements such as timing, transaction price, and value of net assets obtained from the acquisition. Furthermore, the auditor must assess the existence and accuracy of impairment through the examination of records. For other intangible assets, audit tests are similar to examining both financial and nonfinancial documents and records to verify key elements such as ownership, accumulated amortization, new acquisitions, and balance sheet reconciliations to ensure that the value for intangible assets is faithfully represented on the balance sheet.

Intangible Assets/Goodwill: Data Analytics

As the usage of technology in everyday business operations has skyrocketed, its applications in the audit world have followed suit. The implementation of automated data query would exponentially decrease the time it takes to perform substantive tests of accounts such as intangible assets as well as increase each test's reliability. Through automation, updates and adjustments to the value of intangible assets could be made in seconds, and auditors would have the ability to check on accounts at specific moments in time. Furthermore, automation and digitalization of financial records and information allow auditors to perform data queries and examinations in a fraction of the time required in a manual examination. Furthermore, programs could be implemented that would automatically flag reports that contain flaws such as not having the account balance accurately reconciled with the related amortization expenses, purchases, and disposals. These processes not only offer an opportunity for auditors to take advantage of a streamlined process, but they also provide a more comprehensive audit that aids in the prevention of human errors and omissions.

Product Development: Risks Associated with Misstatement

Product development is an account that has a significant amount of funds dedicated to it because of the research and development needed to create competitive products. Agilysys is in the hospitality software industry, so the development of new technology and products is prevalent in advancing the company. Due to the continuous betterment of technology, it is important to be able to update products or release new replacement products in a timely fashion. Product development is used to research and develop these new products. However, the classification of product development is very broad; therefore, it may encompass expenses that are not contributed towards further research and development of products. If money was compiled into the product development category that should have been elsewhere, then it offers an incentive to increase product development because there would be a higher tax reduction for the company. The tax credit is not applied based on the actual innovation of a product. As long as substantial research has been conducted, then the company is awarded the benefit of the tax credit. On the other hand, it may be difficult to calculate and record the correct amount of money that has been contributed to product development along with the increased revenue of the professionals conducting the research and tests of the products. The misstatement of product development can result in a loss of reputation for Agilysys and decrease their funds for the development of future products.

Product Development: Critical Internal Controls

Two critical internal controls that will mitigate the misstatement of product development are independent checks to track the spending on product development and ensure it is being used efficiently and proper authorization to allow different research projects to be overseen separately. Independent checks are important in managing the amount of funds spent on a specific project and its progress toward production. Sunk costs are relevant in research and development, so having a perspective other than the creator provides the company with valuable information that could prevent the expense of significant amounts of capital. Being able to control and record financial information is an important aspect of research for Agilysys, especially with the shift to technology in recent years. Proper authorization helps the product developers each have their own tasks overseen separately and gives them the best opportunities to develop successful innovations. While the developers may have the information for the product to be deployed into production, someone would have to review their work before this can happen. By independently checking the financial information and proper authorization of employees, product development would become more accurate.

Product Development: Substantive Tests

In the case of product development, it becomes more difficult for an auditor to examine all of the money that has been contributed to the process. Product development includes all of the costs that are used for research and development and any other costs that have occurred throughout the prototype and testing phases. The database in which all of the costs are tracked must be examined to ensure that they have been allocated correctly to the product development expense. Records for goodwill and other intangible assets may have to be reviewed as well if they helped conduct the development of a product because of the software or information purchased in order to conduct the research. Auditors must verify both financial and nonfinancial statements to ensure the teams that conducted the research and development have properly stated all of the relevant information.

Product Development: Data Analytics

Data queries can be used to store much of the information that comes with product development. Each transaction that occurs from the costs of researching and developing the product can easily be traced back to the product, and with the increase in technology in recent years, Agilysys has begun investing heavily in the development of new software. Data queries can easily update or fix recently incurred costs in seconds. It also would be able to show where a certain amount of money is allocated because there are multiple projects and tests being conducted at the same time. Because of data queries, auditors can quickly locate the designation of money and time for each given product being researched and developed. Information can also be stored in the database, which means the trials and prototypes can be located and reviewed by different auditors to ensure that the money is allocated correctly. Using data query, the process of auditing the costs of research and development eliminates many errors.

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