Integrated Marketing and Digital Transformation: An Integrated Approach

Yetunde Sadiq-Bamgbopa S. Westcliff University, 17877 Von Karman Ave, Suite 400, Irvine CA 92614 y.bamgbopa.124@westcliff.edu

Abstract

The spread of technology, as well as its contribution to various aspects of human life, cannot be overlooked. The benefits of the widespread digital revolution do not exclude companies, corporations, and businesses. Digital transformation has a positive impact on the way businesses are conducted, from their structure to their operations and consumer interactions. On this point, the purpose of this essay is to examine the impact of digital transformation on integrated marketing communication using an integrated methodology. It paints a picture of the positive effect of digital transformation on the interaction between firms and customers with emphasis on integrated communication during marketing. It also identifies potential challenges that firms may encounter as a result of digital transformation in terms of consumer communication, as well as potential solutions to these issues.

DOI: 10.7176/EJBM/14-6-07 **Publication date:**March 31st 2022

Introduction

The connection between businesses and their customers has been greatly influenced by digitalization. Firms in a variety of industries have gradually adopted digital technology to realize the benefits that come with them. According to Tiago and Tiago (2012), digital transformation is the process of widespread acceptance of digital technology. Digital transformation, according to Loucks et al. (2015), digital transformation is the adoption of computer-based technologies into an organization's product. In the view of Spivack (2011) is the integration of digital technology into all aspects of an organization, radically changing how it operates and delivers value to consumers. It's also a culture shift that necessitates firms to challenge the current quo, experiment, and accept failure (Chaffey, 2012; Kim, Kang, and Lee, 2019). The incorporation of digital transformation into a company's integrated marketing structure is undeniably beneficial to its success.

As regards marketing, Kotler, Kartajaya, and Setiawan (2017) noted that going digital is of great importance in terms of improving the firm's market space, increasing profit, improving customer base, increasing revenue as well as other goals of a firm. Research has it that companies who employ digital transformation to their marketing strategies are most likely to thrive in the market, relative to their competitors. Businesses according to Spivack (2011) want to develop a customer base and expand it in the long run and in a bid to do that, they perform the functions of marketing and innovation, which eventually produces desired results for the firm. Innovation was defined by Bhatt (2017) as the ability of the firm to come up with fresh ideas which are widely accepted by the market space and can create value for the customers.

Other researchers (Dimitrieska, Stankovska, and Efremova, 2018) noted that the prerequisite for a better firm's performance which transmits into economic growth is innovation. Chaffey and Smith, (2012) noted that innovation can be a result of new ideas and technologies which results in new product and/or business process, and our focus will be based on the recent and emerging digital technologies which are: artificial intelligence (AI), internet of things, big data analytics and cloud computing. This would result in changes in the business model of operation, process, as well as structure of the business which transmits into competitive products and services to the market. Spivack (2011) noted that the strategic renewal of a firm is closely related to the degree of experimentation and adoption of emerging technologies, thus, Loucks et al. (2015) posits that the continued success of a firm in terms of sustainable and going concern is attributed to digital transformation.

When a company fails to adapt to the rapid changes in the digital world, it loses ground in the market. In the fashion business, for example, incumbent fashion firms that lack digital acumen in their marketing strategy tend to lose a significant amount of market share due to their delayed adaptation to the internet environment. While most of the established fashion firms that lack dexterity in their operation of the digital marketing space are been overtaken by formally less efficient fashion firms (in terms of digital dexterity), the latter's extensive use of the digital and analytical techniques in their operations. Similar patterns occur in other industries, as firms are competing to reap the best (market share, profit, revenue, among others) from this transformation, as it is over time becoming a key driver to competitive advantage.

Furthermore, even though the impact of digital marketing has been extensively studied in other publications, it is still unclear how digital marketing translates to increased output, profit, and other firm goals, ultimately boosting the business's integrated marketing structure. Researchers are interested in learning how digital

transformation impacts employees, tasks, businesses, and the competitive landscape (eMarketer, 2011). From a comprehensive standpoint, this research will look at how digitization influences integrated marketing. In this article, we examine the big picture by deconstructing the impact of digital transformation on each phase of a company's output production process and then discussing the total impact. As a result, we use a microstructural approach to integrated marketing. According to Bhatt (2017), integrated marketing is a marketing method in which marketers place their customers at the center of their entire campaign and aim to provide a consistent message (such as the product's pricing, nature, and so on) through the synchronization of marketing channels. A microstructural approach to integrated marketing is focused on disaggregating the aims of integrated marketing, which include growing brand awareness, persuading customers to buy products or services, getting individuals to sign up for an email list, and so on. Integrated marketing isn't new, but with the increasing expansion of digital marketing platforms, it's more necessary than ever to have a robust integrated marketing plan (Kotler, Kartajaya, and Setiawan, 2017)

There are several substantial benefits to our conceptual approach. To begin, it is widely acknowledged that integrated marketing and digital transformation techniques have a substantial impact on a company's performance (Influencer Marketing Hub, Social Media Trends 2020).

Furthermore, by evaluating each step toward output generation, our approach acknowledges the internal variation in the adoption/application of digital technologies at various phases of aggregation. As a result, the microstructural perspective can shed light on how partial and incomplete transformations affect firm performance.

Integrated Marketing:

Integrated marketing is defined by Phanish, Oliver, and Markus (2014) as the process of ensuring that all marketing communication is unified. It is a strategic strategy aimed at ensuring message consistency across the many marketing channels used by the target audience (Kristina and Chris, 2019). This means that the same information is displayed on the various channels through which customers access marketing information. As a result, when customers interact with a company's brand in various ways, they all receive the same message; otherwise, there will be a high likelihood of disconnected and disaggregated communication to users of various methods of interaction with the brand. Advertising, sales promotion, public relations, social media, and other approaches may be used. It also entails integrating these communication tactics into the different channels, media, and activities that customers use to interact with the business. The graphic below shows how this works:



The diagram above depicts the many marketing communication approaches. Ensure that the flow of information about the brand is holistic and unified through these methods: online digital marketing, display advertising, research and strategic planning, print advertising, mobile apps development, website/microsite development, direct response marketing, and others, and that the same information flows through the various media and channels that the brand uses to interact with their customers is what is known as integrated marketing.

Digital Transformation:

As previously stated, digital transformation refers to the incorporation of computer-based technologies into a

company's product. It involves adapting digital technology to changing market and corporate needs (Florian et al., 2018), to increase efficiency, value, or innovation. It's worth noting that the definitions of digital transformation given above are business-related. Nonetheless, digital transformation encompasses a wide range of human endeavors, including academics, health, and so on; however, for the sake of this study, we will focus on digital transformation in the context of business, specifically marketing. The integration of artificial intelligence with diverse facets of human endeavor is an example of digital transformation.

Integrated Marketing and Digital Transformation

Marketing methods have improved over time, particularly with the flow of information and advertisement in businesses. This is made possible by technological advancements, which is what digital transformation is all about. This transformation is supposed to improve the company's efficiency in serving their consumers by bringing uniformity to the flow of information from the company or brand to customers who use various means to get market information.

According to Todd, Teppo, and Lyda (2011), digital transformation has fostered a revolutionary technique of communication for organizations recently that includes digital media, print media, social media, and others, necessitating the integration of marketing communications for efficiency. Customers are well educated about the items or services they are purchasing as a result of this integration, as there is little or no room for direct company-customer interaction. Through the utilization of a diverse range/mix of platforms and channels for marketing, the integration also allows market advertisements to reach increasingly fragmented client segments based on demographics, psychographics, geographic location, and other factors (Elfi, Celeste, and Mary, 2011). Furthermore, marketers use digital transformation to reach out to their customers in a non-intrusive manner while also increasing client perceptions of the company.

All hands must be on deck to achieve the desired results. The company's employees must ensure that digital transformation is being used to assure integration in market communication with the long-term goal of increasing the firm's efficiency, revenue, and client base. As a result, each employee is given a task and is expected to complete it to achieve the company's goals.

Task Determination, Division, and Grouping

Integrated digital marketing strategies that evaluate how technology crosses in real life are part of a complete and strategic vision of business (Brian, 2013). To get the intended result, digital transformation might impact how companies select, divide, and organize sub-tasks in integrated marketing.

To begin with, digital transformation makes information more accessible and available to decision-makers, who then pass it on to their customers. The easy access to information will make decision-makers in the organization aware of duties that were before unimportant (information to relate to their clients in an integrated platform). This is known as the industrial internet of things, according to Nicholas et al. (2014). (IIOT) The industrial internet of things, also known as the widespread use of the internet in the industrial sector, is primarily intended to connect essential information to decision-makers who define their tasks (Alfonso, Pooyan, and Claudio, 2020). This system delivers a comprehensive and integrated set of information about the company's brand, which is delivered to customers through a single platform. Companies can better identify the sub-tasks needed for their objective maximization given the availability and better use of the industrial internet of things (IIOT), which allows for the availability of data, which is a major predictor of the company's success. Since digital integrated marketing is defined as "the use of the internet to better disseminate vital information to customers in an integrated form through a complex or multiplicity of channels" (Nicholas, 2015), digitalization (industrial internet of things) not only fulfills the definition of tasks to decision-makers but also generates the information needed for task chunking.

Second, digital transformation introduces a plethora of new critical features to firm outputs, resulting in increasing demand for new activities while rendering some old ones obsolete (Tobias, 2020). Recent market performance has been linked to new digital-era obligations and tasks, reiterating our prior argument that enterprises that do not adapt rapidly enough risk losing market share and becoming less competitive. Similarly, many outdated and traditional methods of doing work are no longer useful, as the digital revolution has made task completion smoother and faster than it was previously. Consider the fashion industry as an example of consistency. In the past, information distribution in the fashion sector, among others, was based on the traditional approach, which was, at the time, a very efficient and straightforward method of marketing in any business. Fashion companies such as Nike, Zara, TJ Maxx, and others have recently taken use of digital transformation integrated marketing methods over time, as these fashion firms have been able to facilitate their integrated marketing platforms and complete certain tasks on a timely basis as a result of digital transformation, resulting in a large market base, high profit, and thus their success in the fashion industry.

In terms of task grouping, digitalization has had a significant impact in many businesses (integrated

marketing). According to Nick (2011), task grouping is a collection of tasks that are brought together to complete a given action or produce a product. Heather (2018) observed that tasks in integrated marketing are divided into three categories: which customers to acquire, how to acquire customers, and implementation. Teppo and Todd (2011) looked at whether tasks, activities, or resources a company should bundle to provide value to customers. This occurs both at the task level (number of inputs to use) and at the output level. Digitalization lowers the cost of delivering critical product information to customers (all integrated marketing platforms)

Task Assignment

After defining and organizing the sub-tasks required for the projected output, the firm must assign them to appropriate agents according to its underlying rationale of merging interdependent tasks and isolating those that contribute independently to firm performance. At first glance, this looks to be as simple as allocating a task to the best person for the job. There are, however, major variances in this process and how digital transformation affects and interacts with the business.

Workers must be assigned to jobs that are most suited to them to save money. Employees who are assigned to jobs for which they have received no formal or informal training (no on-the-job training) will be less productive and efficient in completing the job on time. The problem of information constraint on employees and employers (agents and firms) has been explained in economic literature, resulting in the mid-selection of employees to complete a specific task that is beyond their capabilities, based on the information he has about the job. The information in the diagram below can be utilized to clarify and expand on the task assignment.



Figure 2: Task assignment chart Source: Researcher's computation

Tasks vary from t1 to tm in the diagram above, whereas employees range from W1 to Wn. In terms of integrated marketing, we divide our tasks into three categories, according to Meredith (2018): which customers to acquire, how to acquire customers and implementation. For the sake of brevity, I'll use the term "simple t1 is the task of which customers to get.

t2 is the task of how to get the customers.

t3 is the task of implementing the integrated marketing system.

tm is task m

Worker 1 (W1) knows which clients to target and how to deploy the integrated marketing system, as shown in Figure 2. W1 is also capable of completing job m. According to the diagram above, Worker 2 (W2) is effective at both getting clients and performing task m. This is based on his academic education as well as other sorts of informal education that he has obtained. Worker 3 (W3), on the other hand, is exclusively good at task 3. Worker 3 is aware of the techniques to utilize to get customers to purchase the company's product. Worker 4 (W4) can complete tasks 1 and m based on his previous experience. To put it another way, worker 4 knows which clients the company should target to increase sales income, profit, and other company objectives. Task 3 can be completed by Worker n (Wn), which is the implementation of the company's integrated marketing system.

To avoid task interception and embrace task alignment, workers (employees) will be assigned to specific jobs in which they are most efficient. This could also be due to the company's desire to keep information dissemination costs low while yet attaining the greatest results. Worker 1 (w1) will be assigned to the final task (m), rather than t1 and t2, because these tasks will be assigned to other workers, some of whom are highly skilled in that particular task.

Also, worker 2 (W2) will be assigned to job m, and worker 3 (W3) will be assigned to task 2 since he has channeled all of his strengths in terms of formal and informal educational achievements to task 2, and hence will be more efficient than worker 2 in completing task 2. Similarly, task 1 will be assigned to worker 4 (W4), and

task 3 would be assigned to worker n (Wn). This is the same reason why worker 3 (W3) has been allocated to task 2.

With the use of digital tools, assigning disaggregated integrated marketing duties to specific personnel will be more efficient and productive.

Task Monitoring and Completion:

Employees frequently let the egoistic tendency of human beings get the best of them. They do not complete the tasks that have been assigned to them, and when they do, they do so haphazardly, sometimes for selfish reasons and other times due to inefficiency, necessitating the need for proper task execution monitoring. The purpose of agent monitoring is to ensure that agents perform their duties or tasks effectively and efficiently and that these tasks are completed on time.

It is impossible to overstate the importance of digital transformation in monitoring the tasks performed by employees or market agents. To begin with, digital transformation may have an impact on the integration of marketing communication to the point where the activities assigned to workers may not require careful monitoring. Workers are more synchronized with their responsibilities as a result of digital transformation, which benefits both the company and the employees. Workers are frequently assigned duties depending on their abilities and areas of expertise. For example, a worker who is good at writing is given the responsibility of writing content. One skilled in design is tasked with creating the advertisement's graphics; an employee with sound financial judgment analyzes the cost of integrated marketing and suggests ways to maximize the available platforms to achieve the best results; and so on. Because employees are assigned duties based on their areas of interest and potential personal rewards, which is made feasible by digital transformation, their laissez-faire attitude toward work is reduced to the bare minimum, reducing the need for stringent supervision. Additionally, digitization has enabled employees to work independently and in a decentralized manner (Kristina and Chris, 2019). Workers, for example, no longer need to report to a specific location to work; they may work from anywhere they want, and checks are in place to guarantee that they complete their tasks efficiently, owing to digital transformation. They might be forced to produce reports with proof, and virtual monitoring systems could be implemented to guarantee that work is being done and that productivity is being accomplished at the same time with less stress in terms of work supervision.

Before digitization, an employee's efficiency and effectiveness were determined by the results of contracts or tasks allocated to them. Expectations of a favorable and effective conclusion from activities allocated to workers functioned as a check on the often-egoistic employees and prevented them from being opportunistic, as their impact may be seen immediately on the task or contract's outcome. However, this was a difficult task because it necessitated the enterprises' stringent and personal oversight. Real-time data regarding projects and contracts are now available, allowing the company to evaluate staff performance without the need for stringent, personal monitoring.

Task Recombination

The final technique to output generation is the recombination of tasks done by workers (employees). Melisande (2013) defines it as the integration of several tasks that have already been completed. Any decision made about this step, according to Tobias (2020), will undoubtedly have an impact on the preceding steps of job definition and categorization.

some researchers (Tobias, 2020; Teppo and Todd, 2011; and Nicholas, 2015), recombination of tasks is a critical aspect in value creation. Meredith (2018) agreed that task combination is a necessary and sufficient prerequisite for an organization's value creation. Employees will be able to do their responsibilities more quickly as a result of digital transformation, which is a benefit to the business that integrates these tasks. The organization can also use digital transformation to identify hidden potential about operations and assets outside of the company's four walls (Tobias, 2020). The main issue that managers face is that the value of a combination is inherently unknown. Digitization will be quite beneficial in addressing some of the issues highlighted above. Firms' traditional (archaic) trials have been supplanted by digitization, which has made most firms more proficient in their integrated marketing and other interactions.

Some businesses incorporate both digital and traditional channels into their marketing and other business operations. Nicholas (2014) claims that the digital platform alone is insufficient for achieving maximum results and that recombination of traditional and digital platforms is necessary. This would result in the firm's overall success. Most businesses, such as pharmaceutical corporations (Pfizer), intended to provide clinicians with real-time clinical data and important illness symptom information via mobile devices. Furthermore, in 2004, Lego was on the verge of bankruptcy, and it needed to transcend its current means of production and convert into a better one to survive. In 2005, the corporation (Lego) used digital transformation as part of its integrated marketing strategy. This resulted in a lower total cost of production. In 2009, Lego became more digitalized than previously, with some conventional methods of manufacture remaining in use; this resulted in a greater increase

in revenue than the cost for Lego. In 2020, the Lego brand was valued at around 7.54 billion US dollars, up from 5.4 billion US dollars in 2015. This has anything to do with the digital transition.

Similarly, Home Depot, the largest home improvement shop in the United States, has been moving toward digital transformation for many years, selling tools, building items, appliances, and services (Kotler, Kartajaya, and Setiawan, 2017). In 2016, Home Depot realized that their current business model was no longer meeting the expectations of their customers and that they were losing interest in the manner their services were delivered. Home Depot devised a strategy to implement digital solutions, which proved to be extremely effective in increasing brand awareness, profit, and sales revenue, among other things. As a result, digital transformation has made value creation easier for many businesses by synchronizing it with traditional production methods.

Table 1 summarizes our reasoning and gives a broad overview of integrated marketing, from job formulation to output recombination, and how digital transformation helps. According to research, digitization is projected to improve the efficiency of information dissemination, resulting in improved organizational and societal welfare. According to Chaffey (2012), a better-assessed task will have an impact on subsequent activities. A more efficient assignment of workers to various specified tasks would result in less cost increase and more revenue increase for the company. Employees will be more satisfied with their jobs as a result of digitization since they will be able to do their tasks with less stress (Jonathan and Stian, 2018). Combining multiple jobs could result in the development of new services and products to fulfill the needs of clients in the future market. Despite the benefits of digital transformation, the drawbacks should not be overlooked. For example, some agents or employees (workers) can use this platform to supply information to clients that will be extremely beneficial to them (workers) (Thomas, 2014).

 Table 1: sequential steps of output creation in a firm. With a summary of digital transformation effects in each step.

Output creation steps		Digital transformation Effect on each step
1.	the firm determines and divides the required task for the expected output.	Because there is more information available, it is easier to spot redundant/missing jobs. A fresh set of tasks is required. Some existing jobs are rendered obsolete.
2.	The determined tasks are grouped into chunks	By influencing information interdependencies, shapes new (and more efficient) task groups. By bundling some tasks, it is possible to overcome geographical limits.
3.	The task chunks are assigned to agents and teams	Improves the fit between employee and task. Allows for effective work assignment both internally and while outsourcing to third parties. Reduces the cost of experimentation and encourages the establishment of effective teams.
4.	Agents are monitored to complete their tasks in due time	Allows for less expensive, real-time (and sometimes excessive) monitoring. Reduces the cost of cooperation between agents and teams.
5.	The firm recombines the completed task, which is the final output	Reduces the cost of cooperation between agents and teams. Reduces the cost of task recombination experimentation. New recombination is shown both within and beyond hard limits.

Conclusion and Recommendation

This paper has intensively evaluated integrated marketing and digital transformation. It was observed that digital transformation is undebatable, a vital prerequisite for the sustained success of a firm. Digitalization can be traced as far back as the 19th century and has over time through its unending use significantly and positively impacted the performance of firms-examples which were Lego, Home Depot, among others. However, given the unending and inevitable use of the digital transformation, the world is becoming less complicated in terms of information dissemination for firms, and information access for consumers, and other users of the information. It is quite unequivocal the fact that any advancement in digital technology benefits the adopters of the technology, but there is a gap between the acquaintance of firms to these technologies and newly emerging technology. Kotler, Kartajaya, and Setiawan (2017) noted that organizations are most likely to adopt and effectively utilize digital infrastructure over time to meet up the competitiveness of the growing awareness of digitalization.

In the words of Chaffey (2012), integrated marketing and digital transformation are undoubtedly inseparable, hence, this work gives an integrated framework of them (integrated marketing and digital transformation), with a proper explanation of various tasks that is facilitated by digital transformation.

Despite the advantages that result from the growing use of digital transformation, the challenges associated with its use are not minuscule. Digital transformation has reduced the stress of interacting with customers without reducing the cost of the interaction. The digital devices used for integrated marketing, acquiring these digital skills, monitoring employees, and so on are all expensive and as such pose a serious challenge to businesses. Also, agents tend to compete among themselves when given tasks to carry out, this creates enmity among the agents whereas cooperation among the employees is vital for the success of any organization. Adding to that is the fact that sometimes, the agents use the platforms for selfish purposes, leverage on this platform to provide information to the customers that will be of great benefit to them (the workers) (Jonathan and Stian, 2018).

However, the positive effects of digital transformation outweigh the challenges, it is therefore recommended that:

- Measures are taken to reduce the challenges to the barest minimum.
- Economic analysts should be consulted to devise means of reducing the cost of integrated marketing to the barest minimum while utilizing the rapid transformation in technology.
- Also, different tasks should be given to different employees with equal incentives or remuneration, the tasks should be allocated to them based on their area of interest, that way, there will be no need for competition or at least a healthy one among the employees.
- The employees should be properly checked against selfish transactions with customers. Reports should be properly scrutinized and evaluated to avoid oversight

References

Alfonso Gambardella, Pooyan Khashabi, and Claudio Panico. (2020), "Managing Autonomy in Industrial R&D: A Project-Level Investigation," Organization Science, 31/1, pp. 165-181

- Bhatt, S. (2017), How digital communication technology shapes markets. Redefining, Competition. Building. Cooperation, Palgrave Advances in the Economics of Innovation and Technology, Springer Nature, Springer International Publishing AG, doi: 10.1007/978-3-319-47250-8
- Chaffey, D. (2012) 'Social Syndication Tools. Digital marketing strategy' [Online]. Available from: http:// www.smartinsights.com/blog/digital-marketing-strategy/tools-tracking-social-syndication. [Accessed March 9th, 2019]
- Chaffey, D. and Smith, P.R. (2012), Emarketing Excellence, Planning and optimizing your digital marketing, 4th edn, Taylor & Francis
- Dimitrieska, S., Stankovska, A., Efremova, T., (2018), Journal of Economics and Management, vol.15, issue 2,
2018, ISSN:2367-7600; 1312-594X [online]. Available from:
http://em.swu.bg/images/SpisanieIkonomikaupload/Spisanieikonomika2018/THE%20FOUR
- TH%20INDUSTRIAL%20REVOLUTION-ADVANTAGES%20AND.pdf [Accessed 24th February 2022] Elfi Furtmueller, Celeste Wilderom, and Mary Tate. (2011), "Managing Recruitment and Selection in the Digital Age: E-HRM and Resumes," Human Systems Management, 30/4, pp.243-259.
- eMarketer, (2011), Social Media Outlook for 2011 [online]. Available from: https://www.slideshare.net/eMarketerInc/emarketer-webinar-social-media-outlook-for-2011 [Accessed 25th 2022]
- Florian Englmaier, Nicolai J. Foss, Thorbjørn Knudsen, and Tobias Kretschmer. (2018), "Organization Design and Firm Heterogeneity: Towards an Integrated Research Agenda for Strategy," Advances in Strategic Management, 40, pp.229-252, doi:10.1108/S0742-332 220180000040008
- Heather Kelly. (2018), "Amazon's Idea for Employee-Tracking Wearables Raises Concerns," CNN Business[online]. Available From: https://money.cnn.com/2018/02/02/technology/amazonemployee-tracker. [Accessed 25th February 2022]
- Influencer Marketing Hub. (2020), Social Media Trends [online]. Available at: https://influencermarketinghub.com/SmallereBook2_trends_2020.pdf [Accessed 25th February 2022]
- Phanish Puranam, Oliver Alexy, and Markus Reitzig. (2014), "What's 'New' about New Forms of Organizing?" Academy of Management Review, 39/2, pp. 162-180.
- Jonathan Haskel and Stian Westlake. (2018), Capitalism without Capital: The Rise of the Intangible Economy, Princeton University Press.
- Kim, J., Kang, S. and Lee, K.H. (2019), Evolution of digital marketing communication: Bibliometric analysis and network visualization from key articles Journal of Business Research [online]. Available from: https://doi.org/10.1016/j.jbusres.2019.09.043 [Accessed 23rd February 2022]
- Kotler, Ph., Kartajaya, H., Setiawan, I. (2017) Marketing 4.0 Moving from Traditional to Digital, John Wiley

www.iiste.org

and Sons, Inc., Hoboken, NewJersey, pp. 11

- Kristina McElheran and Chris Forman. (2019), "Firm Organization in the Digital Age: IT Use and Vertical Transactions in US Manufacturing" [online]. Available from: https://ssrn.com/abstract=3396116. [Accessed 25th February 2022]
- Loucks, J., Bradley, J., Macaulay, J., Noronha, A., & Wade, M. (2015), Digital Vortex: How
- Digital Disruption is Redefining Industries. Global Center for Digital Business Transformation, pp.1–24.
- Melisande Cardona, Tobias Kretschmer, and Thomas Strobel. (2013), "ICT and Productivity: Conclusions from the Empirical Literature," Information Economics and Policy, 25/3, pp.109-125.
- Meredith Broussard. (2018), Artificial Unintelligence: How Computers Misunderstand the World, Massachusetts Institute of the technology printing press.
- Mihardjo, L. W. W., Alamsjah, F., Elidjen, E., & Sasmoko, S. (2018), Digital Transformation
- Nicholas Bloom, James Liang, John Roberts, and Zhichun Jenny Ying. (2015), "Does Working from Home Work? Evidence from a Chinese Experiment," The Quarterly Journal of Economics, 130/1, pp.165-218.
- Nicholas Bloom, Luis Garicano, Raffaella Sadun, and John Van Reenen. (2014), "The Distinct Effects of Information Technology and Communication Technology on Firm Organization," Management Science, 60/12, pp.2859-2885, doi:10.1287/mnsc.2014.2013.
- Nick Bloom, Tobias Kretschmer, and John Van Reenen. (2011), "Are Family-Friendly Workplace Practices a Valuable Firm Resource?" Strategic Management Journal, 32/4, pp.343- 367
- in the Age of Industry 4 . 0: Acceleration of Transformational Performance through BusinessModel Innovation and Co-Creation Strategy in Indonesian ICT Firms Transformación digital en la
- era de la industria 4.0: Aceleración del. Opcion, 86(86), 2145–2159.
- spivack, N. (2011), "Web 3.0: The Third Generation Web is Coming" [online]. Available from: http://lifeboat.com/ex/web.3.0 [Accessed 25th February 2022]
- Teppo Felin and Todd R. Zenger. (2011), "Information Aggregation, Matching, and Radical MarketHierarchy Hybrids: Implications for the Theory of the Firm," Strategic Organization, 9/2, pp.163-173.
- Tiago, M.T. and Tiago, F. (2012), 'Revisiting the Impact of Integrated Internet Marketing on Firms' Online Performance: European Evidences', Procedia Technology, Vol 5, pp. 418–426
- Thomas H. Davenport. (2014), "Analytics in Sports: The New Science of Winning," International Institute for Analytics white paper [online]. Available from: https://www.sas.com/content/dam/SAS/ en us/doc/whitepaper2/iia-analytics-in-sports-106993 [Accessed 24th February 2022]
- Todd R. Zenger, Teppo Felin, and Lyda Bigelow. (2011), "Theories of the FirmMarket Boundary," Academy of Management Annals, 5/1, pp. 89-133