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International Scientific Conference on Digitalization, Innovations & Sustainable Development

Trends and Business Perspectives 2023

Edited by

Farid Abdallah, Vladimir Simovic, Alper Erturk, Oualid Abidi,
Faidon Theofanidis, Richard Rutter and Andri Ottesen

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**International Scientific Conference on
Digitalization, Innovations &
Sustainable Development: Trends and
Business Perspectives 2023**

International Scientific Conference on Digitalization, Innovations & Sustainable Development: Trends and Business Perspectives 2023

Editors

Farid Abdallah

Vladimir Simovic

Alper Erturk

Oualid Abidi

Faidon Theofanidis

Richard Rutter

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About the Editors

Farid Abdallah

Farid Abdallah is the Dean of the Business School at the Australian University, Kuwait. As a dual national with a diverse social and educational background, Farid's educational experience is best described as multi-disciplinary, pertaining to both Law and Business domains. Although his academic qualifications are essentially in the field of law, his academic career has been majorly in business schools. He has held multiple administrative positions in business schools since 2011, including those of Assistant Dean, Department Chair and Dean of School. Due to a diversion in his career path towards Business Management, Farid has developed a diversified research interest, leading to his contributions to research in various business-related fields and the legal aspects thereof. His current research interests primarily pertain to management and Human Resources fields, namely those of digital entrepreneurship, innovation, change management, and Human Resource Management.

Vladimir Simovic

Vladimir Simovic is a researcher at the Scientific Research Center of the Australian University, Kuwait (AU). His professional interests are in digital marketing, digital entrepreneurship, digital competencies, and information systems in business. He is also the Head of the Department of Digital Economics at the Institute of Economic Sciences in Belgrade, Serbia. He is PM of the European ESF+ project on digital marketing competencies and a participant of the European COST Action on artificial intelligence in business, with over 15 years of research and teaching experience. He is the founder of several digital startups in Serbia and a think tank dedicated to innovative learning practices.

Alper Erturk

Prof. Alper Erturk is working as Professor of Management and Head of Management Department at College of Business, AU. He obtained his Bachelor's degree in Industrial Engineering from Turkish Naval Academy, National Defense University, Turkey. He obtained his M.Sc. in Information Technology Management from Naval Postgraduate School, Monterey, CA, US and obtained his Ph.D. in Management Science from Gebze Technical University, Turkey. He conducted his post-doctoral research at Vlerick Business School, Belgium. He worked as a Visiting Professor at Portland State University, Oregon, US, within the Fulbright Scholarship. He has also obtained Post Graduate Education in "Data Science and Business Analytics" at Texas McComb Business School, Texas, US. Previously, he worked as a Professor of HRM & Analytics in GISMA Business School, Germany, and as Professor of Management at Rabat Business School, Morocco. Most recently before joining AU, he was the Dean of Economics, Administrative and Social Sciences Faculty, Istanbul Topkapi University. Prof. Erturk has more than 20 years of academic and professional experience. During his professional career, he served in the Turkish Navy for more than 15 years and held the position of Senior Project Manager and Chairman of Strategic Working Group at a Multinational Organization in Brussels. From an academic perspective, he has taught several courses at all academic levels, published more than 40 articles in highly indexed academic journals, attended more than 40 conferences, and published one book and more than 10 book chapters.

Oualid Abidi

Oualid Abidi has been an associate professor of business at the Australian University, Kuwait, since February 2021. He has accumulated over 15 years of teaching experience in Kuwait and Canada.

Oualid Abidi received his PhD in administrative sciences from Université Laval (Canada) in 2011. He also holds a Master's degree in Project Management and a Bachelor's degree in Finance. Oualid Abidi has eclectic research interests in the fields of entrepreneurship, international business, human resource management, and higher education.

Faidon Theofanidis

Faidon Theofanidis was born in 1974 and grew up in Athens (Greece), where he studied Business Administration at the University of Piraeus. After graduating in 1996, he earned an MBA (1998) from the University of Wales, Cardiff Business School, and a Ph.D. in Marketing from the University of Piraeus (2006). He is currently an associate professor of marketing at the Australian University, Kuwait, and from 2018 to 2021 he was also appointed as an Adjunct Senior Lecturer at Central Queensland University (Research Division). During 2001–2002, he worked for the Greek Ministry of Development, as a Consultant to the General Secretary of Commerce on Public Procurement (E-Commerce – E-Government) and Marketing Services. From 2003 to 2010, he represented the Research Centre of Piraeus University at the Board of Directors of the European Network for Social and Economic Research (ENSR), implementing over 30 research projects financed by the European Union. From 2011 to 2015, he worked as a Research Manager for the Research Centre of Patras University, participating in projects with budgets over 3 million. He has extensive teaching experience (2000-2023) at all academic levels (Postgraduate and Undergraduate) in both the public and private educational sectors. His current research interests include marketing research (advanced techniques in quantitative analysis), advertising, consumer behavior, digital marketing, and European social and economic policies. Together with his colleagues, he is the author and co-author of 10 marketing and business articles published in peer-reviewed academic journals; he has also presented at 20 international conferences and has published one book and three book chapters. He is a member of the European Marketing Academy (EMAC) and offers his services as a reviewer to various highly recognized academic journals and the American Marketing Association (AMA).

Richard Rutter

Dr. Richard Rutter is Associate Professor at the School of Business, Australian College (Kuwait) and Visiting Research Fellow at King's Business School, King's College London, and Norwich Business School, University of East Anglia (UK). He has authored and co-authored a number of refereed journal and conference papers in academic journals including the Journal of Business Research, Journal of Marketing Management, European Management Review, Internet Research, International Journal of Tourism Research, Journal of Place Branding and Public Diplomacy, Journal of Political Marketing, Journal of Marketing for Higher Education, and the International Journal of Business in Emerging Markets.

He is a Fellow of the Higher Education Academy (FHEA) and the Royal Society of Arts, Manufactures and Commerce (FRSA). He is a member of the British Academy of Management (BAM), the European Marketing Academy (EMAC), the American Marketing Association (AMA), and the British Computer Society (BSC). He is also an active committee member for the European Conference on Social Media (ECSM).

Andri Ottesen

Dr. Andri Ottesen has been an Assistant Professor of business at the Australian University, Kuwait, since 2013 and Principal Investigator for LSE lead projects on electric cars since 2021. His background is mainly from the industry as the Director of Operation for the renewable eletro-fuel company Carbon Recycling Internation; Head of Division for Fiscal and Strategy Office for the

Ministry of Finance; Managing Director for Startup and Seed Forum Iceland; Marketing and Finance Director and of International Science Instruments Sales; and as a Major in a NATO Peace Building Mission in Kosovo. Dr. Andri received his PhD in International Business Management from the International School of Management in Paris and New York in 2007. He holds also a master's degree in commerce from Japan, Otaru University, and an entrepreneurial MBA from California State University Fullerton, from where he also holds BA in International Business and foreign languages. He furthermore holds degrees in economics and advanced teaching and training. His research interests lie within areas of sustainability—socio-economic scenario forecasting, sustainability growth through promotion of entrepreneurship, and innovation and sustainable transport and green tech.



Preface: International Scientific Conference on Digitalization, Innovations & Sustainable Development: Trends and Business Perspectives [†]

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1. Introduction

Conference Introduction

It is with great pleasure that we present the proceedings of the International Scientific Conference on Digitalization, Innovations, and Sustainable Development: Trends and Business Perspectives, hosted by the College of Business, Australian University, Kuwait. This conference brought together experts from around the world to explore the latest advancements and challenges in digitalization, innovations, and sustainable development.

With the support of our international partners and esteemed keynote speakers, we engaged in fruitful discussions and workshops, delving into topics ranging from AI ethics to women entrepreneurship. The conference provided a platform for double-blinded, peer-reviewed extended abstracts presented in oral presentations and poster sessions, showcasing cutting-edge research and insights.

We extend our heartfelt thanks to all participants, reviewers, and organizers for their invaluable contributions to this event. It is our hope that the knowledge shared and connections made will fuel further advancements in these critical fields.

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Digital Economy;
Digital Transformation driving Industry 4.0;
Digital Transformation in Marketing;
Digital Consumer and Transformation in Consumer Behavior;
Digital Entrepreneurship and Innovation;
Digital Transformation in Financial Sector;
Digital Workforce and the Future of Work;
Digitalization in Education and Digital Competences;
Ethical Implications of Digitalization;
Emerging Technologies in Business;
Digital Citizenship;

Digital Needs;
Digital Divide;
Cybersecurity in Digital Transformation Age;
Social Media Analytics;
Phygital Customer Experience;
Environmental Innovation;
Digitalization in Health.

4. Partners

The International Scientific Conference on Digitalization, Innovations & Sustainable Development: Trends and Business Perspectives was supported by the following universities and organization (Figure 1):



Figure 1. Conference partners.

Conflicts of Interest: The authors declare no conflict of interest.

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Statement of Peer Review [†]

Farid Abdallah ¹, Vladimir Simovic ^{2,*}, Alper Erturk ¹, Oualid Abidi ³, Faidon Theofanidis ⁴, Richard Rutter ⁴ and Andri Ottesen ¹

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Abstract

Complaint Management through the E-State Portal: Is Digitalization Actually Beneficial? [†]

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[†] Presented at the International Scientific Conference on Digitalization, Innovations & Sustainable Development: Trends and Business Perspectives, West Mishref, Kuwait, 29 November & 14 December 2023.

Keywords: complaint management; E-State Portal system integration; banking; customer

1. Introduction

Complaint management is a crucial strategic instrument utilized by businesses to recognize and eliminate customer discontentment, with the aim of retaining customers, enhancing profitability, and augmenting service quality perceptions [1,2]. However, it is frequently perceived as a cost-increasing factor by firms [2] that undervalue this tool [3].

Complaint management in service organizations covers the process of complaint generation, processing, resolution, and post-resolution [4]. Digitalization involves using digital technologies to implement these processes to manage data, automate operations, and engage customers; manage customer complaints, follow-up, and documentation; and build long-term customer connections and trust including arranging state–citizen interactions [5–10]. The intricacy of managing complaints, adhering to legal regulations, meeting customer expectations, and adapting to limitations on time pose significant challenges in this regard [9]. On the other hand, online complaint websites generate a negative word-of-mouth effect, providing consumers with emotional relief and retaliation opportunities, becoming a behavioral indicator that impacts future sales [11,12]. According to Pio et al. [9], the implementation of digitalization in the banking sector increases consumer satisfaction and retention, highlighting its advantages in complaint management with integrated systems like increased accessibility, enhanced consumer experience, decreased response times [13], and increased accountability [14]. Nonetheless, this pertains to what is essentially an administrative procedure. Currently, the resolution of complaints is ambiguous.

The purpose of this study is to investigate the implications of the integrated structure in terms of the finalization of applications and whether the integrated system is advantageous for the system by using Türkiye as a case study. This study will use the banking sector and complaint management as study areas.

2. Methodology

This exploratory study uses the banking sector and complaint management as study areas. According to the 2021 data of sikayetvar.com, one of Türkiye’s online complaint websites, the second most complained about sector in Türkiye in 2021 was the finance sector, which was also the most visited sector as a subject on the website [15]. The regulatory structure of the sector (including actors like the Grand National Assembly, Banking Regulation, and Supervision Agency and the Republic of Türkiye Ministry of Trade [16] enforce firms’ and customers’ functions within a specified service ecosystem. This enables the analysis of a structure that is more transparent and traceable.

The present investigation is founded on an exploratory analysis of the Annual Reports of Individual Customer Arbitration Committees of the Banks Association of Türkiye, spanning the years 2008 to 2022 [17]. The Banks Association of Türkiye instituted a

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committee with the purpose of objectively and equitably investigating conflicts between banks and individual customers for facilitating a mutually agreeable resolution between the parties involved [18]. Prior to 2016, individual customers submitted their applications directly to banks, whereas subsequent to 1 December 2016, all applications have been processed via the E-State Portal. The E-State Portal is an electronic platform that offers e-state services from various institutions through diverse channels, all from a single point. Authentication tools, such as passwords, e-signatures, and internet banking, are utilized to ensure security [19]. Consequently, individual consumers have begun to lodge their complaints via the state, which acts as an intermediary. The applications considered were submitted to the Individual Customer Arbitration Committee between 2008 and 2022.

3. Results

The E-State Portal has facilitated the convergence of various stakeholders, namely banks, customers, and the state, by integrating the previously independently conducted service process, which is certainly beneficial for customers. Subsequent to 2017, there has been a substantial increase in the number of applications. This has resulted in the alignment of the service process offered by the state to citizens and institutions with the service process offered by institutions to customers [6]. Hence, the inclusion of customers' citizenship role is encompassed within the aforementioned content.

As for the evaluation process, digitalization has only had an impact on the expansion of the service area. Findings show that the number of applications that were rejected due to non-compliance with the Communiqué or a lack of information and documents, as well as those that were removed from the agenda as a result of the bank's positive opinion, increased, but there was no change in terms of their ratio to total applications.

On the other hand, the number of favorable decisions for customers and institutions, as well as their ratio to the total number of applications, increased. Accordingly, it can be stated that there is a favorable process for banks in 2017 and beyond. The most significant change in ratio in 2020 was the negative trend favoring banks. In 2020, two significant adjustments affected in the banking industry: The first was the pandemic [20] and the other was the Regulation on the Information Systems and Electronic Banking Services of Banks [21].

The decisions made regarding banks can be attributed to a variety of issues, including exacerbated problems with contactless payments, dues fees, credit increases, and requests for loan debt postponement and additional credit opportunities [22]. Digitalization has created benefits for banks, but consumers have not reaped the same advantages. This suggests that consumers are actually more emotional, anticipating support from a sanctioning actor by complaining to the state and expressing their frustrations [12]. In contrast to the literature's intensified debate on the benefits, the case of Türkiye serves as evidence that the utilization of a system without proper adherence to its intended purpose can result in an excessive burden on the system, thereby negating any potential advantages.

4. Implications and Contribution

In Türkiye, the state has instituted an Individual Customer Arbitration Committee to resolve individual customer issues in the banking sector. Since 1 December 2016, the application and evaluation process has been incorporated into the E-State Portal system, through which citizens can access all public services and service applications. Similar systems have been debated in the literature with various examples, as well as their benefits and drawbacks [2,23]. However, the majority of these discussions focus on the implementation and its evaluation. The purpose of this chapter is to discuss the implications of the integrated structure in terms of the finalization of applications and whether the integrated system is advantageous for the system by using Türkiye as a case study.

In the case of Turkey, this phenomenon is manifested by a significant surge in the quantity of submissions. Conversely, upon examination of the finalization status, it becomes apparent that banks hold a comparatively advantageous position with regard to favorable

determinations. The lack of adequate information available to consumers regarding product and service conditions may contribute to their tendency to file complaints on a wide range of issues, potentially driven by emotional factors. To clarify, the system that was integrated aided the process; however, it did not result in an improvement in content efficiency. Instead, it is believed to result in an increase in the quantity of files and workload. In order to realize the benefits highlighted in the literature, it is necessary to enhance the content. While digitalization improves processes, it does not appear to be possible to expect development unless the content itself is altered.

Disseminating information pertaining to application procedures to consumers has the capacity to enhance the effectiveness of the system. In contrast, the implementation of a system update that offers consumers ample information and guidance before submitting their applications could prove to be efficacious in mitigating the incidence of non-compliant or incomplete applications.

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Abstract

Exploring the Nexus: Socio-Demographic Factors and Perceptions of Digital Entrepreneurial Competences of University Students [†]

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Keywords: digital entrepreneurship; digital entrepreneurial competences; competence assessment; self-assessment tools; predictive competence models

1. Objectives

Digital entrepreneurial competences (DEC) are “the total ability of the entrepreneur to perform a job role successfully using a range of ICT means” [1]. The academic literature provides very limited evidence on DEC levels university students acquire during their education. The aim of this research is to measure the perceived levels of DEC and to examine whether socio-demographic characteristics of university students have an impact on their perception of DEC.

2. Methodology

The DEC perceptions of university students were assessed using a questionnaire, and descriptive and inferential statistics were used to process the data and provide the results and relevant conclusions. EmDigital framework [2] was used to develop the assessment tool (questionnaire). A total of 1551 students completed the questionnaire. Non-parametric tests (Mann–Whitney U, Kruskal–Wallis test) were used to examine responses in relation to categorical variables.

3. Results

The students’ responses, which were measured using a four-point Likert scale, reveal that students perceive their DEC on average at 2.97 for all the items investigated.

The results suggest that the variables of gender and degree level are not associated or have very little association with students’ DEC perceptions ($p > 0.05$). The fact that gender proved to be not statistically significant seems like a surprise, especially given that [3] found statistically significant differences in perceptions of DEC levels between male and female students. Employment status, location and field of study demonstrated significant association with DEC perceptions.

4. Implications

The limited confidence among final-year diploma, bachelor’s, and master’s students regarding their grasp of DEC signals a call to action for universities and educational stakeholders. It’s evident that there’s a pressing need for digital entrepreneurship curricula to be realigned with the contemporary demands of the job market, necessitating potential adjustments to teaching methodologies and instructional designs employed to impart relevant skills to university students.

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5. Originality Value

This paper fills the gap in the literature by providing the empirical evidence on the perceived levels of DEC of university students using the DEC competence framework EmDigital [2] which represents the most detailed specification of DEC competences across different competence areas and a foundation for the creation of the DEC assessment tool.

6. Contribution

This study adds to the body of knowledge on digital entrepreneurship by presenting empirical findings on university students' perceptions of their DEC competence and demonstrating how socio-demographic factors correlate with these perceptions. Our findings suggest that university students perceive their DEC competency to be moderate, implying a gap in the instruction they receive in DEC throughout their university studies.

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Conflicts of Interest: The author declares no conflict of interest.

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Abstract

Technological Innovation, Entrepreneurial Proactiveness and Performance: The Perspective of Female Executives [†]

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Keywords: technological innovation; entrepreneurial proactiveness; company performance; female executives

1. Objectives

Women have been associated with more proactive cognitive processing [1], and women with proactive personality traits are more likely to develop stronger entrepreneurial intentions [2]. Considering the (often) symbiotic association between technological innovation and entrepreneurial proactiveness, the present study aims at investigating the perceptions of female executives about the inter-relationships between technological innovation, entrepreneurial proactiveness, and company performance.

2. Methodology

A sample of 83 female executives employed in firms operating in Greece with an annual turnover of over EUR 10 million participated in this study. Entrepreneurial proactiveness (EP) was measured with three items [3], and company performance (CP) was measured with five items [4]. The respondents were also asked to indicate the level of their company's technological innovation (TI) using a single Likert-type item. The confirmatory factor analysis performed on EP and CP indicated excellent fit of the model.

3. Results

The structural equation model (Figure 1) had an excellent fit (CMIN/DF = 1.032, $p = 0.418$, CFI = 0.998, TLI = 0.998, RMSEA = 0.020, PCLOSE = 0.668) and showed that TI had a significant and positive effect on EP (standardized $\beta = 0.33$). Subsequently, EP had a significant and positive effect on CP (standardized $\beta = 0.29$). Based on the above information, it appears that, according to female executives' perceptions, TI has a positive effect on EP. Subsequently, as theoretically expected, EP has a positive impact on CP.



Figure 1. Structural model.

4. Implications

Apart from corroborating the existing literature about the positive impact of EP on CP [5,6], this study has several implications regarding the relationship between TI and EP.

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According to female executives' perspectives, when a company fosters TI, it encourages employees to think creatively and identify opportunities. Thus, this proactive approach to TI enables the organization to stay ahead of its competitors, adapt to the dynamic environment, exploit opportunities by anticipating future trends, and, ultimately, improve its CP.

5. Originality Value

This study's originality (value) is multifold. The specific focus on the perceptions of female executives is significant as it sheds light on a segment of the workforce that has been historically under-represented in entrepreneurial ventures [7] and corporate leadership positions [8]. Furthermore, this study's emphasis on top firms allows for insights into how TI, EP, and CP interplay in larger, established corporate settings.

6. Contributions

The present research contributes to the existing literature by filling a gap in the research related to women's perspectives on corporate entrepreneurship. It provides valuable insights into the relationship between TI, EP, and CP in the context of female executives in top firms. The positive effect of TI on EP highlights the critical role that technology plays in fostering a proactive entrepreneurial mindset within the corporate environment.

Author Contributions: Conceptualization, N.K. and C.L.; methodology, N.K., C.L. and F.T.; software, N.K., C.L. and F.T.; validation, N.K., C.L. and F.T.; formal analysis, N.K., C.L. and F.T.; investigation, N.K., C.L. and F.T.; resources, N.K., C.L. and F.T.; data curation, N.K., C.L. and F.T.; writing—original draft preparation, N.K., C.L. and F.T.; writing—review and editing, N.K., C.L. and F.T.; visualization, N.K., C.L. and F.T.; supervision, N.K., C.L. and F.T.; project administration, N.K., C.L. and F.T. All authors have read and agreed to the published version of the manuscript.

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Institutional Review Board Statement: Ethical review and approval were waived for this survey study because it was designed and conducted in accordance with GDPR (Regulation EU 2016/679) and Greek National Regulations (L.4624/2019). Thus, the study's dataset was anonymous, did not contain sensitive information, did not allow for direct or indirect identification of natural persons, and did not pose any potential threats to individuals' rights and wellbeing.

Informed Consent Statement: Informed consent was obtained from all subjects involved in the study.

Data Availability Statement: The data presented in this study are available upon request from the corresponding author. The data are not publicly available because they were provided by participants solely for the purpose of the present study.

Conflicts of Interest: The authors declare no conflict of interest.

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Abstract

Unveiling the Impact of Electronic Health Record Systems: A Comprehensive Exploration through Systematic Review and Meta-Analysis [†]

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Development: Trends And Business Perspectives, West Mishref, Kuwait, 29 November & 14 December 2023.

Keywords: electronic health records; healthcare; business; administration

1. Objectives

Understanding the impact of Electronic Health Record (EHR) systems is vital for improving the efficiency of healthcare administration. This study can offer insights to streamline processes, reduce administrative burdens, and enhance overall healthcare operations by identifying best practices and challenges. Insights gained from the research can help in optimizing healthcare practices, leading to better diagnoses, more accurate treatments, and improved overall patient outcomes. Thus, we conducted a systematic review and meta-analysis on this topic.

2. Methodology

We researched related scientific databases to identify studies that investigated outcome indicators associated with EHR implementation. Data were extracted according to the PRISMA guidelines. Quality control was performed using Cochrane Collaboration's tool—the Newcastle Ottawa Scale (NOS)—in order to assess the risk of bias. We performed the meta-analysis using the appropriate software (RevMan 5, Nordic Cochrane Centre, Cochrane Collaboration, Copenhagen, Denmark).

3. Results

According to our current results, we expect to identify an association between EHR systems and reduced documentation time, as well as higher guideline adherence. (The study is still in progress. Detailed results to follow).

4. Implications

This study carries significant implications across various domains in healthcare and beyond. Policymakers and healthcare administrators can use the study's insights to make data-driven decisions regarding EHR adoption, resource allocation, and policy formulation. Healthcare institutions can optimize their EHR implementation strategies, addressing challenges identified in the study and adopting best practices. Moreover, businesses and governments can conduct cost–benefit analyses based on the study's findings, evaluating the economic impact of EHR adoption, in terms of efficiency gains, reduced paperwork, and overall cost savings.

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5. Originality Value

The originality value of our research study lies in its unique contribution to the existing body of knowledge, by covering a broad spectrum of aspects; it provides a holistic understanding of EHR systems' influence on healthcare administration. Moreover, by synthesizing diverse studies [1–6], the research study can draw nuanced conclusions, identify patterns, and offer evidence-based insights that go beyond the scope of individual studies.

6. Contribution

This research study makes several significant contributions to the field of healthcare administration and digital health technology; by synthesizing diverse studies, it offers a comprehensive understanding of EHR systems' impact, saving time and effort for professionals seeking evidence-based insights. Additionally, it identifies gaps in the existing research, suggesting avenues for future innovation and exploration. This contribution drives ongoing advancements in EHR technology and healthcare administration practices.

Author Contributions: Conceptualization, E.T.; methodology, E.T.; software, K.P.; validation, E.T. and K.P.; formal analysis, K.P.; investigation, K.P.; resources, E.T.; data curation, K.P.; writing—original draft preparation, E.T.; writing—review and editing, K.P.; visualization, K.P.; supervision, E.T.; project administration, E.T.; All authors have read and agreed to the published version of the manuscript.

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Abstract

The Development of a Research Scale for Neuroleadership[†]

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Keywords: neuroleadership; neuroscience; leadership; organizational behavior

1. Introduction

Neuroleadership is an up-to-date leadership approach that brings together the general findings of research on people's brain structures and leadership, and as a result of this process, directs the leadership structure by revealing the facts behind people's emotions, thoughts, and behaviors. For this reason, there is a problem of scale in the field of social sciences. With this study, a scale on neuroleadership will be developed.

Leadership, which has an impact at every moment of life, is a historical concept that has existed since the beginning of humanity and persists to the present day. People need to come together and act collectively around determined ideas in order to achieve the common goals they set in their daily life cycles and business lives. Since they act in unity, there are individuals who guide and direct them in their work process or inspire people in the decisions that need to be taken. Generally speaking, these people are known as leaders. To define it, leaders are those who bring individuals together for common goals, mobilize people's own talents and skills to fulfill the common goal, and ensure their acceptance by conveying their ideas and thoughts to the individuals around them. Shaping and directing this activity process is leadership [1].

When examined throughout history, the process of the accumulation of knowledge, with the aim to understand and explain people, has a certain order and logic. Chronologically, this order includes social science, behavioral science, and is derived from neuroscience. To understand people and their behavior, first comes social science, followed by behavioral science, and then research on brains, performed on people. The fact that brain research on humans is not advanced enough to be conducted only under supervision, and instead requires advanced technology, has placed neuroscience at the bottom of the list. The aim of our study is to develop a scale that can be used to study people without switching to technological measurement tools such as fMRI and QEEG.

2. Methodology

Our scale study started by conducting the necessary literature review, and a scale pool of 70 items was created. After the item pool created by us, and then evaluated by experts in the field, it was sent to people, and responses were received from 15 people. The respondents consisted of nine people with academic expertise in the field of social sciences, one person in the field of neurology, two people in the field of neuropsychiatry, two people in the field of neuropsychology, and one expert who provides leadership training to corporate companies. The experts were informed that they should evaluate the submitted items as "Suitable", "Partly Suitable", or "Not Suitable", and if they were "Partly Suitable" or "Not Suitable", they should state their personal opinions and state their reasons in

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the “Explanation” field. Based on the feedback received from the experts, the items were evaluated by calculating the Scope Validity Rate (CVR) and Scope Validity Index (CVI). In a study consisting of 15 participants, the CVR must be 0.600 and above [2]. In our own study, seven items were excluded due to falling below this rate. A CVI was calculated among the remaining items, and the result was 0.824. The fact that the obtained CVI value was greater than the CVR value ($CVI > CVR$) indicates that the content validity of the remaining items in the scale was statistically significant [3]. A first pilot study consisting of 70 people was conducted by preparing a scale from 63 items that gained significance, and Exploratory Factor Analysis (EFA) and Confirmatory Factor Analysis (CFA) were performed instantly on IBM SPSS Statistics 21. As a result of the results obtained, we propose that when they are confirmed by conducting a pilot study, a study will be completed by conducting a scaled study on the main target population.

3. Results

Since the scaled study is ongoing, a clear result cannot be given. However, unlike other scales in the literature, the “Humility Level” found in people affects people with regard to leadership. Thereupon, this factor definitely creates leadership qualities in people.

4. Applications

Recent scientific and technological advances have brought about changes in many areas and have also necessitated changes in the behavior of managers. For this reason, managers need to renew and improve themselves in the face of constant changes, have strong communication with the individuals around them and their colleagues in their team, and be leaders with visionary characteristics. Otherwise, all people in managerial positions, regardless of their sector, will be against innovations; if they do not pioneer, adapt to their colleagues, and adapt to the change, it does not seem possible for them to operate healthy and continuously in their field of work. Recent technological developments and scientific advances make it inevitable that individuals in managerial positions will go beyond the traditional management approach and adopt leadership and contemporary management approaches. This has become the key to successful advancement in business. These modern perspectives enable organizations to achieve their goals, maximize the potential of their employees, and adapt effectively to changing market conditions. In these innovation and development processes based on scientific and technological foundations, there will always be human beings and their own expressions of emotions and thoughts.

5. Original Value

Neuroleadership is an up-to-date leadership approach that brings together the general findings of research on people’s brain structures and leadership, and as a result of this process, directs the leadership structure by revealing the facts behind people’s emotions, thoughts, and behaviors. A neuroleader is a person who ensures the development of team members by continuously taking them into the necessary training programs, determines their current skills, and provides them with necessary guidance. The aim of neuroleadership is to increase people’s awareness of what is important for their brains and how they react in critical situations. The aim of developing a brain-focused leadership approach is to allow one’s own thoughts and actions, and for colleagues to be seen from a different perspective. With the development of neuroscience-research techniques, neuroscientific findings related to the way the human brain structure works are becoming increasingly popular. Beyond offering managers the chance to question the concept of leadership and evaluate it from a new perspective, neuroleadership can provide individuals with the ability to better understand the mental mechanisms underlying their thinking processes and behaviors.

6. Contribution

When there is a desire to measure the excitement levels in different brain regions, they can be measured using different technological devices. With these devices, it is

possible to monitor which parts of the brain structure are actively working when people think about their past memories, dream, or perform numerical operations. Some of the technological tools used in neuro-based research include EEG (Electroencephalography), fMRI (Functional Magnetic Resonance Imaging), MEG (Magnetoencephalography), and PET (positron emission tomography). However, using these measurement tools affects people both temporally and economically. The aim of this study is to develop a scale to detect the difference between people by conducting the necessary research on people before using technological measurement tools.

Author Contributions: Conceptualization, S.D.B. and R.Ö.K.; methodology, S.D.B. and R.Ö.K.; formal analysis, S.D.B. and R.Ö.K.; resources, S.D.B. and R.Ö.K.; data curation, S.D.B. and R.Ö.K.; writing—original draft preparation, S.D.B. and R.Ö.K.; writing—review and editing, S.D.B. and R.Ö.K.; visualization, S.D.B. and R.Ö.K.; supervision, S.D.B. and R.Ö.K.; project administration, S.D.B. and R.Ö.K. All authors have read and agreed to the published version of the manuscript.

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Abstract

Social Media Use, Value Consciousness, and Brand Relationships [†]

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Keywords: social media; value consciousness; brand closeness; user feedback; brand commitment

1. Objectives

In view of the ever-increasing social media use (SMU) from brands and customers [1], authors have highlighted the need to investigate the potential impact of the volume of social media interactions on the quality of customer relationships with brands [2]. Considering that the intensity of SMU varies among consumers and is often associated with certain user characteristics, such as value consciousness (VC), this study investigates the extent to which consumers' SMU influences their relationships with brands.

2. Methodology

During Autumn 2022, a convenience sample of 222 participants, the majority of which were female, university degree holders, and up to 45 years old, participated in an online survey related to SMU. The established measurement scales used for SMU [3], VC [4], brand commitment (BC) [5], brand closeness (BCS) [6], and relational feedback (RF) [7] were subjected to a confirmatory factor analysis. To achieve a satisfactory fit of the measurement model, seven out of twenty Likert items had to be removed.

3. Results

The structural model of hypothesized relationships (CMIN/DF = 1.273, $p = 0.075$, CFI = 0.984, TLI = 0.979, RMSEA = 0.035, PCLOSE = 0.857) showed that SMU had a significant and positive effect on VC ($\beta = 0.27$) and BCS ($\beta = 0.28$) (Figure 1). Subsequently, while both VC ($\beta = 0.18$) and BCS ($\beta = 0.60$) had a significant and positive effect on RF, only BCS had a significant and positive effect on BC ($\beta = 0.57$). Based on the above, it appears that SMU fosters VC and perceived BCS, which, in turn, drives RF and BC.

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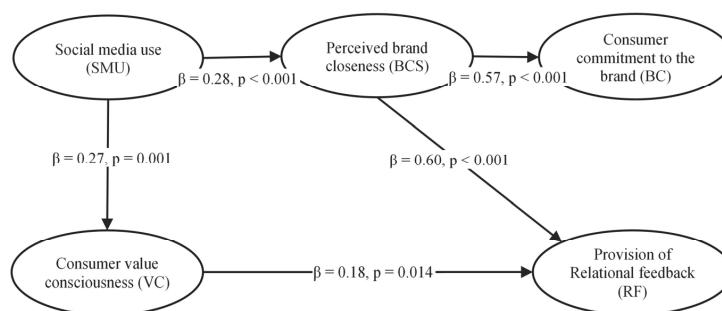


Figure 1. Structural model.

4. Implications

The direct relationship between SMU and VC may be attributed to the ease of conducting online price research and the extensive sharing of offers among users [8]. Subsequently, the provision of feedback from value-conscious users may be driven by their loyalty towards their preferred brands [9] and their emphasis on the post-purchase phase [10]. Nevertheless, active social media engagement appears to create a sense of brand closeness, which, in turn, enhances users' commitment to the brand.

5. Originality Value

The originality of the study lies in its exploration of the complex relationships between social media use, value consciousness, (perceived) brand closeness, relationship feedback provision, and brand commitment. The present research sheds light on how these variables interplay and consequently allows social media marketers to advance their understanding of social media's impact on brand–customer relationships and leverage social media platforms to meet marketing objectives.

6. Contribution

By elucidating the complex dynamics between social media use, value consciousness, perceived brand closeness, relationship feedback provision, and brand commitment, this study shows that marketers can harness social media to foster more meaningful and long-lasting customer relationships, increase brand–customer interactions, and ultimately build brand loyalty.

Author Contributions: Conceptualization, C.L.; methodology, C.L., F.T., A.S. and C.A.; software, C.L., F.T., A.S. and C.A.; validation, C.L., F.T., A.S. and C.A.; formal analysis, C.L., F.T., A.S. and C.A.; investigation, C.L., F.T., A.S. and C.A.; resources, C.L., F.T., A.S. and C.A.; data curation, C.L., F.T., A.S. and C.A.; writing—original draft preparation, C.L., F.T., A.S. and C.A.; writing—review and editing, C.L., F.T., A.S. and C.A.; visualization, C.L., F.T., A.S. and C.A.; supervision, C.L., F.T., A.S. and C.A.; project administration, C.L., F.T., A.S. and C.A. All authors have read and agreed to the published version of the manuscript.

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Informed Consent Statement: Informed consent was obtained from all subjects involved in the study.

Data Availability Statement: The data presented in this study are available upon request from the corresponding author. The data are not publicly available because they were provided by participants solely for the purpose of the present study.

Conflicts of Interest: The authors declare no conflict of interest.

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Abstract

Content Marketing in the Digital Transformation Era: Trends and Best Practices[†]

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[†] Presented at the International Scientific Conference on Digitalization, Innovations & Sustainable Development: Trends and Business Perspectives, West Mishref, Kuwait, 29 November & 14 December 2023.

Keywords: content marketing; digital transformation; trends; best practices; user-generated content

1. Introduction

In the digital transformation era, content marketing has emerged as a critical strategy for organizations seeking to connect with their audiences in meaningful ways [1]. As consumer behavior increasingly shifts towards digital platforms, content marketing has become the linchpin for engaging and retaining customers [2]. The primary objective of this research is to investigate the current trends and best practices in content marketing, providing insights into how businesses can adapt to the ever-evolving digital landscape.

This study aims to shed light on emerging content marketing strategies and their alignment with the digital transformation goals of organizations. By analyzing the latest research, industry reports, and successful case studies, this research seeks to provide marketing professionals and businesses with a comprehensive understanding of how content marketing can be effectively leveraged to achieve their objectives in this dynamic digital environment. Moreover, it aims to bridge the gap between theoretical knowledge and practical application, offering actionable recommendations for those aiming to stay ahead in the digital marketing landscape.

2. Methodology

To achieve this objective, we conducted an extensive review of the recent literature and industry reports related to content marketing. We also analyzed case studies and conducted interviews with marketing experts and professionals who have successfully implemented content marketing strategies in the digital transformation context.

3. Results

Our research unveils several pivotal trends and best practices in content marketing. First, we observed a significant shift towards user-generated content (UGC) and interactive formats, including video and live streaming, which are gaining substantial momentum in the digital marketing landscape. User-generated content empowers consumers to become brand advocates, thereby enhancing engagement and trust [3]. Interactive content formats, such as live streaming, enable real-time interaction with audiences, offering a deeper level of engagement and interactivity.

Additionally, we identified content personalization as a cornerstone of effective content marketing strategies. Customizing content to individual preferences and behaviors has become essential for delivering relevant and engaging content [4]. Personalized content drives higher conversion rates and customer satisfaction, reflecting the demand for tailored experiences in the digital age.

Moreover, our research highlights the growing importance of data-driven decision-making in content marketing. Marketers are increasingly relying on data analytics and

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insights to inform content strategies and optimize campaigns. This data-driven approach helps in understanding customer behavior, preferences, and conversion paths, ultimately leading to more effective content strategies.

Furthermore, the integration of artificial intelligence (AI) and automation tools is streamlining content creation and distribution. AI algorithms analyze data to determine the best content types, delivery channels, and scheduling, allowing marketers to reach their target audiences more effectively. Automation tools, in combination with AI, are enhancing the efficiency of content marketing efforts, reducing manual workload, and enabling real-time responsiveness to audience behavior.

4. Implications

The findings of this study have significant implications for marketers and businesses. Understanding these trends and best practices can help organizations enhance their content marketing strategies, improve audience engagement, and ultimately drive digital transformation. By leveraging these insights, marketers can adapt to the ever-changing digital landscape and stay ahead of their competition.

5. Originality Value

This research contributes to the field by providing a comprehensive overview of content marketing trends and best practices in the context of digital transformation. It synthesizes recent developments in the field and offers a practical guide for marketers to navigate the digital era successfully.

6. Contribution

This research makes a valuable contribution to the knowledge and practice of content marketing. It empowers marketers with the information needed to create and execute effective content strategies that align with the digital transformation goals of their organizations.

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Conflicts of Interest: The author declares no conflict of interest.

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Abstract

Aircraft Digitization: The Innovative FADEC (Full Authority Digital Engine Computer) for Turbo-Propeller Aeroengines and AI Challenges to Optimized Engine Performance [†]

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[†] Presented at the International Scientific Conference on Digitalization, Innovations & Sustainable Development: Trends and Business Perspectives, West Mishref, Kuwait, 29 November & 14 December 2023.

Keywords: AI; digitization; FADEC; flight safety; turbo-propeller engine

1. Objectives

The digitization of turbo-propeller aeroengines fitted on aircraft is of paramount significance. This study documents the interrelationship between an engine's digitized FADEC computerized functions and the engine/propeller's optimized performance, plus FADEC's contribution to flight safety [1,2].

Also, we analyze the role of Artificial Intelligence (AI) as a challenge to the industry which has already begun, focusing on embedding AI into engine/propeller digital functions free of human errors [3].

2. Methodology

We carried out a Literature Review Synthesis (LRS) with bibliographic secondary data analysis. The review involved related bibliography including aviation regulations, engine/propeller manufacturing data, technical publications and manuals, plus training books.

3. Results

By converting analogue information into a digital format/PC-readable data, FADEC handles massive information regarding all engine/propeller functional parameters, i.e., altitude, pressure, velocity, ambient air temperature, engine temperatures, rpm, torque, etc., during all phases of a flight from start–taxiing–ascend–cruise to descend–landing–taxiing–shut down [3].

As a result, the engine/propeller achieves optimized thrusting performance, which is a regulatory manufacturing requirement [1].

Since the propeller attached to the engine generates the thrust, FADEC also optimizes the propeller's propulsive efficiency; plus, it maintains its structural integrity by preventing structural damage to the propeller blades from aerodynamic overloading [4].

FADEC's digitized functions also eliminate any improper human errors or inputs into the engine's fuel thrust and propeller's blade-pitching systems, resulting in the elimination of hazards and, thus, ensuring flight safety [5].

AI is defined as the simulation of human intelligence in machines, in terms of learning, reasoning, and perception, in a human-error-free manner [6]. AI being embedded in FADEC's functions ultimately results in safe engine/propeller performance and aircraft flight safety [4].

4. Implications

In turbo-propeller engines, FADEC benefits both the engine and propeller [3,4] by (a) replacing complicated, old-type, multi-item, hydromechanical engine fuel control systems with fully digitized control components; (b) optimizing the engine's airflow/fuel

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control by increasing thrust with less fuel whilst reducing the chance of engine surges or flameout; (c) optimizing the propeller/blade pitching angle at all flight ground phases, hence providing digital engine/propeller speed control and ensuring the avoidance of overspeed; and (d) setting the propeller/blades to feathering mode during engine failure, thus preventing them from aerodynamic loads.

In terms of human interaction, FADEC (a) reduces the pilot workload when incorporated and (b) reduces the maintenance workload due to its digitized reliability, as well as the ease with which it can troubleshoot maintenance defects resulting from its Built-In Test (BITE) defect coding and fault isolation ability.

5. Originality Value

This study's originality value lies in the documentation of the positive impact of digitized functions on a turbo-propeller aeroengine, not only from a technological perspective but also from an optimized-performance perspective, for a combined jet engine–propeller propulsion system and, ultimately, the functions' direct impact on flight safety.

Also, the originality value lies in the digitization's positive impact on methods of preventing and capturing human error during engine/propeller operation, plus the exceptional performance of human-error-free maintenance during troubleshooting.

6. Contribution

This paper's contribution lies in the documented conclusion that, for a completely safely operating turbo-propeller engine, fully digitized authorized engine/propeller control systems with AI functions have to be embedded as a standard for the ultimate goal of flight safety and human error minimization, either during air operations or maintenance, but must still be under human governance.

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Abstract

Content Marketing Insights from Kuwait Banking Industry: Matching Managers' and Customers' Perceptions of Social Media Posts Likability and Readability[†]

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Keywords: social media marketing; readability; likeability; Kuwait; banks

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1. Objectives

The main objective is to measure the difference in the perceptions of bank marketing managers and their customers regarding the likeability, readability and responsiveness of social media content. Other specific objectives include a comprehensive literature review to facilitate instrument development, data collection and analysis, and the identification of statistically significant differences between the bank managers' and customers' perceptions, considering their socio-demographic backgrounds.

2. Methodology

The existing scales from the literature will be adapted to measure the perceptions of bank managers and customers, having Instagram bank posts in Kuwait as a point of reference using a census approach for bank managers (10 banks) and a convenience sample of 200 customers. The most appropriate parametric or non-parametric test will be selected to test the statistically significant differences in perceptions. T-tests and Mann–Whitney U tests will be used on normally and non-normally distributed data. ANOVA or the Kruskal–Wallis test will compare the mean scores of more than two groups, e.g., the perceptions of bank customers based on different educational levels or age groups.

3. Results

This study utilizes Breckler's [1] theoretical model, which categorises attitudes into **cognition** (*readability*) [2,3], **affect** (*likability*) [4] and **behaviour** (*responsiveness*) [5,6]. The differences in perceptions between the bank managers and customers regarding the impact of the post headline features (exclamation, colon, question mark, sentiment and title length), post content features (text length, text tone and domain specificity) and media types used in posts (image, audio, video or text) on the above-mentioned constructs will be identified and explained based on the existing literature [5,7–11].

4. Implications

This research is aimed at helping the Kuwaiti banking sector develop brand post strategies more efficiently and effectively. This could be achieved through utilising more interactive posts and visual and audio cues to enhance the consumers' cognitive, emotional and behavioural engagement. Therefore, this study will help bank managers increase their

profits and growth, position themselves better in the market, improve communication with their customers, and introduce a meticulous scientific approach to social media studies.

5. Originality Value

From a methodological perspective, comparing the perceptions between bank marketing managers and customers regarding the likeability, readability and responsiveness of social media content is original and innovative. Furthermore, based on the initial literature review and to the best knowledge of the authors, no such research has been conducted on the banking industry in Kuwait.

6. Contribution

The research findings will aid in improving content creation via banks' social media posts, as the study will shed light on the perceptions of content that appeal to the target audience regarding the elements of likability, readability and responsiveness. In return, this will lead to more engagement and the interactivity of current and potential clients on social media. Finally, this study provides a methodological contribution by the adapting scales used previously in the literature to examine the readability, likability and responsiveness of selected social media content.

Author Contributions: Conceptualization: M.d.I.R. and V.S.; Methodology: F.T.; Literature Review: A.J., V.S., F.A. and M.d.I.R.; Instrument Development: A.J. and F.T.; Data Collection: M.d.I.R.; Data Analysis: F.T. and F.A. All authors have read and agreed to the published version of the manuscript.

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Abstract

Relationship between Digital Financial Inclusion and Country Development [†]

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1. Objectives

Improvements in ICT, digitization, and changes in individuals' behavior have contributed to the global transformation of the financial sector. The significance of digital channels lies in the fact that individuals can achieve a higher level of satisfaction by using the wide range of features banks provide via digital services [1]. Additionally, digital financial services (DFSs) can improve the state and reduce the gap in financial inclusion, especially in developing countries [2]. Therefore, possessing the required level of digital skills is essential in the digital economy [3–5].

Given that income represents a driver for executing digital banking activities, the main questions to be answered concern whether there is a linear relationship between the level of county development and the following variables:

1. Owning a financial institution account;
2. Using a mobile phone or the Internet to pay bills;
3. Making a digital in-store merchant payment using a mobile phone;
4. Receiving digital payments.

2. Methodology

The authors gathered data from publicly available databases for 116 countries worldwide in 2021 to examine the relationship between development and the mentioned variables. The development was measured according to the Gross National Income per capita (GNI p.c.). The data for the variables related to financial inclusion were gathered from the Global Findex database 2021. All of the studied variables were measured in a percentage of individuals. The authors used correlation analyses to examine the relationship between development and financial inclusion.

3. Results

The correlation analysis results show a statistically significant strong positive linear relationship between the development of a country and the following variables: (1) owning a financial institution account, (2) using a mobile phone or the Internet to pay bills, and (3) receiving digital payments. The authors found a moderately strong relationship between making a digital in-store merchant payment using a mobile phone and the level of development. These findings are in line with prior studies [6–15], and support the critical role that income, i.e., country development, plays in determining the use of digital banking services by citizens, and vice versa.

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4. Implications

This study's findings provide valuable insights into financial inclusion in the development context. The results represent a foundation for governments and bank managers to improve the affordability and accessibility of digital services for their citizens. Thus, the results emphasize the critical importance of addressing the financial inclusion challenge, particularly in low- and lower-middle-income countries (e.g., Sierra Leone, Cambodia, Egypt, Tunisia, Gaza and the West Bank, Tajikistan, Pakistan, Lebanon, Nicaragua), highlighting the essential role of relevant bodies.

5. Originality Value

No recent study has investigated the relationship between development and the usage of digital banking services globally using the latest available data for 2021. Regarding this, it is important to investigate individuals' behavior in times of COVID-19 regarding country development, considering the critical role of digital financial services.

6. Contributions

This paper will expand the literature in this research area, considering that no similar study has examined the relationship between development and individuals' behavior related to digital banking services using the latest available data and the new variable of making a digital in-store merchant payment using a mobile phone.

Author Contributions: Conceptualization, M.A. and I.D.; methodology, M.A.; software, M.A.; validation, I.D.; formal analysis, I.D.; investigation, M.A.; resources, M.A. and I.D.; data curation, M.A.; writing—original draft preparation, M.A. and I.D.; writing—review and editing, M.A. and I.D.; visualization, M.A. and I.D.; supervision, I.D.; project administration, M.A. and I.D.; funding acquisition, M.A. and I.D. All authors have read and agreed to the published version of the manuscript.

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Abstract

Challenges and Obstacles Facing Women's Entrepreneurship in Kuwait[†]

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Keywords: female finance; women's entrepreneurship; The Valley of Death

1. Objectives

This paper explores women's entrepreneurship in Kuwait in terms of sustainability, as defined by the United Nations (UN). The focus of this study is not only on inequality but also on exploring the role of women's entrepreneurship in a country's economic growth. The focus is explicitly on Kuwaiti institutions that promote entrepreneurship, particularly women's entrepreneurship. We explore whether the term “the Valley of Death” is more prevalent in women's entrepreneurship in Kuwait, which offers one of the biggest opportunities to grow in the post-oil-boom Kuwaiti economy [1–6].

2. Methodology

This is a primarily qualitative research based on 10 in-depth interviews with Kuwaiti female entrepreneurs. The guiding methodology is an interview setting and processing technique called Vancouver School of Doing Phenomenology. The Kuwaiti baby clothing company B Cocoon was used as the leading case to develop a model in 12 steps for entrepreneurship development. The remaining 11 cases will be used to validate and adjust this model, which is intended to guide future female entrepreneurs in Kuwait and other places in the world [7–10].

3. Results

This study aims to construct, validate, test, and develop two entrepreneurial developmental and financial models to provide guidance for the steps to overcome the Death Valley phenomenon—the greatest obstacle to entrepreneurial growth. We have put forth two primary models based on the leading case used in this study—the case of Kuwaiti female-owned B(aby) Cocoon, which is a successful clothing line that has gone through all the 12 steps of the model. The remaining cases will be used to test, validate, adjust, and modify the models, as well as locate their barriers to growth and propose steps to remedy their predicaments [11–13].

4. Implications

According to a report published by the Kuwaiti Investment Authorities, “Kuwait in transition, towards a post-oil economy”, it is argued that the current welfare state model, which heavily relies on oil, is outdated. It is suggested that the growth of small/medium-sized private sector companies should be promoted through a focus on innovation and entrepreneurship. It is crucial to identify the obstacles and opportunities for small and medium-sized enterprises (SMEs) to ensure the long-term and sustainable development of the Kuwaiti economy, particularly for women's entrepreneurship in Kuwait [14–16].

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5. Originality Value

Shedding a light on these gender-based inequalities in startup funding is of particular importance, as most entrepreneurship fails because of a lack of access to entrepreneurial finance. Foregoing opportunities that might lie in female-founded entrepreneurship ventures is a matter of national importance, as a country like Kuwait needs this growth in order to transition from its oil-based economy. Approaching gender-based inequalities in startup funding is still new in Kuwait. Hence, this topic deserves more attention for the sake of equality and sustainable economic growth.

6. Contributions

Women's entrepreneurship is regarded as one of the most promising strategies to grow the Kuwaiti economy past the oil boom, especially for Kuwaiti institutions that promote women's entrepreneurship. Access to entrepreneurial finance is particularly important, as, according to our interviews, this is where there is the greatest need for change. Both public and private banks and financial institutions should develop programs to fully utilize the potential of women's entrepreneurship for their institution, as well as the country's future economic growth.

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Abstract

An Overview of the Differences between DigComp Versions 1.0 and 2.0 [†]

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[†] Presented at the International Scientific Conference on Digitalization, Innovations & Sustainable Development: Trends and Business Perspectives, West Mishref, Kuwait, 29 November & 14 December 2023.**Keywords:** DigComp 1.0; DigComp 2.0; differences; market demand

1. Objectives

This paper aims to show the differences between the Digital Competence framework (shortly DigComp) version 1.0 and the Digital Competence framework version 2.0. DigComp is a framework used for measuring digital competences, approved by European Union. The first version 1.0 was published in 2013. The version 2.0 was published in 2016 as a result of adaptation to the market demand.

2. Methodology

In this paper, the author used a desk-based research method to, firstly, collect all the necessary documents and papers related to this topic. After that, the gathered material was filtered, sorted out and compared to give a preview of the main differences between these two versions of the framework.

3. Results

As a result, nine differences were listed and explained. The differences are related to the domain of the title of the framework, the first area, the first three competences of the first area (1.1, 1.2 and 1.3), the 1.3 competence domain and title, the first competence in the second area (2.1), the second competence in the second area (2.2), the third area domain, the domain of the third competence of the fourth area (4.3) and the third competence in the fifth area (5.3) [1,2]. In the Results section, the paper highlights nine differences discovered within the framework, pointing out inconsistencies across different parts of its structure. These variations are title, inconsistencies within specific areas and skills, and differences in categorizing and labeling. Notably, differences were found in the first area, its three competences, and also in the definition of the third area's domain, among others.

4. Implications

The results of this paper emphasize the importance of market adaptation regarding digital competences and also the frameworks used for measuring.

5. Originality Value

There are limited sources related to this topic, so this paper has a great potential as a base for future research papers related to digital competences, as well as other competences in which digital ones are included.

6. Contributions

As mentioned above, this paper will serve as good starting point in future research papers' topics related to digitalization and competences.

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Abstract

Digital Economy in Africa in the Context of Cybersecurity, Cryptocurrency Usage, and E-Naira [†]

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[†] Presented at the International Scientific Conference on Digitalization, Innovations & Sustainable Development: Trends and Business Perspectives, West Mishref, Kuwait, 29 November & 14 December 2023.**Keywords:** digital economy; E-Naira; cryptocurrency; cybersecurity; Africa

1. Objectives

In light of the emergence of novel technological advancements, evolving consumer patterns, and increased internet accessibility, the digital economy in Africa has experienced substantial growth (Rahul, 2021 [1], Internet World Statistics, 2020 [2]). The increasing significance of cybersecurity is underscored by the evolving digital landscape, and this situation is further compounded by the rising prominence of cryptocurrencies (Adedipe, 2022 [3]). Significantly, the implementation of E-Naira in Nigeria in 2021 is noteworthy. This specific digital currency is intended to supplement the traditional currency of the country, known as the Naira (Central Bank of Nigeria, 2021 [4]). It represents a prime example of the merging of conventional financial systems with digital innovation. Against the aforementioned context, this research aims to explore the complex interplay between Africa's rapidly growing digital economy; the emerging patterns in cryptocurrencies, particularly the adoption of E-Naira; and the broader implications of cybersecurity within this dynamic digital environment.

2. Methodology

The present study utilizes a quantitative research methodology. By conducting thorough research using a variety of reliable sources such as financial archives, published papers, academic publications, and cybersecurity bulletins, we primarily source data from credible African governmental and financial entities. The primary focus of our research is to analyze and identify patterns and emerging trends within Africa's digital economy, specifically focusing on the trajectory of cryptocurrencies such as E-Naira, and the corresponding cybersecurity implications.

3. Results

The expected findings will likely indicate a significant increase in digital financial activity and a significant uptake of E-Naira, particularly among millennials. However, as digital endeavors grow, cybersecurity breaches, which are frequently documented in national reports, are expected to rise concurrently, indicating potential systemic weaknesses.

4. Implications

This study emphasizes a dual narrative: while Africa's digital economy is set for expansion, it may be jeopardized by cybersecurity dangers if mitigation measures remain ineffective. This study is the first to combine quantitative document analysis with an examination of the expanding African digital world, particularly the hitherto-unexplored sector of E-Naira's significance within the larger cryptocurrency milieu.

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5. Originality Value

This study adds to the academic discourse on Africa's digital growth by providing a nuanced, document-based view, as well as a data-driven foundation for policy recommendations and future scholarly endeavors. Africa's digital promise, as demonstrated by efforts such as E-Naira, may be eclipsed by looming cybersecurity dangers unless proactive measures are taken.

6. Contribution

It is critical for institutions to invest in comprehensive cybersecurity infrastructure. Furthermore, consistent documentation of digital transactions and cybersecurity incidents can help bolster informed policies.

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Data Availability Statement: Not applicable.

Conflicts of Interest: The author declares no conflict of interest.

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Abstract

“Eco-Innovation”: Transforming into a Sustainable Future [†]

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Keywords: sustainable development; environmental impact; green technology; eco-friendly solutions; resource efficiency

1. Introduction

Eco-innovation refers to the development and implementation of new ideas, technologies, and practices that aim to minimise environmental impact while promoting sustainable development [1]. It encompasses a wide range of sectors, including energy, transportation, agriculture, and waste management. The concept of eco-innovation is gaining increasing importance in today’s world as societies recognise the urgent need to address environmental challenges and transition towards a more sustainable future. By fostering creativity and collaboration, eco-innovation has the potential to drive economic growth while simultaneously protecting our planet [2].

The objectives of this research are as follows:

- To identify and evaluate new and emerging eco-friendly technologies and practices that can contribute to sustainable development.
- To assess the environmental impact of existing products, processes, and systems and develop innovative solutions to minimise their carbon footprint.
- To investigate the economic feasibility of eco-innovations and analyse their potential for market adoption.
- To explore the social implications of eco-innovations, including their impact on employment, consumer behaviour, and quality of life.
- To collaborate with industry partners and government agencies to promote the adoption of sustainable practices and eco-innovations.
- To educate and raise awareness among consumers and stakeholders about the benefits of sustainable development and eco-innovations.

2. Methodology

The research’s methods include conducting a comprehensive literature review and gathering data on existing eco-innovation practices and their outcomes in various industries and sectors. Employing quantitative and qualitative research techniques, such as surveys, interviews, and case studies [3]. Furthermore, analyse market trends, consumer preferences, and regulatory frameworks that may impact the adoption and success of eco-innovations. Moreover, identify barriers and challenges that hinder the widespread implementation of eco-innovations and propose strategies to overcome them.

3. Results

Research results about eco-innovation have shown that it can lead to significant reductions in environmental impacts, such as greenhouse gas emissions and resource depletion.

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These findings highlight the potential of eco-innovations to contribute to sustainable development and address pressing environmental challenges [4]. Additionally, studies have demonstrated that eco-innovations can also provide economic benefits, such as cost savings through improved resource efficiency and increased market competitiveness. These findings further emphasise the importance of promoting and supporting the adoption of eco-innovations.

Expected results:

Improved sustainability practices: Eco-innovation research is expected to yield new and improved sustainable practices across various industries. This could include the development of eco-friendly technologies, processes, and products that minimise environmental impact and promote resource efficiency.

Economic growth and competitiveness: The findings from eco-innovation research are anticipated to drive economic growth and enhance the competitiveness of businesses. By identifying innovative solutions to environmental challenges, companies can gain a competitive edge in the market while contributing to a more sustainable economy. [5]

4. Implications

Further research on eco-innovation can help identify specific strategies and policies that can effectively promote its adoption across different industries and sectors [6]. This can include exploring the role of government regulations, incentives for businesses, and collaboration between stakeholders to create an enabling environment for eco-innovation. Additionally, understanding the barriers and challenges that hinder the widespread adoption of eco-innovations can inform targeted interventions and support mechanisms to overcome these obstacles.

5. Originality Value

Research on eco-innovation has the potential to significantly contribute to the existing body of knowledge by identifying novel and unique approaches to sustainability. By uncovering new ideas and technologies, research can drive the development of innovative solutions that address pressing environmental challenges [7]. Furthermore, research's originality value lies in its ability to provide evidence-based insights that can guide policymakers, businesses, and other stakeholders in making informed decisions regarding eco-innovation strategies and investments.

6. Contributions

One key contribution of eco-innovation research is its ability to identify and evaluate the potential impact of emerging technologies on sustainability. This can help in determining which technologies have the greatest potential for reducing environmental harm and promoting sustainable practices. Additionally, eco-innovation research plays a crucial role in understanding consumer behaviour and preferences towards sustainable products and services. By studying consumer attitudes and motivations, researchers can provide valuable insights to businesses on how to design and market eco-friendly offerings that meet customer demands [8].

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Abstract

ICT Skills and the Digital Gender Divide in the Republic of Serbia [†]

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[†] Presented at the International Scientific Conference on Digitalization, Innovations & Sustainable Development: Trends and Business Perspectives, West Mishref, Kuwait, 29 November & 14 December 2023.**Keywords:** ICT skills; digital divide; women

1. Objectives

Information and communication technology (ICT) is a fundamental component of contemporary society. Possession of ICT skills facilitates daily life, affects positioning in the business environment, and facilitates the educational process. [1,2] Equality in the possession of ICT skills is one of the fundamental human rights. However, research conducted in recent years has shown that the gender digital divide is particularly noticeable in underdeveloped and developing countries. [3–6] The main objective of this research is to investigate the gender digital divide in the Republic of Serbia and to determine the potential gap's impact on women's ability to find a job, be more competitive, have better access to education, and earn an income.

2. Methodology

The study is based on the data from the annual survey of the Statistical Office of the Republic of Serbia (SORS) “*The Usage of Information and Communication Technology by Individuals and Households in the Republic of Serbia*”. The data were collected in the territory of the Republic of Serbia according to the methods of Eurostat, excluding the data of the Autonomous Province of Kosovo and Metohija. The sample consists of males and females between the ages of 16 and 74, regardless of their age, work status, or education level. For the purposes of this study, data from the last 10 years were used.

3. Results

The secondary research results show some disparity in ICT skills between men and women, which is even more pronounced in underdeveloped and developing countries. The research results for Serbia are similar. From 2013 to 2022, a certain gap was found in using computers in the last three months and using the internet in the last three months.

In 2013, 60.6% of men and 53.4% of women used computers. [7] In 2017, more than 72% of men used computers, while only 63.4% of women did so as well. [7] In 2022, nearly 80% of men used the internet, while only 72.7% of women did so. [7] Regarding internet usage in the last 3 months, the situation is identical. [7] In 2013, 57.0% of men and only 50.0% of women used the internet; in 2017, 73.7% of men and 67.4% of women did the same. [7] In 2022, 85.9% of men and 81.2% of women had used the internet in the last three months. [7] The results show that, during those ten years, there has been a noticeable increase in the total usage of computers and the internet among both genders, which is expected in the era of digitization of business processes, education, and health care. However, even while the total consumption rate has greatly increased over the previous ten years, there is still a disparity. These findings show that in order to lessen the gap, specific steps and actions must be taken.

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4. Implications

In order to achieve gender equality, the digital gender gap must be closed, and the findings of this research can be helpful in this process. Through various education modes, workshops, and training, building an inclusive workplace that enables women to be more competitive is possible.

5. Originality Value

This study contributes to the existing literature addressing the digital divide gender gap. The importance of gender-sensitive policies in the digital realm is highlighted.

6. Contribution

By addressing the digital divide in the context of women and ICT skills, this research contributes to the broader discourse on digital inclusion and gender equality. It can provide evidence-based recommendations that can guide stakeholders in the process of bridging the digital divide and empowering women in the digital age.

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Abstract

In Search of Innovation, Sustainability and Digitalisation in the Education of Women Entrepreneurs: A Scientometric Analysis [†]

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Keywords: entrepreneurship; women; education; innovation; sustainability; bibliometric analysis; literature review

1. Introduction

Education plays an important role in fostering and developing entrepreneurship, building innovation skills and creating sustainable business solutions, thus promoting economic growth [1]. Digitalisation has facilitated access to education, business opportunities and market access [2,3]. Although women tend to be better educated, they are often disadvantaged in complex entrepreneurial environments [4,5]. Introducing gender-sensitive education can promote women's entrepreneurship and support gender equality [6,7]. We investigate how women's entrepreneurial education relates to digitalisation, innovation and sustainability using a scientometric approach.

2. Methodology

Scientometrics uses comprehensive mathematical methods to quantify scientific research and describe scientific development. Relevant publications on women, entrepreneurship and education were extracted from the Web of Science database and further narrowed down to publications on innovation, sustainability and digitalisation. Various analyses were conducted to describe both qualitative and quantitative performance indicators in this research area. Appropriate visualisation techniques were used to graphically represent the relationships between the research components.

3. Results

A total of 908 relevant publications published in the last 10 years were found, with an average of 12.78 citations per publication and a significant increase in the number of publications and citations in the last 3 years. The University of Southampton and England were cited most frequently. Pronounced keywords were gender, innovation and sustainability. *Sustainability* was the most cited journal, followed by several journals related to entrepreneurship and management, such as the *International Journal of Gender and Entrepreneurship*.

4. Implications

This review paper presents important work in the field that can be used for educational or research purposes to gain an understanding of the connections between the topics presented, provide practical examples or generally promote women's entrepreneurial education, with a focus on innovation and sustainability. The findings are primarily useful for researchers, but also for educators and managers interested in issues related to female entrepreneurship and education.

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5. Originality Value

The focus on the currently important and specific topics of innovation, sustainability and digitalisation in women's entrepreneurship education research sets our study apart from the existing literature.

6. Contribution

Gender equality and quality education are some of the most important Sustainable Development Goals. We contribute to existing research by quantitatively and qualitatively examining the main research components of existing research on innovation, sustainability and digitalisation in women's entrepreneurial education. With our contribution, we aim to advance research in this field to highlight women's potential in entrepreneurship, promote women's entrepreneurship and close the gender gap by addressing education in areas without gender-specific topics.

Author Contributions: Conceptualization, A.S. and J.J.A.; methodology, A.M.F.; validation, A.S., A.M.F. and J.J.A.; formal analysis, A.M.F.; investigation, A.M.F. and J.J.A.; resources, A.M.F. and J.J.A.; data curation, A.M.F. and J.J.A.; writing—original draft preparation, A.M.F. and J.J.A.; writing—review and editing, A.S., A.M.F. and J.J.A.; visualization, A.M.F.; supervision, J.J.A.; project administration, J.J.A.; funding acquisition, J.J.A. All authors have read and agreed to the published version of the manuscript.

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Abstract

The Impact of Business Intelligence on Business Intelligence Execution Capacity in Strategic Management: The Mediating Role of Digital Literacy[†]

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Keywords: business intelligence (BI); strategic management; digital literacy; decision-making process

1. Objectives

Strategic management involves addressing irregularities, pursuing objectives, and selecting optimal actions in an economic context [1]. This encompasses research, analysis, and decision-making [2]. To enhance results, diversify strategies and explore various management techniques [3]. Effective decision-making is crucial for success [4], and decision hierarchies evolving alongside management changes [5]. Business intelligence involves understanding data connections to achieve goals [6]. It includes functions such as reporting, data discovery, data mining support, and predictive analytics [7]. While data-driven decisions are preferred, intuition still plays a role, especially in complex scenarios [8]. Successful decision-making balances strategic management, business intelligence, and the interplay between data-driven insights and intuition.

In this study, perceptions and perspectives of managers at the strategic management level regarding the needs for business intelligence systems will be explored. The sample will be drawn from sectors that have exhibited high levels of digitalization, as indicated by the “Accenture 2016 Digitalization Index” study. These sectors will encompass such as financial services, service activities, retail trade, motor vehicle trade and repair. The research will particularly target prominent companies operating within these sectors. To identify these leading enterprises, we will consult largest companies listed in the Fortune 500 index. The survey administration will be conducted on a voluntary basis, and structural equation modeling will be applied. The survey instrument is anticipated to comprise 42 questions for Business Intelligence and 29 questions for Digital Literacy alongside a demographic information section. Using a Likert scale ranging from 1 to 7, the survey will be carefully adapted to the research’s specific context while retaining its fundamental components, as documented in the existing literature.

The principal objective of this study is to make a substantive contribution to the extant body of research in the realm of strategic management, encompassing sectors in “Accenture 2016 Digitalization Index”. The study seeks to accomplish this overarching goal by delving into the individual perceptions of senior leaders regarding the concept of business intelligence and their discernment of the imperative for corporate business intelligence systems. In the broader theoretical landscape, this study aspires to make a supplementary contribution by undertaking an empirical analysis of how diverse strategic approaches translate into practical implementation. Furthermore, by subjecting some commonly employed strategic management models originally designed for the private sector to empirical scrutiny in the context of the public sector, this research endeavors to

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expand the horizons of this field of inquiry. The ultimate goal of this research is to provide conceptual reference frameworks describing the orchestration of strategic management processes within organizations.

2. Methodology

The core objective of this study is to delve into the perspectives of senior executives concerning the necessity of business intelligence and their assessments of their respective organizations' competencies in integrating business intelligence effectively. In this context, the research endeavors to produce data and insights of an exploratory nature, shedding light on individual and organizational viewpoints regarding business intelligence systems' role as supportive tools in the decision-making process of senior executives.

To accomplish these research objectives, a quantitative research methodology will be employed. Data will be gathered from study participants through a survey-based approach. The survey instrument selected for this study has previously been administered to individuals occupying senior managerial positions within municipal government entities. In adapting this survey to suit the research's applicability in varied sectors, necessary refinements and adjustments will be made, ensuring the preservation of its core components.

The participants in this study will encompass senior executives occupying pivotal decision-making roles within organizations, spanning both the public and private sectors. The selection of senior executives for this study will be all-encompassing, transcending sector-specific boundaries. The anticipated sample will encompass individuals with varying levels of experience in the realm of business intelligence. The sample will be drawn from sectors that have exhibited high levels of digitalization, as indicated by the "Accenture 2016 Digitalization Index" study. These sectors will encompass, but will not be confined to, financial services, service activities, retail trade, motor vehicle trade and repair, among others. The research will particularly target prominent companies operating within these sectors.

To identify these leading enterprises, the initial approach will involve consulting the roster of 500 largest companies, as listed in the Fortune 500 index. Subsequently, companies operating within sectors boasting above-average digitalization scores will be singled out for inclusion in the study.

The survey administration will be executed on a voluntary basis, and no financial remuneration will be extended to participants. The survey instrument is anticipated to comprise 44 questions, alongside a demographic information section. Employing a Likert scale ranging from 1 to 7, the survey will be thoughtfully adapted to suit the research's specific context while retaining its fundamental components, as documented in the existing literature.

3. Results

This study aims to shed light on the decision-making processes and the orientation of strategic management leaders towards using Business Intelligence, as well as to reveal their execution capabilities and perceptions. It is an evident fact that traditional approaches to strategic decision-making have increasingly embraced their share of rapidly evolving technologies in the present day. Decision-making, supported by knowledge, experience, and accumulated data, is transitioning into a new concept with the aid of new technological systems. Business Intelligence systems are one such technological development that facilitates decision-making processes for strategic management leaders. It is clear that access to complete and accurate information is essential for more error-free decision-making. Every piece of data must be evaluated among various alternatives and should guide leaders in decision-making processes. In this context, Business Intelligence systems represent technological innovations with these features. They encompass the stages from extracting, storing, and presenting data from both internal and external sources. It is understood that the use of Business Intelligence systems in management, particularly in the realm of strategic

decision-making, is expected in today's organizations. Therefore, this study attempts to understand the perceptions of strategic leaders regarding the use of Business Intelligence.

Similarly, the importance of Business Intelligence systems for companies in competitive environments and in the face of unexpected or unpredictable developments is clear. At the end of this study, the significance of Business Intelligence systems for organizations seeking to continue their operations and adapt to the competitive environment is emphasized. Perceptions regarding Business Intelligence are of strategic importance for senior public leaders in terms of prioritizing more advanced needs and specific capabilities. This study will also address senior leaders' perceptions of their need for Business Intelligence and their perceptions of their organizations' effective adoption of Business Intelligence. The findings of the research are expected to provide a comprehensive picture of senior leaders' Business Intelligence needs. It is expected that perceptions regarding the dynamics and complexity, as indicated by Hellström and Ramberg (2019), will serve as a guiding factor in how managers work with their organizations' strategies, structures, and processes.

4. Implications

The main purpose of this study is to thoroughly explain the opinions and beliefs of individuals in top management roles, particularly in the field of strategic management (C-suite), in both the public and private sectors. The focus of this study is on their views regarding business intelligence systems. To achieve this goal, the research will involve senior executives from different Turkish organizations. The research data will be carefully gathered through surveys. For the sake of convenience and speed, the research sample will be selected using a method called convenience sampling. The survey will be distributed to the participants online through a designated web link. Before conducting the research, ethical clearance and necessary permissions will be obtained from relevant institutions to ensure that potential respondents can participate in the survey while adhering to ethical standards and regulations.

The study does not anticipate incurring any additional costs from the beginning to the end of the research. Any potential expenses will be covered by the study's author and researcher, eliminating the need for external financial support, whether from governmental or private sources. In essence, this study aims to understand the importance of business intelligence systems. These systems fall under the scope of Management Information Systems and play a vital role in supporting the decision-making process.

5. Originality Value

The overarching objective of this study is to delve into the perceptions held by senior leaders in the field of strategic management concerning the imperative for business intelligence (BI) and their organization's capacity to effectively integrate BI into their operational fabric. This research aspires to offer valuable insights into specific strategic domains where senior leaders must augment their utilization of BI tools and prioritize the development of organizational capabilities. Drawing upon a methodology adapted from the different sectors, this study endeavors to furnish senior leaders with fresh perspectives regarding the indispensability and efficacious deployment of BI in contemporary business landscapes. It seeks to elucidate their ideas, perspectives, and viewpoints concerning the cognitive infrastructure prerequisites pivotal in identifying factors that exert influence on market complexity and uncertainty. The anticipated outcome is a richer comprehension of the perceptions pertaining to the utilization of BI systems that senior leaders need to embrace in order to remain abreast of the rapid technological advancements and proactively respond to the ever-evolving environmental dynamics.

In this study, an exhaustive examination of the perceptions and perspectives concerning the individual and corporate demand for BI systems among senior managerial personnel, particularly in the context of strategic management, will be undertaken.

6. Contribution

For organizations to achieve sustainable success, it is crucial for them to make the right decisions. Business intelligence systems play a significant role in achieving this goal. Especially for large-scale organizations, they aim to improve decision-making processes with insights derived from data. In today's business world, organizations are faced with increasing demands and complex workloads. As data volume grows, customer needs change, and instant decisions need to be made, there is pressure to perform better in the business world. To gain a competitive advantage and maintain sustainable success, organizations need to enhance their efficiency. This is possible by utilizing their assets effectively to create value. In today's business world, information is the most valuable asset for organizations. Organizations that can obtain and utilize information can achieve success. To ensure continuity, organizations need to use and interpret their data effectively.

Business intelligence systems are increasingly being used among large organizations and companies. These systems cater to various levels, from employees to top-level executives. They are particularly aimed at being effectively utilized in managerial decision-making processes. Business intelligence technologies help in understanding complex information and facilitating effective decision-making. With features such as data mining, data storage technologies, and analytical applications, business intelligence systems provide significant benefits to users. One of the key benefits of business intelligence systems is facilitating effective decision-making processes. With good decisions, it becomes easier for organizations to reach their goals. Understanding the role of business intelligence systems enhances the success of organizations. Business intelligence systems typically aim to assist managers in decision-making processes. Increasing business performance and making correct decisions by leveraging business intelligence systems effectively are crucial for organizations (Eren, 2018).

This study will examine the usage tendencies, intentions, and application capabilities of business intelligence systems among top-level executives in their decision-making processes. The utilization of business intelligence systems is directly associated with the user's technological knowledge infrastructure. Therefore, the impact of users' digital literacy on their business intelligence application capabilities will be explored.

The following findings are expected to be reached at the conclusion of the study:

- The needs of managers for business intelligence systems will have a significant impact on determining their usage intentions.
- It is anticipated that the level of digital literacy will significantly influence business intelligence application capabilities.
- The frequency of business intelligence usage in decision-making processes is expected to be directly proportional to the level of digital literacy.
- It is predicted that the success rates of decisions made with business intelligence systems will have a meaningful impact on business intelligence usage intentions.

These results will provide a deeper understanding of the usage and success of business intelligence systems.

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Abstract

Navigating HR 4.0: Harnessing AI for Ethical and Inclusive HR Transformation [†]

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Keywords: Artificial Intelligence (AI); Human Resources (HR); integration; data privacy; ethical implications

1. Objectives

In the Industry 4.0 era, AI-driven HR automation is pivotal for staying competitive. It transforms talent acquisition, work processes, and employee interactions [1–5]. However, it also introduces complex ethical and inclusivity considerations that require careful navigation to realize its full potential [6–8]. Organizations are increasingly recognizing the need to adopt AI-powered HR solutions to thrive in this rapidly evolving landscape [9–15].

2. Methodology

In-depth research into HR 4.0 and AI integration follows a meticulous methodology, emphasizing ethics and inclusivity. It includes a comprehensive literature review, data collection from diverse sources, analysis of ethical and inclusive challenges, the development of ethical strategies, the creation of a framework model, and validation through real-world case studies. This approach ensures responsible AI adoption in HR, fostering diversity and ethical practices.

3. Results

In HR 4.0, AI integration with ethics is vital. Using a structured framework, organizations foster responsible AI integration. This includes ethical leadership, data management, transparency, employee education, policies, collaboration, inclusivity, evaluation, external auditing, and community engagement. Upholding ethics and diversity cultivates a responsible and innovative workplace culture, enhancing competitiveness in HR 4.0.

4. Implications

This study profoundly impacts businesses integrating AI into HR 4.0. It offers practical guidance, addresses ethical considerations, and emphasizes inclusivity. By safeguarding against risks, fostering fairness, and respecting individual needs, it equips organizations to navigate AI integration while upholding core values, transparency, and inclusiveness, ensuring that AI reaches its full potential in HR 4.0.

5. Originality Value

This study's originality resides in the comprehensive exploration of AI's moral implications in HR 4.0. Offering a structured approach, it enhances the likelihood of successful

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AI-driven HR transformations grounded in ethics and inclusiveness. By tackling actual problems via AI, valuable insights into HR management are provided to industry leaders and subject matter experts.

6. Contribution

The study “Navigating HR 4.0: Harnessing AI for Ethical and Inclusive HR Transformation” offers vital insights related to the following areas:

- Bridging the AI–HR gap for ethical integration: This point clearly states the study’s role in connecting AI technologies with HR practices in a way that emphasizes ethical considerations.
- Promoting ethical AI in HR through practical tactics: This suggests that the study not only discusses ethical AI but also provides actionable tactics for its implementation in HR settings.
- Fostering inclusive workplaces via user-centric design: Indicates the study’s focus on designing AI tools that are inclusive and centered around the user’s needs, contributing to more equitable workplace environments.
- Providing practical advice for implementation: Highlights the study’s aim to offer direct, actionable guidance for integrating AI into HR operations.
- Providing empirical evidence for practical applicability: Affirms that the study includes real-world evidence supporting the practical use of ethical AI in HR.
- Advocating for cross-disciplinary collaboration: The study encourages collaboration across different fields to enhance AI integration in HR, indicating a holistic approach.
- Encouraging stakeholder engagement: Emphasizes the importance of involving various stakeholders in the AI integration process, ensuring diverse inputs and buy-in.
- Equipping HR for future tech advancements: Prepares HR professionals for future technological developments, ensuring they remain at the forefront of innovation in their field.

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Abstract

Application of Lean Six Sigma(LSS) in Higher Education, in Kuwait-Case of AU College of Business [†]

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Keywords: Lean Six Sigma (LSS); Higher Education (HE); Kaizen; Total Quality Management (TQM); define; measure; analyze; improve; control (DMAIC) innovation

1. Introduction

As part of AU's mission statement, being a leader in higher education and, as such, pursuing objectives promised to be achieved by AU's core values of PRIDE, excellence in education can only be achieved through quality, efficiency, and Lean management operations.

This paper aims to test the readiness of AU, College of Business for Lean Six Sigma, pointing out the theories and various methods behind the application of Lean Six Sigma (LSS) principles in higher education, further to developing key guidelines for LSS implementation in HEIs in Kuwait. Thus, it enhances internationalization in higher education and increases service quality through the process of production, for improving all aspects that impact delivery. Eventually, it will add value to customers.

LSS is viewed as one of the early models of management used in the 21st century adopted from the realm of private enterprises and corporate businesses. One of the first debates on the use of Lean management was initiated back in 1995 while debating on leadership in higher education [1]. These days, a few hundred universities use Lean management around the world to improve their management models and systems. These universities cooperate within the international Lean HE Hub network, which is a global organization focused on networking, sharing best practices, and supporting the delivery of Lean management [2]. The application of Lean in higher education, HE is carried out in accordance with the following principles: (1) it is anticipated to be action-focused and based on practice; (2) research is based on the application of applied learning while conducting research in educational management to help the process of applied learning; (3) targets faculty and staff members working in higher education who are members of the continuous improvement committees in these institutes. Lean in teaching is the implementation of Lean in the design and delivery of courses, academic programs, and academic processes for improvement of all phases associated with teaching and student learning objectives in a beneficial manner to all stakeholders involved.

This research will explore the possible results of applying Lean in operations, from both academic and administrative perspectives, as well as exploring other associates or complements to Lean such as TQM, Kaizen, and Six Sigma, in higher education. As a result, it is aimed at constructing more agile circumstances for higher education institutes. This research will also highlight international programs that are adopted by green organizations that follow Lean culture, TQM, Six Sigma, and Kaizen.

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2. Methodology

The research approach will be a mix of quantitative and qualitative approaches. The use of a qualitative approach will help determine the basis of the main variables in relation to the studied HEIs and relate to international HEI practice regarding Lean. The quantitative approach will be used to collect the highest correlation between the variables of interest.

Our research draws on Refs. [3–5], where the study deduced the need for testing further the LSS concept in a case study environment.

Our approach will test the readiness of HEI for the LSS model, check current handling procedures and focus on technology application and infrastructure, check current practices and conduct qualitative surveying, incorporating the Six Sigma stage models.

There will be a collection of data in the forms of surveying the relationships that exist between the different variables in the context of LSS strategies, using the DMAIC principles for Six Sigma, analyzing the data found, and building conclusions and recommendations, in line with the qualitative data collected and analyzed [6–8].

3. Results

The study will cover exploring the readiness of the AU College of Business with regards to implementing Lean Six Sigma principles and practices, with regards to systems, use of technology, innovation in the delivery of Education, etc.

The challenges and discrepancies encountered in the university (where Lean and its developed derivatives) are expected to be as follows:

- Vagueness in understanding ideas, terms, concepts, and tools.
- Absence of dedication and guidance leadership initiated by upper management.
- Deficient commitment and gap in training of the proper staff.
- Missing clarity and openness in mean of communication.
- Little or few allocations of resources assigned to the interventions [1,9,10]
- Lack of proper alignment of strategic plans with the right interventions of the organizations.
- Missing identification of proper definitions of problems to be solved and insufficient coherence of the action and proposed changes brought to the process.
- Lack of acceptance of change through adequate change management strategies, the culture of blame, weakness of conflict management within the organization, inadequate justification [10–13].
- Fast-paced changes in the external environment.
- Specific challenges to the university arising from complications stemming from the community, its activities, and the process.
- Faculty perception that there would be a compromise on their academic freedom [4].

4. Implications

Universities are searching for ways to maintain a competitive advantage in a changing environment, which may include sacrificing services to maintain cost-effectiveness. Being complex organizations, there are thousands of business processes facilitating the primary functions and if those processes are streamlined, then efforts can be focused on the primary functions of research, innovation, and education [6,14–16]. The extension of the Lean principles and practices to higher education is an excellent opportunity for all higher education institutes that are seeking academic and operational excellence through a controlled approach, with international exposure and correlation [17]. This approach leverages the commitment and experience of faculty and staff, which leads in turn to the expansion, growth, and development of such higher education institutes. While there may be challenges that may limit the acceptance and impact of LHE, there is an enormous value added to the experience this university serves its faculty and its staff [18–20].

5. Originality Value

This research for the first time explores the application of LSS in HEIs within the framework of Kuwait; it will help as a case study to identify the readiness of HEIs to

incorporate LSS within the case of AU, thus, to identify the barriers and point out the advantages of applying LSS. This research will give insights into the most successful approaches in LSS applied around the world.

This research will help AU identify its readiness for LSS concepts and identify the benefits of LSS in quality education.

6. Contribution

The following are some noteworthy contributions that are expected to emerge out of this study:

- Map the existing knowledge on the application of Lean Six Sigma in HEI, within AU.
- Explore the benefits of applying LSS in HEIs.
- Test the applicability and readiness of LSS in HIEs in GCC, and the Middle East.
- At the moment, there is no organized review or incorporation of the published secondary literature on the topic of Lean Six Sigma in higher education in the state of Kuwait. This work review will provide an important beneficial starting point for academic researchers who are interested in advancing theories on the topic of total quality management in academic institutions.
- The application of Lean Six Sigma, in neighboring GCC/ Middle Eastern countries, has proven its efficiency, in the literature review, in enabling universities to operate more efficiently [21].
- The case study will use DMAIC principles for service improvement. This effort will not be a bottom-end-line drive, but rather a necessity to build capacity in line with the mission statement of the AU Kuwait; in particular, improving efficacy with the detection of current workload allocation set by the top management. Training of key staff is critical in order to follow the DMAIC cycle effectively and gain significant results, as is the buy-in of senior management if the initiative is to take root [4].
- This research will help build the context to understand the efficiency of applying LSS in higher, as an earlier study in Saudi Arabia concluded the need for further elaborations and investigations as there were limitations as mentioned [21,22]: if these insights were to be used generically in other developing countries, validation of the conclusions presented in relation to other countries should be conducted to ensure they are still well-founded in a different context.

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Abstract

Evaluating Kuwait's Electric Vehicle Lag: In-Depth Analysis of Owner Experiences, Dealer Perspectives, and Policy Recommendations with Local Data Insights [†]

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1. Objectives

Kuwait had one of the lowest EV adoption rates in the world in March 2023, with only 400 electric vehicles (EVs) on its roads, or 0.2 per 1000 total automobiles. This study details the benefits and drawbacks of EV ownership in Kuwait by examining the experiences of 12 local Kuwaiti EV owners by deep interviews. Additionally, interviews with EV dealers provide insight into the future of EVs in Kuwait, including modifications that are required for broader appeal and elements that contribute to the low adoption rates at the moment. This study examines the EV models that have been sold in Kuwait and their usage by whom. Furthermore, we forecast models that may succeed in Kuwait under particular circumstances. We provide EV sales projections that account for early adopter and early majority preferences depending on three scenarios of infrastructural build up and incentive policies [1–4].

2. Methodology

This is primarily a qualitative study that is based on deep interviews with Kuwaiti EV owners and secondarily with EV automotive dealers. The guiding methodology is the interview setting and processing technique called the Vancouver School of Doing Phenomenology. This technique rests on seven pillars, which are: (1) scope and validations–10 semi-structured open-ended interview questions that have been validated in dry runs; (2) trust building–taped interviews in a setting of mutual respect and trust that has been established beforehand; (3) dialogue–calm atmosphere where interviewee can freely express their opinion and experience with widest degree of freedom; (4) transcription–interviewer interprets the whole message conveyed, which might include body language, tone of voice or other non-verbal or verbal cues; (5) construction–finding a description that captures the result and its meaning; (6) final big picture verification with the interviewees and other final testimonies; and (7) externalization of the findings and promote further studies.

Our secondary method is a forward regression on consumer demands (built on the results from the first study) depending on three set of scenarios of infrastructural build up and incentive policies [5–7].

3. Results

EV technology in Kuwait is presently limited to early consumers, according to our in-depth interviews with EV proprietors and automobile dealers. We determined that the

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majority of early adopters are one of three types of motorists. The first group consists of torque and luxury enthusiasts, who are primarily wealthy 60-plus-year-old males who purchase full-option sports versions of EVs (Porsche Taycan, Tesla S, Jaguar I-Pace, and BMW i3S) as their third or fourth vehicle. The second group consists of male administrators and senior specialists over the age of 50 who purchase a luxury electric vehicle as a second vehicle (Audi e-tron, Mercedes EQS, Tesla X, and Volvo XC40). The third group predominately consists of 30–40-year-old women who are typically intermediate or middle managers, married, with young children, and have another ICE vehicle in their household (Mercedes EQC, Renault Twizy, Smart, Volkswagen ID.4, Chevrolet Bolt, Hyundai Ioniq 5, Mazda MX-30, and Polestar 2). This group favors the soundless engine and lack of maintenance due to its environmental friendliness. The majority of Tesla model Y and model 3 drivers are male, as women in Kuwait are reluctant to purchase vehicles without a dealership [8–12].

4. Implications

Both EV owners and EV automobile dealers provide the government of Kuwait with concrete advice. The most important was to immediately install 150 Direct Current (DC) fast-charging facilities, one at each gas station. ChargedKw, a provider of electric vehicle (EV) services, reports 42 Alternating Current (AC) public charging stations in Kuwait, primarily in and around retail centers. Comparatively, a 300–400 kW DC converter takes 20 min to charge the majority of contemporary EVs. In Kuwait, no full-sized DC charging stations were installed as of September 2023. Due to order backlogs, establishing 150 stations would take two years, not including the time required to administer the tendering process. It would cost about KWD 15,000 to install each charging station, or around KWD 2.3 million in total for 150 stations. Second, the advice from EV owners was to prohibit Kuwaiti landlords from banning tenants from installing EV fast-charging home devices, which most landlords will not permit at or around their facilities. This reluctance impedes the progression of e-mobility because it effectively prevents expatriates from owning EVs because they are prohibited from owning real estate in Kuwait and thus under rules of the landlords. The third recommendation from the EV owners was for dealerships to provide a 12-year warranty on the EV batteries, which would be equivalent to the life of an internal combustion engine (ICE) vehicle. The greatest expense for EV owners is the vehicle's rapid depreciation, which outweighs the much lower maintenance costs of EV compared to ICE vehicles. With such extensive warranties, the risk associated with the battery's lifespan and depreciation costs would be substantially reduced. Actionable government support would be to cease levying the 5% import tax on EVs and exempting EVs from the anticipated Value-Added Tax (VAT) in order to offset the 20–30% higher purchase price due to additional battery costs. The nations with the highest EV adoption waive all road tolls on ferries, tunnels, and toll roads, and they permit EVs to use lanes reserved for public transportation. In Kuwait, these additional measures could prove to be quite effective [13–15].

5. Originality Value

The Global North has been researching all the aspects of e-mobility for more than two decades, with Scandinavian nations such as Norway, Iceland, and Sweden at the vanguard of both research and adoption. This phenomenon is relatively new in the Middle East, where researchers have only recently caught up with the e-mobility trend. Kuwait is unique in that EV adoption is among the lowest in the world, and very little research has been conducted to determine the underlying causes. This paper is the 10th research paper produced for the project “Break the ICE Reign-A Mixed-Method Study of Attitude Towards Using and Purchasing Electric Vehicles in Kuwait”. Due to its uniqueness and novelty, the Kuwaiti Foundation for the Advancement of Sciences has provided generous financial support that has allowed researchers to collect substantial data on the subject, which could assist the Kuwaiti government with the implementation of electric vehicles.

6. Contribution

Kuwait confronts many obstacles in reducing its greenhouse gas (GHG) emissions to meet the country's Kyoto Protocol and COP21 commitments. Transportation on the ground generates 12% of Kuwait's total greenhouse gas emissions, ranking third after electricity production (48%) (mostly used for interior air-cooling) and manufacturing and industries (28%; primarily hydrocarbon production). Kuwait's emissions per capita are ranked third in the world, after Qatar and Bahrain, and are roughly three times higher than the EU average. However, Kuwait's GHG emissions per capita have decreased annually since the previously recorded 31.1 tCO₂ e/person in 2005. This series of studies suggests that transitioning from conventional vehicles powered by fossil fuels and internal combustion engines (ICEs) to electric vehicles (EVs) could substantially reduce greenhouse gas emissions in Kuwait, thereby assisting the country in meeting the Kyoto Protocol and COP21 standards. The oil-producing country Norway is the global champion in EV adoption and as such is frequently mentioned in conversations about the feasibility of electromobility. Norway has a comparable population to Kuwait; thus, it provides an intriguing comparison to a country with a low EV adoption rate. Norway, for instance, has supplanted 20%, or 800,000 vehicles, of its ground transportation with EVs, resulting in a permanent 3% reduction in its GHG emissions. Comparatively, much less than 1% of Kuwait's ground transportation, or approximately 400 vehicles, has been replaced with electric vehicles. The evidence from Norway demonstrates that electromobility could be a viable option for Kuwait to fulfill its commitment to the United Nations to reduce GHG emissions through their Nationally Determined Contributions (NDCs) 7 and Kuwait Vision 2035 sustainable goal number 13: "Take immediate action to combat climate change and its impacts" [16–19].

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Abstract

Digital Readiness of the Workforce for Successful Digital Transformation: Exploring New Digital Competencies [†]

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Keywords: digital competencies; human resource analytics; sustainable competitiveness; digital maturity model

1. Objectives

Successful digital transformation does not only depend on the successful implementation of information systems but also depends on how effectively those systems are being utilized by people in the organization [1,2]. Thus, this research attempts to explore what kind of skills and competencies are needed for the successful digital transformation of organizations and analyze the digital readiness of the workforce by analyzing their digital maturity level through the measurement of key HR performance metrics [3–5].

2. Methodology

We will apply a hybrid research methodology in this study by combining quantitative and qualitative techniques. Through a comprehensive literature review and in-depth interviews and focus group studies with senior level managers, as well as employees, we will determine the required competencies for human resources to be ready for digital transformation. Then, we will develop and adopt a scale to measure the digital maturity level of the workforce and investigate its relationship with digital transformation.

3. Results

Our study will help academicians and practicing managers better comprehend the new digital competencies in Kuwait and the region required for the workforce to achieve successful digital transformation. This study aims to yield a detailed analysis summarizing the current situation regarding the digital readiness and digital transformation of the relevant sectors in Kuwait, based on the results of descriptive and predictive analyses in the study. We also aim to provide a report proposing a strategic plan for successful digital transformation for policymakers and top managers.

4. Implications

According to a recent analysis by Deloitte Digital, all sectors, from retail to banking, from education to healthcare, and so on, are subject to change in their business models through substantial digital disruption [6]. Several new business models have emerged during this transformation. Technology is changing the way we work and how we manage [7]. Under the intense influence of this transformation, it is crucial for organizations to explore, identify, and improve the appropriate digital competencies and skills through a digital maturity model in order to survive and maintain their sustainable competitiveness.

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5. Originality Value

Although there are some studies that have attempted to explore the new digital competencies of the workforce, this should be investigated by also considering the region and country, sector, structure, and organization of human resources, as well as organizations' strategies. Thus, this study aims to contribute to the literature by (1) determining the specific new competencies of the workforce by considering the effect of culture, industry, and regional development [7,8], (2) adopting a scale measuring those competencies, and (3) analyzing the relationship between the digital readiness of the workforce and the success/degree of digital transformation through possible moderator and mediator variables.

6. Contribution

Based on the results of several studies and surveys, digital disruption and the introduction of Industry 4.0 technologies may cause a serious number of job losses in sectors such as healthcare, energy, and financial services. This scenario is expected to be realized when manual routine tasks are replaced with the use of AI, analytics, and mobile technologies. Even though these job losses are expected, digital transformation will also lead to the creation of new jobs, which require a new set of competencies [9–11]. Thus, improving the digital readiness of the workforce is crucial since it has emerged as the biggest challenge in successful digital transformation.

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Abstract

Implementation of Business Intelligence and Analytics in Human Resource Management as a Core Competency for Sustainability [†]

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1. Objectives

Business intelligence and analytics have been important and very critical tools for organizations along with a significant increase in the usage of data in almost all HR functions [1–3]. As seven of the UN sustainability goals can be related to the successful management of human resources, business analytics has proven to be a crucial tool for sustainability in all organizations. This study aims to summarize what data analytics is and how it can be utilized in HR to support sustainability goals [4,5].

2. Methodology

We followed a qualitative research methodology for this research. First, we summarized the theories, different models, and processes of business intelligence and data analytics in HR. We also carried out a literature review to find out how HR analytics can contribute to sustainability goals in the organizations. By providing examples, including the COVID-19 pandemic, we intend to present how this tool can be utilized for promoting sustainability and how it can be crucial for managers in the decision-making process.

3. Results

In the systematic review, we provide a detailed definition of business intelligence and data analytics in HR and their differences from pure statistics. We also explained different phases of HR analytics step by step by providing detailed examples and explanations. Different analytics models are also introduced. Examples from different cases and industries showed that HR analytics can enable managers to plan proactively and significantly contribute to sustainability goals.

4. Implications

Technologies, such as databases, artificial intelligence, big data, cloud computing, machine learning, and mobile technologies and devices, have offered organizations new tools and ways to collect, store, assess, and analyze employee-related data to establish a reliable basis for decision-making. HR Analytics, by using these data and processing them through several phases of data analytics, can provide vital information for HR managers to take proactive actions that contribute to sustainability.

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5. Originality Value

Our study is one of the pioneer studies that systematically explore and summarize the usage of HR analytics for reaching sustainability goals. HR managers and decision makers cannot ignore the data science perspective anymore. The increasing usage of data and artificial intelligence in almost every field has provided managers with smart tools to diagnose the situation and predict the future status [6–8]. For that purpose, our study provides significantly valuable information to better understand the current trends and techniques.

6. Contribution

In almost every industry, business intelligence and data analytics have been used to improve all types of functions [6,7]. HRM is a field dealing with all HR functions, as well as human attitudes and behaviors [8–10], which are difficult to measure and analyze. Furthermore, ethical considerations must also be taken into consideration in HR activities, such as diversity and well-being. Hence, our study introduced HR analytics, a crucial methodology and tool, that might shed light for managers and decision makers by helping them significantly contribute to sustainability.

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Abstract

Brand Identification, Symbolism, and Evangelism: Evidence from PICK and Pinkberry in Kuwait [†]

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Keywords: brand evangelism; brand identification; brand symbolism; frozen yogurt industry

1. Objectives

The objectives of this study are to investigate brand identification, brand symbolism, and brand evangelism, examining their interplay among the consumers of two frozen yogurt brands in Kuwait (PICK and Pinkberry) [1,2]. This study aims to understand how consumers relate to these brands on a personal level and explore the meanings associated with the brands, while also delving into the factors driving brand evangelism [3,4]. Additionally, it seeks to analyze demographic factors and generational cohorts to assess their influence on these relationships. This study strives to provide insights for marketers, contribute to marketing and consumer behavior research, and identify limitations while suggesting directions for future studies, aiming to enhance our understanding of brand–consumer dynamics in the specific context of these brands [5–7].

2. Methodology

This study utilized a two-pronged methodology: first, it employed descriptive statistics to analyze demographic data on consumers of the PICK and Pinkberry frozen yogurt brands in Kuwait, focusing on variables such as age, gender, and brand preference. Second, it applied Partial Least Squares Path Modeling (PLS-PM) to examine latent variables representing brand symbolism, customer brand identification, and brand evangelism, evaluating the model's effectiveness in elucidating their relationships. This study's data collection centered on survey responses, and it acknowledged methodological limitations, including the cross-sectional nature of the data and potential biases. It also offered recommendations for future research, emphasizing the need for larger and more diverse samples, longitudinal studies, and the exploration of additional variables affecting these relationships [8,9].

3. Results

The results of this study include descriptive statistics that provide insights into the demographic characteristics of the surveyed population. These include information about the distribution of gender, age, marital status, education level, employment status, monthly income, preferred brand, and frequency of visiting or ordering from PICK Kuwait and Pinkberry. Additionally, this study employed Partial Least Squares Path Modeling (PLS-PM) to assess latent variables such as BS, CBI, PI, PBR, and OBR. The results indicated that these latent variables accurately described the data. Internal consistency, convergent validity, and discriminant validity were evaluated, demonstrating that the measurement model was suitable for the data. The structural model's R² values were examined, with

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some variables falling below the recommended threshold of 0.20. The model's goodness of fit (GoF) index indicated a weak fit with low predictive power. Finally, regression analyses showed significant relationships between different latent variables, both directly and through mediation effects [10–12].

4. Implications

This study's implications point to the significance of effective branding strategies in influencing consumer behavior and brand evangelism. Marketers can leverage these insights to create compelling brand identities that resonate with consumers, foster engagement, and build passionate customer communities [13,14]. The findings underscore the role of demographics and generational marketing in tailoring strategies to specific consumer segments. Additionally, this study's recommendations for future research highlight the need for ongoing exploration of brand–consumer relationships, emphasizing the long-term impact of brand identification and symbolism on consumer behavior and loyalty [15,16].

5. Originality Value

This research offers original insights by investigating the interplay between brand identification, symbolism, and evangelism, with a specific focus on two frozen yogurt brands in Kuwait. It further explores how different generational cohorts influence these relationships, providing a unique perspective on consumer–brand dynamics. Additionally, this study takes a multidimensional approach to brand evangelism, considering dimensions such as intention to buy, word-of-mouth, and negative reviews. The recommendations for future research underscore a commitment to advancing the field and addressing this study's limitations, enhancing the breadth of knowledge in this area.

6. Contributions

This research makes significant contributions by deepening our understanding of brand dynamics, particularly in the context of two Kuwaiti frozen yogurt brands. It offers valuable market-specific insights and a generational perspective, enhancing knowledge about how different generations interact with brands. Additionally, this study takes a comprehensive approach to brand evangelism, looking beyond traditional measures, and provides guidance for future research, underlining its commitment to advancing the field of consumer behavior and branding.

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Abstract

The Moderating Role of Payment Platform Applications' Relationship with Increasing Purchase Intention among Customers in Kuwait—Unified Theory of Acceptance and Sustainable Use of Technology Model [†]

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Keywords: payment platform; technology acceptance; UTAUT; purchase intention; Kuwait

1. Objectives

This paper aims to understand the moderating role of mobile payment platform applications by analyzing the various factors that influence the online purchase intention of customers in Kuwait. Furthermore, it aims to determine the effect of the presence of different types of payment platforms on the variables of the unified theory of acceptance and use of technology (UTAUT) model [1–3]. The UTAUT model's findings provide a better understanding of the desirability of utilizing mobile payment services in Kuwait.

2. Methodology

This study explores the influence of mobile payment platform applications on customer purchase intention in Kuwait by employing a quantitative survey of 150 local customers [4,5]. Survey questions cover the usage of mobile payment applications, purchase intention, and overall satisfaction [6]. The data are analyzed using descriptive statistics and correlation analysis in order to gain insights [7–10].

3. Results

The results of this study show that mobile payment platform applications have a significant impact on customer purchase intention in Kuwait. The results suggest that the likelihood of a purchase is affected by performance expectancy, effort expectancy, social influence, risk, and trust [11–13].

4. Implications

This research has important implications for marketers and customer service providers, informing their strategies and initiatives [14–16]. Furthermore, it offers recommendations to payment platform providers on how to improve customer satisfaction and security measures [17,18].

5. Originality Value

This paper aims to shed light on the moderating role of mobile payment platform applications and how these platforms influence customer purchase intention in a specific cultural and economic context, which is a relatively understudied topic.

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6. Contributions

This study provides a valuable contribution to the literature on mobile payment adoption by applying the unified theory of acceptance and use of technology (UTAUT) model as a theoretical framework to study the factors which exert an influence on online purchase intention in Kuwait.

Author Contributions: Conceptualization, O.A.; methodology, A.A.; software, A.A.; validation, F.A.; formal analysis, O.A.; investigation, B.A.; resources, A.A.; data curation, O.A.; writing—original draft preparation, O.A.; writing—review and editing, F.A.; visualization, S.A.; supervision, S.A.; project administration, S.A. All authors have read and agreed to the published version of the manuscript.

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Abstract

Application of Digital Solutions in the Oil Industry for the Agricultural User Segment [†]

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[†] Presented at the International Scientific Conference on Digitalization, Innovations & Sustainable Development: Trends and Business Perspectives, West Mishref, Kuwait, 29 November & 14 December 2023.**Keywords:** digitalization; digital communication; sales channels; marketing campaigns; agriculture

1. Objectives

The aim of this paper is to show that traditionally considered conservative and not progressive customer segment and industry are open to innovations and new and up-to-date solutions. Digitalization in agriculture is occurring, and farmers are becoming very sophisticated users of digital solutions [1]. In order to keep and protect market positions, modernize the brand, improve performance, and become and stay relevant to new, digital generations, appropriate solutions are needed [2,3].

2. Methodology

The applied research method is a mix of online and face-to-face surveys. An online survey was conducted with agriculturists who shared their contact details previously, while the face-to-face survey was conducted at the Agricultural fair, with visitors who are at the same time agriculturists.

The applied research methodology employed a combination of online surveys and face-to-face interviews. The online survey targeted agriculturists who had previously provided their contact information, while the face-to-face interviews were conducted with agriculturist visitors at the Agricultural fair. The instrument used is a structured questionnaire, the same for both methods, with one part about the usage of solutions already implemented only applied in the online survey. The aim of the research was to understand farmers and their needs, their motivations to use new solutions, the level of satisfaction with the current solutions, and their suggestions for the future [4]. There were 25 questions, mostly multiple-choice [1,5–9]. Users from the database were chosen randomly, and 2234 farmers completed it, while at the fair, 567 farmers participated in the survey.

3. Results

The results of the research showed that there is a need for digital solutions in this target group [5]. Not all farmers, but many, implemented digital solutions in their daily work, which led to an acceptance of these kind of solutions in other fields. However, there are differences in motivations and specific needs, by region, mostly due to the nature of farming. As expected, there are some that are not prone to change and digital solutions themselves, but, surprisingly, they are not against digitalization in general.

4. Implications

Both agriculturists and companies in conventional industries, such as the oil industry and the retail sale of fuel and motor oils, stepped into direct communication [5,6]. The survey showed the opportunity for companies to advance by knowing and responding to

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agriculturists' changing and evolving needs [3,10,11]. Also, new fields for research and better understanding are opened. What should be offered and how those who are residing the change should be approached is yet to be investigated.

5. Originality Value

In order to improve business results, there is a need to offer the right solution in order to optimize communication and be effective in processes, while insights into the needs are starting point. Given the importance of digital solutions, there is a good reason to focus scientific research on this type of communication. A significant focus of the work was directed towards the research model and method, which serves as support for increasing the market position of the company and increasing profitability.

6. Contributions

Better and modernized services can be established through the implementation of new, digital solutions, and new experiences. Established dialogue with specific segments influences their attitudes about the company, and their willingness to increase the number of visits, spendings and recommendations. Solutions enabled by information technology are not only for very advanced and sophisticated users, but for many. On this positive example, all market players can benefit by following already made pioneer steps.

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Abstract

Digitalization of Finance and Accounting in Women's Entrepreneurship for Sustainable Corporate Business Operations in the Middle East [†]

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Keywords: digitalization; entrepreneurship; sustainability; finance; accounting

1. Objectives

This research paper aims to provide a comprehensive analysis of the digitalization of finance and accounting within women's entrepreneurship and its implications for sustainability in corporate business operations in the Middle East [1]. We will explore the drivers behind this digital transformation, the challenges women entrepreneurs face, and the opportunities this transformation presents for sustainable business practices [2].

2. Methodology

To conduct this research, we will employ a mixed-methods approach, including qualitative and quantitative data collection methods [3]. The primary data sources will consist of surveys, interviews, and financial data from women-led businesses operating in the Middle East [4]. Secondary data sources will include academic literature, government reports, and industry publications.

3. Sample Selection

We will select a diverse sample of women-led businesses from various industries and countries within the Middle East to ensure a representative analysis. The selection criteria will include factors such as business size, age, and level of digitalization in finance and accounting.

4. Data Collection

Surveys—We will administer surveys to women entrepreneurs to collect data on their business operations, digitalization efforts, and sustainability practices. The surveys will be designed to capture both quantitative and qualitative information.

Interviews—In-depth interviews will be conducted with a subset of women entrepreneurs to gain deeper insights into their experiences with digital finance and accounting tools, challenges faced, and strategies employed for sustainability.

Financial Data Analysis—We will analyze financial data, such as income statements and balance sheets, to assess the impact of digitalization on financial performance and sustainability practices.

5. Results

Quantitative data will be analyzed using statistical software, while qualitative data from interviews will be analyzed thematically. We will also conduct a comparative analysis of financial data to determine the correlation between digitalization efforts and sustainability outcomes [2].

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6. Implications

Access to Technology and Education—Improved access to technology and education has empowered women entrepreneurs in the Middle East to embrace digital financial tools [1]. Mobile banking, cloud-based accounting software, and online financial courses have become readily available, reducing barriers to entry.

Government Initiatives—Government initiatives promoting digitalization and women's entrepreneurship have created an enabling environment. These initiatives often include financial incentives, training programs, and support for technology adoption [1,2].

Market Demands—Consumer preferences have evolved, and there is a growing demand for businesses that prioritize sustainability [1]. Women-led businesses recognize the need to adapt and use digital tools to meet these demands effectively.

Cost Efficiency—Digital finance and accounting tools offer cost-effective solutions for businesses [1]. They eliminate the need for extensive manual record-keeping and allow for more efficient financial management.

7. Originality Value

Data-Driven Decision-Making—Digitalization provides access to real-time financial data, enabling women entrepreneurs to make informed decisions that align with sustainability goals.

Transparency and Accountability—Digital financial systems enhance transparency in financial reporting, which is essential for building trust with stakeholders and investors interested in sustainability.

Remote Work and Flexibility—Digitalization allows for remote work and flexible business operations, reducing the carbon footprint associated with commuting and office space.

ESG Reporting—Digital tools facilitate the tracking and reporting of ESG metrics, enabling women-led businesses to meet the growing demand for ESG disclosure. We also addresses the impact of digitalization on financial performance and sustainability. Our analysis of financial data from women-led businesses in the Middle East reveals a positive correlation between digitalization efforts and financial performance. Businesses that adopted digital finance and accounting tools experienced improved profitability and efficiency.

Furthermore, sustainability practices were more prevalent among businesses that had embraced digitalization. These businesses reported lower environmental impacts, higher levels of social responsibility, and better governance practices.

8. Contribution

This research paper will contribute to:

- Women's entrepreneurship in the middle east.
- The digitalization of finance and accounting.
- Sustainability in corporate business operations.
- The intersection of women's entrepreneurship, finance, and sustainability.

Author Contributions: Conceptualization, O.A. and M.K.; methodology, O.A.; validation, M.K.; formal analysis, O.A.; investigation, O.A.; resources, M.K.; data curation, O.A.; writing—original draft preparation, O.A.; writing—review and editing, O.A. and M.K.; visualization, M.K.; supervision, O.A.; project administration, O.A. All authors have read and agreed to the published version of the manuscript.

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