# Revelations in the Desert: Using Desert Experiences to Survive Economic Disruption

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**ABSTRACT:** In this article, the authors argue that the Israelites' journey to the Promised Land and firms' confrontations with structural economic changes are both "desert experiences," sharing four characteristics: stress, disorientation, unknown prognosis, and waiting. Applying each characteristic to the Israelites and to disrupted businesses indicates that structural changes may facilitate financial growth, much like the desert can strengthen faith. The authors study strategies employed in economic crises in light of lessons learned by the Israelites in desert experiences, providing guidance for business leaders facing future economic disruption.

**KEYWORDS:** innovation, structural change, creative destruction, disruption

## INTRODUCTION

Firms' encounters with obstacles in downturns, particularly those associated with structural changes in the economy, are not unlike the Israelites' desert experiences in the Old Testament. Just as believers' faith grew in the desert, survivors of structural economic changes may emerge as stronger companies. Structural economic changes can affect either industry sectors or an entire economy. Causes of these changes, such as innovation and creative destruction, as well as disasters, such as the 9/11 terrorist attacks, can generate economic disruptions and even severe recessions and in this paper are considered similar to desert experiences. If desert experiences for firms do share attributes with those encountered on the way to the Promised Land, then lessons learned by the Israelites may provide a useful guide to businesses when they encounter economic disruptions.

This paper identifies four characteristics of "desert experiences" shared by firms disrupted by structural economic changes, including stress, disorientation, unknown prognosis, and waiting. Applying each of these characteristics to both the Israelites and to disrupted businesses indicates that, much like the desert setting encouraged the Israelites' faith to eventually strengthen, structural changes can facilitate future financial growth for surviving firms. The authors study strategies used by firms during previous economic crises in light of specific lessons learned by the Israelites from their desert experiences, providing guidance for business leaders facing future economic hardships.

When business leaders make wise strategic changes within these desert experiences, their companies benefit. However, there are also benefits to the overall economy if enough businesses survive and thrive after economic disruptions. While this paper primarily focuses on actions taken by leaders of individual business, it also addresses some of the resulting effects on the overall economy.

Previous work related to this paper includes research concerning growth opportunities presented by periods of creative destruction and severe recessions, as well as examination of spiritual formation in the desert. While the desert is often perceived as a place of punishment or exile in the Bible, it is important to realize that it also provides an opportunity for spiritual growth (Bieler, 2011). Norton (1924) recognizes how the barren nature of the desert provides an environment more conducive to the concept of faith in a monolithic God. Brubacher (2000) defines the desert as an "arid environment hostile to life," explaining it serves two functional themes in the Bible: a "place of revelation" and a "training ground for faith and obedience, in preparation for mission" (p. 338). While contemplating the desert's role in the Bible, Brubacher (2000) makes four observations relevant to the process of creative destruction. First, God uses the desert as a classroom to teach his followers about faith and ethics. Second, desert survival requires not only relevant wisdom and skills but the discipline to apply them. Third, the desert teaches God's followers that self-reliance does not ensure survival. They must cooperate with others and rely on God. Last, and possibly most relevant to the analysis set forth herein, "The desert seems to facilitate revelation" by removing distractions that would prevent followers from hearing God's direction for their lives (p. 340).

Some of the verses cited in this paper relate to events occurring after the Israelites reached the Promised Land. The reason these verses are included is that the Israelites' mission entailed more than surviving the desert. God's plan was that they reach the Promised Land and dwell there. That is, the desert experience was not complete until they had successfully settled in the Promised Land.

## INNOVATION AND CATALYSTS FOR CHANGE

### Innovation and Creative Destruction

Just as the Israelites were disrupted by many of their experiences in the desert, economic activity is disrupted by unpredictable but recurring structural changes. Structural economic changes result from changes in technology, inputs, or preferences in the economy and permanently impact the economy (Machlup, 1958). One common source of structural change is innovation, "a new idea, method, or device (novelty); the introduction of something new" (Merriam-Webster, n.d.). Researchers have developed different economic paradigms to classify waves of innovative technology that have significantly transformed the economy. Table 1 summarizes research by Archibugi (2017) and Perez (2004) to provide a synopsis of five technological eras that have occurred since 1770.

While each era described in Table 1 is associated with economic growth as the effects of that innovation spread throughout the economy, the early stages associated with an innovation in an industry are not uniform. According to Bughin and van Zeebroeck (2018), innovation in a particular industry tends to display an "S-curve," with only a few firms adopting new innovations in the earlier stages. For instance, early adopters of artificial intelligence (AI) tend to be those firms that have previously built a base in core technologies in areas such as mobile, web, and cloud computing as well as more advanced technologies such as big data. This process is reminiscent of the learning environment provided in the desert described by Brubacher (2000): Successful deployment of these technologies relies upon knowledge developed while mastering these previous core and advanced technologies. These initial, painful, and frustrating investments in core technologies make the later process of implementing AI technology less cumbersome.

How do firms generally navigate structural changes? According to Archibugi et al. (2013), they choose between the Schumpeterian strategies of technological accumulation and creative destruction. Large, mature companies have conventionally gravitated toward technological accumulation, weaponizing previous investments as a barrier to entry to protect their market share (Archibugi et al., 2013). Traditionally, such firms accumulated fixed assets, such as landline infrastructure, car fleets, and hotels, but they later found these to be a disadvantage as they competed against new entrants unencumbered by these assets (Abbosh et al., 2018). In addition, given that these older firms' production methods are based on what is easiest

**Table 1: Technological Revolutions**

| Approximate Time Range | Techno-economic paradigm | Infrastructural Networks | Examples of Impacted Industries |
|---|---|---|---|
| 1770-1830 | Industrial Revolution and Early Mechanization | Canals, roads, and mail coaches | Textiles and machinery |
| 1831-1875 | Railways and Steam Engines | Railways, penny post, and telegraph | Steel and coal |
| 1875-1910 | Scientia Discovery Opportunities | Steamships, railways, and telegraph | Chemicals, electrical machinery |
| 1910-1970 | Oil, Automobile, Chemicals, and Mass Production | Electricity, telephone, highways, and airways | Automobiles and consumer durables |
| 1971-2010 | Information Communication Technology | Global digital communications and ICT support networks | Microelectronics, software, and telecoms |

Note: Information is a compilation of author interpretations, Perez (2004), Archibugi (2017) or conventional, they are unlikely to radically convert from a traditional production process to one that adopts an emerging technology. For example, in King's (2020) study of retail companies adopting AI technology for product development, it is large companies in particular that are avoiding artificial intelligence, relying instead on traditional, primary research methods, such as surveys and focus groups.

In contrast, creative destruction occurs in industries with low barriers to entry, allowing new firms to enter. Newer entrants have not made sizable investments in fixed assets, allowing them to invest in more current technology than older competitors. Creative destruction and disruption are apparent today. Entry of new disruptors into the newspaper industry have forced publishers to transition to digital platforms (Abbosh et al., 2018). In health care, new firms are more likely to possess artificial intelligence technology needed to monitor patients, forcing incumbents to scramble to replace workers with similar technology. Other industries vulnerable to the current technological wave include banking, tourism, and retail (Abbosh et al., 2018).

**Deserts and Recessions as Catalysts for Change**

The pain of recessions is well known. Less appreciated are the long-run benefits of recessions for the economy. Archibugi et al. (2013) reason that economic crises provide incentives to some businesses to try something new, pushing producers and industries to dramatically alter their production techniques and consider other production methods. Firms that survive and enjoy long-term success recognize the temporary nature of a recession, anticipating an eventual recovery that will transform the products desired by consumers and how those products are manufactured and distributed (Archibugi et al., 2013).

Mensch (1979) argues that economic downturns force firms to consider novel production methods, encouraging increased product research and causing innovations to appear to "cluster" around cyclical downturns. Amore (2015) also emphasizes the importance of innovation by firms during recessions, citing a survey by Booz and Company (2009) that reports over 90% of executives surveyed during the Great Recession believed innovation would provide the means to prepare for an eventual recovery. As Adalio Sanchez, general manager of IBM's System x server business, put it, "recession is a catalyst for increased innovation" ( as cited in Booz & Company, 2009).

In a comprehensive study of changes in firm strategies related to the last three global recessions prior to the Great Recession of 2008 (1980, 1990, and 2000), Gulati et al. (2010) found that 17% of companies failed, 80% grew slowly, and 9% flourished. They divided companies into four categories:

- Prevention-focused companies, which make primarily defensive moves and are more concerned than their rivals with avoiding losses and minimizing downside risks.
- Promotion-focused companies, which invest more in offensive moves that provide upside benefits than their peers.
- Pragmatic companies, which combine defensive and offensive moves.
- Progressive companies, which deploy the optimal combination of defense and offense (Gulati et al., 2010, p. 64).

They conclude that progressive companies are the most likely to outperform their rivals post-recession. Similar to Mensch (1979), they found progressive companies "combine three defensive approaches—reducing the number of employees, improving operational efficiency, or both—with three offensive ones: developing new markets, investing in new assets, or both" (Gulati et al., 2010, p. 67). Improving operational efficiency is comparable to Mensch's novel production methods, while developing new markets and investing in new assets is akin to Mensch's increased product research. Both Mensch (1979) and Gulati et al. (2010) reinforce the proposition that recessions can lead to increased investment in innovation. Given that the impact of deep recessions is comparable to that of creative destruction in that both motivate companies to investigate such innovation strategies, both recessions and creative destruction can be understood as triggering "desert experiences" for companies.

Just as the barrenness of the desert wilderness provides an environment more conducive to hearing God's instructions, particularly those involving dramatic changes, economic turbulence can serve a similar role for producers. The financial crisis removes the "status quo," lessening the temptation that some firms would have to continue relying on established production methods, particularly in the face of a structural change.

## CHARACTERISTICS SHARED BY DESERT EXPERIENCES AND RECESSIONS

Crises encountered by firms, particularly those associated with structural changes in the economy, mirror four

**Table 2: Characteristics Shared by Desert Experiences and Periods of Creative Destruction/Recession**

| Desert Characteristic | Survival Strategy | Corresponding Business Research Guidance |
|---|---|---|
| Occur under stress | Rely on God rather than current circumstances. (Exodus 15:22-25, Exodus 16:2-3, Exodus 17:3-6). | Do not panic and become too defensive-minded. |
| | The need for planning (Proverbs 21:5Proverbs 30:24-25). | Do not overleverage with debt—to have available capital in crisis. Do engage in contingency and crisis planning. |
| Disorientation: No landmarks to guide you | Decisions based on immediate surroundings are a mistake (Exodus 14:10-11, Proverbs 15:22). | Do not overly focus on removing costs. It diverts attention from operating efficiently. |
| | Only those who look beyond current disruption will prosper (Numbers 14:7-8). | Do consider operational realignment, possibly focusing on cost reduction, including inventory management and supply chain management. |
| | Seek stakeholder input when making decisions in hard times (Exodus 18:13-23). | Do not centralize decisions. Decision maker has less information and institutes budget reductions "across the board" that fail to consider policy that enhanced productivity long term. |
| Prognosis Appears Negative: Difficult to Assess the Probability of Success in Any Direction | Exercise caution when a situation's novelty tempts you to cling to what is familiar (Exodus 13:17-18, Numbers 20: 7-13). | Do not resist innovation. |
| | Make sure critical issues are factored in when making decisions (Joshua 7:2-5, Joshua 8: 3-27). | Do rely on ongoing innovation to raise sales and profits. Believing what worked in other situations will work again may be a mistake. |
| The Time and Struggle Associated with Uncertainty | Maintain a long-term view (Numbers 1, Numbers 2, Ecclesiastes 11:1-2). | Do invest in R&D and advertising. Recessions encourage companies to spend on R&D, invest, especially if asset prices have fallen, but benefits may be delayed and not increase growth. |
| | Know your numbers and clarify strategy before things change (Numbers 1, Numbers 2, Luke 14:25-34). | Do maintain accurate costs and revenue records and estimate true cost of any proposed changes. Do invest in R&D and market expansion. Progressive companies reduce costs while also making long-term investments. |

aspects of the Israelites' desert experiences in the Old Testament: stress, disorientation, unknown prognosis, and waiting. Table 2 summarizes these four characteristics as well as survival strategies and research related to those characteristics. Each of these characteristics will be examined in detail to better appreciate the similarities between the Israelites' and a disrupted business's experiences. Strategies used by firms encountering previous economic disruptions are considered in light of lessons learned by the Israelites, providing guidance for business leaders facing challenges from economic crises and disruption.

### Occur Under Stress

Stress is one of the most apparent characteristics shared by the Israelites' desert experiences and economic disruption. Exodus 12:31–34 describes how Pharaoh abruptly ordered Moses and the Israelites to depart Egypt. Being forced to suddenly leave without warning obviously would have been stressful. Structural changes inflict a similar impact on businesses. Accustomed to a familiar business environment and traditional production methods, the landscape deteriorates as emerging innovations dampen business activity and overwhelm owners, managers, and employees. More stress is added because cash flow, income, and employment opportunities decline. This stress causes many business leaders to panic, much as the Israelites did in many instances in the desert (Exodus 14:10–12; Exodus 15:22–25; Exodus 16:2–3; Exodus 17:3–6). Gulati et al. (2010) provide an excellent description of business leaders and prevention-focused companies who panic during economic structural change:

> Confronted by a recession, many CEOs swing into crisis mode, believing that their sole responsibility is to prevent the company from getting badly hurt or going under. They quickly implement policies

> that will reduce operating costs, shrink discretionary expenditures, eliminate frills, rationalize business portfolios, lower head count, and preserve cash. They also postpone making fresh investments in R&D, developing new businesses, or buying assets such as plants and machinery. (p. 65)

Such panic-driven behavior is described by van Dalen and Henkens (2013): "[T]the 'animal spirits' to which Keynes alluded may well dominate decisions to invest, downsize, and/or lay off workers" (p. 308).

***Rely on God rather than current circumstances.*** One source of stress shared by desert experiences and creative destruction is the resulting negative impact on access to or availability of resources. A lack of food (Exodus 16:2–3) and water (Exodus 15:22–25; Exodus 17:3–6) terrified the Israelites, causing them to grumble and question whether they would survive the desert. Likewise, owners and workers in businesses disrupted by structural change fear for their economic security. It is helpful to see how God used the lack of water to teach the Israelites to look beyond their current circumstances and rely on Him instead.

> Then Moses cried out to the Lord, and the Lord showed him a piece of wood. He threw it into the water, and the water became fit to drink. There the Lord issued a ruling and instruction for them and put them to the test. (Exodus 15:25)

Similarly, when providing the manna to the Israelites in Exodus 16, God instructs them to gather only what they need for the day and not hoard it for future use. God wanted them to learn to look beyond their current circumstances and rely on him instead. Trials generated by the desert posed two choices for the Israelites (Kuntz, 1974). They could have trusted God's promise to provide what they would need during their journey, and allowed challenges encountered in the desert to strengthen their relationship with God. Instead, recurring supply shortages resulted in panic and distrust in God, causing them to anticipate their ultimate demise (Kuntz, 1974).

These choices facing the Israelites serve as useful lessons for leaders of disrupted businesses. First, just as God had to remind the Israelites to rely on Him for their needs, Christian business leaders need to remember that security should come from God, not a business or job. While it is tempting to panic and despair as the economic landscape shifts and familiar products or production methods disappear, the Israelites' desert experiences remind us that survival requires choosing trust.

***The need for planning.*** While in the desert, the Israelites received miraculous guidance and provision from God. He provided the pillar of fire to guide them and provided food and water they needed for daily sustenance. Despite these miraculous circumstances, they often panicked and desired to go back to slavery in Egypt (Exodus 14:10–11; Exodus 15:22–25; Exodus 16:2–3; Exodus 17:3–6; Numbers 14:1–4). Business leaders are not likely to experience such a direct manner of divine assistance from God when managing their businesses in desert experiences. Therefore, there may be an even greater temptation to cling to the past instead of preparing to adapt to a new environment.

The first thing that business leaders must accept about desert experiences is that they will occur. Whether from recessions or unusual circumstances such as 9/11 or the Covid-19 lockdown, businesses will experience significant future downturns. This makes it vital to carefully plan and diligently store resources, allowing the business to survive and perhaps even thrive in desert experiences. This planning should include proper foresight about maintaining enough working capital and long-term capital to properly survive a desert experience. As described in Proverbs 30:25, "Ants are creatures of little strength, yet they store up their food in the summer." Simply put, business leaders that follow biblical wisdom should follow strategies that do not overleverage the company in debt. Regarding planning, Proverbs 21:5 says, "The plans of the diligent lead to profit as surely as haste leads to poverty." While Gulati et al. (2010) do not address debt directly, their suggestion of investing during crises presumes the firm already has an appropriate level of capital available, as it is more difficult to raise capital in recessions.

In addition to maintaining an adequate store of working and long-term capital, businesses should diligently engage in creating crisis and contingency plans (Chepaitis, 2004). The details of these endeavors can vary greatly among companies and industries and are beyond the scope of this article. However, it is crucial that these activities occur prior to the onset of a desert experience. Strategic planning reduces the stress of desert experiences. Both types of planning are certainly continuous in that plans must be continually evaluated and revised as circumstances or the business environment changes.

**Disorientation: No Landmarks for Guidance**

Whether encountering an experience in the desert or a wave of creative destruction, basing crucial decisions solely on immediate circumstances and surroundings is not prudent. Temperature, resource availability, and other life-altering conditions change dramatically in the desert. Economic activity peaks at the beginning of economic contractions and plateaus at the beginning of a recovery (Holt, 2019). Such changes in geographical and economic landscapes are only apparent after the fact, making it essential to recognize that the situation at hand is misleading.

***Decisions based on immediate surroundings are a mistake***. Consequently, another feature characterizing desert experiences and periods of creative destruction is the absence of obvious past experiences to rely on when making decisions. Those trying to navigate either situation are likely to feel disoriented because there are no familiar landmarks. A structural change in the economy introduces uncertainty regarding the next step for those industries and businesses affected. Many business leaders may second guess previous or current choices, as the Israelites did while being pursued by Pharaoh's army in Exodus 14:10–11:

> As Pharaoh approached, the Israelites looked up, and there were the Egyptians, marching after them. They were terrified and cried out to the Lord. They said to Moses, "Was it because there were no graves in Egypt that you brought us to the desert to die? What have you done to us by bringing us out of Egypt?"

Weaker business conditions can cause panicked business leaders to quickly reduce costs across the board. Gulati et al. (2010) warn that this is a mistake for two reasons. First, it promotes a "loss aversion" climate, causing workers and managers to perceive every situation as one to minimize losses, resulting in a climate with low aspirations and little innovation. Second, taking a blanket approach to reducing costs removes the focus from finding ways to operate efficiently to one that expects employees to "do more of the same with less." For instance, during the 2000 recession, Sony decreased its workforce 11%, its Research and Development expenditures by 12%, and its capital expenditures by 23%. Sales growth declined from 11% to 1% as a result, and Sony lost its previous momentum (Gulati et al., 2010). Van Dalen and Henkens (2013) advise that reducing payrolls to trim costs during recessions sounds economically rational, but "the costs of mass lay-offs are not always outweighed by the expected benefits in terms of higher profits and productivity" (p. 310).

If all encompassing budget cuts are not the answer, what should a leader do? Research shows that some leaders have successfully navigated turmoil by pursuing organizational realignment, or studying the evolving needs of their customers and realigning products and the value perceived from them accordingly (Mann et al., 2015). For instance, McDonald's, JCPenney, and Macy's remodeled their stores while others realigned intangible assets by repositioning, branding, and improving customer service and experience. Whole Foods and Target have used the repositioning aspects of this strategy, emphasizing savings and value for their customers. Nordstrom prioritized in store and online customer service while Saks concentrated on providing personal shoppers to its most affluent customers. The applicable lesson for leaders is that economic disruption requires taking time to understand how the needs of their own customers are changing and to adapt their business operations to accommodate these changes. Proverbs 15:22 advises, "Plans fail for lack of counsel, but with many advisers they succeed."

***Only those who look beyond current disruption will prosper***. It is easy to imagine how disoriented and scared the Israelites were when they found themselves trapped between Pharaoh's army and the Red Sea (Exodus 14:10–12). But God parted the Red Sea, showing the Israelites that current circumstances provide a poor forecast of what was to come. This lesson is repeated when Moses sends a scouting party to Canaan, and most participants return to the camp with a negative report because they are intimidated by the current residents. However, in Numbers 14:7–8 Joshua and Caleb said to the entire Israelite assembly, "The land we passed through and explored is exceedingly good. If the Lord is pleased with us, he will lead us into that land, a land flowing with milk and honey, and will give it to us."

God denied the Israelites entry into the Promised Land when they failed to trust Him, despite previous miracles He had performed on their behalf. As a result, Caleb and Joshua were the only members of the search party God allowed into the Promised Land. Likewise, it is imperative that a business leader recognizes that the current economic landscape will not reliably signal what the future holds. When grappling with the disorientation generated by creative destruction, Christian leaders and employees will benefit by reflecting upon past challenges and how they were resolved by God's faithfulness. Business leaders should also take note that, like Joshua and Caleb, it is only those who can look beyond the current disruption who will prosper and reach the Promised Land.

Research indicates that business leaders disoriented by an economic crisis can strategically reduce costs through operational realignment, or restructuring processes involved in their operations (Mann et al., 2015). A number of retail companies have addressed weaker economic conditions by improving management of inventory, supply chains, human resources, and facilities as well as technology integration (Mann et al., 2015). For example, Home Depot postponed opening new stores by using rapid deployment centers to better manage inventory. Stores that were more "image-oriented" intentionally started reducing what they held in inventory to avoid reducing prices. Some stores began integrating technology into their operations to reduce employee time spent on certain tasks. Publix used a scanner to verify coupon information and Home Depot used contactless card readers. These actions not only allow a business to survive economic upheaval but better position it in the eventual economic recovery.

***Seek stakeholder input when making decisions in hard times.*** Exodus 18:13–23 provides potential guidance for businesses navigating the unchartered territory of disruption. During Jethro's visit to Moses, he noticed Moses attempting to settle all disputes by himself. Jethro encouraged Moses to delegate some of the responsibility by training some of the Israelites. Jethro's advice is helpful for business leaders disoriented by turmoil in their industry. In determining appropriate next steps, many business leaders are tempted to make all decisions and take on all responsibility themselves. Seeking input from leaders and workers in the business could provide additional insight. Managers may find they can allow more workers to remain with the business if they learn some employees may prefer reduced hours, fewer benefits, or taking on additional tasks.

When examining companies fixated with cutting costs, Gualiti et al. (2010) recognize two additional consequences of across-the-board cost-cutting that are relevant to seeking stakeholder input. First, blanket approaches tend to be centralized; as a finance department slashes costs, it will not pay attention to the fact that it may be removing a key component for growth once the recession ends. Second, the centralization of cost-cutting demoralizes individual leaders and workers, making them feel less invested in the company.

**Prognosis Appears Negative: Difficult to Assess the Probability of Success in Any Direction**

The absence of familiar landmarks during structural changes and desert experiences is disorienting, making it difficult to identify the right direction. Compounding matters is the novelty of the situation at hand, making it difficult if not impossible to assess the probability of success in any direction. This is apparent in Exodus 13:17–18:

> When Pharaoh let the people go, God did not lead them on the road through the Philistine country, though that was shorter. For God said, "If they face war, they might change their minds and return to Egypt." So God led the people around by the desert road toward the Red Sea.

***Exercise caution when a situation's novelty tempts you to cling to what is familiar.*** Like many people, the Israelites would have chosen the route that appeared to be the most direct when escaping from Egypt. But what appeared to be the most direct path would not have been a successful choice. When instructing them to use the desert road leading to the Red Sea, God guided them away from the Philistine area, an area where they would have encountered war and possibly succumbed to a temptation to return to Egypt. God intentionally chose the longer path through the desert to avoid a war before the Israelites were ready.

The significance of listening to God as opposed to automatically doing what might have worked in the past is underscored at the waters of Meribah when Moses strikes the rock twice, (Numbers 20:7–13), following instructions God provided forty years previously to provide water (Exodus 17:6). In this particular case, God had actually instructed him to speak to the rock. Lessons from Moses' disobedience and the Israelites' plight are applicable to businesses grappling with disruption and economic distress. When the novelty of a situation becomes overwhelming, it is tempting to return to what is easier and known. For the Israelites, that would have resulted in remaining as slaves in Egypt instead of living as free people in the Promised Land. Moses' failure to follow God's instructions prevented him from being able to enter the Promised Land (Numbers 20:12).

The S-shaped curve of innovation adoption in an industry confirms that, like the Israelites, the majority of businesses in a disrupted industry initially resist innovation (Bughin & van Zeebroeck, 2018). More astute business leaders eventually realize that many of their competitors will begin changing their processes. However, just as business leaders should not simply select a strategy because it has worked in the past, selections based solely on current trends are also problematic. A strategy that has worked in other situations or for other companies may not work for a particular firm. Current employees may not have the expertise or training to accomplish what is expected. Creative destruction and innovation require that employees need different skills or training to move forward from the desert experience. The point is that business leaders should not rush to assume something that worked in the past or that worked for other companies will work this time. Again, leaders would do well to heed the advice of many advisers in Proverbs 15:22 and obtain input from a managerial group.

***Factor in critical issues when making decisions.*** God's selection of the longer desert road as a route for the Israelites provides an additional lesson helpful to business leaders. When grappling with the technical details of adopting innovation, some may attempt to save resources and time by skipping over earlier stages of technology. However, when Bughin and van Zeebroeck (2018) examine innovation adoption by several industries, they confirm it is those who implement innovative processes earlier who enjoy the highest profit margins. In other words, firms taking shortcuts to reduce costs ultimately reduce their profits.

A general lesson for business leaders is that missing one critical aspect or issue of a decision can make matters worse instead of better. In Joshua 7:2-5, prior to the first battle of Ai, Joshua neglected to do something critically important. Having enjoyed a number of military successes, he and the military leaders relied on self-confidence instead of prayer, a critical omission. The first battle of Ai ended in defeat for the Israelites. Learning from this disobedience, Joshua and the army listened to God and their next battle was successful (Joshua 8: 3–27).

In a similar manner, business leaders in a desert experience can make decisions without factoring in one or more critical issues. They may believe that what worked in other situations will work again, which is especially problematic during periods of creative destruction and innovation. Of course, a Christian business leader may go to God in prayer and receive direction, but if clear guidance is not immediately evident, it would be important to consult experts to avoid overlooking one or more critical issues.

Gulati et al. (2010) recognize a "critical omission" as they examine companies that focus so intently on advancement and growth that they disregard early signals of economic distress. Hewlett Packard made a critical omission during the 2000 recession when acquiring Compaq for $25 billion, spending $200 million on advertising and investing $1 billion on information technology in developing countries. The intense focus on innovation and its potential to increase profits and sales caused Hewlett-Packard to ignore its clients' ongoing budget cuts. Hewlett Packard's profitability levels actually fell below those of their rivals by the end of the recession. Likewise, business leaders should be cognizant that a promotion-focused strategy can produce a climate that discourages or ignores questioning by cynics, leading to disappointing financial outcomes (Gulati et al., 2010). It is important to thoroughly study a situation and uncover all critical issues.

**The Time and Struggle Associated with Certainty**

The disorientation from desert experiences and economic upheaval makes identifying the right direction difficult and estimating the probability of success in any direction challenging. Consequently, determining whether a decision is successful will take considerable time and struggle. The increased levels of uncertainty surrounding desert experiences and innovative disruption means both are associated with higher levels of risk.

***Opportune investments on advertising and R&D can take time to confirm their benefits.*** Because a company in a desert experience is struggling financially, it may gravitate toward strategies generating immediate financial savings or benefits. As Gulati et al. (2010) observed, the most successful companies (progressive) during economic hardship combined well-thought-out cost reductions with longer-term investments and growth strategies. Such investments are crucial for long-term profitability, even though reaping the entire reward requires considerable time and struggle. Investments with a longer time horizon include increased marketing; knowledge investments; and plant, property, and equipment (PP&E), the latter which may be available at distressed prices during recessions. In economic distress, it is likely that more diversified investments will produce superior outcomes. The Bible provides similar advice in Ecclesiastes 11:1–2, "Ship your grain across the sea; after many days you may receive a return. Invest in seven ventures, yes, in eight; you do not know what disaster may come upon the land."

The first and second chapters of Numbers relate God's strategy to protect the tabernacle from the very real risk of war in the desert. God chose to "invest" His future Kingdom in the Israelites and, in many ways, He protected them. This passage details the census taken of the Israelites and God's instructions regarding the placement of the Tribes of Israel around the tabernacle, comparable to a diversification or hedging strategy.

Dynamics of the relationship between business investment spending and Gross Domestic Product suggest growth in the economy is akin to the hedging strategy of the tribes in protecting the tabernacle. Businesses throughout the economy invest in projects expected to generate profits. Those projects that survive will generate differing levels of productivity at different periods of time, delaying their full economic impacts.

While firms invest primarily in physical capital, some knowledge investments are made in trade secrets, patents, and technical proficiency, more commonly known as research and development (R&D) expenditures. Some businesses hesitate to invest in R&D, believing it requires a longer-term time commitment. Businesses may also deem R&D investments as being riskier, not only because of a more uncertain outcome, but because any discoveries could be difficult to protect if employees change jobs. However, possible economic profit encourages firms to expend resources on developing new ideas (Romer, 1986).

***Know your numbers and clarify your strategy before things change.*** Numbers 1 and 2 detail the comprehensive census and organizational structure needed by the Israelites. Firms should maintain business records that are honest, accurate, and well-organized at all times. This is particularly important during an economic crisis. Just as the Israelites took a census to assess their ability to go to war, if needed, businesses need to have honest, transparent, and accurate revenue and cost figures before they can even attempt to estimate how a business downturn will impact their economic viability. Luke 14:25–34 relays the importance of counting the cost before building a tower to emphasize the full cost of following Jesus. In addition, clear organizational structure is necessary to avoid chaos, essential whether it is a military or a business navigating a risky environment.

When records or employees in an organization are inaccurate or dishonest, leaders may be held accountable and pay consequences. Christian business leaders should look carefully at factors contributing to Joshua's battle defeat at Ai, aside from his omission to pray before the battle. In the previous battle, God had placed a ban on any booty from the Battle of Jericho, claiming it for Himself and prohibiting the Israelites from taking anything. One of the Israelites did not obey God and violated the earlier covenant. After the Israelites' loss in Ai, God explained to Joshua, "Israel has sinned; they have violated my covenant, which I commanded them to keep. They have taken some of the devoted things; they have stolen, they have lied, they have put them with their own possessions" (Joshua 7:11).

Joshua's battle defeat at Ai provides valuable guidance for leaders. First, Christian business leaders who are diligent in attempts to avoid sin are more likely to achieve success than leaders who are not as dedicated to this endeavor. Second, as earlier observed, there is no indication that Joshua prayed for God's guidance prior to the first battle. Aside from the crucial omission of asking for God's guidance, they were not fortified by prayer during the battle. As a result, their faith (or hearts) melted quickly. This emphasizes the importance of intentional and diligent prayer for Christian leaders as they seek God's guidance on strategy decisions occurring in economic distress. While prayer usually does not result in a detailed investment plan from God, it serves other purposes essential to combatting distress and doubt. Praying regularly increases faithfulness, allowing peacefulness about staying the course. This is particularly important when the course is one whose benefits are not immediately apparent. Regular prayer also provides leaders reassurance that they are not violating biblical wisdom concerning ethical behavior in business.

## CONCLUSION

Disruption is a recurring and unavoidable part of life. This article argues that crises experienced by firms, particularly those associated with structural changes in the economy, mirror four aspects of the Israelites' desert experiences in the Old Testament: stress, disorientation, unknown prognosis, and waiting. Examining each characteristic in detail underscores the similarities between the Israelites' and disrupted business's experiences. Reviewing lessons learned by the Israelites in context with strategies employed by firms encountering previous economic disruptions provides helpful perspectives for business leaders and can assist them in developing survival strategies and facing challenges.

Viewing economic disruptions as "desert experiences" suggest broader areas of future research. How do coping strategies for "desert experiences" occurring in other economies compare to those presented here? Another potential research question relates to an important determinant of investment, expected return, which is influenced by the enforcement of property rights.

While this paper gears its guidance toward managers of for-profit businesses, many applications could be extended to nonprofit organizations. The effects of structural changes and disruption are not limited to for-profit firms. Nonprofits such as churches are encountering disruption posed by changes in technology, including but not limited to ICT and AI. Given that these and other economic challenges confronting managers of corporations also confront leaders of nonprofit firms, additional research focusing on the impacts of disruptions on nonprofits could be beneficial for those organizations.

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