(Ac)Counting on Disruption: An Accounting Guide to Surviving the Rapidly Changing Business Landscape While Adding Value to Your Firm

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Covid-19 reportedly started as a limited issue in a Wuhan wet market as early as November 2019. It spread, slowly at first, and then exponentially. By March, the virus had spread around the globe and less than a year from the first outbreak, more than 1 million people had died. If the virus could have been understood and contained in those early months, before the Pandoras Box was fully opened, perhaps the outcome could have been much less severe. Exponential growth like we saw with Covid-19 is not limited to viruses. New connecting and "thinking" technologies like artificial intelligence (AI), Blockchain, the Internet of Things (IoT), and robotic process automation (RPA) are enabling new business models that start off slow and then overtake old business models in a way that appears sudden. Businesses that hope to survive these changes need to get involved in the early stages of the change before Pandora's Box is opened. Consequently, the accountant's role must evolve from tactical to strategic to maximize success. If accountants cede this up-front role in the business model change to IT or other functions, their opportunity to influence outcomes is greatly reduced.

Disruptive innovation is a term coined by Clayton Christensen in his 1997 book, The Innovator's Dilemma. Christensen describes a process by which entrants create a foothold in a low-end or new market ignored by incumbents, eventually challenging market leaders (Christensen, 1997). Well-known disruptions such as the downfall of Kodak and Blockbuster seemed like they happened overnight. In reality, these disruptions started

out slow and then grew exponentially until they hit a tipping point, overtaking the incumbents. An engineer at Kodak invented the digital camera in 1975, and it was not until 2012 that digital photography finally sent Kodak into bankruptcy. In 2000, Netflix wanted Blockbuster to buy them for $50 million. Twenty years later Netflix is worth over $200 billion, and Blockbuster has ceased to exist. While Blockbuster and Kodak are examples of new products that make previous products obsolete, even smaller advances in technology and products can substantially change a business' strategy. The lesson is clear, get involved early in innovation or leave your fate to chance.

The role of the accountant during the early stages of disruption and/or innovation cannot be underplayed. Disruptive technologies are already infiltrating financial services and changing the ways accountants process transactions and interact with data. Further, technologies are increasing timely access and new streams of data. Firms that want to innovate and position themselves to be disruptors should capitalize on growing technologies and data availability to make smarter decisions and increase efficiencies. Businesses that can mine and harvest the newly available data and utilize it to make smarter business decisions are thriving, even in the face of disruption.

In this article, we will discuss a wider view of disruptions than put forward by Christensen to include sustaining innovations that are not new business models but make current business processes cheaper, quicker, higher quality, or more available. We will further discuss disruptions to firms and how financial personnel can be better business partners to firms facing disruption through understanding disruption and also by generating questions to ask. These questions will lead to better planning and forecasting decisions and will allow you to work with your company to make the most strategic and informed decisions. We will also highlight disruptions that are changing the role of accountants and their responsibilities. Technologies such as blockchain, big data analytics, RPA, and AI are quickly changing the role of the accountant from data entrant and processor to strategic business partner.

Disruption in the accounting industry

Disruptive technologies are expected to drastically change how accountants' practice and drive value for the organization. For example, technologies such as robotic process automation (RPA), artificial intelligence, (AI) and Blockchain are already disrupting the accounting profession. These technologies automate several time-consuming processes, thereby increasing efficiency while reducing the potential for error. If accounting and finance personnel embrace the innovations and disruptions that are changing how we practice, this generates an opportunity for the accountant to deliver value through expert advice and business insight.

RPA (Robotic Process Automation). One technology disrupting the way accountants do business is RPA. This technology may be one of the greatest disruptors to the accounting function as RPA will likely replace many of the accounting tasks performed by personnel. Gone are the days of accountants manually entering, categorizing, and processing data. Instead, companies are streamlining accounting processes by online payments, automated bank reconciliation, and automated bank feeds. For example, some organizations have invoices scanned and routed directly to the appropriate approver with minimal human intervention. Other companies have integrated automated bank reconciliation processes. Further, we are already seeing accounting systems integrated with time reporting minimizing the need for complex payroll processes. These tasks not only cuts costs but also increases efficiency while also reducing potential

error. Not only is there time savings involved with having many tasks automated, data is available in a timely fashion. When leveraged appropriately, the constantly available timely and relevant data can put a business at a great advantage. RPA does not just minimize repetitive tasks or data entry; it can also reduce accounting errors that are often due to human input.

AI (Artificial Intelligence). Furthermore, AI can also potentially identify fraud. AI can learn patterns and develop expectations in data without any human input. Therefore, large datasets can be reviewed quickly, and any anomalies can be identified and reviewed. For example, many banks are employing AI to detect fraud in credit card transactions by isolating and flagging abnormal transactions. AI can also simplify tasks such as looking for duplicate invoices or categorizing expenses into appropriate categories by automating the process.

While AI has produced well-deserved hype among the press and practitioners, it is important to recognize that AI is only as good as the algorithms that drive it, and these algorithms are created by humans. This is especially true with Machine Learning (ML), a subset of AI, that enables systems to learn and improve automatically without being explicitly programmed. Accountants cannot leave the programming of the algorithms to the IT department. They should have input into what data is collected, how it is used, and the accounting implications of the output. Further, accountants will have keen insight into what analytics would be helpful for business decision. Therefore, accountants should be actively involved with information systems to ensure that relevant data is available for timely business decisions.

Building capabilities to better understand customers' needs is important but being able to act on the intelligence is vital and adds value to the organization. Strategize about what information would help the organization better meet the customers' needs then work to develop the reports or data centers required to meet that need. Further, are there reports or data that would allow your organization to predict issues instead of waiting on the issue and then reacting? By using data, companies can be more proactive than reactive and allow the CPA to become a strategic business partner.

Accountants should take advantage of the efficiencies created by AI and spend time analyzing big data. Big Data is not informative without analysis and discovering the meaning of the data adds significant value to the organization. Accounting professionals who can harness the data by modeling alternatives, identifying inefficiencies, and creating better reports to help influence and shape the future of the business. Therefore, financial professionals who learn how to analyze and utilize the data available to them add considerable value to the organization and can shape the firm to be poised for success. These skills are vital for day to day success but also as firms face disruption. Further, real-time data availability allows financial personnel to make review the data timely and make adjustments instead of waiting until month-end. Reports can be reviewed, weekly, or even daily, without significant cost to generate the reports.

Blockchain. Blockchain technology is another potential disruptor to the accounting industry. This distributed ledger technology has the potential to revolutionize accounting, valuation of assets, and even audits. Block chain is a shared ledger that is used for recording transactions and tracking assets. Participants have access to a distributed ledger and its record of transactions. Because this ledger is shared, transactions are only recorded once which eliminates duplication of effort of recording the entries. Further, the records cannot be changed without being easily detected. If an error is discovered, a new transaction must be created to reverse

the error. Blockchain's applications are not limited to financial services industries. Instead, companies are exploring ways to use Blockchain in mobile payments, supply chain, real estate, and healthcare.

The linchpin of many Blockchain solutions is a smart contract. Smart contracts allow for the conversion of human-readable language like legal contracts into computer-readable language. Smart contracts are less subject to interpretation than traditional contracts. A simple smart contract can be explained as a series of if/then statements. IF someone puts a dollar into the vending machine AND they press the button for a Snickers Bar THEN dispense a Snickers Bar. It is easy to see how valuable smart contracts could be for applications such as invoice reconciliation. IF the transportation company delivers the shipment AND it is in good condition AND it was on time AND it was complete THEN disburse payment to the trucking company and the vendor. Payment would not be dispersed until all requirements are met.

Whereas in the past, receiving would verify that the shipment was received and complete. A receiving report would then be sent for input into the system. Then, accounting would verify that goods received matched the purchase order and then approve payment. Payment would be subsequently dispersed, and a check is then routed for approval and signature. With a smart contract, it is all done automatically. The time for accounting input is when the smart contract is being created, not when it is executed. Therefore, it increases receivable turnover and generates significant human capital efficiencies.

The immutable nature of Blockchain creates commercial trust, as long as the conditions in the smart contract are met, all parties in the smart contract agree to exchange value. Further, smart contracts can reduce receivable turnover time, settle contracts faster, and cheaper, while minimizing theft and fraud. Financial personnel should carefully review all conditions to ensure proper controls are in place, such as approvals, prior to paying or shipping goods. As with any contract, legal counsel should be consulted to ensure that all regulatory standards are met. Smart contracts, at a minimum, should include the settlement terms, conditions, and consideration to be paid or received.

Walmart Canada's implementation of Blockchain to reconcile and settle payments on over 500,000 loads annually, reduced accounting discrepancies by 97%, and is an example of a blockchain smart contract. All information on each shipment from Walmart Canada, each of their carriers, and IoT devices on each load, are updated in real-time and shared in the distributed ledger. All members of the Blockchain see the same set of information. As the shipment progresses from sender to receiver, the system is automatically doing checks and balances using the objective IoT data. When the shipment is delivered, an invoice is delivered to the ERP system and paid according to the terms of the smart contract. No accountants are needed to complete the transaction on the back end or input data, their new role is to ensure the smart contract considers all the accounting implications up front prior to contract execution.

What should you do?

With technologies such as Blockchain, smart contract, AI, automation, and data analytics rapidly changing the business landscape, it is easy for accounting professionals to feel loss and unable to determine where to start. As technologies change how your business functions, accountants should begin to switch their mindset from data processing to strategic business partner. In this section, we explore questions to ask as your firm experiences disruption and how to give better advice to the organization.

As disruption changes businesses, accounting and finance personnel

should be focused on asking the right questions. Those tasked with developing and implementing new technologies and processes are focused on the success of the implementation. However, the financial and costs considerations are often forgotten until much later. As your organization discusses upcoming disruptions, be poised to ask the right questions to understand how this technology may impact the business now and in the future. Questions can be placed into one of the following categories: Business Impacts, Accounting and Tax Considerations, and Risk and Compliance.

Business Impacts

Make sure your measurements matter. Using IoT and big data technologies to collect data and AI to turn that data into information can not only help accountants measure KPIs, but create them as well. The digital economy moves fast, so measuring outcomes such as productivity and revenue can be lagging indicators. Looking at numerous leading indicators like the time customers spend on your website, where they go when they leave your site, the number of sales calls into customer service, or the number of sales appointments can help accountants correlate activities to outcomes and serve as an early warning system for the weak signals of disruptive threats.

Give better advice to the organization. Accountants can use these connecting and thinking technologies to cast a wider net of observation. Applying AI to analysis will help accountants become more productive and efficient. Freed from the tedious data analysis and error correction, accountants can focus on providing the organization better advice. Accountants can not only hold managers accountable for their decisions but give them specific information on where the decision could be improved. Finally, resource allocation decisions will be based on a broader set of timely data to move at the speed of the market.

An important caveat to the business impact of technology is the old adage; garbage in, garbage out. If the bots driving your RPA were poorly designed or are not monitored, bad things can happen. Non-compliance with regulations, cybersecurity breaches, calculation errors and more could create reputational harm and a loss of public confidence. Auditors need to manage technology, or they will be undone by it. Therefore, financial personnel should be a part of designing financial input and output systems.

Accounting and Tax Considerations

Often new digital technologies include lower costs, increased accountability, and increased data. It is imperative that the financial department understand what costs are reduced and when. For example, a new technology may be implemented that reduces the need for employees in a certain department. How will this impact headcount now and in the future? Is there an increased need for employees for implementation and will that need be reduced after implementation? Will these disrupted employees transfer departments, or will they be let go? Further, how do these new technologies or processes change our five-year budget forecast and beyond? Also, it is helpful to understand how the new technology or process will impact capital versus operating and maintenance costs. Having conversations around the financial and tax implications can aid for better planning for the future.

Risk and Compliance

Disruption is not just limited to impacting core business operations or financials. New technologies bring risk and compliance considerations such as Financial Controls, Operational Compliance, and Cyber Risk. Technologies such as Blockchain, highlight the importance of understanding the new technology, its role in the financial reporting

process, and how it impacts controls. Further, if a firm begins to rely more on the cloud, consideration should be made to increasing information technology resources and security.

Getting better at detecting fraud is another application of advanced technology for accounting. Every large organization has a myriad of internal, local, state, and federal regulations that must be followed. International companies can multiply the number of regulations by every country they do business in. AI-powered systems can help support the auditing process and flag potential issues.

Increasingly, compliance encompasses sustainability commitments as well as financial performance. Maintaining these sustainability commitments is become a larger determinant of consumer behavior. Companies such as Bumblebee Tuna are using Blockchain to track their fair-trade tuna and Folgers Coffee is using the technology to connect producers to consumers. While information put into a blockchain is immutable, it is still important to audit the input to ensure it's correct and accountants should have a voice in determining who has access to the Blockchain and what information they have access to.

Even more significant is the rise of stakeholder capitalism. In August of 2019, 181 high-profile CEO members of the Business Roundtable signed a statement committing to a fiduciary responsibility to all their stakeholders, not just shareholders. This larger stakeholder group includes employees, customers, suppliers, local communities, and society at large. The broader responsibility does not diminish a commitment to the long-term health of the corporation. Accountants need to leverage emerging technology to manage this broader set of constituents and ensure that the interests of one stakeholder group is not promoted at the expense of others.

Conclusion

While the business world is rapidly changing and innovation is constantly shaping business, there is still time to prepare for disruption. Disruption can be pandemics, such as COVID 19, or it can be new technologies and firms changing the business landscape. For a company to successfully survive disruption, all business functions should work together to successfully navigate the disruptive storm. Further, as the organization leverages new technologies to act on threats and opportunities, accounting needs to have a seat at the table when strategies are formed. Accountants should leverage disruptive opportunities to create efficiencies to allow the accountant to move from more of a processing and business input role to a strategic business partner role. In addition, the accountant's insight into cost and accounting treatment conditions can be exceptionally helpful as the organization makes decisions.

Disruption is not limited to business operations. Blockchain, AI, and data analytics are poised to drastically change how accountants' practice. These technologies have the ability to reduce data entry, increase efficiencies, improve accuracy, and reduce the likelihood of fraud. Instead of ignoring these technologies, accountants should actively seek out opportunities to incorporate these technologies to reduce costs and increase efficiencies. Further, these technologies can free up the accountant to become a strategic business partner to ensure that the firm makes business decisions based on real-time data.

Understanding how disruption will impact the business, not only through its mission, but also financially, will help ensure that the business is future proof. While how the business achieves its mission and how accountants perform daily tasks are changing, the goal of financial personnel remains the same, to ensure business profitability and financial health.