Examining the Impact of Effort Expectancy, Facilitating Conditions, and Business Acumen on Human Resources Analytics Adoption level: The Mediating Role of Human Resource Analytics Adoption Intention in the Egyptian Context

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Abstract

To improve the human resources innovation through technology, organizations around the world are focusing on the human resources analytics adoption among the human resources professional and using the human resources analytics for more informed decision making. This research aims to investigate the mediating role of HRA adoption intention in the relation between the effort expectancy, facilitating conditions, hedonic motivation, and business acumen on the HRA adoption level, especially from the perspective of HR professionals and other department's heads, using the UTAUT model in terms of effort expectancy and facilitating conditions constructs, and by integrating business acumen as a key element influencing HRA adoption level through HRA adoption intention. This research uses a deductive research approach, starting with the established UTAUT theory to derive definite hypotheses related to HRA analytics adoption. By utilizing explanatory research, the result aim to confirm or challenge current theories based on data collected from the Egyptian banking sector's HR workers and other department's heads.The data collection strategy used is the survey; a range of SPSS (23) statistical analysis tools was utilized to provide validations to the model based on the data collected through questionnaires collected from 500 HR professionals and department heads in 6 major banks in Cairo: CIB, NBE, QNB, Banque Misr, Banque du Caire, and AlexBank.The sample targeted was including HR junior level, HR senior level, and HR heads, together with department heads from other departments. Based on the sample size calculations, the initial samples should be 194 HR employees, and 295 department heads. The results show that UTAUT model dimensions in terms of effort expectancy and facilitating conditions along with business acumen significantly relate to the HRA adoption intention, which mediates their indirect relationship with HRA adoption level. HR leaders, and business managers can incorporate these results to facilitate the adoption of the human resources analytics at all levels in their organizations.

Keywords: Human Resources Analytics, HRA Adoption Intention, HRA Adoption Level, Business Acumen, UTAUT Model

1. Introduction

The landscape of Human Resource Management (HRM) in Egypt is experiencing a crucial transformation driven by technological developments; the organizational transformation should have an effective HRM to adapt to those technological advancements and the market demands (Al-Shaiba & Koç, 2017).According to Heuvel & Bondarouk (2017), The HR analytics is expected to be a well-established discipline by 2025 with a vital impact on the outcomes of the business. Regardless the perceived benefits, the HR analytics adoption among the HR professionals still slow-moving due to the barriers of having the adequate information technology (IT) infrastructure Capabilities enabling for HR analytics adoption (Vargas et al, 2018). As the organizations often lack the ability make accurate judgments and decisions driven by deep insights ideas known as business acumen (Makhele & Barnard, 2020) and the essential support which both hinders the effective implementation (Masum, 2015). The HR analytics adoption has gained momentum in the recent years while enabling the in leveraging data for both strategic workforce planning and performance management. However, these analytics adoption level is often mediated by the adoption intention within the organizations (De Moraes et al, 2022). So, this study aims to investigate the influence of effort expectancy, facilitating conditions, and business acumen influencing the HR analytics adaption level with a specific focus on the HR analytics adoption intention as being the mediating variable among this relationship within the unique context of Egypt.

1.1 Pilot Testing Questions

1. Are you currently automating any of your HR practices? If so, which specific practices are being automated?
2. What tools or software does your organization use to facilitate the automation of HR practices?
3. Are you familiar with the concept of data analytics? If yes, do you know the difference between general data analytics and HR analytics, and how are these concepts applied in your organization?
4. Do you have an adequate IT infrastructure supporting your HR practices?
5. Whether your IT Department provides you with the adequate infrastructure?
6. If no, do you think that this affects your analytical capabilities?
7. Does your organization work actively to integrate HR analytics into the organization's overall decision-making?
8. If no, does your organization have the intention to adopt it?
9. What challenges have you faced in applying the HR technology for HR analytics in your organization?
10. How often do you employ HR analytics in decision-making processes, and what specific analytics do you find most precious?
11. What training or resources does your organization provide to employees about the usage of HR technology and HR analytics?
12. Can you tell any specific examples where HR analytics has informed or can inform the HR decisions in your organization?

1.2 Pilot Testing Results

After conducting a focus group with HR members in National Bank of Kuwait (NBK), it was found that yes, they are automating their HR practices including the “contract renewal & employee shift plan”. Regarding the bank tools and software used to facilitate the HR practices’ automation, first it was mentioned by the members that both the “ bar automate and mail merge” used simultaneously to conduct the contract renewal; in addition to the “ rostering system” used to report the operators with the timings and places of operation for both white collars and blue collars. Then, the researcher asked them about how familiar they are with the data analytics concept; they answered yes for sure while mentioning that it is very familiar nowadays than before. Also, they mentioned that the data analytics used in different functions such as marketing, sales, and HR but the point of difference is that it depends on each function’s Key performance Indicators (KPIs) and what trends should be explored.

Therefore, the focus of the HR analytics in the bank is to explore the trends and analyze to see the departments’ credit especially the employees within those departments by focusing on the percentage taken from their vacations’ balance and their absence percentage. Moreover, they showed the importance of their “performance analysis” importance which focusing on the operator’s concerns including their absence performance level and after asking them why you are showing importance for this analysis type; they mentioned that because our operators don’t have a clear target, their job is based on the division of workload on the operators. Also, they showed the importance of both the “ time motion analysis and predictive analysis” for the operators job by providing me with the example of their upcoming quarter report made by the commercials, and their role as an HR to see the estimated volume of the operation and depend on it they can provide an estimation for the manpower availability of the employees and whether they had a schedule plan for them or any announced sick leaves to be able to know the sources that they will depend on them in the upcoming period.

Then, the researcher asked them about their IT

infrastructure and whether it provides an adequate support for these mentioned HR practices; there answer was yes for sure; we have an IT management providing us with the full support needed as we have also specific team for applications support which is related to the ticketing system. In addition, they mentioned that there previously system mentioned 'restoring system" is an in-house system. Not only that, but they also work on the integration of the HR analytics into the overall decision making done by the bank by providing me examples of focusing on the peak working seasons and the remaining collective the vacations balance for the employees that can be used in other applicable durations. Also, they provide me with another example showing that for the operators' job, the permitted range is 29 years to 39 years maximum due to the nature of the job and this information is often by the dashboard.

Then, the researcher asked them to tell about the details about the dashboard and the frequency of checking it; they stated that it is helping them to know our top performance and also the alerts and they are checking it in a daily bases due to its importance, especially it helps them in their performance analysis and time motion analysis mentioned above due to their urgent relation with the KPIs. Additionally, they mentioned that there were many challenges faced by them especially regarding the deployment of machine allocation; the reason was due to the existence of old machine not preferably chosen by workers. Therefore, the restoring system facilitated this issue by just assigning the machine automatically to the worker without the bother of choice for each and at the time this sounds in the decision-making part by contacting with the technical team to ensure the adequate maintenance of those machines; this provides us with the ability of report generation with the purpose of the schedule maintenance to provide them priorities. Finally, they mentioned that they have pool access to website "AI-HR related" assisting them in the HR analysis.

The choice of the National Bank of Kuwait (NBK) in the pilot testing was due to its clear commitment to leverage advantaged technology and data integration in addition to the recent strategic partnership with software AG represents the forward thinking approach of the NBK bank, which allows it to exploit a unified platform for applications and data across multiple international locations; this technology infrastructure not only provides facilitations for efficient data management but also positions the bank as a leader in innovative solutions adoption for the HR management (TechAfrica News, 2024).Therefore, the HR analytics knowledge from such a dynamic and technology driven environment helps in providing valuable insights. In addition, it stands out as one of the top 100 banks in the Arab world for 2022, highlighting its strong position in the market and innovation and excellence reputation, which helps the researcher with a rich context about their HR analytics usage and their overall organizational performance.

Moreover, the choice of NBK was due to its proactive engagement in partnerships including the collaboration with Mastercard, reflecting dedication to improve both the financial inclusion and digitalization within the region (Mastercard,2024).Another reason of NBK choice is its position in the Egyptian banking sector as a formidable competitor, which came from the bank directed focus on both the continuous innovative solutions and service quality with the digital infrastructure and technology advancements (Arabtimes,2024).

2. Background of the Study

It has been demonstrated by Ahmed (2014) that age, awareness, behavioral intention, facilitating conditions and social influence, all affect the researchers' existent Usage of open access. The findings show that Effort Expectancy is the most influential UTAUT construct. According to Ali (2017), the findings showed that the quality of human resources systems within the Egyptian Tourism Authority in Cairo is low and should be developed to improve employee performance. According to Bendary & Al-Sahouly (2018), researchers determined that, in Mobile commerce, social influence were fully mediated with hedonic motivation and convenience. As of Convenience, it attends to be the most influencing for perceptions of consumers usefulness and ease of use also, it has a strong mediation effect among social influence and the perceptions of mobile commerce user. According to Mohamed (2019), the findings point to feasible success of analytics-based intervention and how it influences the predictive decision making on parameters which are decisive to the operation in the organization. It has been demonstrated by Qureshi (2020) that HR analytics used appropriately to generate reports that assist organizational executives to run routine operations and HR-related strategic matters is contributing considerably toward organizational sustainability. Furthermore, organizations' readiness to use HR analytics and human capital mediates relationship between HR analytics and organizational sustainability, which creates learning. According to Elkot, Leat, & Masry (2022), it showed that Digitalisation has become a necessary and key factor for both companies and countries' improvement and growth. According to the Egypt strategy 2030, Egypt has implemented a digital Transformation Strategy for building the "Digital Egypt", a digital society; the digital transformation, digital skills and jobs and

digital innovation are the main pillars for the transformational strategy in Egypt.

3. Statement of Problem

There was previous research concentrating on the same variables, but without the additional variable of 'Business Acumen' included as an independent variable, and it was conducted in India instead of Egypt. (Ekka & Singh,2022).Additionally, there was research conducted within the Egyptian context focusing on the UTAUT and its influence on general behavioral intention and use behavior, without being specific to the intention and behavior related to HR analytics adoption (Ahmed, 2014).However, there is additional research conducted within the Egyptian context that addresses UTAUT2 and its effect on perceived usefulness and ease of use, but this research focuses on mobile commerce rather than the banking sector (Bendary & Al-Sahouly,2018).This means that UTAUT Model, with its valuable insights into the determinants of the technology adoption, remains underexplored within the Egyptian Banking Sector. Moreover, the business acumen role as a potential influence on the adoption has not been addressed (McClendon et al ,2022).

4. Research Questions

1) Does UTAUT Framework constructs in terms of effort expectancy and facilitating conditions affect the HR analytics adoption intention within the Egyptian context?

2) Does the Business acumen contribute to shape the intention?

3) What is the mediating role between the UTAUT constructs of effort expectancy, facilitating conditions, business acumen, and the HR analytics adoption level?

4) What is the overall influence of the HR analytics adoption intention on the HR analytics adoption actual level within organizations?

5. Research Objectives

1) To investigate the impact of effort expectancy and facilitating conditions on HR analytics adoption intention within the Egyptian Banking Context.

2) To examine the influence of business acumen on HR analytics adoption intention within the Egyptian Banking Context.

3) To investigate whether the Human resources analytics intention mediate the relationship between UTAUT Framework constructs in terms of effort expectancy, facilitating conditions, business acumen, and the HR analytics adoption level or not within the Egyptian Banking Context.

4) To assess the overall effect of HR analytics adoption intention on the actual HR analytics adoption level within the Egyptian Banking Context.

6. Significance of the Study

This research aim is filling a crucial gap in the literature by examining the HR technology role, through the UTAUT framework in terms of effort expectancy and facilitating conditions' constructs, in improving the intention leading to HR analytics adoption. By incorporating the business acumen to be an additional independent variable and investigate its influence alongside the constructs of UTAUT2 framework, this can contribute to a deeper understanding for the factors driving the HR analytics adoption in the Egyptian context. Moreover, by emphasizing on the mediating role of the HR analytics adoption intention, this research will provide valuable insights for organizations which seek leveraging the HR technology in an effective way, ultimately adopting data-driven decision making within the human resource management (HRM), which supports what Egyptian banks are currently doing or attempting to do, based on the pilot testing's results.

Besides the significance it provides to practitioners, it also offers considerable value to researchers; it investigates crucial specific variables, addressing a gap in current literature, which has concentrated primarily on the general behavioral intention. As the previous research conducted by the Egyptian scholars has laid the groundwork by investigating the broader behavior factors. But this research is narrowing the focus to specific dynamics including analytics intention and adoption. Knowing how the UTAUT constructs of effort expectancy and facilitating conditions and business acumen impact both the intention to adopt and the actual adoption levels of HR analytics can unlock valuable insights for future research and practical applications within the Egyptian banking sector.

7. Framework of the Study

The researcher includes Independent, mediator, and Dependent Variable. The Independent Variables are Unified theory of Acceptance and Use of Technology model (UTAUT), and Business Acumen. The UTAUT model is addressed in terms of the following:

- Effort Expectancy (EF)
- Facilitating Conditions (FC)

The second independent variable for this research consists of the construct Business Acumen. In addition, Human Resource Analytics Adoption Intention (HRAAI) is the Mediating construct in this research. Finally, Human Resources Analytics Adoption Level (AL) is the dependent variable in this research.

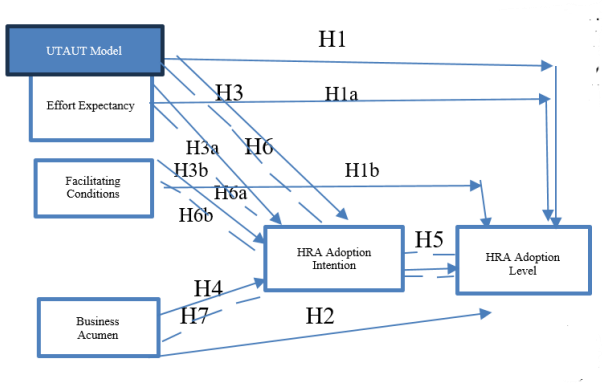

Figure 1: Proposed Research Model

8. Hypotheses Development

H1. There is a significant relationship between UTAUT Model and Human Resources Analytics Adoption level (AL)

H1.a: There is a significant relationship between effort expectancy and human resources analytics adoption level

H1.b: There is a significant relationship between facilitating conditions and human resources analytics adoption level

H2. There is a significant relationship between Business Acumen and Human Resources Analytics Adoption level (AL)

H3. There is a significant relationship between UTAUT Model and Human Resource Analytics Adoption Intention (HRAAI)

H3.a: There is a significant relationship between effort expectancy and human resource analytics adoption intention

H3.b: There is a significant relationship between facilitating conditions and human resource analytics adoption intention

H4. There is a significant relationship between Business Acumen and Human Resource Analytics Adoption Intention (HRAAI)

H5. There is a significant relationship between Human Resource Analytics Adoption Intention (HRAAI) and Human Resources Analytics Adoption Level (AL)

H6. Human Resource Analytics Adoption Intention (HRAAI) mediates the relationship between UTAUT Model and Human Resources Analytics Adoption Level (AL)

H6.a: Human resource analytics adoption intention mediates the relationship between effort expectancy and Human resources analytics adoption level

H6.b: Human resource analytics adoption intention mediates the relationship between facilitating conditions and Human resources analytics adoption level

H7. Human Resource Analytics Adoption Intention (HRAAI) mediates the relationship Business Acumen and Human Resources Analytics Adoption Level (AL)

9. Literature Review

9.1 History of UTAUT Framework

The history of UTAUT framework started with: Theory of Reasoned Action (TRA), Technology Acceptance Model (TAM), Diffusion of Innovation (DOI), Social Cognitive Theory (SCT).

The theory of Reasoned Action (TRA) was developed early by Martin Fishbein and Icek Ajzen in the late 1970s; it has proven effective in the predictions of variations in human behaviour across different contexts, populations, and actions.

The technology acceptance model (TAM), suggested by Davis (1989), proposes that both perceived ease of use (PEOU) and perceived usefulness (PU) can provide predictions regarding the information technology acceptance. This model has been tested with different application in many studies and become one of the most widely applied models of both user acceptance and usage (Ma & Liu,2011). However, it has criticisms including concerns about common methods bias, high reliance on self-reported data for usage, in addition to the need for more carefulness in models (Straub & Burton,2007).

The Diffusion of Innovation (DOI) is about the process by which an innovation is communicated over time between social system's members (Garcia, 2020). It mainly focused on the organizations innovativeness in adopting technologies. Although, it faced many criticisms regarding its theoretical foundations and practical applications; its oversimplification fails to account for the innovation adoption's multifaceted nature. Also, it lacks the qualitative insights, which may miss nuanced understanding of the user experiences and motivations. (Kee & Dearing,2024). In addition, the theory often neglects the specific social, cultural, and political contexts, influencing diffusion, mainly in social innovations (Howaldt et al,2023). Moreover, it was shown by Hidayat & Mukminin (2022) that this model tends to focus mainly on the individual adopters and neglect the organizations and networks roles.

The social cognitive is a theory developed by Albert Bandura,used for understanding the way individuals process information about themselves and their environment, impacting both their behavior and decision making (DeNisi,2024). Regardless of its wide applicability across different fields, it faces criticisms about its comprehensiveness. First, it is often criticized for its wide scope, leading to imprecise and ambiguous applications in research. In addition, it often overlooks both non-cognitive processes and individual characteristics affecting the

behavior. Also, there was a suggestion of a need for more nuanced approaches incorporating additional psychological factors and individual differences (Myrick & Yang,2022).

The UTAUT is the extension of the Technology Acceptance Model (TAM); it built upon the foundational concepts of TAM while addressing the limitations found in the original TAM framework. It encompasses additional constructs that develop the understanding of the technology acceptance and the satisfaction with information system which makes it a more comprehensive model for many contexts (Nurrahma et al, 2023). According to Ekka & Singh (2022), the UTAUT framework is often favored and preferred over the TAM, especially in studying the HR analytics adoption because of its comprehensive nature incorporating multiple influencing factors. In addition, it showed significant impact on both the behavioral intention and HR analytics actual usage among professionals (Anam & Haque, 2023).The model shows that there are constructs including performance expectancy (PE), effort expectancy (EE), social influence (SI), and facilitating conditions (FC) all of them play a vital role as being direct determinants of both user acceptance and usage behavior (Xue et al, 2024).

	TRA	TAM	DOI	SCT	UTAUT	UTAUT2
BI	✓					
ATB	✓					
SN	✓					
PEOU		✓				
PU		✓				
BI		✓				
RA			✓			
SC			✓			
C			✓			
SE				✓		
EE					✓	✓
PE					✓	✓
SI					✓	✓
FC					✓	✓
HM						✓

It is believed that the focus should be on both effort expectancy and facilitating constructs within the UTAUT model, as demonstrated by Aljojo & Alsuhaimi (2020), that

only two of the UTAUT Model sub constructs including the effort expectancy and facilitating conditions, is the main predictor for the intention to adopt the technology.

9.2 Business Acumen Construct

The Business Acumen construct is an old concern in business. As previously mentioned by Prince (2008) that business acumen is a development tool for leadership. It was mentioned by Kaplan (2006) that business acumen is considered the second key skill after leadership by defining it as being the ability to produce a product with a quality while generating profit. It was argued that business acumen is considered a crucial part of the HR and that HR professionals would enhance the competency to help increase the legitimacy of the HR in the business world's eyes (Jones, 2018). It was advised that HR professionals should develop their business acumen to compensate the perception among the corporate leaders as the HR is often detached from the rest of the organization (Cappelli, 2015). It was identified by Rogers (2003) that there are three kinds of knowledge about an innovation within the innovation-decision process model theoretical framework including the awareness, how-to, and principles knowledge. Recently, it was proposed that UTAUT2 including the new constructs was used in organizational context with the ability of tailoring it to the consumer use context; this extension was undertaken for a better understanding of the HR analytics adoption intention and their usage behavior in the organizations (Arora et al,2022).

9.3 The Human Resources Analytics

It involves the collection, analysis, and interpretation of the employee data for HR functions optimization such as recruitment, training, and retention (Keerthiraj, 2024). It was shown by Pareek (2024) that HR analytics is not limited to the HR department; it serves as one of the strategic tools for the top management level to improve the decision-making, enhance the overall organizational performance, and align talent management with the business objectives across all organizational levels (Pareek, 2024).It aims to detect the patterns existing in the employee behavior and performance while enabling organizations to make informed decisions which enhance both the productivity and employee satisfaction (Okatta et al,2024).It was also emphasized by Selvaraj and Santhi (2023) that the adoption of the HR analytics can enhance the business acumen by allowing the HR professionals to derive insights from data, eventually providing support to the strategic decision making.

9.4 Effort expectancy, HRA adoption Intention, and HRA Adoption Level

According to Teo & Noyes (2014), it was found that the effort expectancy affects the individuals' behavioural intention to use technology. The intentions of the individual to use information technology can be adopted if it is perceived by the individuals that it is easy to use (Education Sector).According to Oliveria et al (2016), it was

shown that expectancy is positively affecting both the performance expectancy and behavioural intention (Financial Services in Terms of Mobile Payments).According to Chou et al (2018), it was shown that effort expectancy has significant influence on the behavioural intention of the individuals especially in the mobile commerce environment (M-commerce).According to Morosan & DeFranco (2019), it showed that there is no direct relationship among the effort expectancy and intention to use (Near Field Communication (NFC) mobile payments).

9.5 Facilitating Conditions, HRA adoption Intention, and HRA Adoption Level

According to Mamun (2022), it showed that Facilitating Conditions (FC) positively influence Intention to Use (IU) in sectors such as e-government and e-learning, although studies on cloud computing and online learning show no substantial effect of FC on IU, highlighting the context-dependent nature of these relationships. (Manufacturing and service sectors). According to Popova and Zaqulova (2022), it showed that FC has a positive influence on both Behavioral Intention (BI) and Use Behavior (UB) (Construction Industry).According to Rohman (2022), it showed that FC significantly influences the Behaviour intentions while highlighting the significance of the adequate resources existence and support for effective technology adopting. (Banking Indusrtry). According to Amelia and Syaefullah (2023), it showed that the FC significantly influences the use behavioural and trust between the users of the university's academic information system (Mobile Banking).

10. Methods

10.1 Research Design

Since the research contains the HRA adoption in the Egyptian banking sector, a positivist approach permits for the quantitative data collection that can be analyzed in an adequate statistical way, aligning with the researcher focus on specific UTAUT Model constructs in terms of effort expectancy, facilitating conditions, business acumen, and their influence on adoption intention and then the adoption level, that can be measured in an objective way. In addition, the researcher chooses the Deductive type, for its well alignment with this research's objectives. By using the explanatory research and hypothesis testing, the researcher can verify or argue with the existing theory based on the data gathered from the Egyptian banking sector through the data collection phase.

10.2 Population

There were 38 Egyptian banks, but following the drop since 2014, there are currently 36 registered banks operating in Egypt; This pursued the approval done by the Central Bank of Egypt's Board of Directors to merge First Abu Dhabi Bank with Bank Audi Egypt in 2022 (Statista, 2024). In terms of bank branches, Rentech Digital (2024) reported that the largest banks branches in Cairo, making it the selected area for the population of interest. Therefore, there is a total of 387 HR employees, including Juniors, Seniors, and Heads, and 1255 heads in the other departments within the top 6 selected banks.

10.3 Sample

The Sample calculation for the HR employees showing that the sample size should be 193.97 which is approximated to be 194.Then, the Sample calculation for the Department heads showing that sample size should be 294.27 which is approximated to be 295. Therefore, the total sample size for both the HR employees and Department heads will be: 194+295 = 489 for a 95% confidence level with a 5% margin of error. The researcher chooses the probability sampling, especially the random sampling, to guarantee that every individual within the selected population has the equal chance of being selected.

10.4 Instrument

The researcher chooses to be a number-based in terms of a structured closed-ended survey; the researcher chooses the Survey strategy by distributing questionnaire; this choice is due to the large number of respondents, which necessitate an effective collection of quantitative data.

10.5 Data Analysis

The researcher uses SPSS (23), which considered a reliable statistical technique. The researcher will use both Descriptive and Inferential Statistics; the descriptive statistics in terms of calculating the mean, median, and standard deviation, for better insights into the central tendency and data variability. While the inferential statistics in terms of correlation and regression analysis, for better hypothesis testing about the relationships between the variables.

11. Statistical Analysis & Results

The research constructs' reliability coefficient and intrinsic face validity are (0.976), (0.987) respectively; highly internal consistency based on the average inter-item correlation. The 8 constructs based on reliability coefficient with highest Reliability coefficients are Facilitating Conditions, Business Acumen, Human Resources Analytics Adoption Level, Effort Expectancy, and Human Resource Analytics Adoption Intention, with a Reliability coefficient (0.951), (0.946), (0.863), (0.863), (0.846), respectively. All constructs are above the appropriate value limits which is (0.70), at least, (Hair et al, 2014, P 90).

11.1 Reliability and Intrinsic Validity for the Research Constructs

No	Constructs	no. of items	Reliability coefficient	intrinsic validity
1	Effort Expectancy	4	.863	0.928
2	Facilitating Conditions	3	.951	0.975
3	Business Acumen	11	.946	0.972
4	Human Resource Analytics Adoption Intention	3	.846	0.919
5	Human Resources Analytics Adoption Level	5	.863	0.928
Total		26	.976	0.987

11.2 Summary on Descriptive Statistics for Demographics

Gender			
Gender	**Freq.**	**%**	**Rank**
Male	335	67.0	1
Female	165	33.0	2
Total	500	100	--
AGE GROUP			
In your 20s	140	28.0	2
In your 30s	214	42.8	1
In your 40s	136	27.2	3
In your 50s	10	2.0	4
Total	500	100	--
Banking experience			
<3	91	18.2	3
3-5	52	10.4	5
6-10	89	17.8	4
11-15	132	26.4	2
16+	136	27.2	1
Total	500	100	--
Current position experience			
<5	303	60.6	1
5-10	169	33.8	2
11-15	18	3.6	3
16+	10	2.0	4
Total	500	100	--
Education level			
Bachelor's Degree	363	72.6	1
Master's Degree	114	22.8	2
Doctorate	23	4.6	3
Total	500	100	--
Job			
Department Head (all except HR)	306	61.2	1
HR Head	20	4.0	4
HR Junior Employee	133	26.6	2
HR Senior Employee	41	8.2	3
Total	500	100	--
Bank			
Alex Bank	64	12.8	6
Banque du Caire	66	13.2	5
Banque Misr (BM)	94	18.8	2
Commercial International Bank (CIB)	123	24.6	1
National Bank of Egypt (NBE)	84	16.8	3
Qatar National Bank (QNB)	69	13.8	4
Total	500	100	--

11.3 Measuring the Goodness of Fit of the (CFA) Model

Model Fit Summary	
Chi-Square	1708.851
Degree of Freedom	456
Level of Significance	.000
Normed Chi-Square	3.747
Root Mean Square Residual (RMR)	.032
Goodness of Fit Index (GFI)	.936
Adjusted Goodness of Fit Index (AGFI)	.885
Normed Fit Index (NFI)	.924
Relative Fit Index (RFI)	.906
Incremental Fit Index (IFI)	.943
Tucker Lewis Index (TLI)	.930
Comparative Fit Index (CFI)	.943
Root Mean Square Residual Approximation (RMSEA)	.074
The Expected Cross-Validation Index (ECVI)	3.982
HOELTER 0.01	155

In summary, the evidence of a good model fit, reliability, convergent validity and discriminant validity shows that the measurement model was suitable for evaluating the primary impact Unified Theory of Acceptance and Use of Technology in terms of Effort Expectancy, and Facilitating Conditions , along with Business Acumen on Human Resources Analytics adoption level: The Mediating Role of Human Resource Analytics Adoption Intention in the Egyptian Context.

11.4 Measuring the Goodness of Fit of the (SEM) Model

Chi-Square	139.260
Degree of Freedom	28
Level of Significance	0.001
Normed Chi-Square	4.974
Root Mean Square Residual (RMR)	0.018
Goodness of Fit Index (GFI)	0.958
Adjusted Goodness of Fit Index (AGFI)	0.884
Normed Fit Index (NFI)	0.978
Relative Fit Index (RFI)	0.947
Incremental Fit Index (IFI)	0.982
Tucker Lewis Index (TLI)	0.958
Comparative Fit Index (CFI)	0.982

Root Mean Square Residual Approximation (RMSEA)	0.079
The Expected Cross-Validation Index (ECVI)	.479
HOELTER 0.01	173

The default model has the lowest ECVI, showing that it is the most generalizable and has the best predictive power between the models considered. This indicates that the model is not overfitting the data and is anticipated to do well on new data. For example, The ECVI and MECVI values imply that while your model is suitable and potentially generalizable, there may be potential for enhancement in terms of parsimony or model refinement.

12. Discussion

After presenting the analysis results of this research to examine the impact of unified theory of acceptance and use of technology (UTAUT) Model in terms of effort expectancy (EF),facilitating conditions (FC) and business acumen on HRA adoption level with the mediating role of HRA adoption intention in the Egyptian context, all the research hypotheses have been accepted.

For the First Research Hypothesis (H1): "There is a significant relationship between the unified theory of acceptance and use of technology (UTAUT) and Human Resources Analytics Adoption level". The results of this research support Hypothesis 1 (H1) through the acceptance of the two sub hypotheses H1.a, and H1.b, indicating that there is a significant relationship between the UTAUT model specified dimensions and the HRA adoption level. It has been shown Quaosar et al (2024) that there is a significant positive relationship between effort expectancy, performance expectancy, social influence, facilitating conditions, hedonic motivation, and HRA adoption level; this could be due to the similarities exist including the predominantly male demographic and the financial nature of the organizations involved for both research. As the research focus is mainly on the effort expectancy and facilitating conditions sub constructs. Therefore, both sub hypothesis: H1.a, and H1.b are supported.

For the Second Research Hypothesis (H2): "There is a significant relationship between Business Acumen and Human Resources Analytics Adoption level". It has been demonstrated by Merkle (2022) that business acumen is positively related to the HRA adoption level which support this research results; this could be due to the similarity of some of the demographics factors, such as most of the HR professional working in their 30s and 40s age range, most of the responses is male gender, and having a bachelor's degree regarding their educational level.

For the Third Research Hypothesis (H3): "There is a significant relationship between unified theory of acceptance and use of technology (UTAUT) Model and Human Resource Analytics Adoption Intention". There are many previous research's results consistent with those of this research, however there are some previous research not supporting all of the research hypotheses by stating that certain sub dimensions are having stronger impact than others; this could have resulted from variations in the demographics. The significant positive relationship among the facilitating conditions sub constructs and the human resource analytics intention among the professionals for adoption of human resources analytics was supported (Ekka & Singh, 2022). The matches between Ekka and Sing (2022) findings and this research results can be due to the similarity of some of the demographics factors, such as most of the professional working in their 30s and 40s age range. In addition of the workers field, the industry is the financial services, since most of the employees in Ekka and Singh's (2022) findings were from the financial services sector.

In contrast, it was shown by Ain et al (2015) that effort expectancy, facilitating conditions, and hedonic motivation have insignificant relationship with the intention. But the mismatches between Ain et al (2015) findings and this research results can be due to the dissimilarity of some of the demographics factors, such as most of the responses of Ain et al (2015) findings were Female not male, like this research responses. In addition, most of the responses in Ain et al (2015) findings were the age range from 18 to 21 years, which is the ages 30s and 40s in this research responses. Lastly, it was shown in Ain et al (2015), that most of the responses were undergraduates, which is the opposite of this research responses focus. In addition, there is another finding showed that effort expectancy, facility conditions, and hedonic motivation, all did not exhibit a significant relationship with intention; These differences could be referred to the differences in education levels, professional roles, and regional contexts (Swargjary ,2024); the Swargiary's research focus was mainly on IT officers, whereas this research includes HR professionals and heads of other departments within the banking sector. Another main difference is the geographical context: Swargjary's research was conducted in the United States, while the present research is based in Egypt. As the research focus is mainly on the effort expectancy and facilitating conditions sub constructs. Therefore, both sub hypothesis: H3.a, and H3.b are not supported due to the differences illustrated.

For the Fifth Research Hypothesis (H5): "There is a significant relationship between Human Resource

Analytics Adoption Intention and Human Resource Analytics Adoption Level".It has been demonstrated by Ekka and Sing (2022) that there is a significant positive influence between the HRA adoption intention on the HRA adoption level, which support the findings of this research's study; this research results can be due to the similarity of some of the demographics factors, such as most of the professional working in their 30s and 40s age range. In addition of the workers field, the industry is the financial services, since most of the employees in Ekka and Singh's (2022) findings were from the financial services sector. In addition, this research results are also consistent to those of Alam et al. (2020). As, it also showed that there is a significant direct relationship between the intention and adoption level as highly influential as positive. Such similarity also might be explained by demographics factors similarity, notably the most respondents in both studies were male professionals aged in their 30s and 40s. Therefore, the fifth hypothesis (H5) has been supported.

For Sixth Research Hypothesis (6): "Human Resource Analytics Adoption Intention mediates the relationship between unified theory of acceptance and use of technology (UTAUT) Model and Human Resources Analytics Adoption Level". This hypothesis has not been fully supported by not verifying the two sub hypotheses H6.a, and H6.b with other research findings, which showed only partial mediation effect (Tamrakar and Shrestha, 2022). Most of this research's professional respondents were holding a bachelor's degree and were mainly employed in HR or other department head roles in the banking sector. Conversely, in Tamrakar and Shrestha (2022), most respondents held a master's degree and came from a variety of industries, including manufacturing, services, information technology, healthcare, and education, rather than from a single sector; those could be reasons of the differences between the results.

For the hypotheses 4 &7, the acceptance of the other independent variable related to the business acumen, was not proven yet by other researchers, as it is one of this research contribution.

13. Conclusion

This research focuses on the importance of the UTAUT model in terms of effort expectancy and facilitating conditions in understanding the human resources analytics adoption in the Egyptian banking sector. The results shows that the two sub constructs of the UTAUT model including: effort expectancy and facilitating conditions, both significantly affect the human resources analytics adoption level. As for the substantial sample size along with a well-planned data collection strategy, this research provides valuable insights into the factors affecting the human resources analytics adoption. The results provide also practical recommendations for professionals within the banking sector, focusing on the need to develop the analytics capabilities for organizational performance continuous improvements. In addition, this research results, particularly the confirmatory factor analysis (CFA) outcomes, show that the measured constructs captured the key dimensions related to the research purpose in an effective way.

14. Research limitations & Future Work

The first limitation is the researcher's geographical constrain to be only in Cairo, which may limit the results generalizability, where both the HR practices and technological adoption vary from one region or culture to another. As for the second limitation, it is about the cross-sectional over the longitudinal time horizon choice, due to the researcher's time constrain. In addition, there is a high reliance on the quantitative method.

Therefore, those limitations can open the door for the future researcher to expand on these initial insights by considering different regions, longitudinal time horizon, and mixed approach by balancing both methods, quantitative and qualitative methods. In addition, future research could wide the scope of the research by focusing on all constructs of UTAUT model simultaneously, along with business acumen, future researchers can reach more insights regarding the technology adoption, enabling more comprehensive analyses. Also, the extended UTAUT "UTAUT2" model with the added dimension "Hedonic Motivation" can be added for the same model for comprehensive intervention. In addition, the business acumen as the additional independent construct can be removed from the model. Moreover, the mediator which is the human resources adoption intention could also be eliminated, helping the future researchers to investigate the direct impact of the UTAUT model dimensions on the human resources adoption level as being the dependent variable; this could allow the researchers to measure both the strength and clarity of the direct relationships with no potential complexity presented in indirect effects. So, by mediator elimination, the analysis could be more straightforward.

REFERENCES

1. Ahmed, M.(2014). Unified Theory of Acceptance and Use of Technology (UTAUT): A Decade of Validation and Development. Conference: in Proc. of Fourth International Conference on ICT in Our lives 2014At: Alexandria University, Egypt.

2. Ain, N., Kaur, K., & Waheed, M. (2015). The influence of learning value on learning management system use. Information Development, 32(5), 1306–1321. https://doi.org/10.1177/0266666915597546

3. Akbar, G. G., Muchtar, N., Wahid, N. a. A., Kania, N. I., Putri, N. a. D., & Alamanda, N. D. T. (2023). Applying UTAUT model to understand use of Behavior Health Applications user in Indonesia during the COVID-19. Jurnal Ilmu Administrasi Media Pengembangan Ilmu Dan Praktek Administrasi, 20(1), 29–45. https://doi.org/10.31113/jia.v20i1.900

4. Ali, I. (2017). Effectiveness of EHRM on the organizations' performance applied to Egyptian Tourism Authority. International Journal of Heritage, Tourism, and Hospitality, 11(2), 125–142. https://doi.org/10.21608/ijhth.2017.30206

5. Aljojo, N., & Alsuhaimi, B. (2020). Investigating effort expectancy and facilitating conditions affecting behavioral intention to use mobile learning. Journal of Southwest Jiaotong University, 55(5). https://doi.org/10.35741/issn.0258-2724.55.5.14

6. Al-Shaiba, A. S., & Koç, M. (2017). Role of human resources function in successful organizational transformations for efficiency improvement. European Journal of Multidisciplinary Studies, 6(2), 273. https://doi.org/10.26417/ejms.v6i2.p273-280

7. Amelia, F., & Syaefulloh, S. (2023). Analisis Penerapan Model UTAUT (Unified Theory of Acceptance and Use of Technology) Terhadap Perilaku Pengguna Sistem Informasi (Studi Kasus: Sistem Informasi Akademik Universitas di Pekanbaru). Al Qalam Jurnal Ilmiah Keagamaan Dan Kemasyarakatan, 17(6), 3853. https://doi.org/10.35931/aq.v17i6.2817

8. Anam, N., & Haque, M. I. (2023). Behavioural intention of HR professionals to use HR analytics in the Indian context: an analysis using the UTAUT model. International Journal of Indian Culture and Business Management, 28(1), 101. https://doi.org/10.1504/ijicbm.2023.128486

9. Arabtimes. (2024, November 28). NBK-Egypt reports EGP 5.2 billion (equivalent to KWD 38.2 million) in net profit by the end of 3Q2024. Arabtimes. https://www.arabtimesonline.com/news/nbk-egypt-reports-egp-52-billion-equivalent-to-kwd-382-million-in-net-profit-by-the-end-of-3q2024/

10. Arora, M., Prakash, A., Mittal, A., & Singh, S. (2022). Moderating role of resistance to change in the actual adoption of HR analytics in the Indian banking and financial services industry. Evidence-based HRM a Global Forum for Empirical Scholarship, 11(3), 253–270. https://doi.org/10.1108/ebhrm-12-2021-0249
Bendary, N., & Al-Sahouly, I. (2018). Exploring the Extension of Unified Theory of Acceptance and Use of Technology, UTAUT2, Factors effect on perceived usefulness and ease of Use on mobile Commerce in Egypt. Journal of Business & Retail Management Research, 12(02). https://doi.org/10.24052/jbrmr/v12is02/eteoutoaauotufeopuaeouomcie

11. Bondarouk, T., & Ruel, H. (2019). Electronic HRM: Four decades of research on adoption and consequences. The International Journal of Human Resource Management, 30(3), 343-379.

12. Cappelli, P. (2015). Business acumen: Building a better HR: Embrace HR's evolution by learning the language of finance. HR Magazine (Alexandria, Va.), 60(10), 42.

13. Chou, Y. H. D., Li, T. Y. D., & Ho, C. T. B. (2018). Factors influencing the adoption of mobile commerce in Taiwan. International Journal of Mobile Communications, 16(2), 117-134.

14. Davis, F.D. (1986). A TechnologyAcceptance Model for Empirically Test-ing New End-user information Systems:Theory and Results. Doctoral Disserta-tion, MIT Sloan School of Management,Cambridge, MA

15. De Moraes, G. H. S. M., Pelegrini, G. C., De Marchi, L. P., Pinheiro, G. T., & Cappellozza, A. (2022). Antecedents of big data analytics adoption: an analysis with future managers in a developing country. The Bottom-Line Managing Library Finances, 35(2/3), 73–89. https://doi.org/10.1108/bl-06-2021-0068

16. DeNisi, A. S. (2024). Social cognition theory. In Edward Elgar Publishing eBooks (pp. 268–273). https://doi.org/10.4337/9781035308767.ch34

17. Dina,D. (2024, May 19). أكبر 10 بنوك في مصر 2025 و أفضل بنك أجنبي في مصر. البنكنوت. https://invest.albanknote.com/largest-banks-egypt.

18. Ekka, S., & Singh, P. (2022). Predicting HR Professionals' adoption of HR Analytics: an extension of UTAUT model. Organizacija, 55(1), 77–93. https://doi.org/10.2478/orga-2022-0006

19. El-Kot, G. (2016). HRM in Egypt. In P. S. Budhwar & K. Mellahi (Eds.), Handbook of human resource management in the Middle East (pp. 205–225). Edward Elgar Publishing.

20. El-Kot, G., Leat, M., & Masry, S. (2022). Digital Human Resource Management in EgypT. In Springer eBooks (pp. 371–398). https://doi.org/10.1007/978-3-030-98309-3_14

21. Fishbein, M. & Azjen, I. (1975). Be-lief, Attitude, Intention and Behavior.Reading, MA: Addison-Wesley.

22. For Business Process Automation & Efficiency | Rentech Digital. (2024). Rentech Digital. https://rentechdigital.com/

23. García-Avilés, J. A. (2020). Diffusion of innovation. The International Encyclopedia of Media Psychology, 1–8. https://doi.org/10.1002/9781119011071.iemp0137

24. Hair, J. F. et al. (2014). Partial Least Squares Structural Equation Modeling (PLS-SEM): An Emerging Tool in Business Research. European Business Review, 26, 106-121. https://doi.org/10.1108/EBR-10-2013-0128

25. Hassaan, M., Akhtar, R., Yaseen, A., & Imran, M. (2024). Understanding Smart Banking Services Adoption in Pakistan: Integrating Self-Expressiveness into UTAUT2 Model. Pakistan Journal of Humanities and Social Sciences, 12(2). https://doi.org/10.52131/pjhss.2024.v12i2.2235

26. Hidayat, M., & Mukminin, A. (2022). The Diffusion of Innovations Model: Applications to education policymaking and critique. Edukasi Jurnal Pendidikan Dan Pengajaran, 9(2), 100–107. https://doi.org/10.19109/ejpp.v9i2.15745

27. Howaldt, J., Kopp, R., & Schwarz, M. (2023). Diffusion. In Edward Elgar Publishing eBooks (pp. 123–128). https://doi.org/10.4337/9781800373358.ch22

28. Jones, P. J. (2018,). Business acumen: More than just business knowledge. Retrieved August 21, 2020, from.https://www.shrm.org/resourcesandtools/hrtopics/organizational-and-employee-development/pages/business-acumen-morethan-business-knowledge.aspx.

29. Kaplan, A. S. (2006). Climbing the ladder to CEO part II: leadership and business acumen. Physician executive, 32(2), 48.

30. Kee, K. F., & Dearing, J. W. (2024). Chapter 10 Diffusion. In De Gruyter eBooks (pp. 197–216). https://doi.org/10.1515/9783110718508-011

31. Keerthiraj, S. D. B. A. (2024). HR Analytics: Leveraging big data to drive strategic Decision-Making in human resource Management. Journal of Informatics Education and Research, 4(1). https://doi.org/10.52783/jier.v4i1.1101 https://doi.org/10.52783/jier.v4i1.1101

32. Makhele, L., & Barnard, B. (2020). The impact of business acumen and startup skills on entrepreneurial development. IUP Journal of Entrepreneurship Development, 17(1), 7-40.

33. Mamun, A. (2022). Human resource professionals' intention to use and actual use of human resource information systems. International Journal of Technology and Human Interaction, 18(1), 1–18. https://doi.org/10.4018/ijthi.299070

34. Masum, A. K. M. (2015). Adoption factors of Electronic Human Resource Management (E-HRM) in banking industry of Bangladesh. Journal of Social Sciences, 11(1),16. https://doi.org/10.3844/jssp.2015.1.6

35. Mastercard. (2024, November 2). Mastercard extends its partnership with the National Bank of Egypt to bring next level digitization into the Egyptian economy. Press Release. https://newsroom.mastercard.com/news/eemea/en/newsroom/press-releases/en/2023/march/mastercard-extends-its-partnership-with-the-national-bank-of-egypt-to-bring-next-level-digitization-into-the-egyptian-economy/

36. McClendon, J. A., Basu, S., Steinman, R. B., & Anthony, D. B. C. (2022). FACTORS THAT LEAD TO THE ADOPTION OF HUMAN RESOURCE ANALYTICS AMONG HR PROFESSIONALS. https://scholarshare.temple.edu/handle/20.500.12613/8688

37. Mohammed, A. Q. (2019). HR ANALYTICS: A MODERN TOOL IN HR FOR PREDICTIVE DECISION MAKING. JOURNAL OF MANAGEMENT, 10(3). https://doi.org/10.34218/jom.6.3.2019.007

38. Morosan, C., & DeFranco, A. (2016). It's about time: Revisiting UTAUT2 to examine consumers" intentions to use NFC mobile payments in hotels.

International Journal of Hospitality Management, 53, 17-29.

39. Myrick, J. G., & Yang, Y. (2022). Social Cognitive Theory. The International Encyclopedia of Health Communication, 1–4. https://doi.org/10.1002/9781119678816.iehc0666

40. Nurrahma, I., Salisah, F. N., Ahsyar, T. K., & Rahmawita, M. (2023). Perbandingan metode TAM dan UTAUT dalam penerimaan dan kepuasan Sistem Informasi Administrasi Akademik. INOVTEK Polbeng - Seri Informatika, 8(2), 502. https://doi.org/10.35314/isi.v8i2.3768

41. Okatta., Funmilayo, Aribidesi, Ajayi., Olufunke, Olawale. (2024). 4. Leveraging hr analytics for strategic decision making: opportunities and challenges. doi: 10.51594/ijmer.v6i4.1060

42. Oliveira, T., Thomas, M., Baptista, G., & Campos, F. (2016). Mobile payment: Understanding the determinants of customer adoption and intention to recommend the technology. Computers in Human Behavior, 61, 404-414.

43. Pareek, D. (2024). Transforming HR through Analytics: A Study of Performance Improvement Initiatives Driven by Data. International Journal for Multidisciplinary Research, 6(5). https://doi.org/10.36948/ijfmr.2024.v06i05.29028

44. Popova, Y., & Zagulova, D. (2022). UTAUT Model for Smart City Concept Implementation: Use of web applications by residents for everyday operations. Informatics, 9(1), 27. https://doi.org/10.3390/informatics9010027

45. Prince, E. T. (2008). Business acumen: a critical concern of modern leadership development: Global trends accelerate the move away from traditional approaches. Human Resource Management International Digest, 16(6), 6-9.

46. Qureshi, T. M. (2020). HR Analytics, FAD or fashion for Organizational Sustainability. In Advances in Science, Technology & Innovation/Advances in science, technology & innovation (pp. 103–107). https://doi.org/10.1007/978-3-030-32922-8_9

47. Ragas, M. W. (2021). Business acumen for strategic communicators. SciSpace - Paper. https://typeset.io/papers/business-acumen-for-strategic-communicators-4en2t26yew

48. Rogers, E. M., (2003). Diffusion of Innovation (5th ed.). New York: The Free Press/Simon & Schuster Inc.

49. Rohman, A. (2022). Implementasi Model Utaut Pada Industri Perbankan di Indonesia. Kajian Branding Indonesia, 4(1), 60–69. https://doi.org/10.21632/kbi.4.1.60-69

50. Selvaraj, V., & Santhi, D. (2023). A Study on HR Analytics Adoption Level of Human resource Management Practices in select Information Technology companies- Descriptive study. Research Square (Research Square). https://doi.org/10.21203/rs.3.rs-2530346/v1

51. قائمة البنوك في مصر. (2024, December 1). SmartScraper. https://rentechdigital.com/smartscraper/ar/business-report-details/list-of-banks-in-egypt

52. Statista. (2024, November 6). Number of banks in Egypt 2010-2024. https://www.statista.com/statistics/1375306/number-registered-banks-south-africa/#:~:text=As%20of%20June%202024%2C%20Egypt%20registered%2036%20banks,Dhabi%20Bank%20with%20Bank%20Audi%20Egypt%20in%202022

53. Straub, D., & Burton, A. (2007). Veni, vidi, vici: Breaking the TAM logjam. AIS Electronic Library (AISeL). https://aisel.aisnet.org/jais/vol8/iss4/14/

54. Swargiary, K. (2024). Predicting Blockchain Technology Adoption in Education: An Application of the UTAUT2 Model. https://doi.org/10.20944/preprints202405.0210.v1

55. Tamrakar, B., & Shrestha, A. K. (2022). Factors influencing Use of Human Resource Information System in Nepali Organizations. Journal of Business and Management Research, 4(01), 1–16. https://doi.org/10.3126/jbmr.v4i01.46678

56. TechAfrica News. (2024, July 8). NBK Partners with Software AG to Enhance Global Digital Integration. https://techafricanews.com/2024/07/08/nbk-partners-with-software-ag-to-enhance-global-digital-integration/

57. Teo, T., & Noyes, J. (2014). Explaining the intention to use technology among preservice teachers: a multi-group analysis of the Unified Theory of Acceptance and Use of Technology. Interactive Learning Environments, 22(1), 51-66.

58. TechAfrica News. (2024, July 8). NBK Partners with Software AG to Enhance Global Digital Integration. https://techafricanews.com/2024/07/08/nbk-partners-with-software-ag-to-enhance-global-digital-integration/

59. Times, A. (1970, January 1). 8 Kuwait Banks among the top 100 in the Arab world for 2022. Arabtimes. https://www.arabtimesonline.com/news/8-kuwait-banks-among-the-top-100-in-the-arab-world-for-2022/

60. Ulrich, D., Brockbank, W., Yeung, A. K., & Lake, D. G. (1995). Human resource competencies: An empirical assessment. Human Resource Management (1986-1998), 34(4), 473.

61. Utami, F. N., Usmayanti, V., Fahdillah, Y., Yossinomita, Y., Pasaribu, J. P. K., & Kartika, Y. D. (2023). Theory of Reasoned Action : Purchasing behavior of Batik Jambi. JPPM (Jurnal Pendidikan Dan Pemberdayaan Masyarakat), 10(2), 181–191. https://doi.org/10.21831/jppm.v10i2.64128

62. Vargas, R., Yurova, Y. V., Ruppel, C. P., Tworoger, L. C., & Greenwood, R. (2018). Individual adoption of HR analytics: a fine grained view of the early stages leading to adoption. The International Journal of Human Resource Management, 29(22), 3046-3067. https://doi.org/10.1080/09585192.2018.1446181

63. Xue, L., Rashid, A. M., & Ouyang, S. (2024). The Unified Theory of Acceptance and Use of Technology (UTAUT) in Higher Education: A Systematic review. SAGE Open, 14(1). https://doi.org/10.1177/21582440241229570

Appendix

	Scale Items	References
Effort Expectancy	EF1: It will be easy for me to become skilful at using HRA EF2: Learning to use HRA will be easy for me EF3: I clearly understand how to use HRA EF4:I do not have difficulty in explaining why using HRA may be beneficial	Ekka, S., & Singh, P. (2022). Predicting HR Professionals' adoption of HR Analytics: an extension of UTAUT model. *Organizacija*, *55*(1), 77–93.
Facilitating Conditions	FC1: I have the necessary resources to use HRA FC2: HRA is compatible with other systems that I use FC3: A specific person or group is available for assistance with difficulties concerning the use of HRA.	Ekka, S., & Singh, P. (2022). Predicting HR Professionals' adoption of HR Analytics: an extension of UTAUT model. *Organizacija*, *55*(1), 77–93.
Business Acumen	BA1: I am aware of the different technologies that can enhance HR practices and services. BA2: The use of technology enables HR to provide effective and efficient services to its constituents. BA3: The use of technology in HR has a direct impact on my company's overall business goals. BA4: Technology allows HR to communicate and share information with both internal and external constituents. BA5: I am aware of current trends in the economy that can affect my company. BA6: I understand the competitive nature of the industry where my company is in. BA7: I am aware of new regulations and legislation, including HR-related regulations that can impact my company. BA8: I can link the impact of HR practices and activities to my company's financial standing. BA9: I am aware of practices that maintain the knowledge and experience of workers. BA10: I have knowledge about employee development programs that support diversity and inclusion. BA11:I have knowledge about practices that support an inclusive environment for minorities.	Ulrich, D., Brockbank, W., Yeung, A. K., & Lake, D. G. (1995). Human resource competencies: An empirical assessment. Human Resource Management (1986-1998), 34(4), 473.
HR Analytics Adoption Intention	HRAAI1: I intend to use HRA as often as needed HRAAI2: Whenever possible, I intend not to use the HRA HRAAI3: To the extent possible, I would use the HRA frequently	Ekka, S., & Singh, P. (2022). Predicting HR Professionals' adoption of HR Analytics: an extension of UTAUT model. *Organizacija*, *55*(1), 77–93.
HR Analytics Adoption Level	AL1: My company has policies in place supporting the use of HR Analytics. AL2: I started exploring HR Analytics. AL3: Using HR Analytics is interesting to me. Al4: My company should invest in HR Analytics. AL5: I applied HR Analytics to some of my tasks.	Vargas, R., Yurova, Y. V., Ruppel, C. P., Tworoger, L. C., & Greenwood, R. (2018). Individual adoption of HR analytics: A fine grained view of the early stages leading to adoption. International Journal of Human Resource Management, 29(22), 3046-3067.