

Technology Adoption Increases Need and Value of a Hospitality Degree

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ABSTRACT

As the hospitality industry continues to develop across the world, there has been an increased focus on two major considerations, often positioned at odds: technology and the value of a hospitality degree. With rapid technology development and integration in hospitality spaces, the industry has begun to replace portions of the workforce to not only provide contactless experiences in response to the COVID-19 pandemic, but to control costs in a time of significant supply chain issues, high inflation, and demands for quick and expedient service. This is compounded by a workforce shortage and a history of a majority of the workforce not being required to obtain more than a high school diploma to gain access to leadership roles. This industry commentary article highlights the need and value of a hospitality degree in conjunction with technology adoptions within the hospitality industry.

Keywords

Education, Technology, Challenges, Covid-19, Employment, Hospitality, Degree

INTRODUCTION

The hospitality industry includes various occupations to support lodging and food and beverage businesses. These occupations range from entry-level to executive management, each requiring different levels of education, training, and experience to deliver the products and/or services of the business (Kelchner, 2022). Skills directly associated with hospitality include active listening, rapport building, critical thinking, problem-solving, self-management, communication, organization, and leadership, which have become the foundation of hospitality management college curriculum (Chung-Herrera, Enz, & Lankau, 2003; Kelchner, 2022). Despite these requirements, there are a significant number of jobs available within the hospitality industry that do not require an education, and historically a degree has not been required to gain access to leadership roles. This has led to a negative perception regarding the value of a hospitality degree and even more so as technological innovations within the hospitality sector continue to replace jobs (Parvez et al., 2021). As the United States continues to recover from COVID-19, it will be important for institutions of higher education and hospitality leaders to work together to demonstrate the value and competitive advantage that a hospitality degree offers to prospective employees alongside technology. Accordingly, this industry commentary article highlights the need and value of a hospitality degree in conjunction with technology adoptions within the hospitality industry.

INDUSTRY CONTEXT

Today, technology innovations such as artificial intelligence (AI) and robotic utilization have gained momentum within the hospitality industry and are predicted to take over a majority of basic service roles by 2030 (Bowen & Morosan, 2018). COVID-19 is considered a catalyst of this rapid technology adoption and a response to the increasing demand for better service experiences from guests (Koo, Xiang, Gretzel,

& Sigala 2021). Cleanliness has been one of the top priorities since recovery from the pandemic, referred to as “Hospitality 5.0” (Pillai, Haldorai, Seok, & Woo, 2021). Hospitality 5.0 came from Industry 5.0, which describes engagement in technology adoptions and is defined as “actual abilities, modularizes, interchangeability, actualization, and transformation that can diversify any industry to extend the lead to technological advancement activities” (Madsen and Berg, 2021; Zeng et al., 2020).

Service robots started in Asia prior to the beginning of the pandemic and have been used in a variety of hotels such as the Henna Hotel in Japan, Alibaba Hotel in China, Wynn Hotel, Aloft Hotels in the USA, and Comfort Xpress Hotel in Oslo (Parvez, et al., 2022). This technology creates a contactless experience between the customer and the business at the same time as fulfilling basic service expectations. Wang and Wang (2021), in their research on the use of technology of robots within hospitality businesses, showed customers suggested robots should take over positions instead of having face-to-face interactions. Similar results were found in 2016 by Travel Zoo, which conducted a survey to identify the readiness of consumers to embrace technology; 80% of respondents said “yes,” indicating there was interest in technology adoption prior to COVID-19 (Kazandzhieva & Filipova, 2019).

Du and Wei (2021), former hospitality workers, supported the connection between the reduction in jobs and technology utilization, stating, “robotic advancement directly impacts unemployment; directness’s negative and substantial influence on unemployment is comparatively more significant, specifically during and post-pandemic periods.” Arguably, any reductions in unemployment during this pandemic period may have been related to an increase in service robots (Parvez et al., 2021). However, with increases in technology and decreases in available job opportunities, it brings into question the future of education in this space and a call for operational leaders to focus on what level of jobs are most impacted by technology, how those positions are impacted, and where higher educational is valued.

The Hospitality Workforce and Education

The United States Bureau of Labor Statistics accounted for 15.11 million people working in the hospitality and leisure industry in the U.S. as of December 2021. The workforce is composed of occupations ranging from entry-level to executive management that each require specialized education and training (Kelchner, 2022). Within educational programs, students often engage in a variety of in-class and out-of-classroom learning experiences to develop the necessary skills to be successful in hospitality roles. However, more than half of U.S. hospitality employees do not view formal education and professional development training as essential despite hospitality leaders recognizing the value of education and the fact that most five-star hotels require a university degree to be considered for management (Ahmad & Zainol, 2011; Peltier, 2016; Tavitiyaman, Weerakit, & Ryan, 2012). In China, higher education institutions such as Hong Kong Polytechnic University in China and Cornell-Nanyang Institute of Hospitality Management at Nanyang Technological University in Singapore have training programs for both academics and management within the hospitality industry (Tavitiyaman, Weerakit, & Ryan, 2012). Programs such as these increase hotel management leadership skills (Kozak & Uca, 2008).

Accordingly, studies have shown hospitality education is an important consideration for having a higher position within the hotel industry regardless of technology adoption and often leaders are responsible for identifying, launching and mediating technology as needed (Tavitiyaman, Weerakit, & Ryan, 2012). Additionally, this education encourages businesses to examine whether selected technologies are capable of having human intelligence and completing tasks necessary to provide guests with a great service experience (Yanco et al. 2004). Although existing research has identified that service robots have a unique way of treating guests and creating more favorable experiences compared to employees (Ullman and Malle, 2019, Zhong et al., 2020), there is a lack of research investigating whether technology has the ability to replace more leadership-oriented roles for which formal education and training programs seek to prepare students.

A study by Tavitiyaman, Weerakit, & Ryan (2012) identified that lower star-rated hotels offered the bare minimum of service due to the limited resources of employees with business skills and low operational budgets. Yet high star-rated hotels, hotels expected to provide a higher level of service, associated this ability with an educated staff at all levels (Tavitiyaman, Weerakit, & Ryan, 2012). In either case, it supports the idea that an educated workforce improves business success in hotels (Nebell, 1991).

Research has also begun to investigate the connection between education, age, and performance success in the hospitality industry. The analysis of variance presented by Tavitiyaman, Weerakit, & Ryan (2012) proved that those who are between 25-34 years of age have more knowledge surrounding concerns and sense of purpose within the community, communication skills, team building, ethics, interpersonal skills, and leadership capacity compared to general managers ages 45-54.

Technology's Reliance on Humans

Technology is slowly taking over within the hospitality industry. It has not only increased due to COVID-19 expectations of contactless transactions but also has been associated with consumers being uncomfortable particularly during their vacations (Dehler, 2019). There are positive benefits gained from technology, such as having robots checking in the guest or mobile check-in/out that allows employees to focus on guests who want human interaction (Dehler 2019). Studies show 73% of guests prefer to communicate through online channels compared with 75% of guests who want to have human interaction upon check-ins (Dehler, 2019). This demonstrates variation in guest preferences for technology options and human interaction.

Technology is not comparable to humans. Robots are not capable of demonstrating or understanding human emotion (Parvez 2020). Accordingly, technology cannot empathize with a guest and has limited responses based on its programming capabilities. When it comes to the complexities and customization that is often required to service a customer, robots are incapable of handling complex scenarios and communication delivery from the robot can be difficult, frustrating, or inappropriate for the customer (Parvez 2020). However, with advances in technology, many now have the capability to help solve problems but still lack the human-like interaction. Robots lack the visual human features that often convey and create a welcoming atmosphere and positive attitude with guests such as a smile, voice inflection, and body movement/gestures (Parvez 2020). Additionally, technology is not self-sufficient, it relies on humans to program and service it. It requires human intervention when technology malfunctions or breaks down; without human interaction for service recovery, technology in this case has a negative impact on the business (Alamdari 2017, Parvez 2020). Accordingly, robots cannot fully replace humans within the industry, and educated leaders are required to strategize how and when it is best to use technology and robots in a way that complements the service experience versus taking away from the experience.

Technology's Limitations

There are limitations within the use of technology as compared to a human worker. Although existing technology has been associated with increasing sales (i.e. kiosks) in hotels, room service robots lack the programming ability to modify menu options. Robots are programmed with standard options, and these options cannot be adjusted for guests, which can lead to guest dissatisfaction (Alamdari, 2017). No matter how advanced the technology, there will always be a limitation in performance. Alamdari (2017) stated, "Limitations in programming describes the fact that robots operate based on what they are programmed and nothing more; that exhibits why robots fall short in service efficiency" (Alamdari 2017). A human worker can offer a variety of customization options as well as ask questions to seek clarification or confirm understanding. Workers can also accommodate the unique cultural requirements of customers, such as appropriate distance and gestures. However, even with this ability, it does not guarantee a positive experience for the guest. While the robot offers consistency in their processing of information

and approach with guests, they lack individualization. While human workers offer individualization and customization, they may lack consistency in their processing of information and approach in their customer-to-customer process. Human workers may demonstrate this inconsistency as they process emotion based on their perception of each interaction with each guest.

In many cases, hotel staff are responsible for monitoring guests' behavior, such as body language, tone of voice, and demeanor. The observation of customer behavior is also a safety protocol. Robots not only cannot detect these emotions and behaviors, they also cannot react appropriately or aid during emergencies (Alamdari, 2017). For example, during an emergency, human workers can help keep guests calm, share evacuation plans, and offer basic first aid (Alamdari, 2017). Furthermore, to handle these types of scenarios, staff members need to have developed communication skills, emotional intelligence, and cultural awareness. These skills are often learning goals in academic programs.

DISCUSSION

Businesses will continue to invest in technology due to the numerous advantages it can provide. Furthermore, businesses must continue to advocate for, identify, and retain an educated workforce that has the knowledge and competency to best determine use of technology within the business strategy. The value of a hospitality degree has been demonstrated in a variety of studies, demonstrating a link between higher-star hotels and the most educated managers. Accordingly, education is linked to better service in the hospitality industry and profitability. The knowledge and experience that a graduate gains from a degree program prepares this individual to handle complex business problems as programs focus on developing skills directly associated with hospitality including active listening, rapport building, critical thinking, problem-solving, self-management, communication, organization, and leadership, which have become the foundation of the hospitality management college curriculum (Chung-Herrera, Enz, & Lankau, 2003; Kelchner, 2022). Furthermore, this educational background allows leaders to evaluate how best to balance the existing workforce between technology and guest expectations. A brief, comparative summary is below in Chart 1. This chart identifies advantages associated with technology compared to a human worker.

Chart 1: Technology Value vs. Human Worker Value

Technology	Human Worker
Reduces wait times for the checking in/out	Human interactions with guests upon checking in/out
Less prone to make errors; consistency in process	Personalized/customized interactions; can handle complex interactions
Provides the hotel basic experience	Creates a relationship with the guest
Basic problem solving for the guest	Provides sympathy toward the guest
Cost effective; associated with higher revenue generation	Ability to learn, reflect, and adapt to a variety of situations

The chart displays common advantages of technology and human workers. Technology has the ability to reduce long wait times, mitigate errors by following standard processes for all guests, and fulfill basic

hotel expectations. The human worker can fulfill these basic requirements as well as create a relationship with the guest through positive interactions that include demonstrating, understanding and empathy. Human workers can also learn and reflect to improve outcomes. Robots cannot provide these human elements. With adequate education, leaders can integrate technology to increase not only the value of technology but the value of employees delivering on guests' expectations.

CONCLUSION

As the hospitality industry develops across the world with greater integration of technology, it is essential for businesses to recognize that two considerations often positioned at odds, technology and the value of a hospitality degree, create more value for the organization when paired together. With rapid technology development and integration in hospitality spaces, there has been fear that technology has and will replace portions of the workforce to not only provide contactless experiences in response to the COVID-19 pandemic, but to control costs in a time of significant supply chain issues, high inflation, and demands for quick and expedient service. This has been compounded by a workforce shortage and a history of a majority of the workforce not being required to obtain more than a high school diploma to gain access to leadership roles.

This industry commentary article highlighted the need and value of a hospitality degree in conjunction with technology adoptions within the hospitality industry. Studies have shown hospitality education is an important consideration for higher positions within the hotel industry regardless of technology adoption. Leaders are responsible for identifying, launching and mediating technology as needed (Tavitiyaman, Weerakit, & Ryan, 2012). Accordingly, using technology and hiring an educated workforce can help businesses improve customer satisfaction by allocating time saved from technology to more valuable tasks that meet and exceed customer requirements. Educated managers can strategize the appropriate balance between technology and employees. Furthermore, the industry needs to continue to highlight and advocate for hospitality education and clarify the connection between a degree and advancements in leadership. Hospitality degree programs must incorporate technology into the curriculum, so graduates are prepared to offer guidance and suggestions on how to select, balance and use technology to achieve business goals. This includes degree curriculum content areas that not only include finance and accounting, but leadership development, human resource management, and technology agility.

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