GAMIFICATION IN IMPROVING HRIS USAGE

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This study investigates the capacity of gamification to improve the utilization of HRIS (Human Resource Information Systems). The respondents were selected from a wide range of sectors, including schools, banks, government agencies, and others. They represented different positions, from lower-level employees to management responsibilities, and were characterized as either operational or managerial users. The data collection process employed a snowball sampling technique, which involved obtaining referrals from current users of the HRIS system. The study found a strong positive association between all variables, including organizational impact, HRIS use, HRIS success factors, and gamification. The majority of correlation coefficients demonstrated a substantial effect size, with the exception of gamification and HRIS utilization, which displayed a modest effect size. The success criteria of HRIS had a considerable impact on the usage of HRIS, accounting for around 55% of the variation. Information quality was found to be the only significant predictor of HRIS utilization among the several factors that contribute to the success of HRIS. However, the moderation study investigating whether gamification played a moderating role in the link between HRIS success factors and HRIS use did not yield significant evidence supporting gamification as a moderating variable.

Keywords: Gamification; HRIS use; HRIS success factors

Background of the study

In today’s world, companies are dealing with many complicated difficulties, which has led them to create different ways to traverse these ever-changing contexts. The Human Resource Information System (HRIS) is a crucial tool that enables the efficient execution of administrative and strategic responsibilities within the Human Resource Management department (Islam & Shuvro, 2014). Strategy of Human Resources Management is crucial for organizational strategy processes, as it is considered a cornerstone (Kaygusuz et al., 2016). Similarly, information systems are essential service instruments in corporate operations (Pandey et al., 2016).

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Organizations that aim to improve their competitiveness have recognized the significant role of information systems (IS) in supporting human resources management (Wibowo et al., 2016).

However, the successful implementation of these systems depends on a detailed comprehension of the elements that affect the improvement of organizational performance through the integration of information systems. Information technology (IT) is recognized as a crucial factor in enhancing productivity and competitiveness, especially when it is extensively implemented and employed (Oliveira & Martins, 2011).

Warui et al. (2015) conducted a study that highlights the restricted utilization of information systems, namely in the field of human resource management, despite the recognized importance of IS. Employee resistance to adopting new information systems is a recurring problem, as emphasized by Virdyananto et al. (2016).

This underscores the need to consider user preferences and managerial involvement while designing HRIS, as noted by Bamel et al. (2014) and Rahman et al. (2016). Furthermore, Islam & Shuvro (2014) noted that current systems often fall short of their full potential due to underutilization and missed optimization opportunities.

People view technological advancements like gamification and telecommuting as ways to enhance involvement and dedication (Pandey et al., 2016). Gamification refers to the incorporation of game aspects into non-entertainment situations, which can effectively motivate users of information systems (Schöbel & Söllner, 2016). Studying gamification can provide valuable insights into how technology affects human behavior and motivation, which can contribute to a better understanding of the dynamics of information systems (Liu et al., 2017).

Experimentation with information systems is essential for promoting sustainable changes due to their constantly changing nature (Pandey et al., 2016). This study intends to investigate the potential of gamification in improving the utilization of HRIS (Human Resource Information Systems) and its impact on promoting organizational performance.

**Statement of the research problem**

This study looked into HRIS success factors as predictors of HRIS use moderated by gamification. This study answers the main problem: Does gamification in HRIS promote likely usage of the system?

**Significance of the study**

The results of this research may contribute to the information system literature by incorporating gamification in information systems such as customer engagement (Insley & Nunan, 2014; Harwood & Garry, 2015); and employee engagement.

Hammadi et al. (2017) study provides several important contributions to academia. First, the critical research gap was addressed in the study of gamification in HRIS. While presenting on the probable benefits associated with gamification, literature and empirical evidence were lacking (Pandey et al., 2016). Second, the result of this study will also benefit the research community by testing a new variable, gamification, together with some existing frameworks of HRIS research.

This study provides practical implications for system designers and managers who seek new ways to promote user engagement with information systems through gamification.
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The result may likely help the developers of HRIS when incorporating gamification into their systems.

Scope and limitations
The study only considered respondents who had used an HRIS. This is regardless of the provider or the development and implementation strategies of the HRIS being used. This paper fails to establish the existence of any gamification element in their current system.

Gamification is the only construct that was used to test for moderation and does not check for any demographic variable as a moderator. In a gamification approach, the individual motivation structures of information system users are the focus of the research (Schöbel & Söllner, 2016; Thiel et al. 2017).

This study attempted to seek responses from different HRIS users in different companies, regardless of whether they were operational or managerial users. The survey instruments were deployed to HRIS users and were not limited to HR employees only. The time is primarily considered a primary limitation of this study.

Review of related literature

HRIS definition
HRIS, or Human Resource Information System, is a structured method for collecting, storing, processing, and retrieving HR information. Its purpose is to assist organizations in achieving both administrative and strategic objectives. It is primarily a convergence of human resources and information technology, specifically focused on an HR software solution (Bankar, 2017).

The HRIS sub-system components consist of the employee information system, position control system, applicant selection and placement information system, performance management information system, reporting and compliance information system, job analysis and design information system, recruiting information system, compensation and benefits information system, employee training and development system, and information system supporting workforce planning and labor negotiations (Atika, 2011). An HRIS employs technology to enhance the processing and administration of human resource information inside a business (Weeks, 2013).

Information System (IS) adoption
The most critical factors for HRIS adoption are IT infrastructure, top management support, IT capabilities of staff, perceived cost, and competitive pressure (Alam et al., 2016). Research findings show that HRIS has a very important role to play in saving costs for record keeping, at about 86.7% (Chowdhury et al., 2013). As much as almost all managers have positive perceptions regarding the HRIS’ role in administration and strategic functions, organizations still cannot ensure its utmost utilization (Islam & Shuvro, 2014).

Barriers in HRIS
Organizations are now increasingly adopting HRIS than ever before to ensure the effective utilization of their human resources. But still, many challenges and issues keep organizations from enjoying the benefits of this technology (David et al., 2015).
According to a research finding, the cost of setting up and maintaining a HRIS can be high, which is a major obstacle to its implementation (Atika, 2011).

Research findings suggest that lack of commitment from top management, inadequate knowledge, and a lack of expertise in using HRIS are perceived as the greatest barriers to HRIS in selected universities. However, other factors such as inadequate knowledge and lack of expertise in using HRIS, the unavailability of suitable HRIS software, and uncertainty and lack of trust in HRIS processes equally impact HRIS adoption (Bamel et al., 2014). Hence, it is imperative for HR managers or vendors to tailor their offerings beyond the basics and inform users about the enhanced capabilities of HRIS (Aeron & Jain, 2015).

Resistance to change (Mohamed, 2013) among employees to accept the changes of the new information system is a problem that cannot be avoided (Virdyananto et al., 2016). If end-users are intrinsically motivated to prefer HRIS, then their commitment can dilute the influence of other obstacles, i.e., lack of management support and technology distrust (Bamel et al., 2014).

Insufficient integration with other systems within the organization, the complication of the system, inflexibility, and the lack of a user-friendly interface (Weeks, 2013) were also identified as barriers in HRIS, and the addition of some other features that were not currently part of the system (Islam & Shuvro, 2014) may be needed.

**HRIS use**

An HRIS enables decision-makers and planners in an organization to improve the efficiency, effectiveness, and timeliness of the information at their disposal (Weeks, 2013).

Research findings indicated that HRIS was used mainly at the operational and functional levels (Saleem, 2012). Perceived innovation characteristics influence the extent of use of HRIS systems and also determine the outcomes of the use of HRIS systems by HR professionals (Kassim et al., 2014).

The user satisfaction criterion considers attitudes, beliefs, cultural, and behavioral issues as key areas that influence the successful implementation of information systems (Atika, 2011). Factors that influence employees to accept HRIS are social influence and task technology fit. Social influence is from a social environment that influences and causes someone to use an information system (Virdyananto et al., 2016). The implementation of the HRIS project and aligning it with strategic goals have enhanced the decision-making process, planning, and coordination by managers (Mohamed, 2013).

According to another study, the support of organizations greatly influences employees to receive and use information systems (Virdyananto et al., 2016). Top management support, effective communication, training, support from the ICT department, support from the HR department, and user involvement influence the implementation of HRIS. HR managers should play a proactive role to support HRIS implementation in their organizations (Mohamed, 2013).

In order to fully understand the extent of HRIS adoption among the employees, the role of the mediating variable, i.e., performance consideration, between the relationship between HRIS functions and their extent of adoption was established (Aeron & Jain, 2015).

Usage perception of HRIS systems is similar across organizations of different sizes, among managers of varied work experience, and irrespective of training to different levels (Aeron & Jain, 2015). Motivational components are necessary for the effective use of HRIS. This includes employee citizenship, psychological well-being, organizational trust and
commitment, job satisfaction, individual differences, and the and the social environment, all of which lead to behavioral motivation towards effective use of HRIS, which eventually leads to net benefits for the organization (Randle et al., 2017).

More recent findings show HRIS use includes HR and succession planning, work force planning, work force dynamics analysis, staffing, applicant recruitment and tracking, employee database development, performance management, learning and development, compensation and benefits management, payroll, job evaluation, salary survey, and planning (Qadir & Agrawal, 2017).

User satisfaction is the only criterion that considers attitudes, beliefs, cultural, and behavioral issues as key areas that influence the successful implementation of information systems (Atika, 2011). The user’s satisfaction contributes significantly. They accept systems easily, and their performance is improved (Gonçalves et al., 2017).

**HRIS benefits**

The application of information systems (IS) for supporting human resources management has become increasingly important for organizations to improve their competitiveness (Wibowo et al., 2016). The results of a study revealed that the main perceived benefits of present HRIS are “quick response and access to information,” “improving employee services,” and “reducing paperwork,” whereas “reduction in errors while using HRIS” and “helping to make informal decisions” were perceived as the least beneficial benefits (Bamel et al., 2014).

HRIS improves accuracy, the provision of timely and quick access to information, and the saving of costs. HRIS is also used by human resources staff to enable employees to do their own benefit updates and address changes, thus freeing HR staff for more strategic functions (Atika, 2011). The HRIS has the advantage of effectively planning, controlling, and managing HR costs in order to achieve improved quality and efficiency in HR decision-making, along with improved managerial and employee effectiveness and productivity (Bankar, 2017). HRIS accelerates managerial effectiveness (Mamun & Islam, 2016).

Human resources information systems serve as a key component of the organization, and a good HRIS will deliver important data about human resources needs and capabilities; this information will assist the management team in establishing the organizational mission and setting goals and objectives in motion (Adelekan & Ojo, 2018).

An organization’s success mostly depends on the effective utilization of its valuable human resources. Today, human resources are treated as strategic assets; these assets are needed to achieve competitive advantage and outperform rivals (David et al., 2015; Buzkan, 2016). HR systems help senior management identify the manpower requirements in order to meet the organization’s long-term business plans and strategic goals. Middle management to monitor and analyze the recruitment, allocation, and compensation of employees. Operational management is used to track the recruitment and placement of employees (Nath & Satardekar, 2015).

Taking into consideration our changing environment and the enormous bulk of data to be processed, the HRIS system must be as reliable, accessible, and flexible as possible (Gonçalves et al., 2017). It is this transformational pursuit that makes HR a strategic business partner to deliver competitive advantage (Qadir & Agrawal, 2017).
There is no doubt that the implementation of such a system by the various adopting entities would improve the management of their most valuable asset—human capital—in a fast-changing and competitive environment (Gonçalves et al., 2017).

Advanced management ideas and the deep integration of information technology will bring unprecedented power to enterprise development. Human resource (HR) management, as an important area of business management, should share the benefits of information technology sufficiently to make its contribution to the company's strategy (Ming & Hongjun, 2011).

Information technology is considered to be one of the most important elements that affect the activity of the human resources department (Nath & Satardekar, 2015). Information technology (IT) appears to serve as an empowering function for HR professionals, providing a medium through which HR professionals can provide increased value in their work (Kassim et al., 2014). With the rapid development of the IT industry, we should continuously improve human resources management and realize the sustainable development of the IT industry (Zhang, 2011).

**Gamification**

Research findings support the importance of including game elements to enhance the retail experience, although gamification should be optional (Insley & Nunan, 2014). Increased employee’ engagement and improved users’ experiences may be influenced by gamification. Gamification is able to make the employees’ experience of performing tedious and repetitive tasks more enjoyable (Swacha, 2016; Suh et al., 2017).

The adaptation of gamification to the structures of information systems effects motivation to use a system and the use of an information system (Schöbel & Söllner, 2016). The strongest focus of gamification centers around the effects of gamification on human behavior (Koivisto & Hamari, 2019b).

The introduction of a gamified element modifies engagement behaviors and emotions (Harwood & Garry, 2015). Liu et al. (2017) used the term meaningful engagement to emphasize the dual outcomes of gamification design: it should not only result in enjoyable experiences and foster engagement, but also enhance instrumental task outcomes. Gamification mechanics produce four distinct experiential outcomes: challenge, entertainment, social dynamics, and escapism. These outcomes can stimulate patient engagement (Hammedi et al., 2017).

**Conceptual and operational framework of the study**

The primary purpose of the study is to determine the validity and reliability of human resource information system success factors in a higher education context. The results showed that information quality, system quality, service quality, structural assurance, and user satisfaction comprise human information system success factors in a public higher education institution.

In another study entitled Achieving Retention through the Human Resource Information System: Developing a Framework (2016), conducted by Pandey et al. (2016) the authors explain the significance of the human resource information system in achieving certain organizational outcomes. It was identified that telecommuting and gamification are functions of HRIS.
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But due to a lack of empirical evidence in both the functions of information systems, a framework was presented. The authors suggest imperially testing the framework, especially in personnel management.

Utilization of game mechanics and game design techniques was studied by Baptista & Oliveira (2017). "Why so serious?" was the title of the paper. Gamification has an impact on the acceptance of mobile banking services. The latest version, UTAUT2, with the inclusion of a gamification construct, was used in the research model. Their findings show that there is a direct and strong relationship between gamification and intention to use mobile banking services, showing that there is a direct and strong relationship between gamification and behavioral intention to use the system.

Operational framework

![Gamification in Improving HRIS Usage](image)

We addressed the following hypotheses to evaluate gamification's potential to improve HRIS usage and have an organizational impact.

HO1 - HRIS success factors do not significantly predict HRIS usage.
HO2 - Gamification does not moderate the relationship between HRIS success factors and HRIS use.

Methodology

The Philippines served as the study's location. This study focused on various companies that have implemented HRIS (Human Resource Information Systems). This encompasses a wide range of industries, including educational institutions such as schools, colleges, and universities, as well as sales and merchandising, manufacturing, banking, and various other sectors. The foundation of this analysis relied on the findings of a prior study, which indicated that the influence of HRIS functions remains consistent regardless of factors such as organization size, job experience, and technology facilitation (Aeron & Jain, 2015).

This study utilized a quantitative research design to evaluate hypotheses, employing quantifiable data and statistical analysis.
We utilized a range of quantitative research methodologies, including descriptive, correlational, and quasi-experimental designs with regression analysis. The goal of the descriptive design was to show how variables or phenomena were happening at the moment. For example, respondents were categorized by their age, position, length of time with the company, and how they used HIRS.

Baptista & Oliveira (2017) modified the survey instruments for this study. The decision to utilize a 5-point Likert scale was based on its extensive usage and proven dependability in measuring perceptions. This scale allowed respondents to express their level of agreement or disagreement, ranging from "strongly agree" to "strongly disagree." After customization, we evaluated the survey's reliability by calculating the Cronbach's alpha coefficient, yielding an overall coefficient of 0.97.

We distributed the instrument using a Google Form. The poll encompassed not just HR employees but also HRIS users from diverse enterprises. Such an approach employed in this study was founded on empirical evidence indicating that perceptions of HRIS utilization remain uniform across businesses of diverse magnitudes, among managers with differing degrees of expertise, and irrespective of training (Aeron & Jain, 2015).

The study calculated the frequencies and percentages for demographic factors and HRIS features. The Pearson correlation examined the connections between HRIS success criteria, usage, gamification, and organizational effect, assuming a linear relationship between the variables.

Linear regression assesses the ability of independent variables to predict the dependent variable. The study investigated the correlations between HRIS success variables (information, system, service quality, and structural assurance) and HRIS utilization using multiple regression analysis.

Finally, a moderation analysis was conducted to examine whether gamification played a moderating role in the association between HRIS success criteria and utilization.

Results and discussion

Demographic profile

Participants from various industries, including schools, banks, and government agencies, took part in the survey. They held jobs that spanned from entry-level to management responsibilities and were classified as either operational or managerial users. We calculated frequencies and percentages based on age, rank, and years of experience. The age group with the highest frequency was 30-39 years old (n = 17, 49%), with operational jobs being the most common (n = 21, 60%), and more than 7 years of experience being the most frequent (n = 18, 51%).

The respondents employed different HRIS functionalities, in line with their efforts to establish a uniform approach to managing HR across the organization. These endeavors encompass the administration of fundamental personnel information such as CVs, attendance records, and wage details; the creation of operational procedures; the establishment of internal regulations; and the establishment of behavioral norms (Ming et al., 2011).

The five most commonly utilized elements of the HRIS were record keeping, pay management, time tracking, performance appraisal, and job evaluation, with usage rates of 11.61%, 9.38%, 7.59%, 7.14%, and 6.70%, respectively. The results align with prior studies that demonstrate the primary utilization of HRIS for administrative functions (Bamel et al., 2014).
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Enterprises in Pakistan frequently use HRIS to access personnel information, track absences, and conduct performance reviews. This enables rapid and convenient access to information (Khan et al., 2017).

A two-tailed independent sample t-test was conducted to assess the average level of gamification between operational and management job categories. The statistical analysis, with a t-value of 0.20 and a p-value of 0.839, indicates that we cannot reject the null hypothesis. This means that there is no significant difference in the average gamification scores between the two job categories. This conclusion contradicts the results of another study, which found that employment status had an impact on views of HRIS adoption (Khan et al., 2017). This discrepancy could be due to a potential constraint in the sample size could be a factor in causing this discrepancy.

An analysis of variance (ANOVA) was conducted to investigate variations in the implementation of gamification among different age groups. The statistical analysis, with an F-value of 2.01 and a p-value of 0.152, revealed that there were no significant variations in gamification among different age groups, as shown in Tab. 1. The primary factor, age, was similarly not statistically significant at the 95% confidence level, F(2, 30) = 2.01, p = 0.152, indicating that there is no substantial variance in gamification depending on different age levels.

Overall, the analysis indicates that the respondents' demographic characteristics had no substantial impact on the outcomes of this study. This backs up an important finding from a previous study that says demographic factors don't have much of an effect on how HRIS users see things, which means that demographic diversity isn't as important (Bamel et al., 2014). On the other hand, a different study proposes that the age of users could either vary or have a negative influence on the positive impacts of gamification on engagement (Hammedi et al., 2017).

**Correlation analysis**

A significant positive correlation was observed between HRIS use and gamification (r_p = 0.46, p = 0.005). The correlation coefficient between HRIS use and gamification was 0.46, indicating a moderate effect size. This correlation indicates that as HRIS use increases, gamification tends to increase. A significant positive correlation was observed between HRIS use and HRIS success factors (r_p = 0.74, p < 0.001). The correlation coefficient between HRIS use and success factors was 0.74, indicating a large effect size. This correlation indicates that as HRIS use increases, HRIS success factors tend to increase. A significant positive correlation was observed between gamification and HRIS success factors (r_p = 0.51, p = 0.002). The correlation coefficient between gamification and HRIS success factors was 0.51, indicating a large effect size. This correlation indicates that as gamification increases, HRIS success factors tend to increase.

**Linear regression analysis**

A linear regression analysis was conducted to assess whether HRIS success factors, via the average scores of every construct, significantly predicted HRIS use. The results of the linear regression model were significant: F(1,33) = 40.21, p < 0.001, R^2 = 0.55, indicating that approximately 55% of the variance in HRIS use is explainable by HRIS success factors. HRIS success factors significantly predicted HRIS use (B = 0.86, t(33) = 6.34, p < 0.001).
This indicates that, on average, a one-unit increase in HRIS success factors will increase the value of HRIS use by 0.86 units.

We conducted a linear regression analysis to determine if information quality (a), system quality (b), service quality (c), and structural assurance (d) significantly predicted HRIS use. The results of the linear regression model were significant: F(4,30) = 11.08, p <.001, R² = 0.60, indicating that approximately 60% of the variance in HRIS use is explainable by information quality, system quality, service quality, and structural assurance. Information quality significantly predicted HRIS use (β = 0.65, t(30) = 2.55, p = .016).

This indicates that, on average, a one-unit increase in information quality will increase the value of HRIS use by 0.65 units. System quality did not significantly predict HRIS use (β = 0.07, t(30) = 0.32, p = .748). Based on this sample, a one-unit increase in system quality does not have a significant effect on HRIS use. Service quality did not significantly predict HRIS use (β = 0.10, t(30) = 0.50, p = .622). Based on this sample, a one-unit increase in service quality does not have a significant effect on HRIS use. Structural assurance did not significantly predict HRIS use (β = 0.05, t(30) = 0.20, p = .842). Based on this sample, a one-unit increase in structural assurance does not have a significant effect on HRIS use. Tab. 1 summarizes the results of the regression model.

The result showed that not every construct under the HRIS factors is a significant predictor of HRIS use. Although not seen in this research, behavioral intention towards HRIS use may be influenced by the management of the organization (Rahman et al., 2016; Warui et al., 2015).

Table 1 - Results for linear regression with information, system, service, and structural prediction of HRIS use
(made by the author)

<table>
<thead>
<tr>
<th>Variable</th>
<th>B</th>
<th>SE</th>
<th>95% CI</th>
<th>β</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Intercept)</td>
<td>0.58</td>
<td>0.55</td>
<td>[-0.54, 1.69]</td>
<td>0.00</td>
<td>1.05</td>
<td>.302</td>
</tr>
<tr>
<td>Information</td>
<td>0.65</td>
<td>0.25</td>
<td>[0.13, 1.16]</td>
<td>0.60</td>
<td>2.55</td>
<td>.016</td>
</tr>
<tr>
<td>System</td>
<td>0.07</td>
<td>0.22</td>
<td>[-0.38, 0.53]</td>
<td>0.07</td>
<td>0.32</td>
<td>.748</td>
</tr>
<tr>
<td>Service</td>
<td>0.10</td>
<td>0.21</td>
<td>[-0.32, 0.53]</td>
<td>0.09</td>
<td>0.50</td>
<td>.622</td>
</tr>
<tr>
<td>Structural</td>
<td>0.05</td>
<td>0.23</td>
<td>[-0.43, 0.52]</td>
<td>0.05</td>
<td>0.20</td>
<td>.842</td>
</tr>
</tbody>
</table>

Note: Results: F(4,30) = 11.08, p <.001, R² = 0.60
Unstandardized Regression Equation: HRIS_use = 0.58 + 0.65*Information + 0.07*System + 0.10*Service + 0.05*Structural

The findings suggest that the quality of information, specifically factors such as timeliness, understandability, and completeness, is the only important component that determines the satisfaction of using HRIS. Studies indicate that contentment plays a vital role in achieving success, as it not only increases the acceptance and utilization of a system but also enhances user satisfaction (Gonçalves et al., 2017).

When people perceive the system as valuable, they can achieve enhanced utilization and contentment. Information quality is considered a crucial and valuable aspect of the
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success of HRIS. Providing solid proof of its effectiveness can improve users' opinions of its usefulness (Kamaludin & Kamaludin, 2017).

We conducted a moderation study to determine how gamification influences the relationship between HRIS success criteria and HRIS utilization. The process of mean centering was utilized for the HRIS factors and gamification.

In order for moderation to be considered genuine, two specific conditions must be met, as stated by Netemeyer et al. (2001). Firstly, in the simple effects model (step 1), it is necessary for the predictor variable, HRIS success factors, to have a strong impact on predicting HRIS use. On top of that, the interaction model (step 3) should show a lot more variation in how HRIS is used than the non-interaction model (step 2). Failure to meet either of these standards will result in a lack of support for moderation.

The success criteria of HRIS were found to be a significant predictor of HRIS use (B = 0.86, t(33) = 6.34, p <.001), meeting the first requirement. Next, we conducted a partial F-test to determine whether the interaction model explained more variance in HRIS use than the non-interaction model. The findings indicated that the interaction model did not have a significant impact on the explanation of variation (F (1, 31) = 0.02, p =.885). Therefore, the lack of fulfillment of the second requirement led to the rejection of moderation.

Consequently, the implementation of gamification did not result in a substantial moderating impact, thereby supporting the acceptance of the null hypothesis.

The study analyzed the individual moderation of gamification using different HRIS success characteristics, including information quality, system quality, service quality, and structural integrity. The findings unanimously indicated that there was no support for moderation. This result may be attributed to the respondents' insufficient knowledge of gamification. One important disadvantage of this study is the inability to verify the respondents' exposure to or familiarity with a gamified information system.

Alternatively, the results could align with research suggesting that real-world tasks may perceive gamification aspects as artificial or inappropriate, leading to a reduction in their effectiveness (Liu et al., 2017). In addition, the initial appeal of game features in information systems diminishes as time goes on, which might result in decreased interest or enthusiasm (Koivisto & Hamari, 2014; Suh et al., 2017). This could perhaps explain the outcomes of this research.

Harwood & Garry (2015) found limited evidence to support the notion that a gamified environment produces outcomes of superior engagement quality. However, gamification underestimates the complexity of the relationship between users and games. This implies that corporate design, rather than user preferences, typically influences gamification (Insley & Nunan, 2014). A gamified system should strive for meaningful involvement, with a focus on not only providing enjoyment but also improving task outcomes (Liu et al., 2017).

We recommend that the participants have prior experience with both a conventional HRIS (Human Resource Information System) and a gamified HRIS to obtain more precise findings. Implementing game components that resemble tedious tasks may deter prospective customers from engaging with a website, similar to how game elements enhance the retail experience (Insley & Nunan, 2014).

This study may not effectively employ the notion of gamification as a moderator. The inclusion of desirable gamification aspects, also known as affordances, may have been considered.
We can use these features, like rewards, status, competitiveness, and self-expression, to gauge users' reactions to elements that encourage continuous usage (Suh et al., 2017).

**Conclusion and recommendations**

The study found a strong positive relationship between the usage of HRIS, the success aspects of HRIS, and gamification. Except for the moderate impact between gamification and HRIS use, most correlation coefficients indicated a significant impact. There are two important factors to consider for future research. Firstly, the study did not assess the extent to which respondents used HRIS. Secondly, respondents may have a limited comprehension of the notion of gamification inside HRIS.

The overall structure of the system proved to be a strong predictor of its usage when it comes to the elements that contribute to the success of HRIS (Human Resource Information Systems). Out of the various criteria examined, the system's information quality emerged as the sole variable with a significant impact. This indicates that users are likely to experience pleasure with the information quality of their HRIS, which in turn leads to its smooth acceptance and serves as a predictor of HRIS usage.

Nevertheless, the individual factors of system quality, service quality, and structural assurance did not have a significant impact on predicting HRIS adoption. However, when these factors were examined together as a whole, they did yield significant findings.

The moderation study investigated whether gamification had a moderating effect on the link between HRIS success factors and HRIS use. However, the results did not provide significant evidence to support gamification as a moderating variable.

The participants in this study may have little experience with HRIS and may not be acquainted with the incorporation of gamification in information systems, as suggested by the questions raised prior to completing the survey. If the participants had previously experienced a gamified Human Resource Information System (HRIS), the results might have been different. This emphasizes a possible direction for future investigation.

According to the results of this study, it is advised that future research investigate the incorporation of gamification into HRIS. To enhance the comprehensiveness of future research, it is recommended to categorize respondents based on industry and organization size in terms of staff count, position, and maybe age, given the small number of participants in this study. Augmenting the quantity of participants may, moreover, bolster the dependability of the results.

There is a significant study gap in understanding how gamification affects the use of HRIS (Human Resource Information Systems), which emphasizes the need for enhancements in the gamification concept. We recommend incorporating gamification features such as incentives, social standing, rivalry, and personal expression.

Examining the use of gamification in HRIS poses difficulties, and investigating these inquiries may necessitate qualitative research methods that may effectively capture the complex and diverse aspects of this phenomenon.

Subsequent investigations may explore the implementation of a gamified Human Resource Information System (HRIS) for the aim of demonstration or experience learning prior to gathering replies. Conducting a longitudinal study that compares traditional HRIS (Human Resource Information Systems) with gamified versions could yield significant insights.
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Integrating gamification into certain information systems may result in skewed usage measurements, especially if users view the system as a tedious task. An illustration of how gamification might impact user engagement is by comparing online payments with over-the-counter payments.

Hence, it is imperative for future studies to take into account these subtleties while assessing the influence of gamification on information system usage.

References


GAMIFICATION IN IMPROVING HRIS USAGE


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