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International Marketing Journal of Culture and Tourism (IMJCT)

Published by Katara Publishing House in cooperation with Al Rayyan International University College-University of Derby UK-Qatar.

FOUNDER & EDITOR-IN-CHIEF

Professor Khalid Al-Sulaiti

Al Rayyan International University College-University of Derby UK-Qatar and CEO of Katara Cultural Village Foundation

The main objective of the journal is to publish scientific research works on the subject of culture and tourism marketing that includes management trends, government policies, and the insight related to development of new technologies, methodologies and tools.

The journal seeks to provide a platform for researchers and experts in the field of culture and tourism marketing to reach a wider audience.

About Journal

IMJCT is an international scientific journal specialized in publishing research in tourism culture and marketing, including government administration and policies, and developing new technologies, methodologies, and tools. It is published by Katara Publishing House in cooperation with Al Rayyan International University College-University of Derby UK-Qatar. The Journal publishes two issues per year and aims to provide a scientific platform that allows researchers and specialists to arbitrate and publish their scientific papers from research and studies in the field of tourism, culture, and marketing, as well as to contribute to the spread of knowledge by making these researches and studies available to the beneficiaries across this vast space.

Scope

The journal has a huge scope as it fills a void. It will help not only students, teachers. experts and researchers who are working in this area, but also cultural and tourism institutions, organizations, NGOs, companies, and the general public to update themselves about the latest research, developments, and trends in culture and tourism marketing.

Vision

To be a leading global scientific publishing platform in the field of tourism culture and marketing.

Journal

- Giving the opportunity to Arab and international researchers to arbitrate and publish their research in the field of tourism culture and marketing.
- Contributing to supporting and developing the cultural field and tourism marketing through genuine and serious research studies in accordance with international standards.
- Achieving the universality of culture and tourism in accordance with the modern vision, with its professional controls and ethics.
- Creating a knowledge base for the magazine that contributes to creating a scientific reference and a solid documentary record.

Editorial Board

Advisory Board

Publishing Rules

General Conditions:

- The Journal is interested in publishing scientific papers and events related to culture and tourism marketing in the English language, whether it is original research, reports on conferences, seminars and workshops, or presentations of scientific thesis related to the areas of publishing the magazine.
- The journal is concerned with publishing original scientific papers that have not been previously published, by any means of publication, and have not been submitted for publication in another journal. This shall be confirmed by the written approval of the researcher.
- The researcher is not entitled to publish his research in another place after approval of its publication in the journal except after obtaining written permission to do so from the editor-in-chief.
- The journal has the right to take whatever legal and disciplinary measures it deems appropriate in the event that it is proven that the researcher breaches the scientific integrity.
- The journal is not obligated to provide reasons for rejecting the research if it chooses not to publish the submitted material.
- The editorial board has the right to make any necessary formal adjustments to the research in accordance with the instructions and rules of publication in the journal.
- The journal does not charge any fees for publishing and does not provide any rewards for published research except in the case of subscriptions.

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- **Commitment to objectivity and ethical values in scientific research, such as:**
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  2. Avoid offending people and bodies.
  3. The research should deal theoretically and practically with contemporary issues that are closest to human reality.
  4. Taking into account objectivity and keeping away from personalizing ideas.

- **Considering the scientific formulation of the research, through the following:**
  1. The integrity of the language and avoiding linguistic errors.
  2. Observing punctuation and spelling rules.
  3. Accuracy in documenting texts and evidence.

- **Number of research pages should not exceed (30) pages of regular cut (A4), including references and appendices.**
  - Font size and type: The font size is: (14), margin: (10). and font type (Times New Roman)
  - The research shall be accompanied by an abstract, provided that it does not exceed (300) words: The abstract includes the following: Research topic, objectives, methodology, more important findings end recommendations, in addition to keywords.
  - 5000-7000-word maximum length including references, tables, and figures.
  - The research to be divided and organized according to the requirements of the scientific research method, in order to maintain coordination of the research and reports published in the journal.
  - An APA approach to be followed in documenting research.
  - The researcher can view a general form of the scientific paper by clicking here: Article Template.

Procedural Steps for Publishing a Research

- The papers are sent electronically, either by uploading them via the journal's website or by sending them to the editorial board mail: editor@imjct.com.
- The editorial board of the journal conducts a preliminary examination of the research and then decides its eligibility for arbitration or its rejection.
- The research and studies submitted for publication in the journal are arbitrated by at least two arbitrators.
- The research is returned to the researchers after evaluation and arbitration for the purpose of evaluation end modification.
- If the research is accepted for publication, then all copyrights shall devolve to the journal, and it may not be published in any paper or electronic means of publication except with the written permission of the editor-in-chief.
- If the research is published, the researcher will be sent a letter of publication with an electronic copy of the journal in which his research was published.

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Editorial

Dear academic and industry colleagues,

It is with great pleasure that I present to you the eighth issue of the *International Marketing Journal of Culture and Tourism*, a joint publication of Katara Publishing House and Al Rayan International University College in partnership with the University of Derby.

Since its inception, the journal has remained committed to publishing high-quality scientific research in the fields of culture and tourism marketing, focusing on emerging management trends, government policies, and industry insights that contribute to the advancement of the tourism sector. By providing a platform for academics, government officials, and industry professionals, we continue to foster knowledge exchange and dialogue within these critical domains.

As we move forward, the tourism sector worldwide continues to evolve, facing new challenges and opportunities. This issue reflects our ongoing dedication to addressing contemporary developments in tourism and cultural marketing through insightful research and expert analysis. Our commitment to rigorous academic standards remains unwavering, ensuring that all published articles undergo a comprehensive double-blind peer review process.

We strive to enhance the efficiency of our review and publication process while maintaining the highest academic standards. Additionally, we continue to explore thematic editions that address pressing issues in the industry, making our journal a valuable resource for researchers and professionals alike.

I extend my sincere gratitude to the editorial team, authors, and reviewers whose dedication and expertise have contributed to the growth and success of this journal.

I warmly invite scholars and industry experts to submit their research for consideration in future issues of the *International Marketing Journal of Culture and Tourism*.

Sincerely,
Professor Khalid Al Sulaiti
Founder and Editor-in-Chief

A balancing Act - Developing a Digital Leadership Strategy Between Digital and Analogue Worlds in the Tourism and Hotel Industry.

Marco A. Gardini
Marco.Gardini@hs-kempten.de

HS Kempten, Germany
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Abstract

Achieving a position of Digital Leadership requires a strong strategic response and cultural posture. Although digitalisation and artificial intelligence is increasingly seen as an opportunity rather than a threat by the vast majority of players in tourism and hospitality industry, the digitalisation activities currently being observed by numerous players are more of a reactive, operational and/or isolated nature than part of a dedicated and integrated digitalisation strategy, with clearly defined goals and the aim of transforming a traditional tourism offering into a digitalisation-capable and therefore sustainable business model. This paper aims to clarify how tourism and hospitality organisations strategically respond to the challenges imposed by digitalisation and artificial intelligence and to identify some tensions and challenges in the related strategic approach.

Key Words:

Digital Leadership, Strategy, Analogization, Digitalisation, Transformation

Introduction

Digitalisation and artificial intelligence are reshaping the tourism and hospitality industry and increasingly becoming the focus of tourism theory and practice (Gretzel et al. 2022; Egger 2022; Buhalis et al. 2019). However, the majority of the tourism and hospitality industry companies have been attested a below-average level of digitalisation or digital maturity by various studies over a long period of time (Deutsche Telekom 2022; Demary and Goecke 2021; Ghandi et al. 2016, Strategy &PwC 2013). Many industry players seem to be in an early or experimental stage of the digital era where there appear to be many possibilities, but very few truths and regularities. Consequently, the fundamental questions and issues that both science and business practice deal with in the context of digital transformation are the same today as they were in the past. An example of this is the observation that, around thirty years after the commercial beginnings of the internet in 1991, basic digital hygiene factors, such as online bookability and online visibility of companies, are still identified as crucial problem areas of digitalisation in the tourism and hospitality industry (Online Birds 2023; BTE Tourismus- und Regionalberatung 2023). This and the fact that very few companies are "born digitals" has shifted the balance of power over the last twenty years, as numerous changes in the industry structure and competitive landscape in various areas of tourism and hospitality seem to underline (lower market entry barriers, increasing competitive rivalry, structural change, risk of substitution, dis/re-intermediation, consumer power, market transparency, etc.) (Pencarelli 2020, Buhalis et al. 2019). The strong dynamics of change are reflected in the emergence and development of numerous companies that were not previously active in tourism and hospitality industry and have now - based on their purely digital business approach - leapfrogged the analogue age of tourism and are challenging established providers at various levels of competition and performance, as for instance Booking, Google or Airbnb in the hotel industry. Currently, very few of the traditional providers of the tourism and hospitality industry have been able to strategically counter the disruptive and digitalised business models; in fact, most companies still lack a future-oriented and systematic leadership approach to digitalisation that can be used to respond to the changing challenges on the market and organisational side (Bauhuber et al. 2023¸ Ristova/Maglovski 2018).

Digital Leadership – What is your Strategy?

Digital Leadership generally refers to the management of organizational systems and stakeholders based on the comprehensive application of digital technologies, aiming to achieve higher effectiveness and efficiency in the internal and external activities of the company (Wirtz 2021). In literature, the concept of 'digital maturity' has emerged as a means to assess the current status of a company's digitalisation efforts and to provide guidance for future strategies and decisions. Following Chanias and Hess, digital maturity is defined as *'...the status of a company's digital transformation'* that describes *'...what a company has already achieved with regard to transformation efforts'* (Chanias/Hess 2016, p. 4). Various maturity models have been developed in both academia and industry (Proff et al. 2021; Thordsen et al. 2020; Remane et al. 2017), which, with moderate variations and depending on the level of abstraction, primarily focus on four dimensions: Strategy, leadership and corporate culture, competencies and skills and organization.

In the past, tourism and hospitality companies have done a lot to become more efficient in what they do, they have become bigger, faster, more productive, better, in other words, they have become more efficient in what they do. As we all know, efficiency means doing things "right". This is the one art that companies and entrepreneurs must master. However, in his Harvard classic "What is Strategy?", Michael Porter (1996) pointed out almost 25 years ago that operational excellence is by no means a strategy and cannot replace it ("operational effectiveness is not strategy"). However, in the digital transformation process in many tourism and hospitality companies, the technology perspective currently dominates the customer perspective and thus tactics dominate strategy, rather than the other way round (Gardini 2021; Furr/Shipilov 2021), despite the well known dictum of digital transformation management that *"strategy, not technology, drives digital transformation."* (Kane et al. 2015). That this is obviously not a recipe for success and that the majority of all digital transformation initiatives do not accomplish their desired objectives has been repeatedly emphasised by various studies across a wide range of industries for many years (Davenport and Westerman 2018; Martin 2018; Piccoli 2008). In 2019, for example, US companies invested an estimated USD 1.3 trillion in digital transformation initiatives, of which an estimated USD 900 billion was wasted due to a lack of anticipation and an over-reliance on technology (Tabrizi et al. 2019).

It appears that the technological and operational agenda continues to overshadow the much more important strategic question of what long-term added value digitalisation can create for companies and customers and where, and whether the potential for digital change is so massive and fundamental that it fundamentally challenges the way companies function in their respective economic structures. In this context, Porter was fast to point out that the view of digital technology and the economic evaluation of the strategic relevance of internet-based technologies should be characterised by a clear analysis of the strategic added value that digital opportunities are able to deliver to companies and organisations: *"...see the Internet for what it is: an enabling technology - a powerful set of tools that can be used wisely or unwisely, in almost any industry and as part of almost any strategy. We need to ask fundamental questions: Who will capture the economic benefits the Internet creates? Will all the value end up going to customers, or will companies be able to reap a share of it? What will be the Internet's impact on industry structure? Will it expand or shrink the pool of profits? And what will be its impact on strategy? Will the Internet bolster or erode the ability of companies to gain sustainable advantage over competitors?"* (Porter 2001, p.64). Even though the COVID-19 pandemic has recently led to a change in awareness and a digitalisation push in the tourism and hospitality industry, the strategic and cultural dimension of digital transformation is still underestimated by large parts of the industry: *"The survival of traditional enterprises is seriously threatened by the new playbook rules established by digitalisation. Consequently, these business entities are called to innovate and re-think the business model they have been using thus far to create value for tourists and to achieve satisfactory performance levels."* (Pencarelli 2020, p.467).

And so the other art that distinguishes good from less good companies is effectiveness, i.e. the ability of companies and entrepreneurs to do the "right thing"! But what is the right thing to do for your own company naturally always depends on the context and the goals you set yourself and is therefore inevitably the most essential and fundamental question that an entrepreneur or a company must answer for itself. Consequently, a strategic answer is also needed in the digital age, but tourism and hospitality companies often find it difficult to develop a clear and stringent understanding of what they do and what they do not want to do. Accordingly, an overemphasis on, as well as a lack of integration of, operational-tactical elements of corporate management can currently be observed in numerous companies across many tourism sectors and industries, while the strategic and coordinative requirements of management are often neglected:*"...these firms appear to be too busy 'running the business' to strategically manage it."* (Rodwell/Shadur 2007, p. 53). The traditionally strong product and sales orientation of many players in the tourism and hospitality industry makes this approach even more difficult in many companies (Gardini 2017).

Successful companies have mastered both disciplines, as both the efficiency and effectiveness of a company are essential in order to achieve superior corporate and marketing performance. The conflict between operational and strategic orientation and the tension between the need to coordinate and integrate analogue and digital corporate activities affects the various areas of a company. Accordingly, a return to a clear market- and customer-centered focus is required here (mission/purpose), as well as the consistent and stringent alignment of corporate activities on the basis of company-specific and long-term developed resources. These capabilities and resources ideally cannot be imitated by competitors (non-imitability), are integrated into the company in such a way that they only realise their full value there (company specificity), cannot be replaced by a competitor's resource substitutes that have a similar performance potential (non-substitutability), have a value-creating character on the market, which is reflected by an additional benefit perceived by the customer (ability to create value on the market) (Frehse 2006; Porter 1999).

The changed competitive conditions in numerous market and customer segments in the tourism and hospitality industry as a result of digitalisation open up new strategic options for service providers in dealing with their customers on their way to becoming a smart or digital tourism and hospitality company in the field of tension between the interaction between artificial and natural intelligence (Haux et al. 2021) as well as the analogisation and digitalisation of entrepreneurial actions (Bichler et al. 2019) and the associated strategic behaviours of standardisation and/or individualisation, mechanisation and/or humanisation and externalisation and/or internalisation (Gardini 2022). For example, the dimensions of analogisation and digitalisation can be used to create a portfolio that can be used to identify four general directions that can serve as a guide through the 'tech' and 'touch' dimensions of tourism and hospitality in the digital age (Fig. 2.1):

- *Integrative strategy (high-touch and high-tech)*

The technological possibilities offered by digitalisation and AI are used to provide customers with highly individualised, intensive and unique customer experiences, with the aim of creating an "*intelligent*" environment that enables a targeted, interpersonal and relationship-oriented customer experience between the customer and the company by making maximum use of the given technological potential.

- *Human-centered strategy (high-touch)*

As a result of increasing digitalisation and mechanisation, a counter-trend of analogisation is emerging ("...need/desire to escape from technology" (Gretzel et al. 2015, p. 185)). Accordingly, the high-touch approach places people and not technology at the centre. The aim is to create a "*social*" environment that enables an intensive, interpersonal and high-quality relationship between customer and company by providing authentic real life experiences, social contacts, collaboration, time sovereignty, deceleration, a change from everyday digital life and much more.

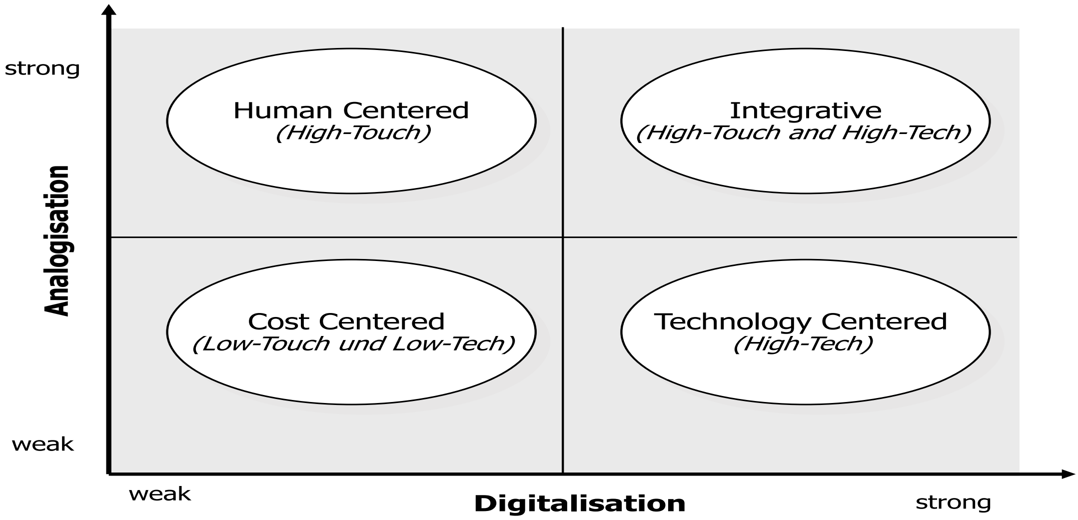
- *Technology-centered strategy (high-tech)*

Digitalisation, mechanisation and automation are the drivers of the business model here. Accordingly, the high-tech approach places technology, rather than people, at the centre. The aim is to create a "*technical*" environment by maximising technological potential and the unique functionality of digital applications, which enables individual, technologically charged customer experiences.

- *Cost-centered strategy (low-tech and low-touch)*

The focus of this approach is not on maximising technological potential, but on optimising it. The aim is to create a "*rational*" environment and, through standardisation, rationalisation, automation, externalisation and more, to drive the substitution of the production factor "human" forward and thus generate costs, price advantages and efficiency gains from both a company and customer perspective.

FIGURE 1: Analogisation and digitalisation als competitive dimensions in the tourism industry (Gardini, 2022, p.453)



The balancing act between old and new as a strategic challenge

At this point, each tourism and hospitality company needs to initiate and develop its own specific digital transformation process based on the company's history, identity and prevailing strategic ideas. The key question that tourism and hospitality companies and organisations need to address at this point is whether this process should be evolutionary or disruptive and revolutionary. This question is not fundamentally new or solely due to digitalisation, as the balancing act between old and new business areas, between existing and innovative business, between efficiency and effectiveness is a well-known challenge in strategic management. In this context, the concept of organisational ambidexterity (Raisch et al. 2009; O'Reilly 2004) is often used in the literature to illustrate the challenges of digital transformation processes in companies. Organisational ambidexterity refers to the specific strategic ability of a company to manage its business model efficiently and in a future-oriented manner at the same time. Hence, from a strategic perspective, companies and organisations must be able to expand their core business with maximum efficiency (exploitation) and at the same time have the ability to actively develop innovations and new business models (exploration) in order to remain competitive in a disruptive, digital world (Kollmann 2020, Raisch et al. 2009). In the strategic development process, however, it is important to note that the digitalisation and digital transformation of a tourism and hospitality company does not necessarily have to be disruptive and radical. It is important to bear in mind that sustainable business models and concepts can often be realised through intelligent adaptation rather than radical reinvention. Digitalisation in tourism and hospitality is not always about reflexively replacing material or physical elements of service design with digital ones, but rather about striking the right balance. Furthermore, the digital transformation of companies is not always necessarily about a radical change in strategy, but rather about the question of whether and how new digital technologies can be used to transform familiar rather than new customer needs and wishes into satisfying or inspiring customer experiences and customer experiences. (Furr/Shipilov 2021)

The starting point for such strategic development processes is challenging, if not problematic, for many tourism and hospitality companies. Large segments of the tourism sector, such as hospitality, gastronomy, and leisure/cultural businesses, are traditionally considered industries with a weak technological (digital) affinity. This is attributed to the low digital maturity and productivity levels of many stakeholders in these sectors, stemming from a critical and destructive attitude toward new information and communication technologies (O´Connor 2021; Sigala 2014). This mindset derives from a mental model that views digitalisation and hospitality as opposing constructs. In this perspective, digitalisation is not only seen as contradicting the self-image of hoteliers or restaurateurs as hosts but also as a threat to the identity of an industry that primarily defines itself as a "people business". The traditionally lived industry or company identity, coupled with other identity-forming structural components in tourism and hospitality, such as small and medium-sized structures and the dominance of owner- or family-run businesses, is being questioned by digitalisation. This has led to an identity crisis among many industry players, fearing a corresponding loss of identity internally and externally in their businesses (Gardini 2022).

Another issue to be considered is, that despite a growing openness and willingness to change towards new digital technologies and methods in tourism and hospitality, particularly in the development of digital-based business models and digital distribution, many businesses currently feel inadequately prepared for the digital future (Thomas 2024; Carlisle et al. 2021; Laesser 2021) or fall behind their own expectations (Gardini/Sommer 2023; Borkmann 2020). Furthermore, the digital research and innovation landscape, technology diffusion, and the knowledge level of employees in the tourism and hospitality sector still show very low values compared to other industries (Demary/Goecke 2021; Hotelhero 2020). Digitalisation hits the tourism and hospitality industry at two of its weakest points, highlighting a longstanding need for systematic innovation management and professional human resource management. Employees in recent years not only face a continuous image crisis in the industry but also find that leadership culture and principles in much of the tourism and hospitality sector strongly contradict the requirements of digital transformation processes and the characteristics of a digital mindset. Leadership styles are often perceived as conservative, patriarchal, authoritarian, hierarchy-focused, and less employee-oriented (Francis/Baum 2018; Gardini 2016; Kusluvan et al. 2010). Holding onto outdated corporate cultures, a lack of risk readiness, and rigid forms of organizational structure are particularly critical given the expectations of Generations Y and Z, who anticipate not just a digital mindset from their future employers but also seek different lifestyles and work approaches compared to their predecessors.

If one assumes that digitalisation is a central element of corporate strategy and transforms a company at all levels, both academia and practice are in agreement (Kollmann 2020; Gnamm et al. 2018): "Digitalisation is a top management issue" when it comes to the digitalisation and the relevance of the digital for the success or failure of a company. Successful leaders in tourism and hospitality, whether individuals, companies, or institutions, generally have a quite precise idea of what they want or do not want, and what they are willing to do for it. From a leadership perspective, a normative approach is necessary for every tourism and hospitality company, emphasizing the philosophical and cultural dimension of digital transformation processes and initiating a development process with a focus on the specific identity of a destination, hotel or restaurant (Goran et al. 2017). The ultimate goal is an unequivocal market-oriented and customer-centric understanding of the organization, transcending digital or analog identity struggles (Gardini 2021).

Conclusion

It can still be asserted for the tourism and hospitality industry as a whole that the strategic and cultural dimension of digital transformation is still underestimated by many stakeholders. Leadership in times of digital transformation however, demands, in addition to a strategic approach, nothing less than a strong intellectual and cultural adaptation, especially requiring openness, flexibility, and engagement from all stakeholders involved. The use of technology should always be a means to an end, with a clear focus on creating substantial customer value and ensuring the competitiveness and future viability of the company. While traditional players show a certain openness and willingness to embrace new digital technologies and work methods, it must be acknowledged that the economic and digital reality is still moving significantly faster than the psychology and mindset of those involved in this process. A significant future challenge for many tourism and hospitality companies is, therefore, to develop a comprehensive understanding of digital and analog management throughout the entire organization, going beyond individual activities, instruments, and analysis methods. This is crucial to transition from being driven by technological developments to being the driver of company-specific digitalisation activities and thus creating the conditions to continue thriving in competition.

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Exploring the dynamic pattern: A Comparative Time Series Analysis of Key Performance Indicators in the Hotel Industries of Doha, Dubai, and London.

Chiranjeewa Atapattu
c.atapattu@mmu.ac.uk
Manchester Metropolitan University, United Kingdom

Nishanthi Abeynayake
N.Abeynayake@mmu.ac.uk
Manchester Metropolitan University, United Kingdom

Anthony Mulholland
anthony.m@oryx.edu.qa
Oryx Universal College W.L.L, Doha, Qatar

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Abstract:

The Middle East and Europe have experienced significant growth in tourism over the last decade, reaching pre-pandemic levels in 2022. Doha, Dubai, and London saw a substantial expansion in their hospitality sectors. With more expected growth, especially in the Middle East due to investments, accurate forecasting is crucial for hoteliers in these competitive markets. The main goal of this study is to comprehensively analyze historical hotel metrics in Doha, Dubai, and London over the past ten years using STR data. This study uses advanced models such as ARIMA, AUTO ARIMA, GARCH, SARIMA, and LSTM to assess and compare their effectiveness in predicting hotel demand and performance indicators, providing insights for the Middle East and European regions. Advanced time series models, including ARIMA, SARIMA, and LSTM, are utilized to assess and compare their efficacy in forecasting hotel demand and KPIs, providing insights for the Middle East and Europe.

Key Words:

Hospitality KIPs, Time series forecasting Models, Machine Learning in Tourism

Background and motivation

Time series forecasting models are essential tools employed across a wide range of fields, including business, finance, tourism, and scientific research. These models automatically generate forecasts for numerous univariate time series, providing invaluable insights into key data features such as trend, cycle, seasonality, and series length(Hyndman & Khandakar, 2008; Petropoulos et al., 2014). These models are also valuable in predicting the scientific data, volatility in financial markets, and tourist quantities, showcasing their versatility across different sectors (Masood et al., 2019; Ramin et al., 2020; Vasilellis & Meade, 1996; Zhang et al., 2016).

In the context of hospitality, time series forecasting models can aid in predicting demand side (tourist arrivals), (Bäurle et al., 2020) and can assist in forecasting the supply side essential for understanding economic trends and planning investments in the hospitality industry (Bandara et al., 2020).

Time series forecasting has been a subject of interest in academia and practice, with the debate between traditional methods and machine learning approaches being a focal point. Traditional methods like ARIMA, Exponential Smoothing, and Error Trend Seasonality forecast (ETS) have long been established as powerful tools for time series prediction (Chintapalli et al., 2020). Although traditional statistical time series models have been widely employed, recent studies have provided compelling evidence that machine learning methods frequently outperform these conventional approaches (Alfeld et al., 2016). The rapid rise of machine learning techniques, particularly deep learning algorithms and neural networks, has revolutionized the field of time series forecasting. These advanced methods capture intricate patterns and nonlinear relationships embedded within complex data, surpassing the limitations of traditional models (Makridakis et al., 2018). The SARIMA model captures linear patterns and seasonality in time series data, while RNN and LSTM models are designed to handle complex, nonlinear relationships and temporal dependencies. Testing these models allows for comparison of their effectiveness in predicting hotel KPIs, particularly under varying conditions like regional differences and industry disruptions.

Objectives

This study aims to identify the most effective forecasting method for predicting hotel KPIs by comparing traditional approaches, such as Auto SARIMA, with advanced machine learning techniques like RNN and LSTM.

Literature Review

Hotel KPIs and Destination Success

During the COVID-19 pandemic, the hotel industry faced challenges, leading to a shift in the relevance of certain KPIs. Many revenues related KPIs (Eg. REVPAR, ADR, Occupancy) designed pre-pandemic to assess hotel performance became unreliable (Magnini et al., 2020). However, the use of good KPIs remains crucial for maintaining competitiveness in top hotel markets (Ballestero et al., 2023). Further it emphasises the importance of performance measures for Destination Management Organizations (DMOs) to enhance decision-making (Morrison et al., 2024). Furthermore, the measurement of tourism success varies across academia, organizations, and governments due to its multi-dimensional nature and diverse stakeholders (Buhalis et al., 2006); Morrison et al., 2024).

Hotel key performance indicators (KPIs) such as Average Daily Rate (ADR), Revenue per Available Room (RevPAR), and Occupancy are crucial metrics for forecasting and assessing the performance of hotels (Schwartz et al., 2021). RevPAR, specifically, is a widely accepted measure of hotel performance that reflects the earning potential of a hotel in offering accommodation (Ognjanović et al., 2023). During the COVID-19 pandemic, the importance of these KPIs has been highlighted, with a focus on revenue management and forecasting to navigate through challenging times (Singh & Corsun, 2023).

Traditional methods (SARIMA)

Traditional methods like Seasonal Autoregressive Integrated Moving Average (SARIMA) play a crucial role in time series forecasting across various domains. SARIMA is particularly effective in capturing seasonal patterns and trends in historical data, making it a valuable tool for forecasting tasks (Kuru & Calis, 2020). The SARIMA method has been successfully applied in diverse fields, in forecasting scenarios related to agriculture, healthcare, and climate variables, showcasing its versatility and applicability (Silalahi, 2020; Wu et al., 2022). While SARIMA models are robust and widely used, they do have limitations. Such as their inability to capture nonlinear information present in some time series data and

SARIMA assumes a linear relationship between successive values of the time series, especially in complex systems (Li et al., 2021).

Machine learning methods (RNN, LSTM)

Recent studies have shown that LSTM, a type of RNN, has been widely used for time series forecasting across various domains, including finance, environmental factors, and energy use (Haq et al., 2021; Sezer et al., 2020). It is evident that machine learning models, particularly LSTM models, outperform traditional methods like ARIMA models in forecasting hotel KPIs, especially during challenging times such as the COVID-19 pandemic (Binesh et al., 2024; Elsaraiti & Merabet, 2021). The authors reported that when the SARIMA was combined with LSTM layers, the model could capture linear and nonlinear data features and resulted in better accuracy in the forecasting trends (He et al., 2021; Wu et al., 2022).

Rationale for Dubai, Qatar, and London City Trends

City trends significantly impact the hospitality industry, influencing various aspects such as tourism, state support, innovation management, and marketing strategies. However, this critical research on city hospitality has been limited (Gesso, 2021).

Dubai has established itself as a significant global destination for hospitality and tourism, with the Dubai tourism strategy aiming to attract millions of visitors annually (AlMutawa et al., 2023). Dubai's rapid growth and investments in construction have bolstered its status as a premier real estate destination, appealing to both investors and tourists (Ajmal et al., 2021). On the other hand, Qatar has been leveraging its strengths in various areas to enhance its global appeal. Qatar's strategic investments in sports, such as hosting international sporting events like the World Cup 2022, play a crucial role in branding the nation as modern, friendly, and legitimate on the global tourism and hospitality stage (Søyland & Moriconi, 2022). At the same time London’s prominence in the global market is evident through its continued dominance in cross-border investments, although emerging global cities are also gaining traction (Fadeyi et al., 2022). London's significance in the tourism industry is highlighted by its competitive tourism products and increased global competition for tourist arrivals (Woyo & Slabbert, 2021). Doha and Dubai represent rapidly developing markets, while London, as a major global city, offers insights into a more mature and established market. Comparing these varied destinations helps assess the adaptability and accuracy of forecasting models across different market sizes and economic conditions.

In conclusion, city trends are pivotal in shaping policies and strategies in the hospitality sector. By analysing and forecasting these trends with modern time series, stakeholders can make well-informed decisions to improve service quality and tackle emerging challenges in urban settings. Furthermore, the study of revenue management and RevPAR is essential for sustainable recovery strategies in the hotel industry, especially in the context of crises like the COVID-19 pandemic (Rahman et al., 2021)

Methodology

Data processing

Monthly data for key indicators in the hotel industry, such as Room Occupancy (Room OCC), Average Room Rate (ARD), and Revenue Per Available Room (RevPAR), spanning from January 2013 to November 2023, were collected from the STR database. The COVID-19 period in 2020 and 2022 was excluded from the dataset due to its disruptive nature on time series patterns. Excluding the COVID-19 period improves model performance by focusing on data that better reflects typical operating conditions, enhancing predictive accuracy.

Subsequently, the dataset was divided into 70% for training data and 30% for testing data. This division ensures that models are trained on a significant portion of the data while reserving a separate portion for evaluating model performance and generalization to unseen data.

Data Analysis

Time series models

To develop the forecasting model, both traditional methods such as SARIMA (Seasonal Autoregressive Integrated Moving Average), and advanced machine learning models like RNN (Recurrent Neural Network) and LSTM (Long Short-Term Memory) were employed.

SARIMA

SARIMA (Seasonal Autoregressive Integrated Moving Average) is a powerful time series forecasting technique designed to capture and predict patterns in data with seasonality (Song et al., 2021). It extends the classical ARIMA model by incorporating parameters for seasonal variations (Surendran et al., 2022), making it suitable for datasets with periodic fluctuations over time. SARIMA comprises autoregressive (AR), differencing (I), and moving average (MA) terms, alongside seasonal counterparts denoted by capital letters P, D, and Q, which govern the model's behaviour. By adjusting these parameters, SARIMA effectively models short-term dynamics and seasonal variations in the time series. The 'S' term in SARIMA represents the seasonal period, indicating the frequency at which the seasonal pattern repeats (e.g., 12 for monthly data with yearly seasonality). This model designation encompasses regular and seasonal autoregressive and moving average terms, accounting for correlations with both low and seasonal lags.

The SARIMA model specification is {ARIMA (1,1,1) $(1,1,1)_{12}$}

$$(1-\phi_1 B)(1-\Phi_1 B^{12})(1-B)(1-B^{12})y_t = (1+\theta_1 B)(1+\beta_1 B^{12})e_t$$

Where, $(1-\phi_1 B)$ = non-seasonal AR(1), $(1-\Phi_1 B^{12})$ = seasonal AR(1), $(1 - B)$ = non-seasonal difference, $(1 - B^{12})$ = seasonal difference, y_t = forecasted value, $(1+\theta_1 B)$ = non-seasonal MA(1), $(1+\beta_1 B^{12})$ = seasonal MA(1), e_t = error term.

Model selection was conducted using an automated approach to identify the optimal SARIMA configuration. The **auto_arima** function from the **pmdarima** library in Python was employed for this purpose. The **auto_arima** function utilizes a stepwise algorithm to iteratively search through the space of possible SARIMA configurations and selects the model with the lowest Akaike Information Criterion (AIC) value.

RNN (Recurrent Neural Network):

Recurrent Neural Networks (RNNs) are a crucial class of neural networks designed for sequential data processing, essential for tasks like sequence modeling and time series forecasting. Unlike traditional feedforward neural networks, RNNs have an internal memory mechanism, enabling them to retain information from previous time steps, thus capturing temporal dependencies within the data. This flexibility allows RNNs to capture intricate patterns and dynamics in sequential data sequences, making them invaluable for tasks where past context influences future predictions. The architecture of an RNN consists of input, hidden, and output layers. The input layer receives data at each time step, while the hidden layer contains recurrent connections allowing information persistence across time steps. However, traditional RNNs face the vanishing gradient problem, limiting their ability to capture long-term dependencies. Despite this challenge, RNNs remain powerful tools for analysing and forecasting sequential data.

LSTM (Long Short-Term Memory):

Long Short-Term Memory (LSTM) networks represent a specialized variant of Recurrent Neural Networks (RNNs) designed to address the vanishing gradient problem and capture long-term dependencies more effectively. Unlike traditional RNNs, which struggle to retain information over long sequences due to the vanishing gradient issue, LSTM networks incorporate gated mechanisms to control the flow of information within the network. These mechanisms, composed of input, forget, and output gates, enable LSTMs to selectively retain or forget information from previous time steps, thus facilitating the learning of long-range dependencies in sequential data. LSTM networks have demonstrated superior performance in various tasks such as natural language processing, time series prediction, and speech recognition, making them a cornerstone in the field of sequence modelling and forecasting.

Model selection and validation

Model selection was conducted utilizing metrics such as Mean Absolute Percentage Error (MAPE) and Root Mean Squared Error (RMSE). These metrics are essential in evaluating predictive model performance. By comparing MAPE and RMSE values across different models, the most suitable model was identified. This process ensures the selection of a model that provides accurate predictions while considering both the magnitude and direction of prediction errors.

Model selection relied on metrics like Mean Absolute Percentage Error (MAPE) and Root Mean Squared Error (RMSE) to evaluate predictive performance accurately. Comparing MAPE and RMSE values across different models ensured the identification of the most suitable model, considering both the magnitude and direction of prediction errors. Serial autocorrelation in the SARIMA model was assessed using the Durbin Watson (DW) Statistic, where DW around 2 indicates no autocorrelation, less than 2 indicates positive autocorrelation, and more than 2 indicates negative autocorrelation. The Lagrange multiplier (LM) test determined serial autocorrelation in the best-fitting model, with a non-significant result suggesting the absence of autocorrelation. The Jarque-Bera (JB) test detected the normality of residuals, while the ARCH test assessed residual heteroskedasticity. The model selection also considered the lowest Akaike information criterion (AIC), RMSE and MAPE values to identify the best-fitting models. The formulas for calculating JB statistic, MAPE, and AIC are as follows.

JB test statistic = $n\left[\frac{S^2}{6} + \frac{(K-3)^2}{24}\right]$

where S = skewness and K = kurtosis.

MAPE = $\frac{1}{n}\sum_{t=1}^{n}\left|\frac{O_t - y_t}{O_t}\right|$

where n = number of time points, O_t = observed value, y_t = forecasted value

AIC = −(log-likelihood) + 2K

where **K** is the number of model parameters.

DW = $\frac{\sum_{t=2}^{T}(e_t - e_{t-1})^2}{\sum_{t=1}^{T} e_t^2}$

where e_t is the residual figure, and T is the number of observations in the experiment.

Results and Discussion

Figure 1 indicates a pronounced impact of the COVID-19 pandemic on room occupancy rates in Dubai and London compared to Qatar throughout 2020-2021. This disparity highlights the varying degrees of disruption experienced by hospitality sectors in different regions due to the pandemic's effects.

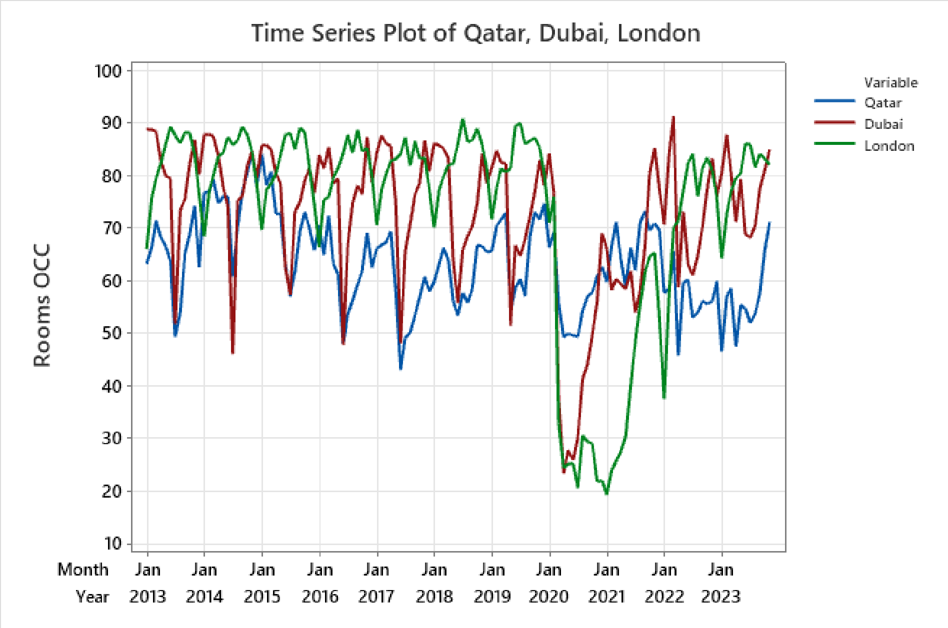

Figure 1: Time series plot of Room occupancy for Qatar, Dubai, and London

The Average Daily Rate (ADR) consistently tends to be higher in London, while Qatar exhibits notably elevated rates in November and December 2022 (Figure 2). This trend underscores the distinct pricing dynamics between the three regions, suggesting potential seasonal and market-specific factors influencing room rates.

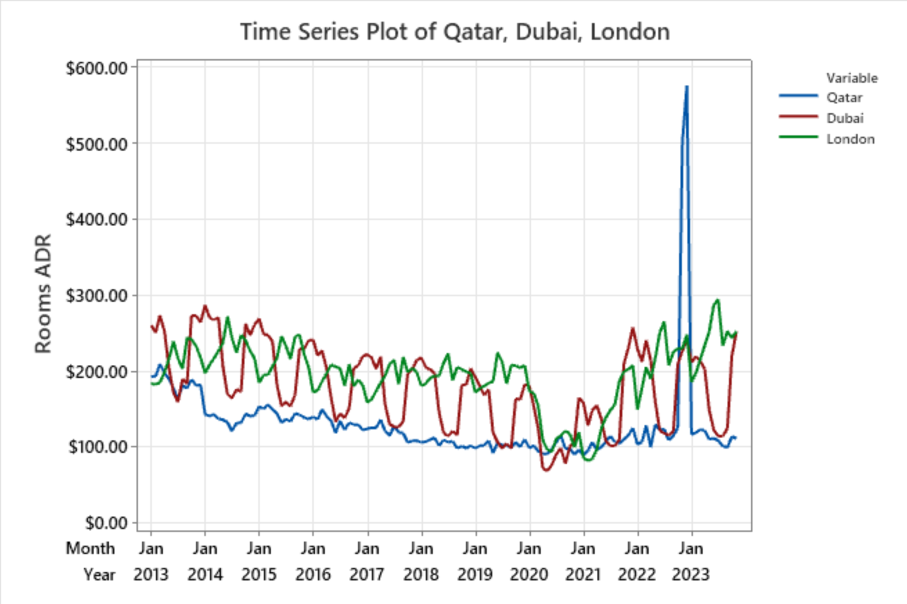

Figure 2: Time series plot of ADR for Qatar, Dubai, and London

The Revenue per Available Room (RevPAR) mirrors the pattern observed in the Average Daily Rate (ADR), with London consistently demonstrating higher figures. Similarly, Qatar exhibits a notable surge in RevPAR during November and December 2022, aligning with the observed trends in ADR.

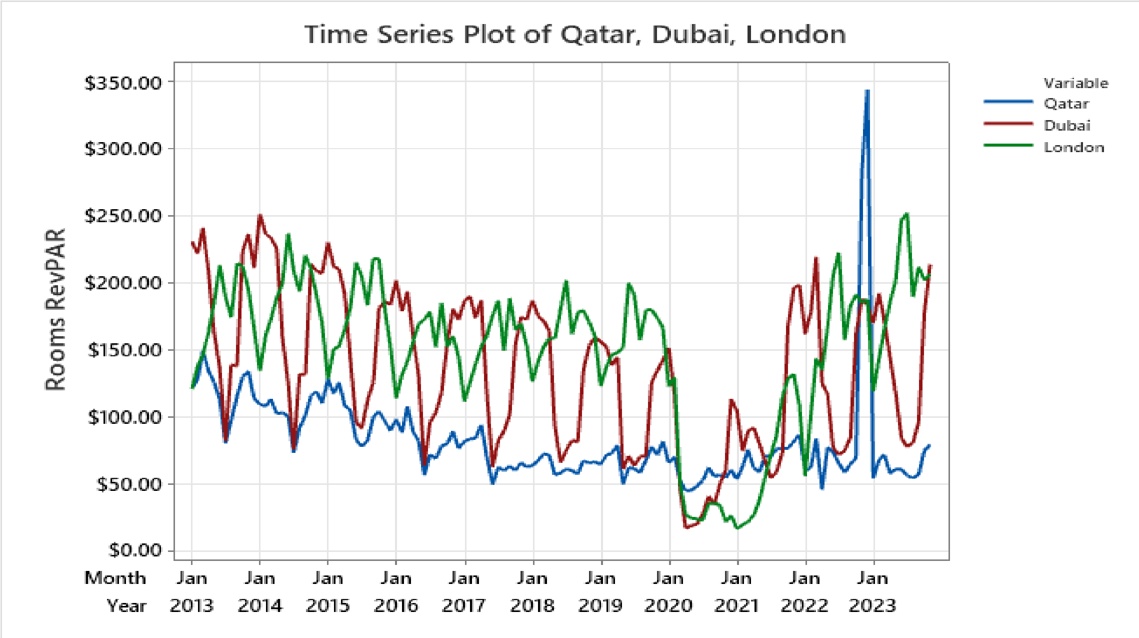

Figure 3: Time series plot of RevPAR for Qatar, Dubai, and London

The subsequent tables and figures provide a comparative analysis of the three time series models across three chosen countries for each indicator, utilizing Root Mean Square Error (RMSE) and Mean Absolute Percentage Error (MAPE) as evaluation metrics.

Table 1 - Evaluation Metrics based on RMSE and MAPE for Room Occupancy in the UK, Qatar, and Dubai

Rooms Occupancy				
country		SARIMA	RNN	LSTM
UK	RMSE	4.44	**4.32**	4.42
	PAPE	4.42	**4.38**	4.52
Qatar	RMSE	24.56	**6.34**	7.37
	PAPE	15.94	**8.27**	9.58
Dubai	RMSE	8.54	**7.78**	8.28
	PAPE	8.32	**8.42**	9.47

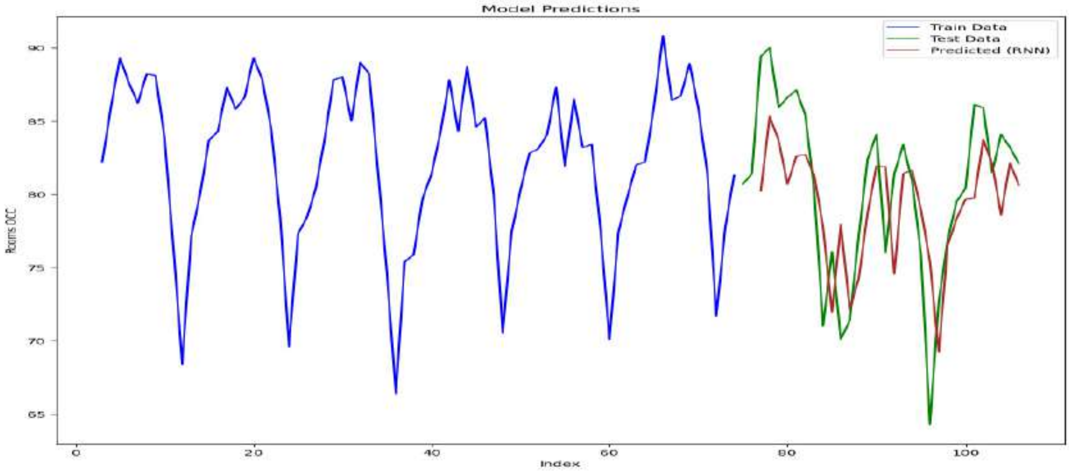

Figure 01a: Best model prediction of Rooms OCC of the UK based on RNN

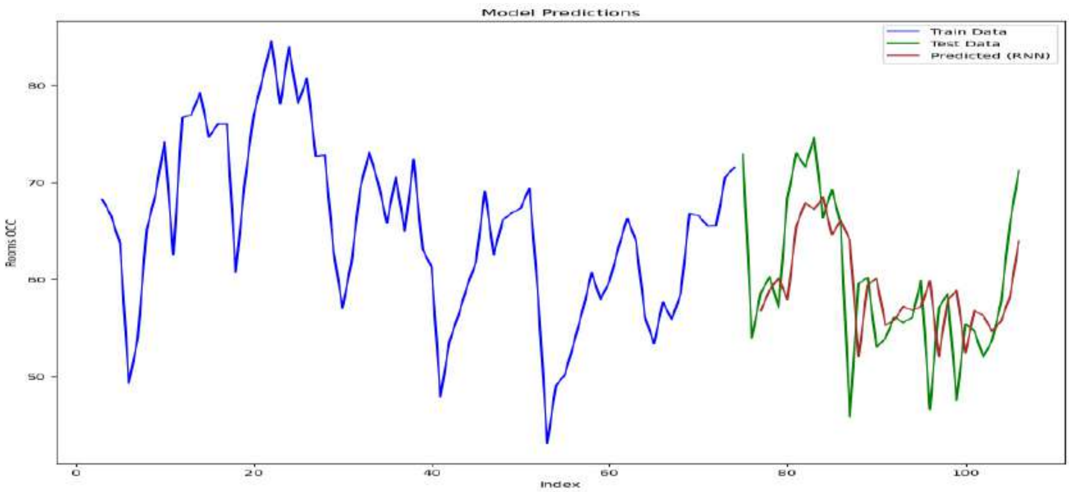

Figure 01b: Best model prediction of Rooms OCC of Qatar based on RNN

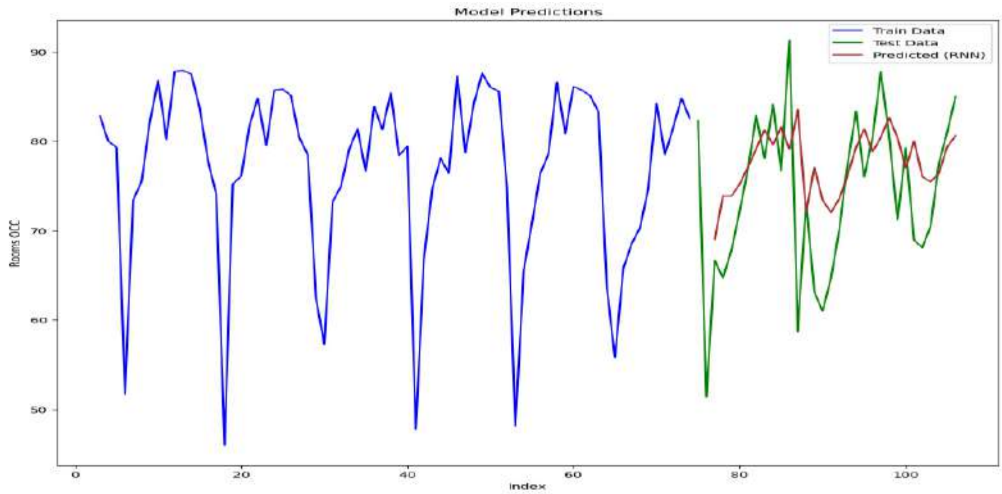

Figure 01c: Best model prediction of Rooms OCC of Dubai based on RNN

Table 2 - Evaluation Metrics based on RMSE and MAPE for Rooms Average Daily Rate (ADR) in the UK, Qatar, and Dubai

Rooms Average Daily Rate (ADR)				
country		SARIMA	RNN	LSTM
UK	RMSE	43.18	**22.9**	18.87
	MAPE	14.21	**6.8**	13.70
Qatar	RMSE	10.35	**8.91**	17.02
	MAPE	10.12	**5.90**	12.13
Dubai	RMSE	30.95	**14.60**	25.65
	MAPE	19.09	**9.20**	11.08

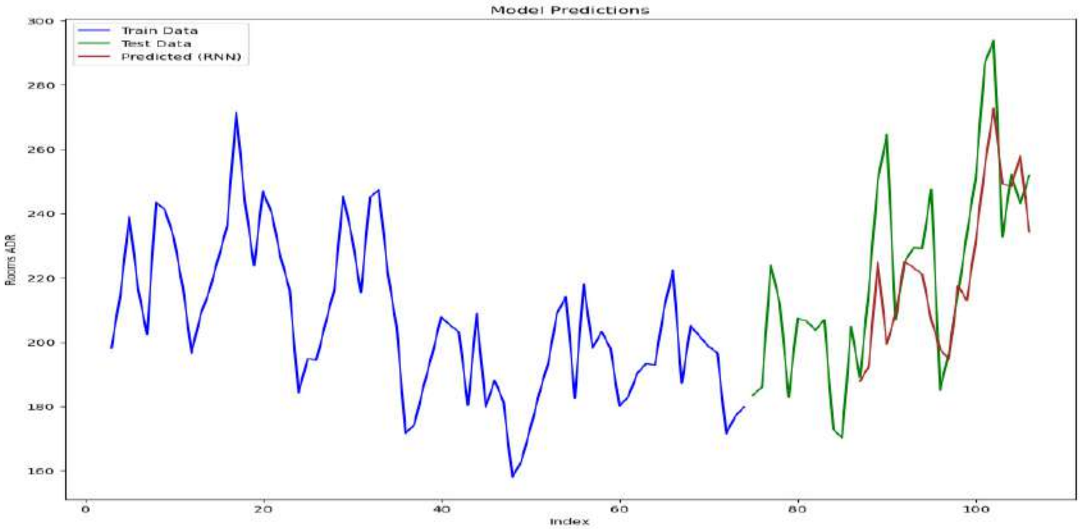

Figure 02a: Best model prediction of Rooms ADR of the UK based on RNN

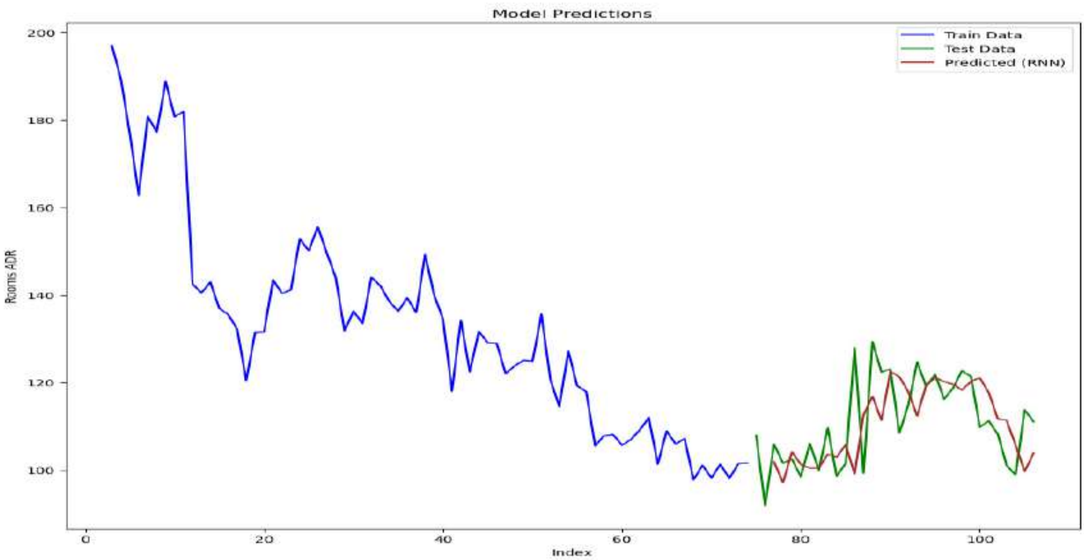

Figure 02b: Best model prediction of Rooms ADR of Qatar based on RNN

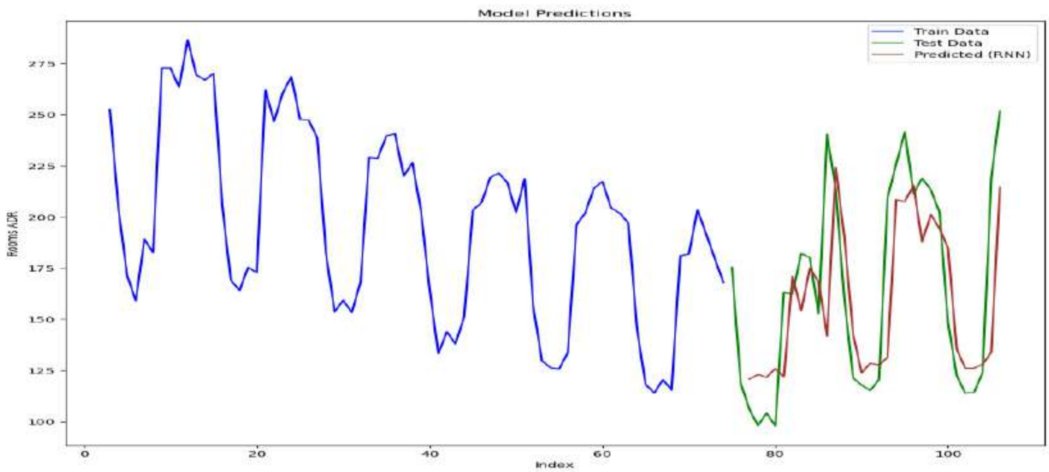

Figure 02c: Best model prediction of Rooms ADR of Dubai based on RNN

Table 3 - Evaluation Metrics based on RMSE and MAPE for Rooms RevPAR in the UK, Qatar, and Dubai

Rooms RevPAR				
country		SARIMA	RNN	LSTM
UK	RMSE	26.33	**19.15**	23.5
	MAPE	10.07	**9.73**	9.2
Qatar	RMSE	8.98	**11.95**	9.40
	MAPE	10.91	**10.33**	12.39
Dubai	RMSE	43.26	**25.86**	26.22
	MAPE	,26.10	**11.03**	17.15

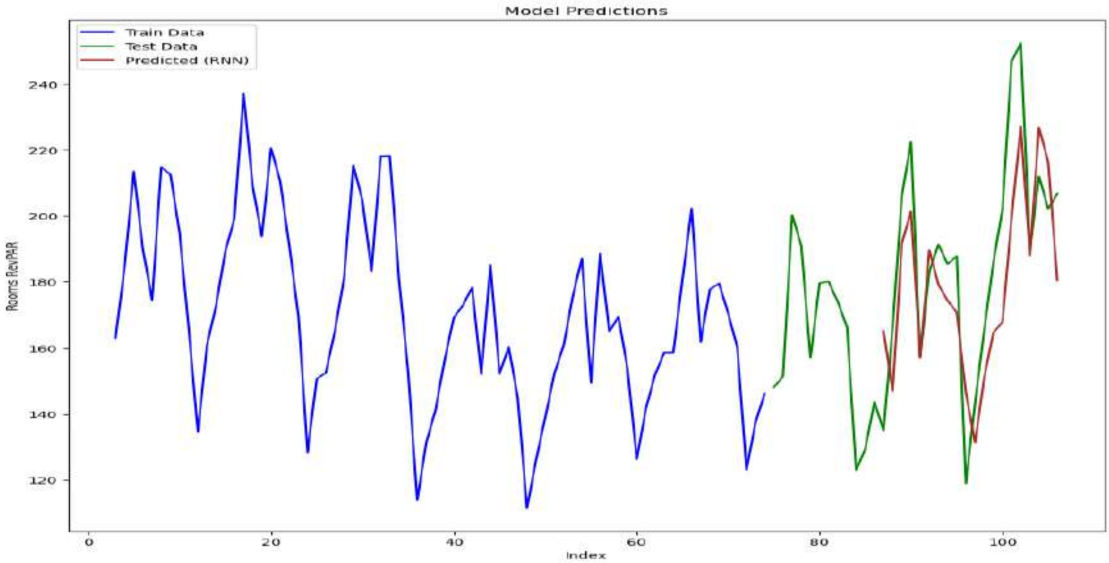

Figure 03a: Best model prediction of Rooms RevPAR of the UK based on RNN

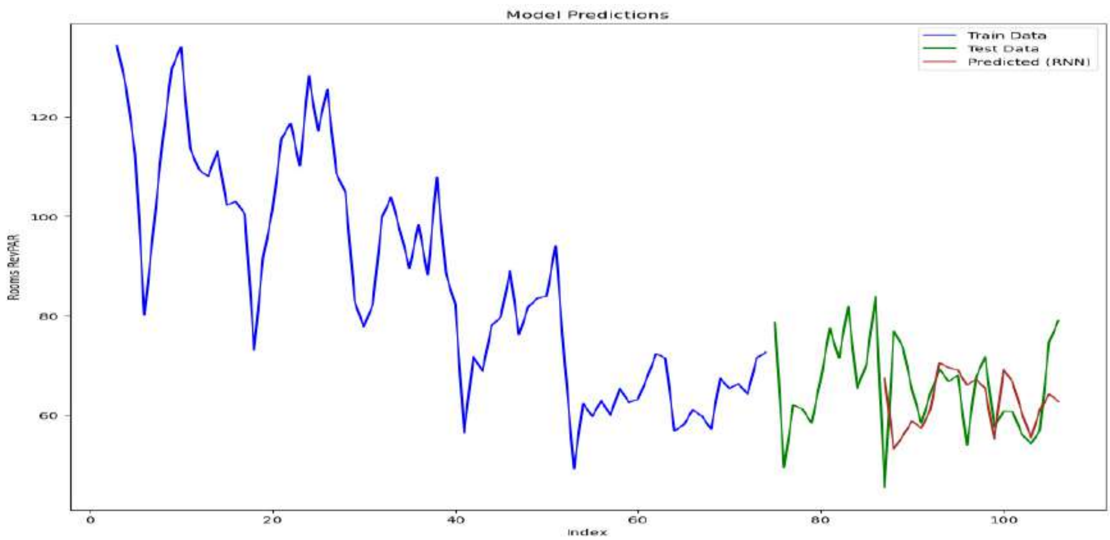

Figure 03b: Best model prediction of Rooms RevPAR of Qatar based on RNN

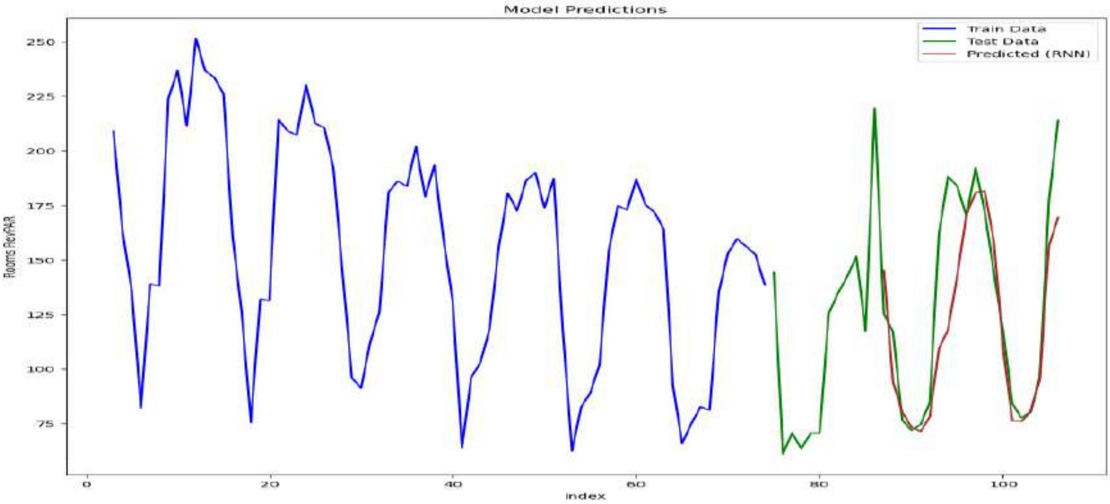

Figure 03c: Best model prediction of Rooms RevPAR of Dubai based on RNN

After comparing SARIMA, a traditional method, with two advanced machine learning techniques, RNN and LSTM, the most effective approach was determined to be RNN based on its superior performance in accuracy measures such as REMS and MAPE. Predictive capability based on Mean Absolute Percentage Error (MAPE) can be categorized into several levels of accuracy. MAPE (Mean Absolute Percentage Error) is a widely recognized precision evaluation indicator in forecasting models across various domains.

Table 04 shows the typical classification scheme based on Makridakis & Hibon, (2000).

Table 4: Predictability of the Modell based on the MAPE

Predictability	MAPE
Excellent Predictive Capability	0 – 5 %
Good Predictive Capability	5 – 10 %
Satisfactory Predictive Capability	10 – 20 %
Fair Predictive Capability	20 – 50 %
Poor Predictive Capability	> 50%

Our predictive models fall into categories of Excellent or Good predictive capability based on Mean Absolute Percentage Error (MAPE) values, indicating high accuracy and reliability for decision-making. The RNN method stood out as the most effective approach, surpassing traditional methods like SARIMA and advanced techniques like LSTM, despite the relatively limited dataset size. This suggests RNN's potential to extract insights and make accurate predictions even from smaller datasets. Factors contributing to RNN's success include its ability to capture temporal dependencies and adapt to varying data patterns, along with its iterative learning process and memory retention capabilities. However, the study's limitations, such as the short time series used, warrant further exploration into RNN's performance with larger datasets and the identification of specific dataset features that contribute to its success, offering avenues for refining forecasting methodologies.

Conclusion

Firstly, the results highlight the significant impact of the COVID-19 pandemic on hotel industry indicators across the analysed regions of Doha, Dubai, and London. By excluding the disruptive pandemic period from the data analysis, the forecasting models were able to better capture the underlying patterns and trends, leading to improved accuracy in predicting future performance. Secondly, the comparative analysis of traditional time series forecasting methods, such as SARIMA, and advanced machine learning techniques, including RNN and LSTM, revealed the superior performance of the Recurrent Neural Network (RNN) model. RNN consistently outperformed the other approaches in terms of RMSE and MAPE, showcasing its remarkable ability to handle the complex, nonlinear relationships, and temporal dependencies inherent in the hotel industry data.

The superior performance of the RNN model, even with a relatively limited dataset, highlights the potential of advanced machine learning techniques to outperform traditional statistical methods in complex forecasting scenarios. This suggests that, under certain conditions, the predictive power of RNN can offset the need for extensive data availability, offering valuable implications for industries with constrained data resources. This is of particular relevance to both newly developing destinations (with minimal historic data) and during times of disruption to the industry during times of short-term shock.

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An Empirical Study of the Outcomes of Luxury Hotel Personalization - Utilizing Structural Equation Modeling and Machine Learning (SEM-ML) for Explanation and Prediction.

Dennis Baloglu
ORCiD: 0000-0002-1066-7090

Seyhmus Baloglu
ORCiD: 0000-0003-4479-3009

University of Nevada, Las Vegas, United States of America
https://doi.org/10.33001/18355/IMJCT0827

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Abstract:

The personalization of products and services has received considerable attention due to the proliferation of technology and marketing information systems and the growth of interest in one-to-one marketing. This study explores the luxury hotel personalization outcomes of lifestyle congruence, loyalty, and willingness to pay more (WTPM). By employing both structural equation modeling (SEM) and machine learning (ML), explanatory and predictive models are created. SHAP, an explainable AI method, is used alongside various machine learning methods to turn their "black box" nature into a "glass box" by illuminating the feature importance of each variable. The relationship between personalization and WTPM was found to be stronger for males and Gen Xers. The serial mediating role of lifestyle congruence and loyalty was also significant in the relationship between personalization and WTPM. The study results indicate a congruence between the explanatory and predictive models regarding the hierarchical significance of the variables - personalization, loyalty, and lifestyle congruence - in determining the willingness to pay more. Both models consistently rank the importance of these variables in

the same order, thereby affirming their robustness in explaining and predicting willingness to pay more.

Key Words:

Personalization, Willingness to Pay More, Loyalty, Lifestyle Congruity, Machine Learning, Explainable AI

Introduction

Marketers are increasingly adopting personalized marketing strategies in a dynamic and competitive market to enhance customer service and gain a competitive edge. The personalization of products and services has received considerable attention due to the growth of interest in one-to-one marketing and has been studied in various fields and disciplines, such as consumer behavior and marketing, management, computer science, and information systems, to name a few (Ball et al., 2006; Kwon & Kim, 2012). Personalization is company-initiated and offered by firms based on collected customer data to decide the most suitable marketing mix for an individual customer (Desai, 2016; Kwon & Kim, 2012; Indeed Editorial Team, 2023).

Chandra et al. (2022) conducted a bibliometric study through a comprehensive review of 383 publications. One of the major knowledge gaps identified was exploring personalized marketing in offline environments, as most studies have been conducted in the online context. They also recommended that future research investigates personalized marketing practices across various cultural contexts, generational groups, and product categories to identify potential areas of convergence for personalized marketing strategies.

Crafting experiences based on individual preferences has become an essential element of luxury travel. While practitioners and scholars acknowledge the potential effectiveness of personalization as a management tool, the hotel industry has yet to explore this area. Hotel companies now have a greater ability to personalize their offerings. In luxury hotels, this could include personalized greetings, room amenities, concierge services, dining options, pricing, and even recreational activities (Thornell, 2022). Also, the proliferation of hotel brands and intense competition calls for a greater understanding of the outcomes of personalization and how it drives loyalty and willingness to pay more (WTPM hereafter).

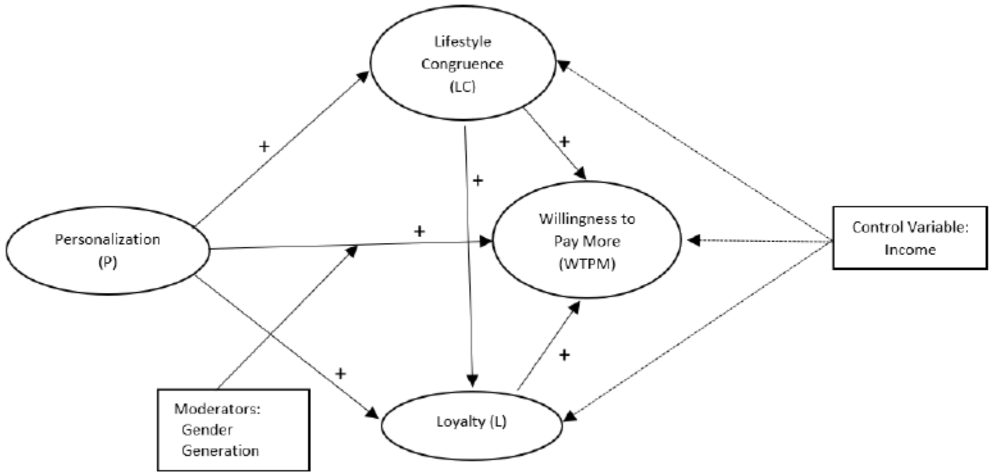
As suggested by Dawn (2014) and Chandra et al. (2022), there is a significant gap in our understanding of the role of personalization in achieving customer loyalty and strengthening service relationships. The expected positive outcomes of personalization are assumed rather than empirically studied and validated. This paper argues that personalization influences willingness to pay more through several routes (brand lifestyle congruity and loyalty). The study develops a model and empirically investigates the nature of relationships among four constructs, perceived personalization, brand-lifestyle congruence, loyalty, and WTPM, to delineate the path from personalization to WTPM in a model. This study contributes to general and hospitality marketing literature in the following ways: First, while using income as a control variable, this research reveals the pivotal role of perceived personalization in developing and improving a willingness to pay more directly and via mediating variables of lifestyle congruence and behavioral loyalty. Second, it proposes and empirically tests a model involving psychological paths from personalization to WTPM for luxury hotels and provides initial empirical evidence for the impact of perceived personalization on lifestyle congruence, loyalty, and WTPM. This makes it possible to examine the mediation, the interrelationships among the outcomes, and the direct and indirect effects of personalization on those focal outcomes to understand personalization's efficacy better. Third, the model incorporates gender and generational cohorts (Gen Y and Gen X) as moderating variables to assess their impact on the relationship between personalization and WTPM. Finally, the study utilizes both explanation and prediction tools to test the model: structural equation modeling (CB-SEM) and multiple machine learning algorithms.

Literature Review

The concept of personalization is fundamental to marketing; however, it is also multidisciplinary and has been studied across fields and disciplines across management, computer science, decision science, information systems (IS), and psychology (Chandra et al., 2022). Drawing on relationship marketing theory, a model of personalization outcomes was developed including hypothesized relationships and moderating and control variables based on a thorough review of literature in consumer behavior, marketing, psychology, computer science, and hospitality (Mehmood, Verleye, De Keyser, & Larivière, 2022; Lei, Chan, Tang & Ye, 2022; Sarkar et al., 2021; Pérez-Troncoso, Epstein & Castañeda-García, 2021; Li, 2016; Morosan & DeFranco, 2016; Alnawas & Altarifi, 2016; Dawn, 2014; Kuo and Cranage, 2012; Li, Li, & Kambele, 2012; Kwon &

Kim, 2012; Srinivasan et al., 2002; Kuo & Cranage, 2012; Pérez-Troncoso, Epstein, & Castañeda-García, 2021).

Figure 1. Conceptual Model



A conceptual framework of personalization offered by Vesanen (2007) proposed that the benefits of personalization for a company would include a higher price paid by customers for products/services, customer loyalty, customer satisfaction, and differentiation from competitors. Personalization has great potential to develop intimate customer relationships and is associated with attitude and behavior (Mehmood, Verleye, De Keyser, & Larivière, 2022). Li (2016) empirically demonstrated that perceived personalization, instead of actual personalization, is the underlying psychological mechanism of message effectiveness. Perceived personalization was found to have a significant and positive effect on attitudes, purchase intention, or behavioral intention (Lei, Chan, Tang & Ye, 2022; Li, 2016). Smink et al. (2020) studied the impact of perceived personalization on product and brand responses and found it leads to more positive attitudinal and behavioral outcomes. Brand-lifestyle or identity congruence refers to the extent to which the brand matches the consumer's lifestyle or the degree of overlap between a consumer's self-identity and the retailer's brand identity (Nam, Ekinci & Whyatt, 2011; Roggeveen et al., 2021). Personalized customer experience was believed to generate strong affective relationships between the customer and company and increase loyalty and purchasing behavior (Monk & Blom, 2007; Liang et al., 2012; Baloglu & Bai, 2023).

Consumers' WTPM is defined as the maximum price a buyer is willing to pay for a given quantity of a good (Kuo & Cranage, 2012). Sarkar et al. (2021) examined how self-brand connection leads to consumer willingness to pay a premium (WPP) through the mediation of brand attitudes. The findings showed a strong positive indirect effect of self-brand connection on WPP. However, the study has not investigated the direct effect of the self-brand connection on WPP. The conceptual framework developed by Roggeveen et al. (2021) suggested that brand congruence leads to positive outcomes such as increased customer engagement, brand loyalty, and higher willingness to pay.

The fundamental goal of personalization is to increase customer retention and profitability. Kwon and Kim (2012) investigated the effects of personalization on customer satisfaction and loyalty and found that the optimal level of personalization increases customer loyalty and retention. Morosan and DeFranco (2016) found that the perceived personalization of hotel apps positively influences behavioral intentions toward using them. Srinivasan et al. (2002) examined the antecedents and consequences of customer loyalty in an e-commerce setting and found that personalization is a significant antecedent of e-loyalty and revealed that e-loyalty significantly and indirectly influences WTPM. However, they did not investigate the direct impact of personalization on WTPM.

Pérez-Troncoso et al. (2021) found that personalization had varying impacts on WTPM for different segments. A similar call has been made by Chandra et al. (2022). Kuo and Cranage (2012) found a significant gender effect that males are more likely to pay more for personalized products under the extensive choice variety. According to a Bain & Company study, Gen X consumers make up a significant portion of global luxury spending for travel and entertainment. Millennials and Gen Xers value personalization, but Gen Xers have significant buying power and disposable income, and they spend more on luxury brands and trips globally than any other age group. (D'Arpizio, et al.,2023; Degn, 2024). Therefore, gender and generational cohorts were proposed to moderate the relationship between personalization and WTPM.

Methodology

A survey questionnaire composed of scales used by other studies and demographic questions was developed and sent to a Qualtrics Panel. Personalization was measured using six items adapted from Ball et al. (2006) and Nath and Mukherjee (2012), lifestyle congruence using three items (Nam et al., 2011), loyalty using five items (Hwang et al., 2019), and

WTPM using four items (Netemeyer et al., 2004). All items were measured on a 7-point Likert scale. The study's target demographic is Americans aged 25 to 54 who have recently stayed at a luxury hotel in the United States. This age range was chosen because it represents around 75% of U.S. tourists (Peter, 2019), and Millennials will soon overtake Baby Boomers as the major generational market category for hotels (Bowen & McCain, 2015).

The sample size for 4 constructs, 17 observed variables, medium effect size, 0.80 minimum power level, and 0.05 probability level resulted in 91-137 respondents. Considering the moderation and 10 respondents per observed variable, data were collected from 220 respondents. The sample size also met the minimum requirements of 5 respondents per parameter to be estimated (NPAR=42) (Soper, 2024; Hair et al., 2010; Kline, 2011).

Procedural guidelines and practices (Podsakoff et al., 2003; Podsakoff et al., 2012; Min et al., 2016) to reduce common method bias were used before data collection. To assess the common method bias statistically, Harman's single construct test, confirmatory factor analyses of competing models - hypothesized four-factor model and one-factor model - were used (Korsgaard & Roberson, 1995; Podsakoff et al., 2012; Serrano et al., 2018). The hypothesized model significantly fit the data better than the model including all items loading on one latent construct (Normed $\chi2$ ($\chi2$/df)=5.37 (628.8, 117 df); CFI=.78; TLI=.74; RMSEA=0.15). Moreover, the chi-square statistics between the two models were statistically significant ($\Delta\chi2$ = 389.6, df=6, $p < .00001$), which provided some support that common method variance is not a serious issue in this study.

The bias-corrected bootstrapping method available through AMOS 27 based on 5000 bootstrap samples was used for mediation analyses. The study also performed 500 randomized permutation tests to show whether an equivalent of a better-fitting model could be found. The probability was 0.0002 (1/500) to get a model as good as the proposed.

A novel SEM-machine learning approach was used in this study and closely follows the methodology of Zobair et al. (2021), where the authors utilized structural equation modeling (SEM), machine learning (ML), and LIME (an Explainable AI method similar to SHAP). Structural equation modeling tests mediation, moderation, and indirect effects of latent constructs and is intended to provide explanations. Machine learning is used to showcase the model's predictive power and model non-linear relationships as ML incorporates black-box algorithms (Sharma et al., 2021) that do not have the interpretability of SEM. SHapley Additive exPlanations (SHAP) enables more interpretability for machine learning methods by showing both local and global feature importance (Liu et al., 2023). Leo Breiman (2001), one of the pioneers of the Random Forest algorithm, discussed two cultures of statistical modeling, the "data modeling" and "algorithmic modeling" cultures, where the data modeling culture essentially focuses on knowledge creation through theory-guided data analysis (e.g., inferential statistics), while the algorithmic modeling culture focuses on solving specific problems through pure prediction (e.g., ML). Later, a third culture, termed the "hybrid modeling culture," was introduced by Daoud and Dubhashi (2023), who advocated combining predictive and inferential statistics. Furthermore, machine learning can be used on survey data (Buskirk et al., 2018; Kern et al., 2019) and is not only reserved for "Big Data." Additionally, it has been argued that methods prominent in psychology (i.e., social sciences) should focus on ML instead of traditional methods to promote psychology as more of a predictive science (Yarkoni & Westfall, 2017).

Various scholars in the social sciences have realized the importance of both explanation and prediction through hybrid methods such as SEM-ANN, which combines the explanatory power of SEM with the predictive power of artificial neural networks (ANN), an ML method. Papers using SEM-ANN have been recently published in hospitality journals (e.g., Xia & Zhang, 2022; Chen et al., 2023) and general business journals (e.g., Lee et al., 2020), showcasing the relevance of this type of dichotomous methodology. However, one flaw of the SEM-ANN method is that it only incorporates one type of ML algorithm, which is the ANN. This is problematic due to the "No-Free-Lunch-Theorem" introduced by Wolpert and Macready (1997), which essentially posits that there is no guarantee that one ML method will outperform the others due to each dataset and method having its own inherent biases. This is why Martinez-Torres and Toral (2019) utilized multiple ML classifiers regarding deceptive hotel reviews in their study. Accordingly, an SEM-ML method will be used as this research aims to establish an empirical model with both explanatory and predictive power. The performance of classical ML regression methods, such as support vector machines, random forests, boosted trees, and neural networks, will be compared.

Results

Most respondents are Caucasian (84%), have Bachelor's Degrees (35%), have a household income between \$100K and \$150K (30%), are married (71%), and are company-employed (77%).

The measurement model involving 4 latent constructs and 17 variables produced a moderate model fit based on the initial Confirmatory Factor Analysis (CFA) (Normed $\chi 2$ ($\chi 2$/df)=2.61 (294.9, 129 df); CFI=.90; TLI=.88; RMSEA=.095). After closely examining modification indices and standardized factor weights, two modifications were made to improve the model fit and enhance the reliability and validity of the measurement model. First, an error correlation was added between two items of loyalty "I say positive things about this hotel to other people" and "I would recommend this hotel to someone who seeks my advice." As both items were related to word-of-mouth behavior, it was deemed justifiable on conceptual grounds. Second, an error correlation was added to the items "If I changed hotels, I wouldn't obtain products and services as personalized as I have now" and "The hotel offers products and services that I could not find in another hotel." Those two items were related to comparative or switching costs for personalized services. After the modifications, the model showed significantly improved fit measures (Normed $\chi 2$ ($\chi 2$/df)=2.15 (239.1, 111 df); CFI=.94; TLI=.93; RMSEA=.075).

Table 1. Measurement model: Factor loadings, mean and standard deviation

Model Variables	Factor loading	Mean	Std. Dev.
Personalization (CR=0.86; AVE=0.51)		5.02	1.99
If I changed hotels, I wouldn't obtain products and services as personalized as I have now.	0.64		
The hotel offers products and services that I could not find in another hotel.	0.59		
Being a regular guest, the hotel offers me special treatment.	0.72		
The hotel sends me greeting cards or gifts on special occasions.	0.75		
The hotel sometimes offers services to me that they do not offer to other guests.	0.67		

The hotel provides customized products/services to meet my needs.	0.82		
Lifestyle Congruence (CR=0.92; AVE=0.80)		5.40	1.22
This hotel reflects my personal lifestyle.	0.89		
This hotel is totally in line with my lifestyle.	0.92		
Staying in this hotel supports my lifestyle.	0.86		
Loyalty (CR=0.88; AVE=0.59)		4.644	1.62
I say positive things about this hotel to other people.	0.75		
I would recommend this hotel to someone who seeks my advice.	0.69		
I encourage my friends to visit this hotel.	0.78		
I consider this hotel to be my first choice in lodging accommodation.	0.84		
I intend to visit this hotel more often in the future.	0.79		
Willingness to Pay More (WTPM) (CR=0.85; AVE=0.68)		5.88	1.39
I am willing to pay a higher price for this hotel than for other hotels.	0.88		
I am willing to pay a lot more for this hotel than other hotels.	0.87		
I am willing to pay __% more for this hotel over other hotels*.	0.67		

Note: The items were measured on a 7-point Likert scale, 1 being "Strongly Disagree" and 7 being "Strongly Agree" except for the WTPM item denoted by "*" where the scale used 7 points ranging from 0% to 30% or more, 5% intervals.

The measures of convergent and discriminant validity were satisfactory based on composite reliability coefficients and validity properties, and heterotrait-monotrait (HTMT) ratio of correlations (Fornell & Larcker, 1981; Hair et al., 2010; Henseler, Ringle & Sarstedt, 2015).

Table 2: Reliability and validity results

Model	CR	P	LC	L	WTPM
Personalization	.857	.709			
Lifestyle Congruency	.922	.687	.893		
Loyalty	.880	.708	.768	.770	
Willingness to Pay	.851	.693	.656	.672	.811
The Heterotrait-Monotrait (HTMT) Ratios		P	LC	L	WTPM
Personalization					
Lifestyle Congruency		.698			
Loyalty		.680	.749		
Willingness to Pay		.711	.646	.621	

Note: CR =composite reliability. The diagonal values are the square root of the average variance extracted (AVE) value. The values below the diagonal are correlations (all $p < 0.001$), which all are lower than their associated AVE value(s).

The results fully supported the hypotheses proposed in the study. The SEM model, while controlling income for all variables in the model, presented good fit indices (normed $\chi 2$ = 2.07; CFI = 0.94; TLI=0.93; RMSEA = 0.072; SRMR = 0.055). Standardized regression weights showed that personalization had positive impacts on lifestyle congruency (.64, $p < .001$), loyalty (.34, $p<.001$), and WTPM (.35, $p<.001$). Lifestyle congruency was positively affecting loyalty (.53, $p<.001$) and WTPM (.19, $p<.05$). Finally, loyalty was also positively related to WTPM (.24, $p<0.05$).

The findings demonstrate that personalization is the most influential variable on both loyalty intentions and WTPM. Bias-corrected bootstrapping methods based on 5000 bootstrap samples indicated that, after considering the indirect effects, personalization influenced loyalty intentions more strongly than lifestyle congruence, creating a domino effect in the model as well as total effects on WTPM through lifestyle congruence and loyalty intentions.

The study assessed the mediating roles of lifestyle congruence and loyalty in the relationship between personalization and WTPM, including serial mediation (Table 3). The serial mediation was significant at a 0.05 probability level. Lifestyle congruence was a partial mediator between personalization and loyalty but not between personalization and WTPM. Loyalty was a partial mediator between lifestyle congruence and WTPM, as well as personalization and WTPM.

Table 3: Mediation Analysis

Relationship	Direct Effect	Indirect Effect	Bias-Corrected Confidence Interval		P-value	Conclusion
			Lower Bound	Upper Bound		
P→LC→L	.320 (0.001)	.267	.175	.396	0.001	LC is a partial mediator
LC→L→WTPM	.214 (0.034)	.141	.006	.276	0.044	L is a partial mediator
P→LC→WTPM	.507 (0.001	.178	-.018	.384	0.065	LC is not a mediator
P→L→WTMP	.507 (0.001)	.118	.016	.272	0.033	L is a partial mediator
P→LC→L→WTMP	.507 (0.001)	.120	.007	.277	0.042	Serial mediation

Note: P=Personality; LC=Lifestyle Congruence; L=Loyalty; Willingness to Pay More=WTPM. The coefficients are unstandardized.

The moderating effect of gender on the relationship between personalization and WTPM was significant at a 0.01 probability level. The relationship was significantly stronger for males (.94) than females (.05). The moderating effect of generation was also significant ($p<0.01$). The path coefficient from personalization and WTPM was stronger for Generation X (.90) than for Millennials (.15).

The study evaluated the performance of various machine learning models using a leave-one-out cross-validation method. This technique is particularly rigorous as it involves using a single observation from the original sample as the validation data and the remaining observations as the training data. This process is repeated so that each observation in the sample is used once as validation data. The machine learning models used in this study are Random Forest, Neural Network, AdaBoost, kNN (k-Nearest Neighbors), XGBoost (Extreme Gradient Boosting), and SVM (Support Vector Machine).

The performance of the models was measured using five different metrics: Mean Squared Error (MSE), Root Mean Squared Error (RMSE), Mean Absolute Error (MAE), Mean Absolute Percentage Error (MAPE), and the coefficient of determination (R^2). The results show that SVM was the most robust model as it has the lowest MSE (1.238), RMSE (1.113), MAE (0.892), and MAPE (0.283), along with the highest R^2 (0.391) (Table 4). This study's order from best to worst performing machine learning methods are SVM, neural network, kNN, Random Forest, XGBoost, and AdaBoost.

Table 4. Machine Learning Performance by Method

Method	MSE	RMSE	MAE	MAPE	R^2
Random Forest	1.459	1.208	0.962	0.291	0.282
Neural Network	1.337	1.156	0.931	0.287	0.342
AdaBoost	1.737	1.318	1.029	0.307	0.145
kNN	1.369	1.170	0.935	0.297	0.327
XGBoost	1.656	1.287	1.020	0.306	0.185
SVM	1.238	1.113	0.892	0.283	0.391

SHAP values were utilized to understand the impact of various features on the predictive model's output (Table 5). Feature importance was measured based on the R^2 score, with a permutation of 5 to account for random error. Regarding feature importance, personalization showed the highest impact on the R^2 score, suggesting it is the most significant predictor in the model. Loyalty also demonstrated substantial influence, followed by lifestyle congruence. Income and gender, while still important, had a relatively lower impact than the other features.

The results show congruency between explanation (SEM) and prediction (ML) regarding the direct effects between the independent variables personalization, lifestyle congruence, and loyalty with the dependent variable willingness to pay more. The beta coefficients of the SEM model and the SHAP feature importance means are ranked the same (personalization ranked the highest, loyalty ranked in the middle, and lifestyle congruence ranked the lowest).

Table 5. Global Feature Importance of SVM Using SHAP

Feature	*Mean*
Personalization	*0.35*
Loyalty	*0.18*
Lifestyle Congruence	*0.13*
Gender	*0.11*
Generation	*0.09*
Income	*0.07*

Discussion and Conclusion

The hotel industry continually seeks ways to enhance the guest experience and loyalty. Personalization is one way to accomplish this, and it will help hotels cultivate more meaningful relationships with guests, boost their loyalty, and increase revenue. Hoteliers are interested in the impact of personalization on customer-brand relationships, the bottom line, and how it influences focal marketing variables. Our present research investigates the interrelationships between personalization, lifestyle congruence, behavioral loyalty, and willingness to pay more in a luxury hotel context. The study provides insights for hotel managers' empirical support and implications for the efficacy of personalization for customer loyalty and willingness to spend more for hotel offerings. Hotels providing personalized offerings are more likely to be rewarded with higher behavioral loyalty and increased customer spending. Hotel managers can use personalization as an actionable and controllable element to increase loyalty and profitability.

The results elucidate that personalization influences willingness to pay more directly and indirectly through lifestyle congruence and behavioral loyalty intention. Personalization had a significant impact on all outcome variables included in the study. The study contributes to the existing body of knowledge by revealing potential outcomes of perceived personalization and psychological path to WTPM and revealing that the effect of personalization on WTPM is mediated by lifestyle congruence and behavioral loyalty (serial mediation and/or partial mediation). In addition, it reveals some key moderators, such as gender and generational cohorts, affecting the personalization and WTPM relationships for luxury hotels.

The findings offer several practical implications for luxury hotel practitioners aiming to enhance customer loyalty, align with guests' lifestyles, and increase their willingness to pay more (WTPM). Personalization may not be for everybody, and certain demographic groups would value it more than others. Our study found a stronger relationship between personalization WTPM for males and the Generation X cohort. So, hotels that consider personalization must begin with the guest type. Hotels could target critical demographics and develop marketing campaigns and personalized offerings that specifically appeal to these demographics. By focusing on personalized services in line with guests' lifestyles and loyalty enhancement, hotels could ensure that the hotel's brand and services reflect the target clientele's personal lifestyles, as they directly impacted WTPM. Hotels should leverage guest data and utilize customer relationship management (CRM) systems to collect and analyze guest preferences, enabling more accurate personalization and establishing metrics to evaluate the effectiveness of personalization strategies on loyalty and WTPM.

Luxury hotel managers would integrate personalization into their core business strategies, leveraging technology and data analytics to significantly enhance guests' willingness to pay more for improved profitability. Artificial intelligence (AI) and machine learning (ML) are becoming increasingly vital in marketing strategies, enabling more effective targeting and personalization efforts. These technologies can uncover hidden patterns and customer segments, or even at the individual level, in personalization data and accurately predict future behaviors. Moreover, AI-powered chatbots and virtual assistants are being utilized to interact with guests, offering personalized recommendations and support based on individual preferences and past interactions, including customized room amenities, tailored concierge services, and individualized dining options and recreational activities.

Future research can examine hotel personalization practices across cultures, micro-segments, and other hotel classes. Specifically, different levels of personalization can be studied using an experimental design to compare the different levels of personalization on focal outcomes.

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Harmony in Hospitality: Do Leaders Need a Degree in Psychology to Master Multiculturalism?

Solomiya Gladka
solomia.gladka@gmail.com
Les Roches Global Hospitality Education, Switzerland

Annick Darioly
annick.darioly@lesroches.edu
Les Roches Global Hospitality Education Crans-Montana, Switzerland

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Abstract

As companies increasingly globalise, fostering diversity by attracting talented individuals from diverse nationalities, challenges arise in the form of heightened misunderstandings, miscommunications, and conflicts due to cultural differences. Such disparities impact individual performance and overall teamwork outcomes. To navigate these challenges, companies must strategically plan for intercultural adaptation, avoiding cultural pitfalls. Outstanding leadership becomes paramount in creating a harmonious environment and encouraging a common organizational culture. The case study draws insights from the Global Leadership and Organizational Behaviour Effectiveness (GLOBE) project and explores how the hospitality sector can seamlessly integrate talents within a multicultural workplace, particularly in luxury property settings. Findings reveal essential leadership qualities for effective communication in international teams and advocate for techniques that promote trust, equal information distribution and clear goals. Emphasising the value of deep-level team diversity, the paper underscores the necessity of flexible leadership styles to navigate complexities and ensure successful collaboration in the hospitality sector.

Key Words:
Multiculturalism, Outstanding leadership, Cultural awareness, GLOBE, RW3 Global Leadership Model

Introduction

In today's global business landscape, companies are expanding internationally and embracing diversity by integrating talents from various nationalities. However, this globalization has led to an increase in misunderstandings and conflicts due to cultural differences, impacting communication and organizational dynamics.

Managing a diverse team with both local and foreign members presents a significant challenge, requiring careful planning and strong leadership skills. Companies must strategically navigate individual and organizational adaptation in an intercultural marketplace to avoid cultural pitfalls. Fostering an environment where everyone can coexist harmoniously and contribute to a new shared organizational culture is crucial (Meyer, 2015). This challenge extends beyond individual perceptions and can reinforce stereotypes and intergroup biases based on nationality. Significant differences in nationality often impact individual performance, affecting overall team outcomes. These differences have been linked to various outcomes, including reduced promotion opportunities, diminished psychological attachment, lower levels of organizational citizenship behavior, decreased trust among colleagues, lower performance levels, and even lower salaries (Subaşi, 2017).

In addressing these challenges and suggesting effective leadership behaviors, an in-depth study has been conducted on a luxury property situated on a remote island. The property counts approximately 600 employees from 31 different nationalities, with 58% having been born and raised on the island and 70 % of the property's team is comprised of Muslims. The analysis extends to examining the behaviors of two leaders within this context. Operating in isolation without direct connections to the outside world, the luxury property demands specific attention to its distinct setting. Within this environment, daily professional collaboration and social interactions among employees contribute to the formation of a unique society. This dynamic gives rise to a distinct international workplace that cultivates its own set of rules, traditions, relationships, and a distinctive culture.

The primary objectives of this case study are:

- to extrapolate practical insights for hospitality leaders, illustrating management strategies for effectively integrating employees within a multicultural team.
- to provide valuable practices that can be applied by leaders in the hospitality sector to navigate the complexities of multicultural teamwork successfully to create a healthy and balanced environment, fostering a strong organizational culture and spirit.

Stage 1 - Theoretical Background - GLOBE

Understanding the influence of culture in organizations goes beyond common sense and general stereotypes based on nationality categories. It can serve as a parameter for effective preparation and development of leadership competences (Fernandes et al., 2020). The Global Leadership and Organizational Behavior Effectiveness project (GLOBE) compares attributes of effective leadership and societal expectations across cultures to identify commonalities and differences. It seeks to understand how these cultural variations impact leadership effectiveness and organizational outcomes. It outlined 10 social clusters that vary in their perception of effective leadership qualities, utilizing cultural dimensions based on unique cultural norms, beliefs, and identities that are transmitted across generations (House et al., 2014). Social cluster defined as a geographic region inhabited by people with similar or related cultures. Inside of the cluster there is cultural predominance that demonstrates acceptance to the set of competencies/behaviors and as a result can model leader profile (Fernandes et al., 2020). For instance, Middle East cluster comprised countries such as Qatar, Morocco, Turkey, Egypt and Kuwait, and Nordic East cluster includes Denmark, Finland and Sweden (Dorfman & Hanges, 2004).

GLOBE dimensions and their associated primary leadership dimensions

Another important question that GLOBE explores is whether certain qualities and actions of leaders are widely seen as helpful for effective leadership everywhere, and how these qualities and actions are connected to cultural traits. In international organizations, leaders should comprehend how they can influence their teams based on cultural backgrounds. It is crucial to analyse the values and how employees perceive managers who can effectively lead them, earn their respect and also understand how to manage relationships within the team, motivate individuals, and anticipate behavior from people of different cultural clusters (*2004, 2007 Studies - GLOBE Project*, 2022).

GLOBE study resulted in the formation of 21 primary dimensions that collapsed into 6 global leadership dimensions (Table 1) that are universally relevant across cultures.

Table 1. Global and primary leadership dimensions

Global dimensions	Primary leadership dimensions
Charismatic/Value-Based Leadership	• Visionary • Inspirational • Self-sacrificial • Integrity • Decisive • Performance oriented
Team-Oriented Leadership	• Collaborative team orientation • Team integrator • Diplomatic • Malevolent (reverse scored) • Administratively competent
Participative Leadership	• Nonparticipative (reverse scored) • Autocratic (reverse scored)
Humane-Oriented Leadership	• Modesty • Humane orientation
Autonomous Leadership	• Autonomous
Self-Protective Leadership	• Self-centred • Status conscious • Internally competitive • Face saver • Bureaucratic

Note: From *GLOBE Project, 2022 (*http://www.globeproject.com).

These leadership dimensions were then rated by 17,000 managers in 62 societies to measure how behaviors/characteristics contribute to a person being an outstanding leader (House et al., 2014), on a 7-point Likert-type scale that ranged from a low of "This behavior or characteristic greatly inhibits a person from being an outstanding leader" to a high of "This behavior or characteristic contributes greatly to a person being an outstanding leader".

Stage 1 - Analysis of the property using GLOBE 2020

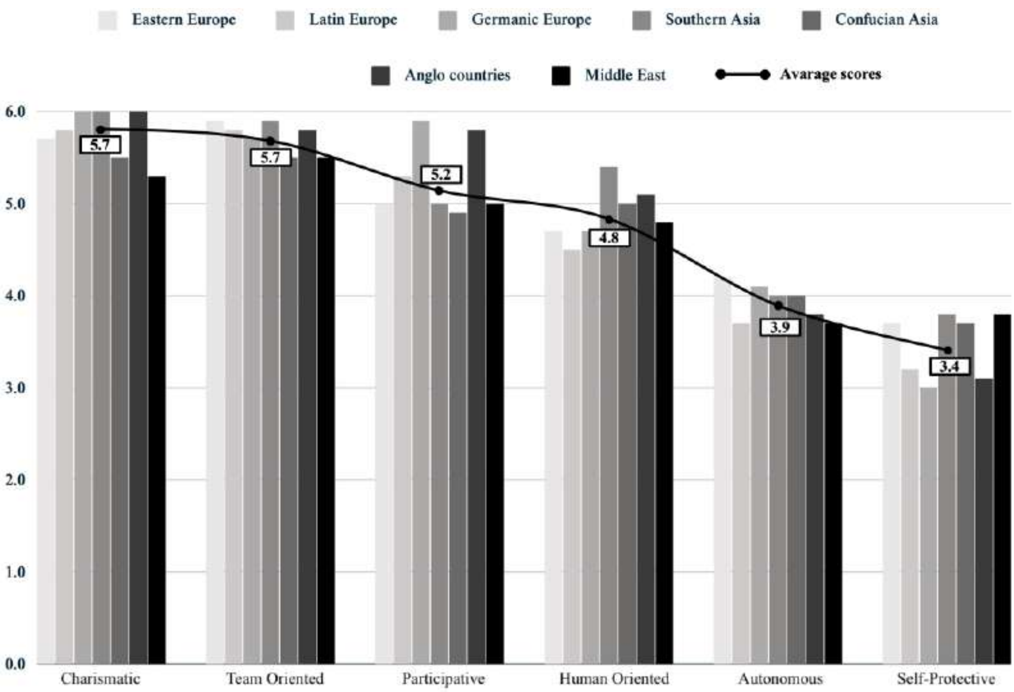
Outstanding leader from the studied clusters

The first step was to provide a clear visualization of an outstanding leader defined by leadership dimensions in the studied luxury brand property using GLOBE 2020 results (*2004, 2007 Studies - GLOBE Project*, 2022) and average each leadership dimensions present in the property (Figure 1). The social clusters that were found in the studied property are presented in Table 2; other GLOBE 2020 social clusters were taken out of consideration.

Table 2. Studied social clusters

Social cluster	Eastern Europe	Latin Europe	Germanic Europe	Southern Asia	Confucian Asia	Anglo countries	Middle East
Countries	Kazakhstan, Poland, Russia	France, Portugal, Spain	Germany, Netherlands	India, Indonesia, Malaysia, Philippines, Thailand	China, Japan	UK	Egypt, Morocco, Turkey

Figure 1. Leadership visualization per studied social clusters



Note. Elaborated by the author from *GLOBE Project* data collection, 2022 (http://www.globeproject.com).

In Eastern Europe, individuals are accustomed to power differentiation and exhibit conformist and aggressive behavior. They prioritize team orientation and loyalty, favoring an autonomous leadership style where guidance is followed without active participation in decision-making. A successful leader in this context requires charisma, encompassing visionary, inspirational, self-sacrificing, integral, decisive, and performance-oriented qualities. Notably, this cluster demonstrates high scores in Team-orientation (5.9) and Autonomy (4.2). Effective team building with a diplomatic and collaborative approach is crucial, alongside maintaining independence to uphold a strong leadership position (*Results - Eastern Europe GLOBE Project*, 2022).

In Latin Europe, similar to Eastern Europe, there is a focus on power differentiation and high performance. However, this cluster seeks to increase in-group and institutional collectivism, indicating a preference for collective resource distribution and actions to enhance individual cohesiveness and loyalty. A charismatic leader with a realistic vision, who involves team members in decision-making, is valued here (Charisma score: 5.8) (*Results - Latin America GLOBE Project*, 2022).

The Germanic cluster values performance rewards and has a high uncertainty avoidance score. Despite low scores in Human Orientation and In-group Collectivism, this society emphasizes participative leadership and the ability to inspire and motivate (Participative Leadership score: 5.9; Charisma score: 6) (*Results - Germanic Europe GLOBE Project*, 2022).

Southern Asian and Confucian Asian clusters accept power differentials and emphasize social order and stability. Leaders in these contexts are somewhat team-oriented but less participative, often making independent decisions without extensive team engagement (*Results - Confucian Asia GLOBE Project*, 2022; *Results - Southern Asia GLOBE Project*, 2022).

The GLOBE Anglo cluster, traditionally performance-oriented, seeks a more humane society with gender equality. Leaders in this cluster are expected to value freedom, delegate responsibilities, and have a realistic vision (Charisma score: 6). Self-centeredness inhibits outstanding leadership (*Results - Anglo GLOBE Project*, 2022).

In the Middle East cluster, there is a low dimension of future and performance orientation. The outstanding leadership profile in the Middle East is unique among the 7 studied clusters, focusing on status enhancement and face-saving, with a deep understanding of the Arab world and Islam religion. They de-emphasize charismatic and group-oriented leadership, with a notable score in Self-Protective leadership (3.8) (Results - Middle East GLOBE Project, 2022).

When analysing the overall averages of each leadership dimensions, hospitality leaders who manage studied social clusters should exhibit a combination of these attributes to be as close as possible to an outstanding leader:

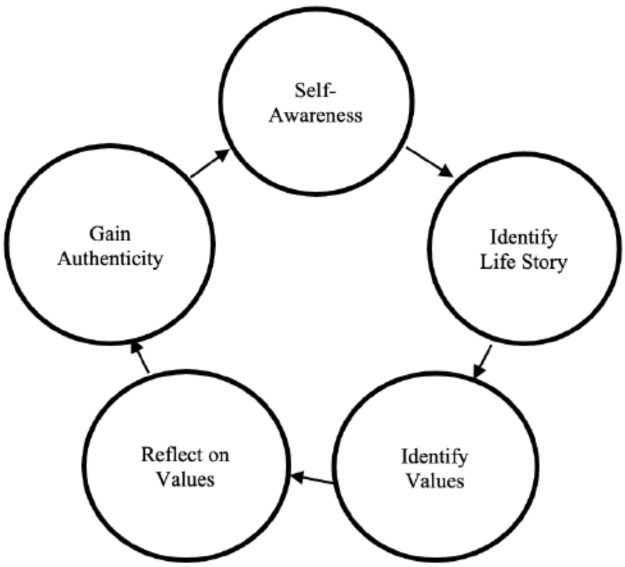
- Being charismatic, that reflects to the ability to inspire and motivate, rated as desirable behavior across clusters.
- Fostering team-oriented approach with common goals and realistic vision for exceptional performance.
- Being participative, by delegating effectively and distributing power and information equally among all organization levels.

Having clear understanding of Muslim culture, as the majority of employees adhere to this religion.

Stage 2 – Theoretical background - RW3 Global Leadership Model

In order for leaders to be as close as possible to an outstanding leader, the use of RW3 Global Leadership Model, comprising Self-Awareness/Authenticity, Global Mindset, and Building Trust/Enabling Collaboration, is crucial (Schell & Solomon, 2019). Leaders must prioritize self-awareness, understanding how their behavior is perceived and adapting to diverse team traits and effective behaviors. The Self-Awareness Authenticity Cycle (Figure 2) facilitates personal growth, enabling leaders to be motivational, inspirational, and charismatic—qualities essential for effective leadership (Schell, 2019).

Figure 2. Self-Awareness Authenticity Cycle



Note: From *The Importance of Global Leadership Skills*, by Schell and Solomon, 2019, RW3 Culture Wizard, p.4.

Self-awareness and Life story

Beginning with Self-Awareness and the identification of one' Life Story, leaders must cultivate a profound understanding of their perception regarding various cultural aspects for comprehending current actions and behaviors. It is essential for individuals to scrutinize their experiences and evaluate personal biases that may compromise their leadership position within a specific team.

To enhance comprehension, the second stage of the research involved conducting two interviews with property leaders. They were selected through purposive sampling to ensure representation across roles with distinct level of power and to capture differences in cultural background and personal experience. Initial contact with potential participants was made in-person, explaining the purpose of the study and voluntary nature of participation. Interviews were conducted in English in a private setting to encourage open dialog, based on prepared and probing questions. With participants' consent, the interviews were recorded for further analysis while ensuring anonymity and confidentiality. Interview durations ranged from 30-60 minutes. The gathered data was transcribed and analysed thematically to uncover patterns and perspectives relevant to the research's chosen theories and practices. A summary of the interviewees' profiles can be found in Table 3.

Table 3. Interviewees' profiles

	Interviewee 1	Interviewee 2
Origin	India (Cluster: South Asia)	Portugal (Cluster: Latin Europe)
Gender	Male	Male
Religion	Islam	Christianity
Position	Food & Beverage Director	Resort Manager
Experienced cultural issues	• Racism • Unequal treatment • Differences in salary • Demotivation	• Cultural barriers • Different ways to approach same situation
Importance of team diversity	• Underestimation of cultural background on team members' leadership expectations • Personality is more important than cultural background	• Different personalities, different cultures and different people bring different approaches and open learning opportunities • Looking always into the personality and attitude, not nationality

Leadership strategies	• Managing personalities, not nationalities • Understand strengths and weaknesses of each team member and appreciate strengths to transform critics of weaknesses into learning process • Team involvement in decision-making process • Being close to people and treat everyone equally • Recruit people with right attitude, not skills	• Be careful and adaptable in the approach towards people because these are different personalities • Leading by example • No favouritism • Healthy discussion • Conflicts are unavoidable, leader should not react right away, but try to find a reason behind to reach middle ground inside the team
Outstanding leader	• Flexible • Team-oriented • Let people speak and be ready to listen and understand; leader should be someone people open to talk to	• Flexible • Performance oriented with attention to details • Participative • Do better - keep the team motivated • Bureaucratic

To align the outstanding leader dimensions from GLOBE 2020 (2004, 2007 Studies - GLOBE Project, 2022) with the perspective of the current leaders in the property, the authors requested the interviewees to assign a score to each dimension using a consistent scale ranging from 1 to 7 to evaluate what in their opinion contributes or inhibit to outstanding leadership. Results are outlined in Table 4.

Table 4. Interviewees' evaluation of GLOBE dimensions

	Charismatic	Team orientated	Participative	Human oriented	Autonomous	Self-protective
Interviewee 1	6	6	7	7	2	1
Interviewee 2	7	7	4	7	3	1

Both interviewees view themselves as charismatic leaders, emphasizing the importance of leading by example: "It is your body language, your attitude, the way you talk, the way you walk, the way you look, the way you present yourself, that's how people find you charismatic as a leader and they've tried to follow you." They possess the ability to motivate and inspire while understanding individual needs and challenges, in line with findings from GLOBE clusters within the resort context. Cultural background is deemed less important compared to personality traits, with a focus on understanding team members' strengths and weaknesses to drive improved performance.

Regarding participative leadership, Interviewee 1 emphasizes the importance of involving the team for comprehensive problem-solving, while Interviewee 2 advocates for a balanced approach, considering the autonomy of the team. This discrepancy may stem from their differing positions within the organization, with Interviewee 2 overseeing a larger scope of responsibility.

Both leaders agree that the self-protective dimension hinders effective leadership, but Interviewee 1's perspective is shaped by experience in the Middle East, where status enhancement and face-saving are emphasized. Interviewee 2 believes that while self-protective leadership inhibits effectiveness, a bureaucratic approach is necessary for standardization regardless of nationality.

Identify and reflect

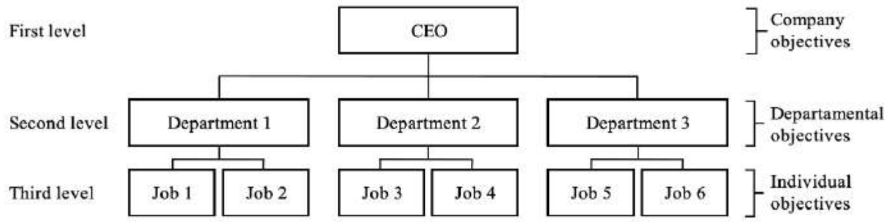
The next steps in the Self-Awareness Authenticity Cycle involve identifying team values and leadership expectations, comparing them with those outlined in the GLOBE study, and selecting appropriate leadership styles to develop global leadership skills while understanding one's international experience, biases, and perceptions.

Leaders must cultivate flexibility and employ customized approaches to foster adaptive leadership without compromising business values and objectives (Schell & Solomon, 2019). Flexibility in communication styles and processes enables leaders to be more effective in cross-cultural contexts. It is crucial for leaders to understand their own preferences while allowing others the freedom to communicate in diverse ways without judgment. Assuming positive intentions facilitates healthy conversations, helping to discern team members' intent and the impact of behavior on workflow. Cultural differences may lead to confusion and misinterpretation in communication and behavior. In such instances, leaders should utilize the D.I.E. process (Describe, Interpret, Evaluate) to ensure the accuracy of assumptions (Stringer & Cassiday, 2009).

Trust is a foundation upon effective workflow inside the team. Support trusting environment enable people to take risk and intellectually contribute to performance, that means performance is an indicator of successful leadership, that needs to be measured and appreciated by leaders (Schell & Solomon, 2019).

To reach high performance, leaders can implement Management by Objective (MBO) program, which emphasizes on setting tangible, verifiable and measurable goals. Common clear goal can maintain motivation of diverse team, creating coherence and full team dedication, streamlining decision making process and eliminating actions that are inconsistent with global interest. Organizational objectives should be translated into specific objectives for each level. Lower-unit managers can partly set their own goals that are interconnected with other level objectives and correspond to main goal. Team members from specific department know more needs and problems of their operations that means each team/member can adapt its/their approach to overall company objective. In this way, according to structure and hierarchy, cascading of objectives can be implemented (Figure 3), showing trust to team/members' decisions and actions from leadership perspective.

Figure 3. Cascading of objectives according to the organizational chart



Note. Elaborated by the author.

Authenticity

The core of outstanding leadership is authenticity, a quality that has become increasingly rare in today's world due to overconfidence and feelings of infallibility. Authentic leaders, in their day-to-day interactions, foster a sense of connection and relatability. They consistently demonstrate respect for individuals with differing beliefs, express genuine interest in diverse opinions and ideas, and actively seek common ground. Open and honest communication nurtures engagement within the team, as members feel valued and meaningful relationships are forged (Miller Perkins, 2023). The Self-Awareness Authenticity Cycle reinforces the idea of continual development towards authenticity. It is an ongoing process and lifelong commitment that yields invaluable leadership results, emphasizing self-awareness, and team growth, trust, and a focus on mutual understanding.

Recommendations

Recommendations for organisational improvement and development stem from both leadership perspective and style within a multicultural environment. While demographics often lead to surface-level diversity perceptions, deeper understanding reveals shared values and personalities, emphasising the importance of personality over nationality. Each team member requires an individualised leadership approach, highlighting the need for flexibility in leadership styles.

According to GLOBE 2020 (2004, 2007 Studies - GLOBE Project, 2022), an outstanding leader in the studied property must be charismatic, team-oriented, and participative, with a clear understanding of religious norms. Moreover, religious stands as one of the pillars of organizational culture and serves as a determinant of cultural norms, values, and rules governing individual and community conduct (Barabara, 2020).

Setting goals and cascading them into smaller objectives promotes adaptability to both management guidance and employee needs, fostering performance-focused operations with equitable power and information distribution.

Managers should lead with curiosity, continuously learning about the work environment through questioning and information gathering, while analysing themselves to eliminate biases. Integrating foreigners and locals in a multicultural workplace necessitates integrating cultural perspectives and individual personality traits.

Improvements can increase employee motivation and satisfaction, as individuals feel their contributions impact company success. Given the interconnected nature of work and life in the hospitality sector, fostering an environment of trust, curiosity, and comfort requires equal attention to employees as to guests.

Conclusion

This case study is suitable for undergraduate and graduate level courses with emphasis on leadership, talent management. Learning outcomes, questions and instructor's notes could be developed.

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Pilot study on applicable recommendations for restaurant professionals – Exploring Swedish wines paired with Swedish sturgeon caviar.

Henrik Scander
henrik.scander@oru.se
School of Hospitality, Culinary Arts & Meal Science, Örebro University, Sweden

Sarah Forsberg
sarah.forsberg@hkr.se
Food and Meal Science, Kristianstad University, Sweden

Mihaela Mihnea
mihaela.mihnea@oru.se
School of Hospitality, Culinary Arts & Meal Science, Örebro University, Sweden

Karin Wendin
karin.wendin@hkr.se
Food and Meal Science, Kristianstad University, Sweden

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Abstract

Recently, there has been a surge of interest in food and beverage pairing research, yet much of the available information stems from experiential knowledge rather than empirical studies.

This study bridges that gap by exploring professional food pairing practices using complex, high-value Swedish products, specifically focusing on white wine, sparkling wine, and sturgeon caviar.

Through involving semi-structured interviews with experts in wine and caviar combinations, our empirical findings highlight the intricate interplay between sensory attributes and contextual elements in shaping the dining experience.

While specific assurances of an optimal pairing may be elusive, general recommendations proved effective, underscoring the subjective nature of taste perception and emphasized the importance of social interaction in discovering ideal pairings for guests. For example, Swedish wines was recommended to explained and the caviar shown how to be eaten. These preliminary findings from a pilot study lay the groundwork for further investigation into food pairings.

Key Words:
Sommelier, beverage combination, Sturgeon caviar, sustainable products, Expert insights

Introduction

The field of food and beverage pairing research has witnessed significant growth in recent years, prompting a surge of interest in the topic (C. Spence, 2020). However, much of the pairing information available originates from experiential and tacit knowledge, disseminated through various culinary experts (Rune et al., 2021). Despite the recognition of professional food and beverage pairing as a vital skill, empirical studies within gastronomy remain limited. While early research focused on the measurement of food and beverage combinations, recent developments underscore the intricate nature of taste combinations, emphasizing the importance of sensory attributes and contextual elements (Harrington, 2006; Nygren et al., 2017).

As research progresses, there is a shift towards investigating food and beverage combinations in natural environments, exploring language as a tool for conveying combinations, and embracing interdisciplinary approaches (Chartier, 2012; Donadini et al., 2012; Donaldini et al., 2008; Herdenstam et al., 2018; Herdenstam et al., 2009; Nygren et al., 2017). Moreover, advancements in sensory science have led to the development of novel methods applicable to food and beverage combinations (Aaslyng & Frost, 2010; Eschevins et al., 2019; Jung et al., 2017; Kim & Hong, 2015; Mielby & Frøst, 2010; Paulsen et al., 2012; Rohm et al., 2010; Charles Spence, 2020; Velasco, Beh, et al., 2018; Velasco, Tu, et al., 2018)

Recent research delves into the health implications of food and beverage combinations, societal patterns of consumption, and the sociological aspects of taste preferences (Scander et al., 2018a, 2018b; Scander et al., 2019; Scander et al., 2020). Additionally, review papers have shed light on the divide between cognitive ideals and experiential realities in food and beverage pairing research, with systematic reviews offering insights into experimental design and findings (Rune et al., 2021; Spence, 2022)

The act of eating and drinking in combination may appear simple, yet it encompasses a complex interplay of factors. Sommeliers navigate a myriad of decisions regarding food and beverages pairing daily in their professional work, each choice influenced by a multitude of factors such as sensory attributes, experience, knowledge, social craft, and cultural norms (Scander & Jakobsson, 2022). While research has demonstrated the potential for optimizing taste experiences through product pairing, there remains a dearth of literature on the practical application of food pairing knowledge within the restaurant industry. In this study, we aim to provide insights into professional food pairing as a culinary practice, bridging sensory expertise with cultural taste.

Aim

Our aim is to explore applicable food pairing for restaurant professionals using complex, high-value Swedish products, focusing on white wine, sparkling wine, and sturgeon caviar.

Method

This qualitative research investigates Swedish white and sparkling wines paired with Swedish-cultivated sturgeon caviar. Semi-structured interviews were conducted with experts in the field of wine and caviar combinations, and thematic analysis was performed using approach of Graneheim and Lundman (2004). Participants were selected using the snowball effect, with an emphasis on their experience in professionally combining wine and caviar as sommeliers. The pilot study involved six interviews, with plans to expand the participant pool to include additional wine experts and chefs in subsequent publications.

Analysis

After transcription, a content analysis was conducted in line with Graneheim and Lundman (2004). The transcripts were read closely to foster familiarity with the content, creating a sense of closeness to the material. Meaningful units, particularly those related to the practices of sommeliers in competitions and dining halls, were identified for further condensation and coding. The codes were then compared to highlight similarities and differences, and subsequently sorted into subcategories and broader categories. At each step of the analysis, contextual comparisons were made to ensure the empirical foundation of the data. All authors were involved in both the research design and data analysis process. The first two steps of the analysis were carried out by the first author, and these results were then discussed and agreed upon with the other authors. In the final step, all authors worked together to enhance the trustworthiness of the study (Graneheim & Lundman, 2004; Suh et al., 2009).

Ethics

Ethical considerations were prioritized throughout the research. All participants gave informed consent following the guidelines of the Swedish Research Council. They were informed that their participation was voluntary and that they could withdraw at any time. Formal written consent was obtained at the time of the interviews. Given the small size of the Swedish culinary field, conducting a study with participants who do not know each other would have been both scientifically and practically difficult. Therefore, all personal and restaurant names in the data are presented under pseudonyms.

Results

In these preliminary results, three themes emerge regarding guidelines for professionally recommending successful wine and caviar combinations: Traditions and origins, sensory taste, and interaction with the guest.

Traditions and origins

The informants emphasized the importance of taking advantage of origin and tradition in food and wine pairings to enhance guest satisfaction. As one informant explained, “It’s essential to create authenticity by matching food and wine from the same region. When we talk about Swedish caviar and pair it with a Swedish wine, we give the guest a more genuine taste experience.” This approach highlights the value of connecting food and wine through geographical and cultural origins to deepen the dining experience.

Furthermore, the importance of respecting and benefiting from traditional food and wine pairings that have developed over time was underscored. Another participant noted, “For a new origin like Swedish wine regions, there’s a real opportunity to create a story that markets itself, making it appealing both from a taste and storytelling perspective.” This comment points to the potential for expanding traditions and narratives in new culinary contexts, especially when introducing lesser-known wine regions like Sweden. Adapting the atmosphere and presentation to reflect the origin of the food and wine was also highlighted. One informant shared, "Using regional ingredients and even adding cultural elements like decorations or music from that region can make the entire experience more immersive and memorable for the guest."

Sensory taste

Regarding the sensory experience, several strategies were identified to maximize guest satisfaction when combining Swedish wines and caviar. One common insight was the need to adjust the flavor profiles and intensities of both elements to create harmony. "Swedish wines can have prominent acidity," noted one participant, "so sometimes we have to tone it down to match the delicate flavors of caviar." This process involves adjusting the wines' characteristics to maintain balance and reflect local traditions. The importance of texture in creating a satisfying mouthfeel was also discussed. As one informant mentioned, "It's about matching the structure of the wine with the texture of the caviar. When done right, it creates a unified and enjoyable taste experience that really brings out the best of Swedish flavors." This speaks to the role of texture in enhancing the pairing experience, ensuring that both elements complement each other.

Additionally, creating balance or contrast in flavors was seen as crucial for a dynamic taste experience. One participant highlighted, "Sometimes, it's the contrast between the wine and the caviar that makes the pairing exciting for the guest." By either complementing or contrasting the flavors, sommeliers can offer more engaging and memorable pairings. Another aspect discussed was the idea of breaking traditional taste patterns to provoke and engage guests. "Offering a surprising combination can challenge the palate in an interesting way, which often makes for a memorable meal," noted one sommelier. This approach reflects an intention to push boundaries while honoring Swedish gastronomy.

Interaction with the guest

In this theme, the informants shared strategies for enhancing the guest experience through active interaction between the sommelier and the guest. A key point raised was the importance of attentiveness. As one sommelier stated, "Often, the guest won't tell you exactly what they want, but if you can read between the lines, you can create a personalized experience that exceeds their expectations." This kind of subtle observation helps sommeliers tailor their service to each guest. The role of the sommelier as a guide and educator was also emphasized. One informant explained, “We’re not just serving wine; we’re educating the guest. By introducing them to wines from new regions, like Skåne, we help them explore flavors they wouldn’t have chosen on their own.” This reflects the duty of the sommelier to inform guests about emerging wine regions, particularly those from southern Sweden, and to expand their culinary horizons.

The sommeliers also discussed their role in creating entertaining and memorable experiences for guests. “Sometimes it’s about telling a great story—whether it’s about the origins of the wine or setting up a special tasting event that really draws in the guest’s attention,” said one informant. These strategies help ensure that the dining experience is not only satisfying but also engaging and enjoyable for the guest.

Finally, the idea of the sommelier acting as a bridge for guests to impress their companions was mentioned. “By giving them that little extra advice, you can help the guest make a choice that leaves an impression on their friends or colleagues,” one sommelier shared. This interaction helps to elevate the guest’s dining experience, adding an element of personal satisfaction and connection. By focusing on these interactions between sommelier and guest, the restaurant can create a unique and memorable experience for each guest, leading to increased satisfaction and loyalty.

Discussions

The study unveiled a load of empirical knowledge from the experts, shining a spotlight on the essential role of sensory cues and contextual elements in shaping the food pairing of Swedish wines and sturgeon caviar. This emerged into three themes regarding applicable guidelines for professionally recommending successful wine and caviar combinations: Traditions and origins, sensory taste, and interaction with guest.

The emphasis on leveraging origin and tradition in food and wine pairings to enhance guest satisfaction is notable and in line with traditional wine paring recommendations (Harrington, 2006). Discussing how incorporating elements such as regional ingredients, cultural details, and storytelling about the origins of food and wine can contribute to creating an authentic and memorable dining experience would be intriguing to further investigate due to different guests’ interest or purpose of their visit.

To further explore the strategies highlighted for maximizing guest satisfaction through the sensory experience of wine and caviar combinations offers rich discussion potential. This could include delving into the importance of adapting flavor profiles, considering textures, and creating balance or contrast in flavors to create dynamic taste experiences that celebrate local flavors and traditions.

While specific assurances of an optimal dining experience may remain elusive, the study found that general pairing recommendations wielded considerable efficacy. Through these in-depth interviews, the subjective nature of taste perception emerged as a recurring factor, underscoring the importance of experimentation and exploration in uncovering ideal pairings (Herdenstam et al., 2009; Scander et al., 2018b). Experts consistently emphasized the need to strike a balance and achieve balance between wine and caviar to enhance the overall sensory journey without overpowering either component. Despite the inherent challenges in guaranteeing an ideal pairing, the study underscored the effectiveness of general recommendations, highlighting the inherently subjective nature of taste perception and emphasizing the role of social interaction in crafting memorable dining experiences. For instance, experts recommended Swedish wines accompanied by practical guidance on savoring caviar, thus enriching the dining journey for guests (Scander & Jakobsson, 2022). This part where the experts could interact to also impress the guest is also a way of bridging the gap between guests and dining room workers, and could be understood as a form of cultural intermediator of taste (Smith Maguire, 2018a, 2018b)

Looking ahead, this pilot study acknowledges the evolving landscape of culinary research, particularly in light of food paring. Shifts in cultivability, resource efficiency, and natural selection might also necessitate a reevaluation of consumption patterns in relation to pairing dynamics. Moreover, the dining experience is intricately woven with a complex tapestry of sociological, cultural, psychological, and physiological influences (Herdenstam et al., 2018).

Conclusions

In conclusion, this study offers nuanced insights into the pairing of Swedish white and sparkling wines with Swedish sturgeon caviar, drawing upon the expertise of industry professionals. The findings underscore the importance of experimentation and overarching guidelines in navigating the multifaceted realm of food and wine pairings. While specific assurances of an optimal pairing may be elusive, general recommendations proved effective, underscoring the subjective nature of taste perception and emphasized the importance of social interaction in discovering ideal pairings for guests. For example, Swedish wines was recommended to explained and the caviar shown how to be eaten. It's important to note that these results are preliminary as it is a pilot study, offering a foundational understanding for further investigation into food and wine pairings.

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