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Stakeholder Management Challenges Encountered in IT Projects

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Abstract:

This study offers valuable insights and practical recommendations for optimising stakeholder management processes and enhancing overall IT project performance in this ever-evolving business landscape. The study was scoped within South Africa to interrogate the void between stakeholder management and project performance. A quantitative approach to gathering data was used. Descriptive statistics were applied to analyse responses from an online questionnaire using the Lime Survey platform. The research aimed to identify challenges faced in IT project stakeholder management in the fourth industrial revolution (4IR). Significant challenges identified included balancing expectations, limited stakeholder involvement, ensuring data privacy and stakeholder resistance to change. Recommendations propagated contribute to effectively managing IT project stakeholders in a developing economy.

Keywords — IT Project Stakeholder, Fourth Industrial Revolution (4IR), Project Management, Information Technology

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I. INTRODUCTION

The Project Management Institute identifies stakeholder management, together with teams, process framework, cycle development, project life-cycle, project work, delivery, measurement and uncertainty as a project management domain of performance [1]. There has been enormous development in business processes over the past few years, and projects have continued to be critical business process drivers [1]. To generate revenue and, at the same time, remain relevant, companies devise innovative and redesigned approaches to project execution. Information Technology (IT) teams usually comprise several project team members working together to build software from scratch or utilising templates. Based on the CHAOS report, only 31% of IT projects were successful; 50% were challenged, and 19 % failed, Standish Group Report 2021[2].

II. METHODOLOGY

In this study, data collection was primarily done using a questionnaire. Designing this questionnaire was based on factors identified by another researcher, and this standard set of questions was used to prompt participant responses. The questionnaire was distributed online using Lime Survey. Lime Survey is a web application that conducts statistical surveys that are both free and open source [3]. This software was used to assist in generating descriptive statistics. It served as an efficient means to collect responses from the scarce sample for quantitative analysis purposes [4]. Respondents were required to provide ratings on a provided Likert scale. Secondary Data on IT project success was gleaned from publications related to IT projects. All potential respondents were asked whether their companies have adopted AI tools and how they have impacted project stakeholder

management. Snowball sampling was used. This is a non-probability sampling strategy, and as such, the findings will not be generalised to the entire population since there is a potential for specific segments of the population to be either over-represented or underrepresented, as [5] mentioned. Structural Equation Modelling (SEM) was utilised to ascertain the independent variables' collective impact on the dependent variable. The approach used path diagrams to visualise hypothesised relationships between variables, facilitating the evaluation of the fit of the models to the observed data [6]. SEM examined connections between various factors and assisted in identifying potential correlations among them. Marnewick [7] used SEM in their study on project success factors in a similar survey.[8] strongly advocated using quantitative approaches, such as structural equation modelling or partial least squares, to assess the relational propositions in stakeholder studies.

III. LITERATURE REVIEW

A. Definition of Stakeholders

[9] A stakeholder is "any group or individual who has the potential to influence or is influenced by the organisation's goal accomplishment." According to [10] and [11], a project stakeholder may compromise a group or individual who might impact the project's outcome and whom the project manager depends on for project success.

B. 4IR on Stakeholder Management

The impact of 4IR on stakeholder management can be viewed in the following aspects:

1. With the rise of 4IR and AI, new stakeholders have been brought into the IT projects. In other words, it is increased stakeholder diversity. This new diversity of stakeholders means new ways are called for to manage them; it makes way for their expectations to be better addressed and makes way for effective collaboration, which enhances the chances of successful project delivery.

2. Fast-paced technological development makes an organisation continuously monitor the evolving stakeholder expectations in a project cycle. It becomes necessary, therefore, to understand and build on these evolving expectations.

3. Ethical concerns have been raised around AI and other technologies such as blockchain, IoT, etc. These concerns are primarily around security, privacy, and data integrity. These concerns should be considered to ensure stakeholders' values and interests are brought on board during the project life cycle.

4. The power dynamics of the stakeholders have changed vastly in this information age we live in. The reason is that more data and information are available to the stakeholders compared to other times in human history [12]. Collaboration tools have been on an upward trajectory, increasing the ease of stakeholder engagement [13].

[12] analysed 914 research publications on 4IR and sustainable development in Africa. His research established that various 4IR technologies support industry sectors such as education, health services, tourism, e-commerce, and project management. This new type of intelligence demands new skill sets, but there is a lack of clarity about the competencies needed within the project management environment [13].

C. Project Success Measurement

There is generally no conclusive definition of project success, according to [14]. The success of IT projects is evaluated differently by various stakeholder groups. Project success seems to be contingent on the individual perspectives of each stakeholder. Historically, evaluation tools for gauging project success have primarily revolved around technical aspects, with a narrow focus on critical factors like time, cost, and adherence to quality standards [14]. Nevertheless, contemporary literature suggests assessing project success should extend beyond these technical parameters [15]. [1] posits that meeting all stakeholder's needs and satisfaction is a vital project success criterion. Stakeholder management is key to project success throughout the lifecycle [16]. It has been recommended to incorporate stakeholder satisfaction as an evaluation criterion for project

success alongside the conventional measures of time, cost, and quality [14].

IV. FINDINGS

TABLE 1: CORRELATION MATRIX

determinant = .031		
KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.623
Bartlett's Test of Sphericity	Approx. Chi-Square	185.816
	df	28
	Sig.	<.001

(Source: IBM SPSS Amos)

A. *Factor analysis summary*

The correlation matrix determinant or value 0.031 is minor, suggesting that the correlation matrix might be close to singular or ill-conditioned. This could indicate issues with multicollinearity among the variables, or it might imply that the variables are not sufficiently independent of each other. KMO values range from 0 to 1, with values closer to 1 indicating that factor analysis may be appropriate. Values above 0.6 are generally acceptable; however, values higher than 0.7 are preferred for better sampling adequacy. The KMO value is 0.623 in this instance, which indicates that while factor analysis may be feasible, the sampling adequacy is only marginally acceptable. Bartlett's Test of Sphericity with Approx. Chi-Square = 185.816 df = 28, and Sig. < .001 indicates that the correlations among variables are sufficient for factor analysis.

TABLE 2: CHALLENGES RELATED TO STAKEHOLDER MANAGEMENT

Communalities

	Initial	Extraction
Difficulty in identifying stakeholder	1.000	.756
Stakeholder resistance to change	1.000	.690
Balancing the expectations of multiple stakeholders	1.000	.767
Limited stakeholder involvement.	1.000	.799
Addressing ethical concerns related to AI and automation	1.000	.566
Ensuring data privacy for stakeholders	1.000	.854
Ensuring data security for stakeholders	1.000	.866
Lack of soft skills to achieve deliverables	1.000	.403

Extraction Method: Principal Component Analysis.

(Source: IBM SPSS Amos)

Communalities illustrate how much information each variable contributes to the underlying factors. Initial communalities represent the proportion of valuable variables explained by the original data. Each variable starts with an initial commonality of one because this is the same as itself. Extraction communities represent the proportion of variance in each variable explained by the extracted components, which are the principal components. Extraction communities are typically lower than initial communalities because PCA reduces dimensionality by combining variables. Valuables with higher extraction communities closer to 1 contribute more to the extraction components. The extracted components may not represent variables with lower extraction communalities well. For example, ensuring data security for stakeholders has a higher extraction commonality of 0.866, indicating that it aligns very well with extracted components. Stakeholder resistance to change is a moderate extraction commonality of 0.690. The low-community variables were examined to determine if they should be revised or removed entirely from the analysis. Considerations were made to ascertain whether they were aligned with the factors measured or measured in a different concept.

TABLE 3: TOTAL VARIANCE

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	
1	3.002	37.5	37.5	3.0	37.5		37.5
2	1.438	17.9	55.5	1.4	17.9		55.5
3	1.260	15.7	71.2	1.2	15.7		71.
4	.811	10.1	81.3				
5	.611	7.6	89.0				
6	.439	5.4	94.5				
7	.368	4.5	99.1				
8	.071	.89	100.0				

Extraction Method: Principal Component Analysis.

a. When components are correlated, sums of squared loadings cannot be added to obtain a total variance.

(Source: IBM SPSS Amos)

For Component 1, the initial Eigenvalue is 3.002 and explains 37.522% of the total variance. Component 2's initial Eigenvalue is 1.438, which explains 17.979% of the total variance. The cumulative variance explains 55.501%. Component 3's initial Eigenvalue is 1.260, which explains 15.752% of the total variance. The cumulative variance explained: 71.253%. Components 4 to 8 are not explicitly extracted (Eigenvalues are less than 1). They do not significantly contribute to the variance. When components are correlated, sums of squared loadings cannot be directly added to obtain a total variance. In summary, the first three components capture most of the variance in the data. The factors extracted were then analysed to understand what constructs they represented and how well the variables with high communalities align with these constructs.

TABLE 4: PATTERN MATRIX

	Component		
	NEQFact1	NEQFact2	NEQFact3
Ensuring data security for stakeholders	.916		
Ensuring data privacy for stakeholders	.914		
Addressing ethical concerns related to AI and automation	.713		
Lack of soft skills to achieve deliverables	.605		
Limited stakeholder involvement.		.903	
Difficulty in identifying stakeholder		.819	
Balancing the expectations of multiple stakeholders			.873
Stakeholder resistance to change			.821

Extraction Method: Principal Component Analysis. Rotation Method: Promax with Kaiser Normalization. a
a. Rotation converged in 5 iterations.

(Source: IBM SPSS Amos)

The pattern matrix displays the factor loadings of each variable on the exacted factors, with higher loadings close to 1 indicating a strong relationship between the variables and the factor. The rotation method allows factors to be tested for correlation.
NEQFact1 (Factor 1) indicates high loadings in the following aspects such as ensuring data security for stakeholders with a value of 0.916 as well as providing data for stakeholders with a reading of 0.914, addressing ethical concerns related to AI in automation, which is a value of 0.713 lacking of skills to achieve deliverables as a lower value of 0.605. Analysing the given aspects and their loadings, it seems that this factor constitutes issues related to data security, privacy, ethical concerns, and soft skills. Thus, this factor was interpreted as reflecting "Stakeholder data and skills concerns."

NEQFact2 (Factor 2) indicates high loadings in the following aspects: limited stakeholder involvement, which has a value on the table of 0.903, and difficulty identifying stakeholders on the same Pattern Matrix table, which indicates 0 .819. This was identified as "Stakeholder engagement and identification".

NEQFact3 (Factor 3), his high loadings are for balancing the expectations of multiple stakeholders, which is the value on the pattern matrix of 0.873, and taking all that resistance to change, which on the same pattern matrix is the value of 0.821. This fact was labelled as "Stakeholder expectation, management and resistance."

The structure matrix provides another insight, over and above the pattern matrix, showing the link between variables and factors. This is the understanding of how variables line up with factors.

Analysing the pattern metrics shows that Component 1 has high loadings in various aspects. The aspects are as follows: there is a high loading in "ensuring data security for stakeholders" with a value of 0.920; the next high loading is in the aspect of ensuring data privacy for stakeholders with 0.913; addressing ethical concerns related to an I and automation is next in line with the value of 0.7 0, and finally lack of skills to achieve project deliverables is 0.622. Consistent with the previous interpretation, these aspects can be grouped into "Stakeholder data and skills concerns". Component 2 reflects high loading in issues around "limited stakeholder involvement", which is 0.892 ", difficulty in identifying stakeholders", which has a value of 0.858, and "addressing ethical concerns related to AI in automation", which has a value of 0.303. It can be seen that this is consistent with the previous interpretation that these aspects can be grouped under the banner "Stakeholder engagement and identification".

Component 3 exhibits high loadings in "balancing expectation of multiple stakeholders", with a value of 0.868, as well as Stakeholder resistance to change (0.829) and addressing ethical concerns related to AI in automation (0.303). Inherent in these high loadings is "stakeholder expectation, management and resistance".

Some variables load onto more than one factor, as reflected by the structure matrix above. For example, "addressing ethical concerns related to AI and automation" is one of the factors. This implies that the variable has complex roles in different constructs. Practically speaking, project management organisations must consider these factors when planning projects.

Component Correlation Matrix

TABLE 6: COMPONENT CORRELATION MATRIX

Component	1	2	3
1	1.000	.250	.211
2	.250	1.000	.135
3	.211	.135	1.000

Extraction Method: Principal Component Analysis.
Rotation Method: Promax with Kaiser Normalization.

(Source: IBM SPSS Amos)

The component correlation matrix above displays correlations between the extracted components after the rotation. This matrix helps understand the relationships between the factors.

Components 1 and 2 correlate by 0.250, implying a moderate positive correlation. This suggests that these components seem distinct but share some common variance. Component 1 and Component 3 have a Correlation of 0.21, implying a weak positive between the two. Thus, it can be inferred that these components are mainly independent. Lastly, Component 2 and Component 3 have a very low correlation of 0.135, suggesting that these components are distinct. The low to moderate correlations between components indicate that the factors are relatively independent. This is ideal for clear interpretation and use. Also, given that the components are somewhat independent, the extracted factors represented distinct constructs with high confidence.

B. Component Relationships:

Understanding the correlations between identified components goes a long way in uncovering and understanding patterns and dependencies in the data. For instance, Component 1 (data security and privacy) is highly correlated with Component 3 (balancing stakeholder expectations). This will imply that dealing with security issues invariably impacts stakeholder satisfaction simultaneously. Project Management practitioners can then prioritise efforts based on these identified correlations. In addition, correlations also guide dimensional reductions where applicable. If two components are strongly correlated, analysis is made easier by amalgamating them in further study. This generally tends to lead to more efficiency. Therefore, when using factor or principal component analysis (PCA), interpreting the resulting components becomes easier with correlation insights.

Project Managers can then assign meaningful labels to components based on their relationships. As can be observed, Stakeholder involvement (Component 2) is moderately correlated with balancing expectations (Component 3). Project managers can then consider involving stakeholders earlier to manage expectations effectively. However, high correlations between specific components may be symptoms of potential risks. For example, if data security (Component 1) and stakeholder resistance (Component 3) correlate, addressing security concerns may reduce resistance. The context matters; these practical applications should align with specific organisational goals and project requirements.

C. SEM Quantitative Analyses

The preceding sections discuss the fit statistics around the constructs created for each model's independent variable that originated using the IBM SPSS AMOS Version 29 software. Constructs were identified by factor analysis. They were analysed before they were incorporated into the final model. Fit statics were utilised to assess these individual constructs of the proposed model. The graphical illustrations were obtained from SPSS AMOS Version 29. Evaluations were iterated, and latent variables were updated until a good fit was achieved.

NEQ Factor 1:

The model contains the following variables (Group number 1).

Endogenous variables were observed: NEQ8, NEQ7, NEQ6, NEQ9.

Unobserved, exogenous variables: eNEQ8; eNEQ7; eNEQ6; eNEQ9; NEQDim1.

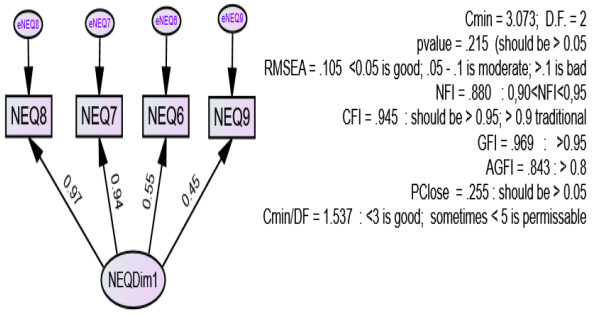


Fig. 1: NEQ Factor 1
(IBM SPSS AMOS SEM Version 27)

TABLE 7: LATENT VARIABLE (NEQDIM1)

ITEM	STATEMENT
NEQ6	Addressing ethical concerns related to AI and automation
NEQ7	Ensuring data privacy for stakeholders
NEQ8	Ensuring data security for stakeholders
NEQ9	Lack of soft skills to achieve deliverables

This represents a construct measured by the observed variables: NEQ8, NEQ7, NEQ6, and NEQ9. The factor loadings indicate how strongly each observed variable is associated with the latent variable [17]. Higher loadings imply stronger relationships between latent factors and observed variables [18]. Model Fit Indices provide insights into how well the model fits the observed data [19]. Cmin (Chi-square value): 3.073, DF (degrees of freedom) = 2. A lower value indicates a better fit [20]. The degrees of freedom help interpret the chi-square result. The p-value is 0.215 (should be >

0.05). A non-significant p-value (>0.05) suggests the model fits the data well. RMSEA (Root Mean Square Error of Approximation) is 0.105. (<0.05 is considered good; 0.05–0.1 is moderate and >0.1 indicates a poor fit); With RMSEA = 0.105, this falls into the "moderate" range, meaning the model is acceptable. NFI (Normed Fit Index): 0.880 (acceptable range is 0.90–0.95) [20]. NFI compares the model to a null model. A value closer to 1 indicates a better fit, but 0.880 is very close to the desired range and thus acceptable. CFI (Comparative Fit Index) is 0.945 (should be >0.95; >0.9 is traditional) (Hair et al. 2018). CFI compares the model fit with a baseline model. 0.945 is close to the 0.95 threshold. This implies a reasonable fit. GFI (Goodness of Fit Index) is 0.969 >0.95 and is considered good. Thus, this value indicates a good fit for the model. AGFI (Adjusted Goodness of Fit Index) 0.843>0.8 is considered acceptable (Hair et al., 2018) as a reflection of model fit. This value also suggests an acceptable fit. PClose is 0.255 (should be >0.05). RMSEA is significantly different from 0. A value >0.05 indicates a good fit.

Another fit measure is Cmin/DF, which is 1.537 (should be <3; sometimes <5 is acceptable). The value of 1.537 affirms a good model fit. The model is reasonably fit based on most fit indices (CFI, GFI, AGFI, PClose, Cmin/DF). However, RMSEA suggests some concerns with the model's approximation error. The NFI is also slightly below the desired threshold. The factor loadings indicate that NEQ8 and NEQ7 are strongly associated with the latent variable, while NEQ6 and NEQ9 show weaker associations (Microsoft Copilot, 2024).

D. Result for Default Model

Minimum was achieved; Chi-square = 3.073; Degrees of freedom = 2; Probability level = .215

Regression Weights: (Group number 1 - Default model)

TABLE 8: REGRESSION WEIGHTS

			Estimate	S.E.	C.R.	P
NEQ8	<---	NEQDim1	1.00			
NEQ7	<---	NEQDim1	.944	.102	9.245	***
NEQ6	<---	NEQDim1	.483	.118	4.083	***
NEQ9	<---	NEQDim1	.484	.153	3.166	.002

(SPSS® AMOS® Version 29)

Path Coefficients and Significance (Microsoft Copilot, 2024):

NEQ8 <— NEQDim1

This path coefficient is fixed to 1.000 to set the scale of the latent variable NEQDim1 as per standard practice in SEM to identify the model.

NEQ7 <— NEQDim1

This path coefficient is statistically significant with (P < 0.001). This indicated a strong positive relationship between NEQDim1 and NEQ7.

NEQ6 <— NEQDim1

This path coefficient is statistically significant (P < 0.001), indicating a moderate positive relationship between NEQDim1 and NEQ6.

NEQ9 <— NEQDim1

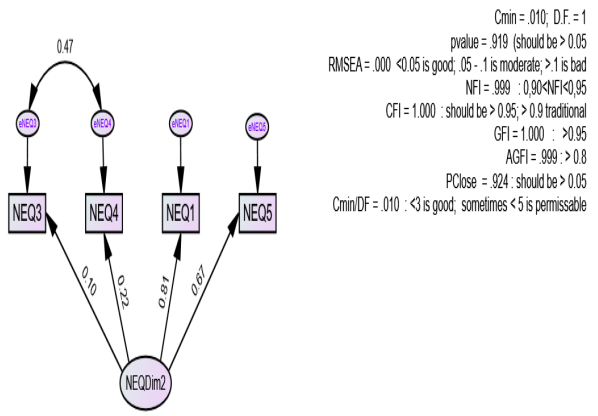
This path coefficient is statistically significant (P < 0.01), indicating a moderate positive relationship between NEQDim1 and NEQ9.

All the path coefficients are statistically significant, indicating that NEQDim1 has a meaningful positive relationship with NEQ8, NEQ7, NEQ6, and NEQ9. Strength of Relationships: The most substantial relationship is between NEQDim1 and NEQ7 (0.944), while the relationships with NEQ6 (0.483) and NEQ9 (0.484) are moderate.

NEQ Factor 2 (Different to FA)

Model Variables: Observed, endogenous variables: NEQ3; NEQ4; NEQ1; NEQ5

Unobserved, exogenous variables: eNEQ3;eNEQ4;eNEQ;eNEQ5;NEQDim2



Fig, 2: NEQDim2

(IBM SPSS AMOS Version 27 SEM)

TABLE 9: NEQDIM2

ITEM	STATEMENT
NEQ1	Difficulty in identifying stakeholder
NEQ3	Stakeholder resistance to change
NEQ4	Balancing the expectations of multiple stakeholders
NEQ5	Limited stakeholder involvement

(Source: Author)

E. Latent Variable (NEQDim2):

NEQDim2 is measured by four observed variables: NEQ3, NEQ4, NEQ1, and NEQ5. The factor loadings (on the arrows) show the strength of association between each observed variable and the latent variable: NEQ3: 0.10 (weak association); NEQ4: 0.22 (weak association); NEQ1: 0.81 (strong association); NEQ5: 0.67 (moderate association). The curved arrow between them also indicates a correlation of 0.47 between NEQ3 and NEQ4. Cmin (Chi-square value): 0.010, DF = 1. This very low value suggests a perfect fit for the model. P-value: 0.919 (should be >0.05). A non-significant p-value (>0.05) indicates that the model fits the data well. RMSEA (Root Mean Square Error of Approximation): 0.000. With RMSEA = 0.000, the model has a perfect fit, as anything below 0.05 is considered excellent. NFI (Normed Fit Index): 0.999 (acceptable range: 0.90–0.95). A value of 0.999 indicates an excellent fit compared to a null model. CFI (Comparative Fit Index) is 1.000 (should be >0.95; >0.9 traditional). A value of 1.000 indicates a perfect fit. GFI (Goodness of Fit Index): 1.000 (>0.95 is considered good). A perfect GFI suggests an excellent fit. AGFI (Adjusted Goodness of Fit Index): 0.999 (>0.8 is considered acceptable), the value of 0.999 indicates a firm fit.PClose: 0.924 (should be >0.05); the PClose test also shows a perfect fit, as the value is well above 0.05. Cmin/DF: 0.010 (should be <3; sometimes <5 is acceptable). A very low Cmin/DF of 0.010 suggests the model fits the data extremely well. To sum it up, the fit indices (RMSEA, CFI, GFI, AGFI, PClose) suggest a nearly perfect model fit with this CFA. All indicators are within excellent ranges. NEQ1 and NEQ5 have stronger associations with the latent factor NEQDim2, while NEQ3 and NEQ4 show weak associations, indicating that these variables may not be as good indicators of the latent factor.

F. Regression Weights

TABLE 10: REGRESSION WEIGHTS

			Estimate	S. E.	C.R.	P
NEQ1	<---	NEQDim2	1.000			
NEQ5	<---	NEQDim2	.668	.577	1.158	.247
NEQ3	<---	NEQDim2	.114	.197	.578	.563
NEQ4	<---	NEQDim2	.192	.184	1.042	.298

(IBM SPSS AMOS SEM Version 27)

The above table breaks down the provided estimates for the relationships between the latent variable NEQDim2 and the observed NEQ1, NEQ5, NEQ3, and NEQ4.

Path Coefficients and Significance:

NEQ1 <— NEQDim2:

This path coefficient is fixed to 1.000 to set the scale of the latent variable NEQDim2. This is a common practice in SEM to identify the model (Microsoft Copilot, 2024).

NEQ5 <— NEQDim2:

This path coefficient is not statistically significant (P > 0.05). This implies that the relationship between NEQDim2 and NEQ5 is not considered necessary.

NEQ3 <— NEQDim2:

This path coefficient is not statistically significant (P > 0.05), indicating that the relationship between NEQDim2 and NEQ3 is insignificant.

NEQ4 <— NEQDim2:

This path coefficient is not statistically significant (P > 0.05), suggesting that the relationship between NEQDim2 and NEQ4 is insignificant. As seen from the above relationships, none of the path coefficients, except the fixed one, are statistically significant, indicating that NEQDim2 does not directly affect NEQ5, NEQ3, or NEQ4 in this model. The relationships between NEQDim2 and NEQ5, NEQ3, and NEQ4 are weak and not statistically significant.

In the final Model, NeoFact1, EMFact1, SSFact1, and SSFact2 were significant predictors of PSFact. The path coefficients from NeoFact1, EMFact1, SSFact1, and SSFact2 to PSFact suggested that all four factors, in various degrees, contributed to influencing PSFact. EMFact1 and SSFact1 had relatively high path coefficients (0.30 and 0.29, respectively), while SSFact2 had the slightest impact (0.15). The standardised path coefficients were substantial enough to suggest that these factors were significant predictors of PSFact. Therefore, Hypothesis 1 was supported by the data. (Microsoft Copilot, 2024).

This was in line with the finding by [21], who commented on the role played by different stakeholders and said locals responded differently to the proposed technological implementation. For the more sophisticated business subsidiaries, the reaction was to argue that more benefits would accrue if their existing systems could be integrated into the new global system. [14] also found that methodology, tools, and techniques significantly and positively influence IT Project Success. Project managers must adapt their skill sets and embrace collaboration with AI to remain relevant in the evolving landscape [22].

V. CONCLUSIONS

As can be seen from the above analysis, the main challenges around “Balancing expectations," "limited stakeholder involvement," "ensuring data privacy," and "stakeholder resistance to change" are seen as the most challenging areas. There is less agreement on “Difficulty in identifying stakeholders" and "lack of soft skills", which show more divided opinions. The findings were consistent with other authors. Studies have associated project failures with poor stakeholders’ performance [16]. Developers face several challenges. These include a lack of control over document presentation, a lack of control over document presentation, and a lack of control over entry points to the site [23]. The other challenge is that potential users come from diverse backgrounds, embracing a wide range of cultures and languages, amongst other things. [24] IT project constraints are classified into two types: business constraints and technical constraints. The former relates to constraints resulting from organisational management issues, including financial challenges and operational matters on the client’s side, and the latter looks at organisational resources challenges.

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