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# Importance of Information Systems Proficiency for Modern Company Management: An Analytical Evaluation

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## Abstract

Our systematic study aims to find out how much of an impact skill and information system mastery have on the power and success of company management in the modern digital age. We back up our claims with research from dozens of peer-reviewed journals throughout the world that have covered a wide range of topics related to how businesses may use technology to their advantage. We used Google Scholar to look for any supplementary materials published between 2010 and 2021. We used the coding system to extract data, evaluated it thoroughly, interpreted it in detail, and finally, we were able to answer this question with valid conclusions and high reliability when we had the data. Taking everything into account, we can announce the findings: a strong relationship exists between proficiency in technology and effective company management. The capacity to seek and meet customers for any reason using search engines is a crucial skill for managers in every company, and the Internet plays a key part in this. The same holds true for customers; with the same tech-savvy tools, they can receive what they need fast.

## Keywords

*business management; digital age; systematic review; technology mastery;*

## 1 Introduction

Mendelatta et al. (2021), Putra & Aslan (2020), Putra et al. (2020), and Sudarmo et al. (2021) all agree that we are now in the era of the 4.0 mechanical insurgency, characterized by ever-increasing complexity in creative developments. The advent of supercomputers, AI, autonomous cars, distributed computing, large data frameworks, genetic engineering, and neurotechnology has brought about some unsettling changes in the contemporary world. In addition, tools were developed during the 4.0 revolution that assist humans in completing tasks in the fields of manufacturing, healthcare, and gardening, much like robots. The computerized mechanical insurgency

brings about societal transformations and long-term upheavals in business, as well as the loss of many types of jobs that humans have created or replaced with robots. Workers' control over their own talents becomes obsolete very quickly as a result of the acceleration of mechanical advancements (Singh & Bansal, 2020; Sihite & Saleh, 2019; Sihite, 2018). Since the human workforce is adaptable enough to face previously unanticipated forms of employment, this transition inevitably necessitates that we continuously develop skills that may prove useful in the future. If we want to be ready for the current revolution 4.0 and understand innovations like global mindfulness, media proficiency and

innovation, and visual education, we need data and correspondence innovation skills (Boyles, 2016). Additionally, in order to tackle this progressive era, we need delicate abilities, such as strong communication skills that can collaborate and work in teams, a sense of personal and social responsibility, intuitive correspondence, a sense of public and global direction, and a spirit. Profitability, accountability, diversity, self-heading, action, and morality and virtue are all aspects of administration and duty. So, it is believed that present-day workers should prepare for the era of mechanical transformation 4.0 by acquiring data and correspondence innovation skills (Agolla, 2018).

It is believed that social transformation and a shift in corporate attitudes will accompany the 4.0 Industrial Revolution, which has the potential to increase both individual happiness and the demand for life on Earth (Bagnoli et al., 2019). Companies should be able to take advantage of this opportunity swiftly through innovation in order to achieve a higher level of adequate production and utilization, as well as an improvement into new business sectors. Profitability and productivity are warm, long-term gestures that will be felt in this advanced modern upset. In this 4.0 contemporary insurgency, innovations such as engineering knowledge (impersonation), the web, and programmed robots may be used in everyday life to influence people's perspectives and the way organizations think. In the present 4.0 disruption, industries ranging from transportation to retail and banking will face the challenge of incorporating mechanical advancement into their operational cycles. This is because, in essence, companies will be less severe if their innovation is less sophisticated and slower (Levinson,

2016).

While piqueing interest in new skills and jobs, it is worth considering the possibility that advances in computerized reasoning may eliminate or at least significantly reduce the need for particular vocations (Susskind & Susskind, 2015). Workers who understand technology will be paid a fortune, according to some experts, while those who don't will be left behind. There have been some new mechanical advances in many areas, such as human-made intelligence, mechanical technology, education, finance, and others, but the mechanical upset 4.0, which possesses the traits of a hybrid innovation, does not portray the reasonable boundaries between the natural, advanced, and physical. The foundation or key component supporting these advancements is the utilization and processing of monstrous amounts of information. Not content to be only a correlational element, information has evolved into a weapon in today's competitive world (Alshare et al., 2011).

Because of its size, Indonesia has the potential to be a massive consumer and producer of data. Proof of massive or unfettered use of information and technology is easily seen to the Indonesian populace in their day-to-day lives (Doctoroff, 2014). According to the World Economic Forum's report on the future of work (Future of vocations), from 2018 to 2022, many innovations were closely studied in tandem with the 4.0 upheaval. A few of the inventions that will be dominant are as follows: The foundation of contemporary transformation 4.0 is fast mobile web, which is a fast web connection on mobile phones. In addition, we are making use of

the 4G network, which offers a highly suitable yet underutilized connection speed. Also, in 2019 and 2020, the 5G organization's improvements will be available for mobile phones (Ramiro & Hamied, 2011; Cheney et al., 1990).

Because it takes some investment for industry players to think about organizing guidelines and teaching the general populace as per mechanical time 4.0, it was predicted that Indonesia would be ideal to apply the 5G organization foundation in 2020. Computerized reasoning (Dadios et al., 2018; Brinkkemper, 1996). The article delves into the process of building a computer that can do tasks often performed by humans and is believed to be more effective than humans. A more advanced personal computer that can be programmed to exhibit human-like understanding is one possible embodiment of this artificial intelligence. In the mechanical era 4.0, one kind of artificial awareness is the use of water-driven robots to streamline gatherings. "Large Data Analytic" describes the total amount of data, structured or unstructured, independent of its form. Utilizing and analyzing the massive amounts of data generated by contemporary insurgency 4.0 might result in the addition of experiences that enhance advertising options and methods. Volume, variety, and speed are the three main components of this massive data set. Because there is an abundance of data that can be analyzed to find the right solution, big data presents an extra opportunity for innovation patterns in industry 4.0 (Sahana et al., 2020; Heeks, 2006; Mun & Hwang, 2003).

We can think about what this invention will accomplish or deliver since it is

evolving so rapidly. Desjardins and Bullock (2019) state that everyone will continue to have questions and contemplations. Is the question of whether this innovation's many positive effects outweigh its many negative ones? We should be able to choose between several benchmarks, not limited to just one, so that we can respond to these improvements and advancements. When it's malevolent, there's also truth.

Moreover, for every shadow, there must be a light. Which is why it's important for individuals to think broadly. Speck (2014), Peppard and Ward (2004), and Theuri and Gunn (1998) all agree that readers can rely on this article to provide an outline and serve as a benchmark for thinking about and reasonably using mechanical advances while also offsetting innovative advances with the ever-changing request.

#### *Business Management Success*

Superstars' management styles don't always apply to other types of highly successful firms (Anderson & Anderson, 2010). The administrative ability, the most important quality in a company entertainer or financial manager, is what makes this memorable. To put it simply, expert administration is a recursive process that begins with planning, continues with controlling, and culminates in the utilization of all resources to achieve the established goals. As a movement with the intention of selling goods or services, the business is significant. The executive board's name derives from the English term "control," which means "to help" in English. Ultimately, there are a few ways the board exercises are categorized, such as the ones listed below (Gibbons, 2015; Manullang, 2020; Manullang et al., 2020). When discussing management in the context of a company, it is important to grasp the notion of management as a whole, which includes marketing in the modern digital economy. Digital marketing is now the most modern option, according to Wymbs (2011) in his article. The arrival of a new academic major is upon us. To help businesses thrive in the modern digital landscape, marketing management has evolved to meet the challenges of

this new era. Adapting to the digital age will inevitably lead to progressive changes. This is because digital startups and marketing management in the digital age may be understood via the application of numerous principles (Ansong & Boateng, 2019). Production governance is another crucial part of managing a company. For the simple reason that product marketing management is based on the idea that businesses should maximize profits by cutting costs wherever feasible (Barquet et al., 2013). To put the principle of production management into practice, businesses often aim to minimize production costs in order to maximize profits (Cooper, 2017). The key is to sell as many things as you can think of. Companies dealing in home apparel or even raw commodities that consumers often use might benefit from this kind of idea. Among the other forms of administration, there is product concept management, a subset of marketing that centers on the manufactured good and other product-oriented ideas. Businesses strive to provide consumers with top-notch goods. Naturally, when consumers are pleased with a product, they will remain loyal to the brand (Kooper et al., 2011). For the middle-to-upper class, who care more about high-quality products than about how much they cost, this idea will work. Naturally, a high-priced product is the inevitable outcome of a company's dedication to product excellence (Wells et al., 2011). In sales concept, the business holds the view that an alluring sales technique is the key to recruiting clients. Companies often engage in a plethora of sales-related activities in an effort to get customers to purchase their wares (Andzulis et al., 2012). Although this approach is not always effective, Osterwalder et al. (2014) state that it is possible to execute it successfully. Selling a product includes several ideas, one of which is offering a discount to the consumer. In most cases, this idea is implemented via digitally selling storefronts, often known as e-commerce. What the target market requires is the center of the marketing idea, which is also called this marketing management concept. In contrast to the sales idea that was previously discussed, the marketing concept often involves consumers who are loyal and stay for a long time. The key is to set things up in such a way that the upper-middle class is the intended audience. For the simple reason that if a business has a product and uses marketing to promote it, it can only rely on customer demand (Hassan, 2012). One such system of government is the social marketing idea, which places an emphasis on the positive social

effects of a product or service (Weinreich, 2010). Products having a beneficial social effect will undoubtedly satisfy clients, according to the company's belief in this philosophy. The environmental or, in the case of the COVID-19 epidemic, social effects on employees are two examples of possible forms of social marketing. The administration of promotions via accounts and creations is another facet of company management. Here are a few pointers to keep this administrative cycle going before you go into company management (James, 2015). Businesspeople should present themselves in a way that allows them to do business with the company or organization in an acceptable manner. Any undertaking or company, no matter how big or little, need a strategy or plan in order to be well planned and analyzed. The organization nevertheless needs a well-thought-out plan, even if it is only starting off. Having such a guide will assist businesses or individuals on business trips in staying focused (Glasgow et al., 2012). Try to document every action in the company they encounter; keeping meticulous notes or reports is crucial. Start with the training that has been done or the notes on expenses and wages, and make sure everything is coordinated and complete. It is crucial, particularly for private enterprises in the development stage. Make careful and accurate notes of all monetary transactions and other important tasks. According to Kim et al. (2010), future inspections will be made easier with financial reports or action reports. Several guidelines that company leaders may utilize as a guide are among the obvious benefits of organizational monitoring and training for increased company performance (Loshin, 2012). The goal is for businesspeople to be able to observe and choose to oversee in accordance with the benchmark principles of employee training. This is especially true for operational and financial managers. Management of creation is an endeavor to develop an object's comfort via creation. In order to achieve the utilization value, the production cycle must adhere to all applicable laws and regulations. Herein resides the responsibility of a production supervisor, who regulates the activities that need to be finished within a certain budget and time frame (Sethi et al., 2011). The interplay of organizational creations runs smoothly through many phases. To get there, you have to do some investigating and preparation. Starting with the equipment kind and moving on to impartial market studies of the necessary quality, meticulous preparations are

made according to the organization's determination (Delmas & Montes-Sancho, 2010). According to Frankenberger et al. (2013), the business goals established during the business planning stage should guide the supervision stage of implementing creative interactions. The present scale of creativity is still imaginative in light of the technical advancements that have already taken place. A number of companies have begun using it. Businesses in the wheat industry, for instance, have automated editing machines that make the job much easier for the employees (Collins & Mayer, 2010). This is just one example of how innovation and technology can be used to inspire and drive creative endeavors. For small and medium-sized enterprise (SME) groups, many have operated programmed machinery, such as cutting machines, packaging, and pressing. The distribution of data in today's extensive communication is done via internet media, as opposed to the paper-based media of yesteryear. The automotive sector is

presently utilizing. When it comes to shipping automotive parts, more and more automated processes are being used (Williams et al., 2012). In addition, all of the aforementioned developments are working toward the same end: streamlining the administrative cycle in terms of money and other issues. We can't hope to compete on a global scale without centralization. Management should be promoted. Many specialists have previously determined what board advertising is, so businesses may get this knowledge of executive promotions elsewhere. People who work in business cannot paraphrase what they say. Any entrepreneur worth their salt will know exactly why the sidebar needs blank spaces and how to fill them up. Businesspeople can spot advancement tactics and holes in business science, thus it's safe to assume that this blog is under evaluation. If it uses the master's words as a reference, it will most likely be considered a fake. Managing a company's finances is also crucial to its growth. Each of the items heavily relies on financial management. If the CFO is able to keep costs in check and pay employees on time, the business should be OK. Bookkeeping is used for monetary management procedures, which include a wider range of business processes. So that the economic cycle may function smoothly, businesspeople can get acquainted with these principles of monetary management by grasping the content they learned in school and doing more thorough research.

Then, dispersion management is another kind of corporate governance. As a push to improve the movement of goods or services from producer to consumer, distribution boards might be closed. Complete information may be found by the businessperson by combing data about physical distribution with data about distribution channels and their components. There are some pieces of information that every businessman has to keep under control. Commencing with advertising, for instance, developing a desirable brand, progress. This is a strong outcome of the manager's planned administrative training. Therefore, we hope that our research may fill a need in the literature by offering academics, practitioners, and business policymakers more detailed information and insight into the roles and responsibilities of company leaders (Benoit et al., 2019).

## **2 Materials and Methods**

The search for a deep understanding of the importance ability and dominance of data or information skills to the future achievement and success of business people is the principal objective of our study. We are looking for evidence of study findings from many international distribution publications that have spoken on various subjects on how to deal with advancing or dealing with business with the help of technological innovations that have become a mark of the device in all areas of business today's digital age. We directed an electronic search for all supporting information from Google Scholar from the 2010 to 2021 editions. After obtaining the data, we then broke it down by inserting a coding framework, assessing it, understanding it in-depth, and concluding this investigation with valid findings and high quality. Our study relies on secondary data from the review description framework (Basias & Pollalis, 2018).

## **3 Results and Discussions**

**4** First, it was crucial to conduct a systematic examination in order to determine whether or not there is a correlation between information systems competence and successful company management in the modern digital era. Innovation itself isn't what propels effective progressive change in the

classroom, district, or state; rather, it's the way innovation fuels learning and education. The contextual analysis presented here details the ways in which teachers make use of technology in the classroom to revolutionize and improve student learning. Additionally, we investigate the similarities, applications, and enjoyment that educators get from innovation. 2016 by McKnight et al. The role of innovation in modern classroom instruction and how it impacts student learning in the digital age. One important takeaway from this research is the critical role that SMEs have in the European economy. Ideally, company processes may be adapted to digital innovation by basic assessments. According to the authors, there is a lack of research on how electronic projects in SMEs promote long-term growth and development via facilitating productive partnerships between business processes and technological advancements. To aid pioneers of small and medium-sized enterprises (SMEs) in limiting the impact of cutting-edge inventions from the dominant

they said that their business strategies facilitate sustainable growth. Leaders of SMEs will be able to implement thrilling digital projects with the help of the next symptomatic model. Li et al. (2016) e-Leadership via essential contexts: An observational study of SMEs in the digital age. Next, Starkey (2011) evaluates aging learning networks, another aspect of modern education. In light of recent theoretical developments in the fields of information science and education, this essay details an evaluation instrument

developed for use in concerned communities. Six competent first-year early educators were studied using the computerized age learning framework, which was successfully piloted and implemented. Regardless of how to apply learning speculation pertinent to the computerized era, the examination revealed that educators, even those with discretionary skills, would have little capacity to display a future age becoming active members of a cautiously developing society. In addition, Labrecque et al. (2013) looked at how purchasing power evolved over time. Internet and web-based media contexts are characterized by buyer power and reinforcement, which is explored in this research as a confluence of consumer behavior and high-end media. Here we see a made-up system with four distinct buyer resources. There are gaps in the investigation flow and plans for future inspection locations, so it was crucial to organize and sort all marketing pieces about bolstering online buyers.

Similarly, as a resource for state legislators about competency education, Patrick & Sturgis (2013) are crucial for achievement by developing world-class competence. The movement for competence schools is gaining momentum in 36 states. Concerned about the time-sensitive frame around Carnegie's unit, the state has been questioned. Additional choices include time-sensitive certificates, flexible credit, and sitting time waivers. Our children and nation are put at risk by traditional time-sensitive frameworks, which are explained in this article. Systems that prioritize pupils, rather than time constraints, must be overhauled via governmental efforts. This article lays forth a plan for how state training

institutions might foster a culture of competence. Additionally, it lays down the groundwork for a new approach that will be required for a full setup. In addition, Attaran et al. (2019) investigate how a modern workplace may increase productivity in the information era. Employees' dissatisfaction with the work environment is growing. Exploiting the rapid advancements in the workplace has witnessed a meteoric rise in the last few years. Abuse of creative workplaces and computerized work settings is on the rise, although only somewhat so. When implemented properly, a state-of-the-art workplace may provide tremendous advantages for businesses. This essay delves into the evolving elements of the workplace and highlights a few potential advantages of an intelligent workplace. The results of Petter et al. (2013), which were based on a data structure, were also crucial. In 1992, DeLone and McLean advocated for consistent variables in data framework (IS) study while on a quest for autonomous factors. We review the article on independent variables that affect IS success. After assigning 43 criteria to impact the many aspects of IS success, we categorized these attainment factors into five groups. We address gaps in our understanding of the drivers of advancement and provide suggestions for further research. The significance of integrating results from over 140 tests was emphasized, and the authors outlined fifteen attainment variables thought to impact IS accomplishment. Also crucial were the results of Alshare et al. (2011), whose research placed IS teachers' and students' views on business relationship abilities within the context of data from educational programs. Within the context of the technology education plan, the writers examine both the instructor's data frame and the students'

perceptions of relational skills. Teachers and students both felt that the information systems curriculum adequately emphasized a wide range of interpersonal skills. Still, there was a noticeable difference between the two gatherings in the degree to which they were structured or contentious. Suggestions from teachers and researchers are considered. Executives' project data architecture was investigated by Chang and Torkzadeh (2013) for its observable capabilities and capacity. The article discusses the results of the information systems (IS) project review, including the different board capabilities that were determined by the two rounds of information gathering conducted by the IS project director and expert. Meetings with 47 company CEOs provide tangible proof of the 12 critical tasks performed by the board of directors in the first round. In the second stage, 41 IS project managers and specialists were surveyed using a review that was derived from the findings of the first stage of study. Because the 12 skills were also grouped into four categories—Administration, Change Authority, Executive Resources, and Communication and Council Relations—the findings showed that the ranks of the talents varied.

Gender differences in assessing core business data frameworks and innovative capacities were crucial, and our search concluded with Caputo (2010). The goal of this exploratory research is to identify the specific Business Information Skills that are relevant to student issues. The initial data came from southwestern Pennsylvania overviews of a specific local business region. Every single one of the understudies who were evaluated was involved with a Computer Systems program. Starting in the 2006–2007

school year and continuing through the 2008–2009 school year is the time span covered by the examination. This review does not include Doctor of Philosophy in Information Science programs. The second part of the research will focus on how the findings from the first part relate to the understudy's sexual orientation, including both current and former students.

## Discussion

This section provides a summary of the study's findings based on a systematic review, with the overarching theme being the importance of information system mastery to the success of company management in the modern digital age. Our research indicates that successful company management in the digital age requires an in-depth familiarity with informatics. Most industry insiders agree that in today's interconnected world, it's impossible to successfully operate a company without incorporating some kind of technology into every facet of the enterprise, from strategic planning to marketing and management. The impact of technical assistance, high levels of skills and competences, and high levels of learning on corporate entrepreneurship in industrialized European areas was examined by Martín-Rojas et al. (2013).

Our study's results back up the idea that businesses rely on technology to bolster their operations, with the hope that they will become more productive, efficient, and successful. However, technology is an essential instrument for development, advancement, and sustainability, and its use is crucial for achieving maximum outcomes. Put simply, information technology has several crucial advantages in the commercial world. Companies may reap large profits with little outlay of capital because to technological and informational advancements that lower manufacturing costs. Trainor et al. (2011) also conducted a research that was somewhat similar, but their focus was on the effectiveness of e-marketing in a trial setting and the reliability of marketing and IT systems.

## 5 Conclusion

At last, we wrap up our study report by drawing a conclusion, since our explanation has provided an answer to the research issue, which was that good corporate governance is strongly correlated with technological literacy. This may be shown by consulting a large number of articles found in databases of worldwide journals, all of which state that digital technology must be integrated into all future endeavors for them to be successful, efficient, productive, and environmentally friendly.

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