HRIS Symbolic Adoption, Its Relationship With Technological Adoption Factors, WLB, and Creativity

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ABSTRACT

The study examines the relationship between technology adoption factors (performance expectancy, effort expectancy, and social influence) on employee creativity and work-life balance. The study examines the mediating role of the symbolic adoption of human resource information system (HRIS) between the above-stated relationships in small to medium-size IT organizations. A sample of 311 information technology professionals working in small-to-medium organizations has been taken for analysis via a questionnaire method. Structural equation modeling results show that symbolic adoption partially mediated the relationship between performance expectancy and creativity. Additionally, it established a partial mediated relationship between performance expectancy, effort expectancy, with work-life balance. The study facilitates the HR department and professionals towards employees’ symbolic adoption variable that enhances the acceptance of HRIS technology, employees’ creativity, and better work-life balance. Further, detailed research implications and limitations have been discussed.

KEYWORDS
Creativity, Effort Expectancy, Human Resource Information System, Information Technology, Performance Expectancy, Social Influence, Symbolic Adoption, Work-Life Balance

1. INTRODUCTION

India has a vibrant and dynamic Micro, Small, and Medium Enterprises (MSME) sector with high significance and contributors to the country’s economic and social development. MSMEs are the ones who not only complement large organizations as their ancillary units but stand alone as massive investors, entrepreneurs, and employment providers. Small and Medium organizations are growing and contributing to the Indian economy remarkably, and at the same time, these organizations are a great source of employment. Though it’s a known fact that MSMEs are slow in technological adoption, they are still embracing technologies like a Customer support system, Enterprise Resource
Planning (ERP), Automated Billing Systems due to coming up of cloud computing or software-as-a-service (SAAS) (Kadadevaramath et al., 2014; Ziebell et al., 2019). The Ministry of MSME assists organizations via widening the scope of information technology with robust Information and Communications Technology (ICT). Human Resource Information System (HRIS) provides SMEs with largely unexploited opportunities. Tannenbaum (1990) defines a Human Resource Information System (HRIS) as “a technological system that is used to acquire, store, manipulate, analyze, retrieve and distribute pertinent information regarding organizational human resource” (Noutsa, Wamba, et al., 2017). HRIS makes a paradigm shift from its administrative role to more complex strategic business roles (Maditheti & Gomes, 2017; Sohrabi et al., 2018; Suki & Suki, 2017). With the coming up of globalization, it becomes an impediment factor for any organization to stay away from these significant technological changes (Bal et al., 2012). These changes create commotions in the minds of organizations and their people in generals. No one is left untouched by these cyclones of technological up-gradation. Organizations that move along the waves get fruitful results in strength and growth, and many others sink due to this turmoil. Most large organizations have streamlined their HR activities and improved efficacy and effectiveness by adopting HRIS (Johnson et al., 2016; Stone et al., 2006; Strohmeier, 2012). However, minor Information Technology (IT) organizations are aware of HRIS but are still reluctant to adopt these technological changes. The reasons could be many like organizational size, HRIS cost factors, their working cultures, lack of skills and expertise to deal with these types of technology, and employee resistance (Johnson R D et al. 2016 ; Ngai et al. 2008 ; Troshani et al. 2011 ; Yang et al. 2007). Small IT organizations under the SMEs category are the central auxiliary units to many large IT organizations and are the key drivers behind any countries’ growth story. Despite being the most emerging, vibrant, and dynamic engine of growth, these SMEs cannot take advantage of this cost-saving and hassle-free technology (Ball, 2001; Sierra-Cedar, 2014).

Recently, researchers started focusing their attention on SMEs HRIS adoption; still, there is a call to analyze why Small to Medium organizations are sluggish in HR innovation from their employees’ perspective (Noutsa, Robert, et al., 2017). Scholars recommend taking a relevant problem and making a significant contribution to the existing body of knowledge (Misra, 2021). Information system literature supports the fact that before adopting any technology, there exists symbolic adoption (Virdyananto et al., 2017). Within SMEs, HRIS adoption is a distinctive aspect of any IT organization. It prepares them for global competition (Noutsa, Robert, et al., 2017), making it more apparent to study HRIS symbolic adoption in IT organizations under the SMEs category. Organizations are open to technology acceptance, and their cognition towards HRIS gradually enhances and tends to be more creative. Creativity results from the learning & experience generated after the extensive use of the HRIS, enabling employees to expand the system’s current usage by modifying task & work procedures innovatively (Wang & Hsieh, 2006). Organizations infuse information systems, and the direct experience and learning processes accumulated by the system would motivate employees to go beyond management prescribed standardized usages. Thus, innovatively end users’ use technology to support their task performance. Various studies support that after HRIS adoption, employees will be motivated to volunteer their ideas and think innovatively to enhance their work performance (Bal et al., 2012; Wang & Hsieh, 2006). Creativity integrates with information systems and creates virtual environments to grow and explore (Muller & Ulrich, 2013).

Further, organizations and individual work have changed with information and Communication Technologies (ICTs) like HRIS. Researchers have been investigating the role of ICTs and claimed their impact on balancing work and family commitments (Korunka & Hoonakker, 2014). The advancement of the information system within an organization creates coherence between the information system and employees’ work-life balance (Bhattacharya et al., 2020). ICTs empowered employees by balancing their professional and personal roles via maintaining their work-life balance. Additionally, improved work-life balance trigger organizations’ overall productivity (Bhattacharya et al., 2020). Work-life balance is an employee’s cognitive perception of work and life roles. Though professionally, employees are related to their work roles and responsibilities, they are attached to their friends and
family. Information technologies like HRIS play a vital role in easing, maintaining, and sustaining employees’ work-life balance. Further literature states that work-life balance is a subjective perception of an employee’s professional and personal lives (Brough et al., 2014). ICTs like HRIS influence employees by improving their ability to perform the concerned job more flexibly by fostering faster and quality work (De Wet et al., 2016).

2. THEORETICAL BACKGROUND

Various models and methods have been developed and analyzed in the previous studies regarding employees’ acceptance of HRIS. As a theoretical framework, we make use of the Unified Theory of Acceptance and Use of Technology – UTAUT introduced by Venkatesh (Venkatesh et al., 2003) and Symbolic Adoption Theory (based on cognitive dissonance theory) presented by Karahanna (Karahanna & Agarwal, 2006). While the UTAUT explains adoption intention and symbolic adoption theory is a motivational state reflecting one’s mental technological evaluation that was primarily designed to measure the employee’s commitment to technical use and the eagerness or enthusiasm associated with technology. In literature, the most prominent and accepted model was proposed by Davis (Davis, 1989); his concepts of perceived usefulness and ease of use towards technology have been further developed and analyzed by V. Venkatesh (2003). Venkatesh reviewed and analyzed eight models: the theory of reasoned action, the technology acceptance model, the motivational model, the theory of planned behavior, the model of Personal Computer utilization, the innovation diffusion theory, and the social cognitive theory. He came up with a new model as the Unified model and called it Unified Theory of Acceptance and Use of Technology (UTAUT). UTAUT factors include performance expectancy, effort expectancy, social influence, and facilitating conditions, but facilitating conditions become insignificance in the presence of performance expectancy and effort expectancy (Aeron & Jain, 2015). In the UTAUT model, the first determinant is performance expectancy (PE), defined as “the degree to which the user expects that using the system will help him or her to attain gains in job performance” (Venkatesh et al., 2003). The second concept, effort expectancy, can be defined as “the degree of ease associated with the use of the system” (Venkatesh et al., 2003). According to UTAUT model, social influence is “the degree to which an individual perceives that important others believe he or she should use the new system” (Venkatesh et al, 2003). Table 1 showed the recent research conducted by underpinning UTAUT model and HRIS adoption.

Information System literature replaced the UTAUT model’s behavioral intention with symbolic adoption in a mandatory environment (Prasanna & Huggins, 2016; Virdyananto et al., 2017). Symbolic adoption is “a peak motivational state reflecting one’s mental technological evaluation that reflects users’ mental acceptance, their commitment towards technological use, the positive return evaluation and ones’ eagerness or enthusiasm associated with technology” (Karahanna & Agarwal, 2006). In a mandatory environment, employees have to use HRIS through implicit and explicit reward or punishment though they may have low symbolic adoption, i.e., less desire to use HRIS (Rawstorne et al., 1998; Virdyananto et al., 2017). Due to this, an innovation dissonance state develops among HRIS users, which could either lead to discomfort or start the feeling of cognition dissonance towards any information system (Elliot and Devine 1994; Festinger L 1962).

Prior research has demonstrated the relationship between the UTAUT model and cognitive presence (Jawahar & Harindran, 2016). Cognitive fact reflects that the quality and quantity of critical thinking, collaborative problem-solving, and construction of helpful meaning are the facets of creativity (Radovan & Kristl, 2017; Suki & Suki, 2017). As per the extended research conducted by Burroughs and colleagues in the year 2011, claims that only 6% of creativity is person-driven, rest 94% is facilitated by process and system support (Pacauskas & Rajala, 2017). There is a need to enhance the understanding between information systems and creativity construct (Pacauskas & Rajala, 2017). Further, prior studies with college students as a sample have shown that performance expectancy, effort expectancy, and social influence impact students’ behavioral intention and make
As per social exchange theory, organizational technological advancement would enhance employees' creativity with the help of HRIS technology. Further, creativity could result from learning HRIS use, task modification, and simplifying the work procedures. Thus employees enhance their creative thinking and provide unique and novel ideas/solutions to work-related issues (Liu et al., 2016). Additionally, as per flow theory, the perceived flow of information due to human-technology interactions would result in several outcomes like positive work experience, enhancement in learning, and creativity (Karahanaa & Agarwal, 2006; Pacauskas & Rajala, 2017). Hence, we could posit that HRIS symbolic adoption might mediate the relationship between UTAUT factors (performance expectancy, effort expectancy, and social influence) and employee creativity.

Expectancy is predictive for technological adoption and positively related to employees’ work-life balance (Bauwens et al., 2020; Fenner & Renn, 2010; Korunka & Vartiainen, 2017; Westwood et al., 2012). Furthermore, employees who feel more creative in their ideas and concepts (Suki & Suki, 2017) would be more productive and engaged in their work. Therefore, HRIS adoption can be seen as a way to enhance employees' creativity and productivity.

Table 1. Recent Studies based on technology adoption models

| Independent Variable | (Virdyananto et al., 2017) | (Noutsa, Wamba et al., 2017) | (Noutsa, Robert et al., 2017) | (Prasanna & Huggins, 2016) | (Arekete et al., 2015) | (Al-Jabri & Roztoki, 2015) |
|----------------------|---------------------------|-----------------------------|-----------------------------|---------------------------|--------------------------|--------------------------|
| Task Characteristics | ✓                         |                             |                             |                           |                          |                          |
| Technology Characteristics | ✓                       |                             |                             |                           |                          |                          |
| Performance Expectancy | ✓                       | ✓                           |                             | ✓                         | ✓                         | ✓                         |
| Effort Expectancy | ✓                         | ✓                           |                             | ✓                         | ✓                         | ✓                         |
| Social Influence | ✓                         | ✓                           | ✓                           | ✓                         | ✓                         | ✓                         |
| Facilitating Condition | ✓                       | ✓                           | ✓                           | ✓                         | ✓                         | ✓                         |
| Perceived Usefulness | ✓                         |                             |                             |                           |                          |                          |
| Ease of Use | ✓                         |                             |                             |                           |                          |                          |
| System quality | ✓                         |                             |                             |                           |                          |                          |
| Information quality | ✓                         |                             |                             |                           |                          |                          |
| Perceived Information Transparency | ✓                       |                             |                             |                           |                          |                          |
| Perceived Ease of Use | ✓                         |                             |                             |                           |                          |                          |
| Perceived Usefulness | ✓                         |                             |                             |                           |                          |                          |

Note: TTF- Task Technology Fit, IS Success- Information System Success Model, UTAUT- Unified Theory of Acceptance and Use of Technology
Information system literature states that technological performance expectancy encourages employees to adopt new technological changes in an organization. Thus, by doing so, they get control over when, where, and how to work, which would reduce their work hours, which could be an effective work-life balance (Westwood & Cazier, 2016). With an autonomy of work, employees’ work-life balance would be positively affected and provide them ample growth opportunities. Further, with the coming up of new HRIS technology, it would be easier to use the system, and it would enhance users’ perceived self-efficacy and reduce their anxiety (Bataineh, 2019; Edmunds et al., 2008). With perceived effort expectancy, employee anxiety would reduce, self-efficacy would enhance, and being ready to accept new changes via learning out of it. Effort expectancy proactively enhances employee self-efficacy; employees could do their work in less time & effort. So, their work-related stress would reduce, and they would give more quality time to their family and friends.

Prior studies supported that HRIS influences human resource functions and helps maintain employee relations and employees’ work-life balance (Buzkan, 2016). Furthermore, the workplace norms help employees positively associate themselves with communication technology like HRIS (Adkins & Premeaux, 2014; Bauwens et al., 2020). Information system reduces the time to perform a work task, clarify the doubt, and provide the easiest method. Hence, it plays a role of catalyst in reducing employees’ stress and balancing their personnel and professional roles by enhancing their work-life balance. Hence, we could posit that HRIS symbolic adoption might mediate the relationship between UTAUT factors (performance expectancy, effort expectancy, and social influence) and employee work-life balance.

Based on the above-stated rationale and existing HRIS literature showing that technology acceptance factors, i.e., performance expectancy, effort expectancy, and social influence, are antecedent to HRIS symbolic adoption (Nah et al., 2004; Virdyananto et al., 2017). Performance expectancy, effort expectancy, and social influence demonstrate the potential to foster HRIS symbolic adoption. The current study aims to explore the relationship between performance expectancy, effort expectancy, and social impact on employees’ creativity and work-life balance. Further research examines the mediation effect of HRIS symbolic adoption of UTAUT factors (performance expectancy, effort expectancy, and social influence) with employees’ creativity and work-life balance.

Thus, we propose three possible hypotheses:

H1a: There is a significant positive effect of performance expectancy on employee’s creativity.
H1b: There is a significant positive effect of effort expectancy on employees’ creativity.
H1c: There is a significant positive effect of social influence on employees’ creativity.
H2a: There is a significant positive effect of performance expectancy on employees’ work-life balance.
H2b: There is a significant positive effect of effort expectancy on employees’ work-life balance.
H2c: There is a significant positive effect of social influence on employees’ work-life balance.
H3a: There is a significant positive effect of performance expectancy on HRIS symbolic adoption.
H3b: There is a significant positive effect of effort expectancy on HRIS symbolic adoption.
H3c: There is a significant positive effect of social influence on HRIS symbolic adoption.
H4a: There is a positive effect of symbolic adoption on employees’ creativity.
H4b: There is a positive effect of symbolic adoption on employees’ work-life balance.
H5a: HRIS symbolic adoption mediates the relationship between performance expectancy and employee creativity.
H5b: HRIS symbolic adoption mediates the relationship between effort expectancy and employee creativity.
H5c: HRIS symbolic adoption mediates the relationship between social influence and employees’ creativity.
H6a: HRIS symbolic adoption mediates the relationship between performance expectancy and employees’ work-life balance.
**H6b:** HRIS symbolic adoption mediates the relationship between effort expectancy and employee’s work-life balance.

**H6c:** HRIS symbolic adoption mediates the relationship between social influence and employees’ work-life balance.

### 3. METHOD

#### 3.1 Participants and Procedure

Three hundred and eleven Information Technology (IT) employees using HRIS technology from National Capital Region, India, categorized under Small and Medium Enterprises, participated in the study (197 men, 114 women). The National Association of Software and Service Companies (NASSCOM) database was used as a sampling frame to select the IT organizations. Paper and pencil questionnaires were given to the IT employees working in different SMEs. Prior permissions have been taken from the organizations, and one HR executive (in each participating) facilitated the process. All the participants were instructed briefly about the purpose of the study. Employees were assured about their data confidentiality and informed that all the data would a group data—all the filled questionnaires collected from the assigned HR executive.

#### 3.2 Measures

**3.2.1 Performance Expectancy, Effort Expectancy, and Social Influence**

To assess the performance expectancy, effort expectancy, and social influence UTAUT Scale of V.Venkatesh (2003) was administered (Venkatesh et al., 2003). The scale consists of 4 items, each brief statement for performance expectancy, effort expectancy, and social influence. It includes items such as, “I find HRIS system useful in my job”; “Using HRIS system enables me to accomplish tasks more quickly”; “I find HRIS system easy to use”; “People who influence my behavior think I should use HRIS system,” etc. Excellent internal consistency was found between the items. This scale demonstrated good internal consistency and content validity (Noutsa, Robert, et al., 2017; Suki & Suki, 2017).

**3.2.2 Creativity**

The study utilized the 13 items scale developed by Zhou & George to assess employee creativity (Zhou & George, 2001). The creativity scale consists of 13 brief statements. Using a five-point Likert scale where 1 being- Not at all characteristics, 2- Slight Characteristics, 3- Somewhat Characteristics, 4- Moderate Characteristics, and 5 - Very Much Characteristics, were instructed to indicate the extent to which they characterized themselves with each statement. It includes items such as, “I suggest

![Figure 1. Proposed Research Model](image)
new ways to achieve goals or objectives”; “I come up with new and practical ideas to improve performance”; “I search out new technologies, processes, techniques, and product ideas”; “I suggest new ways of performing work tasks.” This scale demonstrated good internal consistency and construct validity (Zhang & Bartol, 2010).

3.2.3 Work-Life Balance

The study utilized the 4 items scale developed by Brough (Brough, Timms, & Driscoll, 2014) to assess employees’ work-life balance. A concise measure of work-life balance, based on individuals’ subjective perceptions of balance between their work and other aspects of their lives. Five-point Likert scale ranges from strongly disagree to strongly agree were used to obtain responses from the HRIS end-users. It includes items as “I currently have a good balance between the time I spend at work and the time I have available for non-work activities”; “I have difficulty balancing my work and non-work activities.” One reverse coded item in the scale.

3.2.4 Symbolic Adoption

The Karahanna and Agarwal symbolic adoption scale is an 11-item scale that measures the mental evaluation of individuals towards technology (Karahanna & Agarwal, 2006). It includes items such as “I have mentally accepted HRIS as an important technology”; “In my mind, I am convinced that HRIS is an important technology”; “I personally don’t view HRIS as an important concept”; “The only way I will use HRIS is if it is mandated.” Items were rated on a seven-point scale that ranged from 1 (strongly disagree) to 7 (strongly agree). Reverse coded items were in this scale. This scale demonstrated good internal consistency and construct validity (Wang & Hsieh, 2006).

4. DATA ANALYSIS

The study applied the Structural Equation Modeling (SEM) procedure to investigate the impact of HRIS symbolic adoption on the relationship of performance expectancy, effort expectancy, social influence with creativity, and work-life balance. The bias-corrected 5000 bootstrapping samples with 95% confidence interval via AMOS 21 version.

4.1 Preliminary Analysis

Reliability estimates showed Cronbach’s alpha coefficients (> .70), Composite reliability (> .70), Average Variance Extracted (AVE) (> .50), and variable correlations were within the threshold limits (Jr et al., 2019; Sarstedt et al., 2017) as displayed in Table 2.

| S.No. | Variables | CR | AVE | 1 | 2 | 3 | 4 | 5 | 6 |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1 | Performance Expectancy (α=.86) | 0.86 | 0.6 | 0.77 | ** | | | | |
| 2 | Effort Expectancy (α=.81) | 0.81 | 0.52 | .215** | .72 | | | | |
| 3 | Social Influence(α=.90) | 0.91 | 0.72 | .175** | .546** | .84 | | | |
| 4 | HRIS Symbolic Adoption (α=.85) | 0.9 | 0.51 | .271** | .253** | .357** | .71 | | |
| 5 | Creativity (α=.93) | 0.93 | 0.64 | .276** | .335** | .402** | .174** | 0.8 | |
| 6 | Work-Life Balance(α=.83) | 0.84 | 0.58 | .253** | .171** | .231** | .195** | .156** | 0.76 |

** Correlation is significant at the 0.01 level (2-tailed).
The square root of the AVE on the diagonal is in bold.
4.2 Measurement Model

The measurement model consists of six latent factors (performance expectancy, effort expectancy, social influence, symbolic adoption, creativity, and work-life balance) variables. The measurement model was tested using the maximum likelihood estimation in AMOS 21 version. The overall fit indices indicated acceptable model fit (Chi-square/df=2.273, CFI=.92, RMSEA=.064. Standardized RMR = .05) where RMSEA= root means square error of approximation (<0.08 acceptable); SRMR= standardized root-mean-square residual (Values for the SRMR range from zero to 1.0; CFI=comparative fit index (close to one indicates good fit) (Hu & Bentler, 1999).

4.3 Structural Model

Structural Equation Modeling is the most widely used statistical modeling technique in behavioral sciences. It can be a combination of path and factor analysis(Hox, 2015). Path analyses were tested to examine the research hypothesis between predictor variables, creativity, and work-life balance.

The direct path co-efficient from predictor performance expectancy (β=0.29), effort expectancy (β=0.36) and social influence (β=0.43) to creativity and further performance expectancy (β=0.27), effort expectancy (β=0.19) and social influence (β=0.26) to the work-life balance shown in Table 3. Hence, we accept hypotheses H1a, H1b, H1c; H2a, H2b, and H2c.

The path analyses were tested to examine the research hypothesis between the predictor variable and HRIS symbolic adoption. The direct path coefficient from predictor performance expectancy (β=0.31), effort expectancy (β=0.31), and social influence (β=0.40) to HRIS symbolic adoption is shown in Table 3. Hence, we accept hypotheses H3a, H3b, and H3c. Furthermore, the path analyses were tested to examine the research hypothesis between HRIS symbolic adoption and creativity (β=0.22) and between HRIS symbolic adoption and work-life balance (β=0.22). Thus, we accept hypotheses H4a and H4b.

Table 3. Structural Model (Path Analysis)

| Hypothesis | Path Analysis | CMIN/DF | CFI | RMSEA | SRMR | β (Beta) |
|------------|---------------|---------|-----|-------|------|---------|
| H1a        | PE→CR        | 1.01    | 1   | 0.006 | 0.02 | 0.29    |
| H1b        | EE→CR        | 1.734   | 0.992 | 0.049 | 0.029 | 0.36    |
| H1c        | SI→CR        | 2.083   | 0.992 | 0.059 | 0.021 | 0.43    |
| H2a        | PE→WLB       | 1.583   | 0.99  | 0.043 | 0.03  | 0.27    |
| H2b        | EE→WLB       | 1.065   | 0.999 | 0.014 | 0.03  | 0.19    |
| H2c        | SI→WLB       | 1.255   | 0.996 | 0.029 | 0.02  | 0.26    |
| H3a        | PE→HRIS SA   | 1.212   | 0.996 | 0.026 | 0.03  | 0.31    |
| H3b        | EE→HRIS SA   | 1.464   | 0.989 | 0.039 | 0.04  | 0.31    |
| H3c        | SI→HRIS SA   | 2.367   | 0.9754 | 0.073 | 0.04  | 0.4     |
| H4a        | HRIS SA→CR   | 2.514   | 0.986 | 0.06  | 0.05  | 0.22    |
| H4b        | HRIS SA→WLB  | 1.436   | 0.991 | 0.037 | 0.03  | 0.22    |

Note: PE- Performance Expectancy, EE- Effort Expectancy, SI- Social Influence, HRIS SA- HRIS Symbolic Adoption, CR-Creativity, β= Beta
CMIN/DF- Chi-Square to the degree of freedom, CFI-Comparative Fit Index, RMSEA- Root Mean Square Error of Approximation, SRMR- Standardized RMR
4.4 Mediation Analysis

Bootstrapping procedures (AMOS21 version) were used to test the significance of the mediation model. We generated 5,000 bootstrapping samples from the original data set (N=311). The mediation analysis result is shown in Table 4. When direct and indirect effects are significant, we assume partial mediation. When the indirect effect is significant, and the direct effect is non-significance, we believe in full mediation between the variables (Cheung, 2009; Shankar et al., 2020).

As shown in Table 4, performance expectancy exerted significant indirect effects on creativity via HRIS symbolic adoption. The result indicates that HRIS symbolic adoption partially mediates the relationship between performance expectancy and creativity with direct and indirect effect significance. However, the study doesn’t establish any indirect effect between effort expectancy and creativity and between social influence and creativity, though they directly affect employees’ creativity. Further, the result shows that HRIS symbolic adoption partially mediates the relationship between performance expectancy and work-life balance with direct and indirect effect significance. The result indicates that HRIS symbolic adoption partially mediates the relationship between effort expectancy and work-life balance with direct and indirect effect significance. However, the study doesn’t establish any indirect effect between social influence and work-life balance, though they directly affect employees’ work-life balance. Hence, we accept hypotheses H5a, H6a, H6b and reject hypotheses H5b, H5c, and H6c.

5. DISCUSSIONS

The primary aim of the present study was to analyze the relationship between UTAUT factors, i.e., performance expectancy, effort expectancy, and social influence, with employees’ creativity and work-life balance. Further, the study analyzes the mediating effect of symbolic adoption between the above-stated factors in Indian small-sized IT organizations, those coming under the Small and Medium Enterprises category. The present study has found that the HRIS symbolic adoption has significantly mediated the relationship between performance expectancy and creativity. Further results show mediated effects of HRIS symbolic adoption between performance expectancy, effort expectancy, and work-life balance. The first set of hypotheses deals with the direct impact of performance expectancy, effort expectancy, and social influence on creativity which shows a positive relationship between the study variables. Secondly, a set of hypotheses deals with the direct effect of performance expectancy, effort expectancy, and social influence on work-life balance, which shows a positive relationship between the study variables. Previous studies demonstrated an inclination of employees towards HRIS technology, and learning gathered out of its usage enhances their creativity via means of new and innovative ideas (Karahanaa & Agarwal, 2006; Muller & Ulrich, 2013).

Table 4. Mediation Analysis

|                         | The summary of the mediation effect |                  |                  |                  |
|-------------------------|-------------------------------------|------------------|------------------|------------------|
|                         | Direct Effect | Indirect Effect | Results          |                  |
| PE→HRIS SA→CR          | 0.239***      | 0.033*          | Yes (Partial)    |                  |
| EE→HRIS SA→CR          | 0.404***      | 0.035ns         | No               |                  |
| SI→HRIS SA→CR          | 0.269**       | 0.008ns         | No               |                  |
| PE→HRIS SA→WLB         | 0.152**       | 0.032*          | Yes (Partial)    |                  |
| EE→HRIS SA→WLB         | 0.119*        | 0.049**         | Yes (Partial)    |                  |
| SI→HRIS SA→WLB         | 0.096*        | 0.026ns         | No               |                  |

Note: ***p < 0.001; **p < 0.01; *p < 0.05; ns=not significant, PE=Performance Expectancy, EE=Effort Expectancy, SI=Social Influence, HRIS SA=HRIS Symbolic Adoption, CR=Creativity, WLB=Work-Life Balance
finding suggests that higher performance expectancy, effort expectancy, and social influence about HRIS among end-users will generate positive perceptions and enhance their HRIS symbolic adoption, fostering work-life balance and creativity. The third set of hypotheses deals with the relationship of performance expectancy, effort expectancy, and social influence with HRIS symbolic adoption. The results support prior studies that demonstrate a positive relationship between performance expectancy, effort expectancy, and social influence with HRIS symbolic adoption (Prasanna & Huggins, 2016).

Furthermore, HRIS symbolic adoption mediates performance expectancy with creativity and performance expectancy and effort expectancy with work-life balance. Figure 2 depicts the partial mediation effect of HRIS symbolic adoption between performance expectancy and creativity. Further, Figure 3 shows the mediated effect of HRIS symbolic adoption between performance expectancy, effort expectancy, and work-life balance.

The theoretical underpinning for these hypotheses is that employees’ perception of HRIS may facilitate the enhancement of symbolic adoption and that the mental acceptance, use commitment, effort worthiness, heightened enthusiasm- characteristics of symbolic adoption may lead to employee’s creativity and work-life balance (Karahanaa & Agarwal, 2006; Wang & Hsieh, 2006). People with a higher perception of HRIS are better at responding to these new technological changes and tend to be more creative and simultaneously enhance their work-life balance.

6. IMPLICATIONS

HRIS symbolic adoption supports small IT organizations and could enhance organizational outlook towards HRIS adoption. The study findings support small to medium-sized IT organizations in improving employees’ technological perceptions towards HRIS. Further, this could reflect the quality of critical thinking, collaborative problem-solving, and construction of helpful meaning among employees.
employees or HRIS end users’ by enhancing their skills and capabilities. With transparent HRIS, organizations create a favorable working environment and clear HR policies that alleviate employee performance and commitment. The findings of this study may become beneficial for the human resource department of various small to medium-sized IT organizations. With the help of this study, the HR department and professionals might focus on employees’ symbolic adoption much before their actual adoption of the technology, which could further enhance employees’ creativity and better work-life balance. Thus, it encourages organizations to decide regarding HRIS modules for their day-to-day activities, which would further justify their investments in these much-needed technologies. Therefore, in light of the study’s findings, practitioners and organizations need to focus on effective HRIS interventions to stay ahead in competition with engaged, creative, and balanced employees.

Additionally, organizations indulge in a positive exchange relationship with satisfied, productive, and creative employees. The study result could be beneficial for organizations in general and particularly to the HR departments, professionals, and researchers who want to explore the area of HRIS. Furthermore, organizations and HR departments benefit as they could acquire the everlasting benefit of HRIS technology without any resistance from its employees, thus leading to the full utilization of the HRIS technology.

7. LIMITATIONS AND FUTURE SCOPE

The study uses a single source to collect data which may cause common method variance error, so future researchers should take data from multiple sources. Future research might explore the possible mediating role of HRIS symbolic adoption via underpinning UTAUT model and further integrate it with the task technology fit (TTF) model or with the Information system (IS) success model. Additionally, researchers may look at employees’ demographic profiles regarding HRIS symbolic adoption and might treat age, gender, and HRIS experience as a moderator variable in their study.

8. CONCLUSION

Small and medium organizations play a very prominent role in developing a country’s economy. These organizations are auxiliary units to many large IT organizations; they support and improve the functioning of the larger organizations. With the advancement of the information system and the coming up of cloud computing, organizations can adopt HRIS technology more quickly. Still, small-to-medium organizations are hesitant to adopt information and communication technologies like HRIS due to their financial and technological readiness, lack of HR expertise, and employee resistance. Literature states that the major setback in adopting these technologies is associated with the resistance coming up from its end-users. Thus, to enhance the adoption and full utilization of the HRIS technologies, the organization must target employees’ symbolic perceptions much before actual adoption in the mandatory environmental settings. The HRIS is an emergent IT solution for small-to-medium organizations, and symbolic adoption might trigger the adoption rate and thus facilitate full utilization of HRIS. Thus, the current research focuses on capturing employees’ symbolic adoption before adopting any information technology. The study’s findings show that performance expectancy, effort expectancy, and social influence are the antecedents’ factors of HRIS symbolic adoption. Further, HRIS symbolic adoption mediates the relationship between study variables. The study supported and extended the literature related to HRIS symbolic adoption, technology acceptance, creativity, and work-life balance in small-to-medium IT organizations.

FUNDING AGENCY

Publisher has waived the Open Access publishing fee.
REFERENCES

Adkins, C. L., & Premeaux, S. A. (2014). The Use of Communication Technology to Manage Work-Home Boundaries. *Journal of Behavioral and Applied Management, 15*(2), 82–100. doi:10.21818/001c.17939

Aeron, P., & Jain, S. (2015). The Extent of Adoption of HRIS: An Empirical Investigation with Mediators & Moderators. *Twenty-First Americas Conference on Information Systems*, 1–17.

Al-Jabri, I. M., & Roztocki, N. (2015). Adoption of ERP systems: Does information transparency matter? *Telematics and Informatics, 32*(2), 300–310. doi:10.1016/j.tele.2014.09.005

Arekete, S., Ifinedo, P., & Akinnuwesi, B. A. (2015). Antecedent factors to end-users symbolic acceptance of enterprise systems: An analysis in Nigerian organizations. *IEEE International Conference on Adaptive Science and Technology, ICAST*. doi:10.1109/ICASTECH.2014.7068108

Bal, Y., Bozkurt, S., & Ertemsir, E. (2012). The Importance of Using Human Resources Information Systems (HRIS) and a Research on Determining the Success of HRIS. *Management Knowledge and Learning International Conference*, 53–62.

Ball, K. S. (2001). The use of human resource information systems: A survey. *Personnel Review, 30*(6), 677–693. doi:10.1108/EUM0000000005979

Bataineh, K. (2019). Impact of Work-Life Balance, Happiness at Work, on Employee Performance. *International Business Research, 12*(2), 99–112. doi:10.5539/ibr.v12n2p99

Bauwens, R., Muylaert, J., Clarysse, E., Audenaert, M., & Decramer, A. (2020). Teachers’ acceptance and use of digital learning environments after hours: Implications for work-life balance and the role of integration preference. *Computers in Human Behavior, 112*(January), 106479. doi:10.1016/j.chb.2020.106479

Brough, P., Timms, C., O’Driscoll, M. P., Kalliath, T., Siu, O. L., Sit, C., & Lo, D. (2014). Work-life balance: A longitudinal evaluation of a new measure across Australia and New Zealand workers. *International Journal of Human Resource Management, 25*(19), 2724–2744. doi:10.1080/09585192.2014.899262

Buzkan, H. (2016). The Role of Human Resource Information System (HRIS) in Organizations: A Review of Literature. *Academic Journal of Interdisciplinary Studies, 5*(1), 133–138. doi:10.5901/ajis.2016.v5n1p133

Cheung, M. (2009). Comparison of methods for constructing confidence intervals of standardized indirect effects. *Behavior Research Methods, 41*(2), 425–438. doi:10.3758/BRM.41.2.425 PMID:19363183

Davis, F. D. (1989). Perceived Usefulness, Perceived Ease of Use, and User Acceptance of Information Technology. *Management Information Systems Quarterly, 13*(3), 319–340. doi:10.2307/249008

De Wet, W., Koekemoer, E., & Nel, J. A. (2016). Exploring the impact of information and communication technology on employees’ work and personal lives. *SA Journal of Industrial Psychology, 42*(1), 1–11. doi:10.4102/sajip.v42i1.1330

Edmunds, J., Ntoumanis, N., & Duda, J. L. (2008). Testing a self-determination theory-based teaching style intervention in the exercise domain. *European Journal of Social Psychology, 38*(1), 375–388. doi:10.1002/ejsp.463

Elliot, A. J., & Devine, P. G. (1994). On the Motivational Nature of Cognitive Dissonance: Dissonance as Psychological Discomfort. *Journal of Personality and Social Psychology, 67*(3), 382–394. doi:10.1037/0022-3514.67.3.382

Fenner, G., & Renn, R. (2010). Technology-Assisted Supplemental Work and Work-to-Family Conflict: The Role of Instrumentality Beliefs, Organizational Expectations and Time Management Technology-assisted supplemental work and work-to-family conflict. *Human Relations, 63*(1), 63–82. doi:10.1177/0018726709351064

Festinger, L. (1962). *A Theory of Cognitive Dissonance - Leon Festinger - Google Books*. https://books.google.ca/books?hl=en&lr=&id=voeQ-8CASacC&oi=fnd&pg=PA1&dq=cognitive+dissonance+festinger&ots=9y84Pyvbyx&sig=t5v7ow42MATOyvS9YkhKpe9YCV0v=onpage&q=cognitivedissonance festinger&f=false

Hox, J. J. (2015). An introduction to structural equation models. *Studies in Systems, Decision, and Control, 22*, 1–8. doi:10.1007/978-3-319-16507-3_1
Hu, L., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling, 6*(1), 1–55. doi:10.1080/10705519909540118

Jawahar, D., & Harindran, K. N. (2016). The Influence of Affect on Acceptance of Human Resource Information Systems with Special Reference to Public Sector Undertaking. *The IUP Journal of Management Research, 15*(2), 33–53.

Johnson, R. D., Lukaszewski, K. M., & Stone, D. L. (2016). The evolution of the field of human resource information systems: Co-Evolution of technology and HR processes. *Communications of the Association for Information Systems, 38*(1), 533–553. doi:10.17705/1CAIS.03828

Jr, J. F. H., Black, W. C., Babin, B. J., Anderson, R. E., Black, W. C., & Anderson, R. E. (2019). *Multivariate Data Analysis* (8th ed.). Cengage Learning EMEA.

Kadadevaramath, R. S., Chen, J. C. H., Sangli, M., & Raj, R. K. (2014). A Study on Implementation of IT Tools in SME’s in India. *Industrial Engineering & Management, 3*(4). Advance online publication. doi:10.4172/2169-0316.1000135

Kararahna, E., & Agarwal, R. (2006). *When the Spirit is Willing : Symbolic Adoption and Technology Exploration*. Academic Press.

Korunka, C., & Hoonakker, P. (2014). *The Impact of ICT on Quality of Working Life*. Academic Press.

Korunka, C., & Varitainen, M. (2017). Digital Technologies at Work Are Great, A ren’t They? The Development of Information and Communication Technologies (ICT) and Their Relevance in the World of Work. In *An Introduction to Work and Organizational Psychology* (pp. 1–21). doi:10.1002/9781119168058.ch6

Liu, D., Jiang, K., Shalley, C. E., Keem, S., & Zhou, J. (2016). Motivational mechanisms of employee creativity: A meta-analytic examination and theoretical extension of the creativity literature. *Organizational Behavior and Human Decision Processes, 137*, 236–263. doi:10.1016/j.obhdp.2016.08.001

Maditheti, N. N., & Gomes, A. M. (2017). Human Resource Information System: A Review of Previous Studies. *Journal of Management Research, 9*(3), 92. doi:10.5296/jmr.v9i3.11488

Misra, S. (2021). A Step by Step Guide for Choosing Project Topics and Writing Research Papers in ICT Related Disciplines. In *Communications in Computer and Information Science* (Vol. 1350). Springer International Publishing. doi:10.1007/978-3-030-69143-1_55

Muller, S. D., & Ulrich, F. (2013). Creativity and Information Systems in a Hypercompetitive Environment: A Literature Review. *Communications of the Association for Information Systems, 32*. Advance online publication. doi:10.17705/1CAIS.03207

Nah, F. F.-H., Tan, X., & Teh, S. H. (2004). An Empirical Investigation on End-Users’ Acceptance of Enterprise Systems. *Information Resources Management Journal, 17*(3), 32–53. doi:10.4018/irmj.2004070103

Ngai, E. W. T., Law, C. C. H., Chan, S. C. H., & Wat, F. K. T. (2008). Importance of the internet to human resource practitioner in Hong Kong. *Personnel Review, 37*(1), 66–84. doi:10.1108/00483480810839978

Noutsa, A., Robert, K., & Wamba, S. F. (2017). Acceptance and Use of HRIS and Influence on Organizational Performance of SMEs in a Developing Economy: The case of Cameroon. *Recent Advances in Information Systems and Technologies, 57*(March), 563–580. Advance online publication. doi:10.1007/978-3-319-56535-4_57

Noutsa, A., Wamba, S. F., & Robert, K. (2017). Exploring Factors Affecting the Adoption of HRIS in SMEs in a Developing Country: Evidence from Cameroon. *Lecture Notes in Information Systems and Organisation, 30*(March), 281–295. doi:10.1007/978-3-030-10737-6_18

Pacauskas, D., & Rajala, R. (2017). Information system users’ creativity: A meta-analysis of the link between IT use and creative performance. *Information Technology & People, 30*(1), 81–116. doi:10.1108/ITP-04-2015-0090

Prasanna, R., & Huggins, T. J. (2016). Factors affecting the acceptance of information systems supporting emergency operations centres. *Computers in Human Behavior, 57*, 168–181. doi:10.1016/j.chb.2015.12.013

Radovan, M., & Kristl, N. (2017). Acceptance of technology and its impact on teacher’s activities in virtual classroom: Integrating UTAUT and CoI into a combined model. *The Turkish Online Journal of Educational Technology, 16*(3), 11–22.
Rawstorne, P., Jayasuriya, R., & Caputi, P. (1998). An Integrative Model of Information Systems Use in Mandatory Environments. Recommended Citation. https://aisel.aisnet.org/icis1998/32

Sarstedt, M., Ringle, C. M., & Hair, J. F. (2017). Partial Least Squares Structural Equation Modeling. Springer International Publishing. 10.1007/978-3-319-05542-8

Shankar, A., Jebrajarkithy, C., & Ashaduzzaman, M. (2020). Journal of Retailing and Consumer Services How do electronic word of mouth practices contribute to mobile banking adoption? Journal of Retailing and Consumer Services, 52(June). 10.1016/j.jretconser.2019.101920

Sierra-Cedar (2014). 2014 – 2015 HR Systems Survey HR Technologies, Deployment Approaches, Integration, Metrics, and Value. Sierra-Cedar-2014-2015 Survey White Paper, 17th annual, 1–73.

Sohrabi, B., Vanani, I. R., & Abedin, E. (2018). Human resources management and information systems trend analysis using text clustering. International Journal of Human Capital and Information Technology Professionals, 9(3), 1–24. doi:10.4018/IJHCITP.2018070101

Stone, D. L., Stone-romero, E. F., & Lukaszewski, K. (2006). Factors affecting the acceptance and effectiveness of electronic human resource systems. Human Resource Management Review, 16(2), 229–244. doi:10.1016/j.hrmr.2006.03.010

Strohmeier, S. (2012). Assembling a Big Mosaic- A Review of Recent Books on electronic Human Resource Management. German Journal of Research in Human Resource Management, 26(3), 282–294. doi:10.1177/239700221202600305

Suki, N. M., & Suki, N. M. (2017). Determining students’ behavioral intention to use animation and storytelling applying the UTAUT model: The moderating roles of gender and experience level. International Journal of Management Education, 15(3), 528–538. doi:10.1016/j.ijme.2017.10.002

Westwood, J. A., & Cazier, J. A. (2016). Work-life optimization: using big data and analytics to facilitate work-life balance. Proceedings of the Annual Hawaii International Conference on System Sciences, 1701–1709. doi:10.1109/HICSS.2016.214

Yang, K. H., Lee, S. M., & Lee, S. G. (2007). Adoption of information and communication technology: Impact of technology types, organization resources, and management style. Industrial Management & Data Systems, 107(9), 1257–1275. doi:10.1108/02635570710833956

Zhang, X., & Bartol, K. (2010). Linking empowering leadership and employee creativity.pdf. Academy of Management Journal, 53(1), 107–128. https://s3.amazonaws.com/academia.edu/documents/31079623/Presentation_4_Empowerment.pdf?response-content-disposition=inline%253B%filename%253Dlinking_empowering_leadership_and_employ.pdf&X-Amz-Algorithm=AWS4-HMAC-SHA256&X-Amz-Credential=AKIAIWOWYYGZ5SY3UL

Zhou, J., & George, J. M. (2001). When job dissatisfaction leads to creativity : Encouraging the expression of Voice. Academy of Management Journal, 44(4), 682–696.
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