IT-KOMPASS GMBH
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White Paper

Business Continuity through Information Technology

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Business continuity is a fundamental necessity for a sustainable, successful business and a fairly simple concept that every organization should have at its foundation, but what is business continuity? What does it have to do with information technology (IT)? Moreover, how can IT support other aspects of the business where people might not even realize it?

This whitepaper will look at business continuity and how it relates to maintaining business activities in the face of challenges that come from fluctuating economic conditions, changes to laws and regulations, security issues such as cyberattacks, and natural or man-made disasters.

Before going into more detail, it is first necessary to have a basic understanding of what business continuity really is. In short, it means ensuring that you are able to conduct business with an absolute minimum of interruption when something occurs that might have otherwise had a significant impact on normal operations. If the proper considerations and provisions have been made, interruptions to the business can be measured in minutes or hours rather than the weeks or months it could otherwise take to restore operations, if the business is able to recover at all.

Business continuity affects businesses of all sizes from international enterprises to single-person companies whose business focus has absolutely nothing to do with information technology, at least at first glance. So, whether your company has thousands of employees across the globe or happens to be a small shop on the corner, taking the time consider what you need to maintain business continuity is relevant for you.

The agility that comes with business continuity

Business continuity can be broken down into two main aspects. First, you have to have all of the processes and technology in place to ensure compliance with laws and regulations at all times. Second, you have to ensure that you have the ability to quickly change course and adapt to new or unforeseen circumstances. Such circumstances can be anything from a change in the strategic direction of the business or complying with a new regulation to responding to large-scale natural disasters or epidemics. Business continuity is equally important when it comes to perceptively small events that can still have a significant impact. These include such things as a small fire destroying a server or something as deceptively simple as an employee with high-level, widespread system access leaving the company.

It is not a question of whether a company will face such challenges. They will happen. It's a matter of how well companies have positioned themselves to react. In some circumstances, this can even lead to a competitive advantage because customers know that, no matter what, they can rely on that business to be there when they need it.

Dwight Eisenhower, a leading military general und later President of the United States, once said that plans are useless but that planning essential. He was right. Having a plan doesn't mean that you stick to it no matter what. It means that you have created a framework that can be adjusted as needed while providing a clearer picture of the dependencies that will likely be affected. It might sound counterintuitive, but having a plan can make you more agile and more willing to respond to changing circumstances because you have a better idea of what will likely occur as a result.

Business continuity essentially boils down to being agile. Being agile does not mean being fast. It means that you're able to adjust and reprioritize at moment's notice. A nice ancillary benefit is that you're often faster in the end – for example, in recovering faster than your competitors during an economic downturn.

Here is a brief example to better illustrate how planning and agility interrelate. Many people may have heard of agile frameworks such as Scrum or Kanban. Explaining exactly how they work or the differences between them are beyond the scope of this document, but it's enough to say that they are not rocket science. Each has their advantages and disadvantages and can be extremely powerful and efficient for developing new products regardless of whether they are mobile apps or automobiles. Since they're simply frameworks, they can easily be adapted to purposes outside of software development or manufacturing. There is nothing that precludes a marketing department from using Scrum. In fact, it might better enable them to work in tandem with their software development teams. In the end, many tasks may end up getting done faster, but it's not because the actual work takes less time. It's because everyone is pulling in the same direction and has a clear understanding of the plan and the priorities. Think of business continuity as building a framework to handle the unknown and unforeseen.

Stability under fluctuating economic conditions

Common phrases and oversimplified slogans like, "if your business isn't growing, you're losing," and similar hyperbole are popular with people who might best be considered somewhat short sighted. Of course growth is good. Who doesn't want to expand their market share or grow into new markets? But is short-term growth, even if it's substantial, worth the risk of endangering your entire business?

The economy has a tendency to be cyclical. There are periods of growth and periods of recession, and no business is entirely immune. Any number of factors can play a role in causing economic change. In 2008 for example, it was the housing bubble and the overinflated real estate prices that were the initial cause of the recession. Banks had been making bad loans for years and, as the saying goes, the chickens finally came home to roost. The whole house of cards came falling down and tax payers were essentially left holding the bag when they were asked to bail out the banks. Had the national governments not stepped in, the Great Recession, as it came to be known, could have easily morphed into the Second Great Depression. In the face of this economic crisis, many businesses knew that growth wasn't going to happen. The focus became how to mitigate the losses and be best prepared for a turnaround.

There are many ways that IT can help to make such a recovery possible. For example, IT-Kompass built a software solution known as Quality Circle to track and manage both the qualifications and certifications of employees and to also track and monitor the assets that these employees use. For example, it means you know exactly how many qualified forklift drivers you have, if and when their certifications expire, and what additional certifications, such as first aid, might be necessary to retain their licenses. Combined with blockchain technology to ensure the accuracy and legitimacy of these certifications and simple QR code readers, a company can ensure that only certified employees are able to use certain equipment. The software helps in planning and management for personnel and the assets they use to run a lean organization.

So what does a software solution like this have to do business continuity? There are a lot businesses that find themselves stuck in a cycle of hiring people to

come in and work on major projects when times are good and the contracts are plentiful. However, as soon a downturn occurs, they start looking for ways to reduce the headcount. Much of this inefficiency comes from not really having a good understanding of what knowledge and qualifications they have in terms of either specific certifications und just regular skillsets. As a result, they lose a lot of the know-how and capabilities they need during such downturns and often have difficulty finding qualified replacements as things start to improve. This is simply because they don't know what they lost or what they really need again later.

A company with an accurate picture of the skills they have available can run the entire time in the most efficient manner possible to meet current and future needs. They have a plan. The fluctuation and turnover through periods of boom and bust can be almost entirely avoided. You have a workforce that is perfectly set up to meet your strategic goals, and a stable workforce brings with it all the benefits of employee knowledge, job satisfaction, and a sense of togetherness and belonging. This is a big part of business continuity and one that people don't necessarily associate with IT in terms of its ability to play an essential role.

Security issues and data privacy

Everyone is familiar with the news that makes headlines from time to time that talks about major cyberattacks or similar issues, and these are obviously IT problems that typically require IT solutions; however, the solutions can, at least in part, also be decidedly non-technical. For example, do you have a fire extinguisher located in the same place where you store sensitive business data?

The five most common IT security issues are code injections, data breaches, malware infections, distributed denial of service attacks (DDoS), and malicious attacks from insiders who have, or former insiders who still have, authorized access.

It is a challenge for any organization to maintain and know how to effectively use all of the tools necessary to keep up with these ever changing threats. They continue to evolve and grow both in terms of number and level of sophistication. Even the largest enterprises in the world often rely on external consultants and partners to assist with their security planning and protocols, but where should small and midsize companies turn in order to find the same level of protection? After all, they face exactly the same threats.

By working with a partner such as an IT system house that has the personnel and expertise of full-time experts who focus on preventing such threats, there is a far greater likelihood of maintaining business operations and being reasonably assured that these threats will be effectively neutralized.

It starts at the most basic level with end-user awareness, but this is where an IT system house can also assist in an advisory role by teaching your employees about effective password guidelines, providing recommendations for suitable password management tools, and helping them to recognize spam and phishing attempts. Such attempts can frequently take the form of CEO fraud. These are typically bogus emails made to look like they come from members of a company's upper management and that make what appear to be legitimate requests to transfer large sums of money to foreign bank accounts. To create such high-quality forgeries, the criminals frequently rely on research and social engineering tactics to acquire accurate materials such as logos and letterheads to create their counterfeit messages.

IT security is not just about preventing cybercrime. Equally important aspects are protecting and properly processing the personal data that companies are entrusted with by their customers.

Consider just a single aspect of data privacy in the European Union General Data Protection Regulation (EU GDPR) as an example. One of the regulations stipulates that a person has the right to request a copy of the personal data that a company has about them. Regardless of whether or not the company has effectively implemented automated processes to comply with such a request, it has to be fulfilled. One solution would be that all of this information is stored in databases that are correctly configured to deliver all of the pertinent information automatically. Another company that has not properly prepared might need an individual to manually search for such information. Not only would this second method be time consuming and resource intensive, it's also highly prone to errors, and this can place your business in legal jeopardy.

Conducting, documenting and ensuring compliance with safety briefings is yet another aspect of security that might be overlooked from an IT perspective but that is greatly supported through IT solutions. Under German law, employees must receive such briefings when they are initially hired, annually as refreshers, whenever they are given new tasks or a new position, and whenever there is an accident or a situation that is determined to be unsafe. There are various software solutions, including multi-media training applications, to fully support, manage and document compliance with these regulations, and an IT system house is the right partner to help implement them.

Natural or man-made disasters

The world is a beautiful place with a rich geographic diversity. At the same time, this also means that certain regions can sometimes face environmental threats that are difficult to avoid but that can, to some extent, be overcome through a degree of awareness and preparation. Regions might be susceptible to coastal storms, strong winds, extreme temperatures, etc. Unfortunately, on rare occasions circumstances can prove far more disastrous as a result of hurricanes, mass flooding, forest fires, or similar events. In all of these instances, preventing the loss of life remains the highest priority, but considerations and steps should still be taken to ensure that your business can continue to operate. In this way, the business can also contribute to helping a region recover more quickly.

One of the ways to prepare is to have the infrastructure in place to enable employees to work from home, or anywhere else for that matter. Really large enterprises understand that they have to do this. Some are very good at it and others are less well prepared. For example, as the Coronavirus (COVID-19) epidemic began to rapidly spread, companies such as Apple and Microsoft were immediately able to switch their employees to working from home, and they saw no drop in productivity. This might sound simple for large tech companies, but smaller businesses can be just as well prepared, even if the focus of their business is outside of IT.

Known as telecommuting, remote work, or home office, the concept remains the same. By enabling employees to work from anywhere, you have the flexibility to maintain productivity under nearly any circumstances. This doesn't have to be limited to working under adverse conditions. Many companies are starting to make remote work a part of their regular culture. Studies, for example "Valuing Alternative Work Arrangements" which was conducted by researchers from Princeton and

Harvard universities in March of 2017, have shown that worker productivity can increase, and there is even a willingness to accept somewhat lower compensation. According to the study, "despite widely held views on the importance of workplace flexibility, the majority of workers do not value flexible scheduling or the ability to choose the number of hours they work. Workers do value the option to work from home." There are also numerous additional benefits such as reduced costs for commutes, lower energy usage, fewer sick days, and a smaller climate footprint.

Some managers may initially hesitate at the idea of allowing a completely flexible remote work schedule for fear of losing supervisory control, but this kind of management style is less than ideal for the segments of the workforce who are generally hired for their intellectual ability and who are often better managed by looking at results as opposed to time spent sitting in a chair. To put it bluntly, low performers will continue to show poor results regardless of whether they are doing so at the office or at home. Why hinder the rest of your staff based solely on this concern?

There are also a lot of exceptional tools available to enable seamless communication with colleagues both internally as well as with external customers and partners. Examples include solutions such as Microsoft Teams and Slack. Both provide more than just the ability to communicate via chat or teleconferencing. They offer the ability to find information using bots and include seamless integration with productivity software such as Office 365 and project management solutions such as Asana or Trello. These solutions are vastly more than just chat applications. This is so much so that people sitting right next to each other in office environments frequently still use them as collaboration tools.

Another example of the way businesses have changed to support working from anywhere is virtual computing technology, which represents the foundational premise of cloud computing and is at the very heart of today's cutting-edge IT development. Many powerful software applications require correspondingly powerful, and thus expensive, hardware. What's more is that it would be cost prohibitive to provide numerous users such hardware when they may only occasionally require those kinds of resources. The major advantages of using remote computers in a virtual computing environment are that the resources are highly scalable and can be accessed from anywhere. Essentially, even the most basic personal computer can connect to such a network and use its resources to accomplish complex computing tasks.

Carl Stahl – business continuity as the norm

Maintaining business continuity is now evolving from an "emergency response option" into the normal way of conducting business operations. This means that, when disasters or unforeseen events occur, there is no need to drastically change anything. Business continues to operate as normal.

Deutschland Test, part of Focus-Money, conducted a study in February of 2020 in cooperation with the Institute for Management and Economic Research (IMWF) and researchers from the Hamburg Institute of International Economics (HWWI). The study looked at which businesses in Germany were best prepared for the future with respect to digitalization. According to the study, "Structures and processes are fundamentally influenced and oftentimes greatly or even completely changed through digitalization. Having a good IT team on board is essential if a company wants to be prepared for the future." In this study, Carl Stahl GmbH was named one of Germany's digital champions. And as the study shows, Germany's digital champions are not all a

bunch of IT startups or tech companies. On the contrary, these champions are spread across a huge number of different industries. For example, Carl Stahl specializes in mechanical engineering and construction with products and services in the areas of lifting equipment, architecture, and technocables. Their IT team also happens to be supported by IT-Kompass GmbH, a system house specialized in providing cloud solutions to its customers. The close collaboration between Carl Stahl and IT-Kompass is evident in how quickly the company was able to react to changing conditions at the beginning of March, 2020 when it became evident that drastic steps were necessary to combat the spread of the Coronavirus. As companies across Germany scrambled to figure out ways for their employees to work from home, Carl Stahl only had to announce the change and work continued. Carl Stahl doesn't just have the capability to support remote work and virtual computing. They also rely on additional solutions such as cloud computing, qualification management software, and asset tracking to ensure they have business continuity. They really are a digital champion.

Conclusion

A successful business with continuity at its core is not going to make decisions only with the next quarterly results in mind. The quarterly results are important. No one is going argue otherwise, but the yearly results are also important, as are next year's results and the year after that.

Short-term thinking is almost like a disease that can infect a business. Some companies get so caught up in quick wins and chasing fast results that they start talking about saving the month, the week, or even the day. Management decisions are made accordingly and become very reactionary. It doesn't just affect moral. Things like technological debt begin appear, which is a symptom of this kind of thinking. Technological debt occurs when short term solutions or neglect lock you in to certain processes or kinds of technology. The way out becomes so complex, expensive, or time-consuming that alternatives are no longer an option. The business becomes like a ship with a hole in it. It's going to take a while to fill with water, but the ship is sinking.

Fortunately, there is a solution to avoid these issues. An ideal partner to serve as an integral part of achieving business continuity is an IT system house. When people think of an IT system house, they typically think of it as place where they can purchase hardware in bulk, receive help in setting up their internal networks, or have some custom software development work done. Obviously, an IT system house provides these services and is very good at doing so. However, the real purpose of a reliable IT system house is that it is a there as a partner to help ensure business continuity. In this way, an IT system house is focused on providing long-term solutions and continuous guidance. Selling some hardware might typically be a small part of a much larger project, but the real work is in developing forward-looking, flexible solutions. The hardware part is nothing more than a means to an end.

Links to referenced studies:

Valuing Alternative Work Arrangements

Digital ins neue Jahrzehnt (German)