Information Technology Processes Alignment Maturity as a Driver of Software as a Service Digital Transformation

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ABSTRACT

As organizations continue to embrace Software as a Service (SaaS) to streamline their ICT operations, the success of these digital transformation efforts increasingly depends on how mature and aligned their internal IT processes are. This study investigates the role of IT process alignment maturity as a key driver of SaaS adoption and effectiveness. Specifically, it evaluates how different maturity dimensions such as documentation, standardization, transparency, measurability, and flexibility, influence successful SaaS integration across enterprise functions. Using a quantitative approach, data was collected through a structured questionnaire targeting IT professionals in public universities in Kenya. Binary logistic regression was applied to determine the relationship between IT process maturity and various SaaS adoption outcomes, including tools like ERP, CRM, collaboration platforms, and productivity suites. The results demonstrate that organizations with higher levels of IT process maturity particularly in the areas of standardization and control have significantly greater success in adopting SaaS solutions. These findings offer practical insights for IT leaders seeking to enhance digital transformation efforts and contribute to ongoing discussions about the strategic alignment of IT operations with cloud technologies.

Keywords: IT Process Alignment Maturity, SaaS Adoption, Digital Transformation, Cloud Computing

INTRODUCTION

Cloud computing has redefined how contemporary organizations deploy and manage software applications, with Software as a Service (SaaS) solutions enabling flexibility, cost reduction, and streamlined IT operations [1]. [12] categorized cloud computing systems and emphasized the role of IT governance in determining cloud adoption success. However, successful SaaS digital transformation is not merely a technological shift, but requires well-defined and maturely aligned IT processes. According to [15], the success of organizations transitioning towards cloud computing Software as a Service (SaaS) depends on the maturity and alignment of IT processes.

Many organizations face significant implementation barriers due to poorly structured IT processes, leading to security vulnerabilities, compliance risks, inefficient workflows, and integration failures [6]. Misaligned or immaturely aligned IT processes often lead to operational inefficiencies, integration challenges, security risks, inefficiencies and resistance to digital transformation ([10], [16]). Existing research suggests that IT-business alignment plays a critical role in cloud computing success [14]. [8] highlighted the dependence of business outcomes from cloud adoption on the alignment between IT processes and digital transformation objectives.

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Despite these insights, research on how IT process maturity alignment affects SaaS digital transformation outcomes remains limited [5]. This leads to a gap in understanding how IT process maturity alignment influences SaaS digital transformation. This study addresses this gap by using empirical analysis to establish the relationship between IT processes alignment maturity and SaaS transformation outcomes. According to [9], organizations with well-documented, standardized, and predictable IT processes are better positioned to integrate SaaS solutions. While previous research has explored IT-business alignment and cloud computing adoption [14], few studies have empirically examined how IT processes alignment maturity influences SaaS digital transformation. This study bridges this gap by evaluating IT process maturity alignment on SaaS digital transformation. According to [3], without a clear understanding of how IT process factors influence SaaS success, organizations risk delayed deployments, cost overruns, and resistance to adoption

This study aimed to evaluate IT process maturity alignment as a driver of SaaS digital transformation and was guided by three objectives: (1) To assess how the maturity of IT process alignment influences the success of SaaS digital transformation in organizations (2) to identify the key IT maturity alignment dimensions that drive SaaS transformation, and (3) To provide empirical evidence that supports both theoretical and practical approaches to aligning IT processes with SaaS deployment strategies

Conceptual Framework

Fig. 1 shows the conceptual framework of the study, indicating IT alignment maturity dimensions in relation to SaaS outcomes.

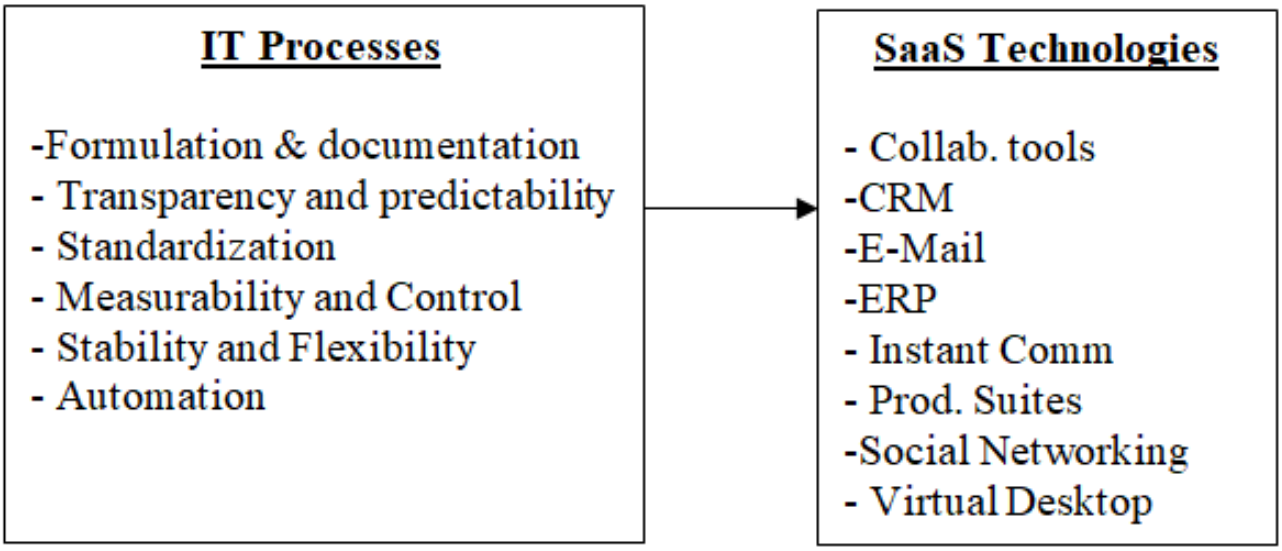

Figure 1: Conceptual Framework

Components of IT Process (Independent variables) studied were: IT process automation, standardization; transparency and predictability; stability and flexibility; formulation and documentation, and process measurability and control. Components of SaaS (Dependent variables) studied were: collaborative tools, customer relationship management (CRM) tools, electronic mail (E-mail), enterprise resource planning (ERP), instant communication, productivity suites, social networking and implementation of virtual desktop.

MATERIALS AND METHODS

This section outlines the methods and procedures used to examine the maturity alignment of IT processes and SaaS digital transformation. A Quantitative cross-sectional study design was adopted to analyze and quantify the impact of IT processes maturity alignment on SaaS adoption success. According to [7], research design provides a strategy or an outline for data collection and analysis. This approach was concerned with deductively testing and examining associations/relationships affecting IT processes (independent variables) maturity alignment with SaaS digital transformation (dependent variables). Quantitative research approach emphasizes generalization and approach to methods with goals of objectivity and standardization [11].

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Primary data was collected using structured online surveys distributed among 124 public university ICT staff. Online surveys offer a cost-effective and efficient way to collect data quickly and retain key benefits of self-administered questionnaires while additionally improving upon traditional survey methods. The speed, affordability, and convenience of online surveys makes appealing for researchers and organizations alike. ([4], [13]).

Purposive sampling was used to select two public universities i.e. the University of Nairobi and Moi University in Kenya. Random sampling technique ensured unbiased participant selection. Participants were first provided with an orientation on the study's purpose, followed by a 30-minute task to complete an online questionnaire. Data was analyzed using R 4.4.0 for statistical analysis software. Descriptive, Spearman's correlation, logistic regression and random forest techniques were employed. Accuracy and precision metrics guided the choice between logistic regression and random forest methods. The questionnaire was pre-tested with a small focus group to ensure clarity and reliability of responses. The sample size was limited to 124 participants due to resource constraints, which may affect the generalizability of findings. The selected research design provided the researchers with a framework to guide data collection, analysis and reporting or results [2]

RESULTS

This section presents study findings based on primary data gathered from surveys. The study investigated the maturity alignment of IT processes towards SaaS digital transformation (Fig. 1). Descriptive an inferential analysis was performed. Advanced analysis and Discussion are presented in the next section.

A. Descriptive Findings

1) Information Technology Processes: Performance of IT processes was a key question for the study as far as technology independent variable was concerned. Survey participants were asked to respond to Likert scale questions and register their opinion on the extend of applicability of six key statements on IT processes as shown in Table 1.

Table 1 Extent of applicability of IT processes

	Responses (n=92)			
Statements on IT Processes	**Low**	**Moderate**	**High**	**TOTAL**
	n (%)	**n (%)**	**n (%)**	**n (%)**
Automation	2 (2%)	36 (39%)	54 (59%)	92 (100%)
Standardization	9 (10%)	29 (32%)	54 (59%)	92 (100%)
Transparency and Predictability	11 (12%)	28 (30%)	53 (58%)	92 (100%)
Stability and Flexibility	10 (11%)	34 (37%)	48 (52%)	92 (100%)
Formulation and Documentation	11 (12%)	34 (37%)	47 (51%)	92 (100%)
Measurability and Control	14 (15%)	35 (38%)	43 (47%)	92 (100%)

Results suggest that majority of respondents at 59% agree to IT processes automation by selecting 'to a great extent' or 'to a very great extent'. A paltry 2% of the respondents did not agree with this statement, while many at 39 percent indicated their opinion as to a moderate extent. For IT process standardization, 59% agree to a great extent while 32% agreed to a moderate extent, with 10% disagreeing. 58% of the respondents agreed to a great extent of IT processes transparency and predictability with 30% agreeing to a moderate extent as 12% indicating that it was to little or no extent. For IT process stability and flexibility many at 52 % agreed to a great extent while as many as 37% agreed to a great extent. For IT processes formulation and documentation, 51% agreed to a great to a great extent while 37% agreed to a moderate extent as few at 12% registering a contrary opinion. Lastly, IT processes measurability and control were agreed to affirmatively by most respondents (47%) and moderately by 38%.

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2) Implementation of Software as a Service: Similarly, the study gathered data concerning the implementation of SaaS in the institutions. Fig. 2 illustrates the percentage distribution of responses on implementation of SaaS technologies.

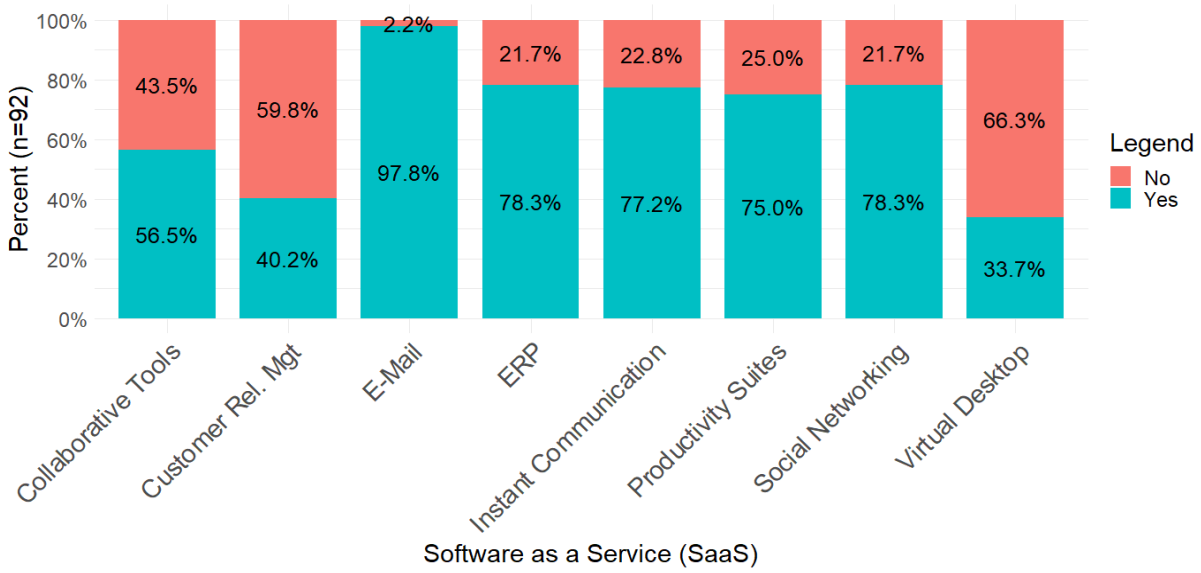

Figure 2: Segmented bar chart for Software as a Service (SaaS) Implementation

On SaaS implementation as shown in Fig. 2, 57% of respondents agreed implementation of collaborative tools, while for implementation of CRM, less than half (40%) agreed to its implementation. Concerning implementation of e-mail, as expected a resounding majority at 98% agreed to its implementation. Regarding implementation of cloud ERP's 78% registered their affirmation. On cloud instant communication technologies, majority at 77% indicated their implementation, while for productivity suites 75% registered their opinion as being implemented. With regard to of social networking, majority at 78% indicated their affirmation of its implementation. Finally concerning cloud implementation of virtual desktop, majority at 66% indicated its implementation.

B. Inferential Findings

Bivariate statistical analysis for associations/relationships between the study independent and dependent variables was performed. Pairwise Spearman correlation (ρ) tests were performed to determine the monotonic relationships/associations between the independent and dependent variables under study. This analysis step proofed useful in providing insights on the magnitude and directions of the associations and their statistical significance based on the probability values (P-Values). The associated p-values were used to determine maturity alignments or otherwise to SaaS digital transformation components.

Table 2, shows specific results and interpretations of correlations of the independent and dependent variables of the study. The spearman correlation coefficients, the probability value (p-value) and result interpretation are shown.

Table 2 Pairwise Correlation for Information Technology Processes and SaaS

Predictor	SaaS Outcome	Spearman Corr.	P-Value	Result
Formulation and documentation of IT processes (TPA1)	Collab. tools	0.477	0.021	Moderate and Significant
	Instant comm.	0.529	0.016	Strong and Significant
	CRM	0.556	0.008	Strong and Significant
	E-mail	0.262	0.047	Weak and Significant
	ERP	0.518	0.007	Strong and Significant
	Prod. suites	0.476	0.022	Moderate and Significant
	Soc. net	0.459	0.035	Moderate and Significant
	Virtual desktop	0.139	0.065	Weak and Insignificant

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Transparency and predictability of IT processes (TPA2)	Collab. tools	0.335	0.025	Moderate and Significant
	Instant comm.	0.619	0.008	Strong and Significant
	CRM	0.318	0.090	Moderate / insignificant
	E-mail	0.504	0.016	Strong and Significant
	ERP	0.454	0.026	Moderate and Significant
	Prod. suites	0.580	0.004	Strong and Significant
	Soc. net	0.342	0.039	Moderate and Significant
	Virtual desktop	0.130	0.079	Weak and Insignificant
Standardization of IT processes (TPA3)	Collab. tools	0.380	0.023	Moderate and Significant
	Instant comm.	0.158	0.062	Weak and Insignificant
	CRM	0.336	0.045	Moderate and Significant
	E-mail	0.425	0.023	Moderate and Significant
	ERP	0.552	0.038	Strong and Significant
	Prod. suites	0.103	0.061	Weak and Insignificant
	Soc. net	0.247	0.055	Weak and Insignificant
	Virtual desktop	0.401	0.024	Moderate and Significant
Measurability and control of IT processes (TPA4)	Collab. tools	0.182	0.063	Weak and Insignificant
	Instant comm.	0.319	0.034	Moderate and Significant
	CRM	0.614	0.029	Strong and Significant
	E-mail	0.348	0.022	Moderate and Significant
	ERP	0.416	0.025	Moderate and Significant
	Prod. suites	0.510	0.015	Strong and Significant
	Soc. net	0.234	0.056	Weak and Insignificant
	Virtual desktop	0.372	0.025	Moderate and Significant
Stability and flexibility (TPA5)	Collab. tools	0.198	0.068	Weak and Insignificant
	Instant comm.	0.142	0.067	Weak and Insignificant
	CRM	0.375	0.035	Moderate and Significant
	E-mail	0.458	0.014	Moderate and Significant
	ERP	0.316	0.031	Moderate and Significant
	Prod. suites	0.245	0.052	Weak and Insignificant
	Soc. net	0.150	0.071	Weak and Insignificant
	Virtual desktop	0.170	0.065	Weak and Insignificant
Automation of IT processes (TPA6)	Collab. tools	0.287	0.049	Weak and Significant
	Instant comm.	0.341	0.034	Moderate and Significant
	CRM	0.465	0.014	Moderate and Significant
	E-mail	0.623	0.018	Strong and Significant
	ERP	0.377	0.024	Moderate and Significant
	Prod. suites	0.449	0.008	Moderate and Significant
	Soc. net	0.525	0.043	Strong and Significant
	Virtual desktop	0.137	0.069	Weak and Insignificant

From Table 2, the study evidently deduced that different aspects of independent variable i.e. IT Processes correlated with varying degrees of magnitude and significance with different aspects of the output variable, i.e. SaaS. Paired predictor and outcome variables with resulting correlations strengths ($\rho > \pm 0.3$) ranging from moderate to very strong with statistical significance ($P < 0.05$) were appraised as sufficiently associated / correlated and thus, judged as maturely aligned. On the contrary, correlation analyses resulting in strengths ($\rho < \pm 0.3$) ranging from very weak to weak with statistical insignificance ($P > 0.05$) were estimated to have negligible to no associations / correlations and thus, not acknowledged as sufficiently maturely aligned.

DISCUSSION

Informed by the preliminary correlation analyses performed, predictor variables that exhibited substantial correlation magnitudes ($\geq \pm 0.3$) with statistical significance ($p < 0.05$) were deemed to be maturely aligned and were selected for advanced multivariate analysis to ascertain the effect sizes on the dependent variable.

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Logistic regression and random forest analysis techniques were applied. Correlations that exhibited magnitudes below ±0.3, i.e., weak to very weak associations, with statistical insignificance ($p > 0.05$), were excluded from the analysis. This guaranteed that only variables with meaningful and robust associations/correlations were utilised as key drivers of SaaS digital transformation.

Logistic regression and random forests advanced analysis, offered unique strengths and capabilities. Logistic regression was used to quantify the likelihood and effect sizes of predictors (IT process components) on the binary outcomes (SaaS components). This method was particularly effective in quantifying the impact of distinct predictors on the likelihood of a particular dependent variable, and offered clear interpretability through resultant exponentiated coefficients i.e., the odds Ratio (OR). Random forest analysis proved useful for enhancing accuracy and robustness of results. Two key metrics of evaluation i.e., accuracy and precision were used to guide the choice of better results between logistic regression and random forest analysis. The results of the two analyses techniques were compared, and the analysis that exhibited better performance was selected for reporting, interpretation and discussion. The significance of utilizing these two techniques was to capture the strengths of each approach, ensuring a balance of interpretability, accuracy and robustness of the results.

Logistic regression analysis showed better accuracy and precision results for collaborative tools, E-mail, ERP, Productivity suites and virtual desktop as compared to random forest analysis for the same. On the contrary random forest analysis showed better accuracy and precision results for instant communication, CRM and social networking dependent variables.

Table 3 summarizes results of binary logistic regression performed of the selected predictors based on their accuracy and precision strengths.

Table 3 IT Processes and SaaS Logistic Regression Analysis Results

				95% Confidence Interval for Odds Ratio (OR)		
SaaS Outcome	**Predictor**	**Estimate**	**SE**	**Lower**	**OR**	**Upper**
Collaborative tools	(Intercept)	0.31				
	TPA1	0.45	0.12	1.23	1.56	1.98
	TPA2	0.44	0.10	1.28	1.55	1.86
	TPA3	0.39	0.13	1.13	1.48	1.92
E-Mail	(Intercept)	0.32				
	TPA2	0.53	0.16	1.24	1.71	2.35
	TPA3	0.45	0.12	1.23	1.56	1.99
	TPA4	0.38	0.22	0.96	1.47	2.25
	TPA5	0.46	0.14	1.19	1.58	2.09
	TPA6	0.59	0.20	1.23	1.81	2.66
ERP	(Intercept)	0.30				
	TPA1	0.49	0.17	1.16	1.63	2.29
	TPA2	0.49	0.13	1.28	1.64	2.10
	TPA3	0.51	0.14	1.27	1.67	2.19
	TPA4	0.44	0.20	1.04	1.55	2.31
	TPA5	0.35	0.13	1.09	1.41	1.83
	TPA6	0.41	0.24	0.93	1.50	2.42
Productivity suites	(Intercept)	0.44				
	TPA1	0.50	0.12	1.29	1.64	2.08
	TPA2	0.48	0.14	1.24	1.62	2.11
	TPA4	0.56	0.15	1.30	1.75	2.36
	TPA6	0.45	0.08	1.33	1.57	1.85
Virtual desktop	(Intercept)	0.35				
	TPA3	0.44	0.12	1.22	1.55	1.98
	TPA4	0.40	0.13	1.17	1.50	1.91

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Results (Table 3) indicate that for the outcome variable 'collaborative tools' using selected predictors, the estimated effect for the predictor 'formulation and documentation of IT processes' was β = 0.45 (SE = 0.12). This indicates that this variable is associated with 1.56 times higher odds of digital transformation to 'collaborative tools' occurring. The 95% confidence interval for this estimate ranged from 1.23 to 1.98, signifying a statistically significant effect. This imply that 'formulation and documentation of IT processes' is linked to a 56% higher likelihood of digital transformation to 'collaborative tools' SaaS.

Other variables in the analysis include: Transparency and predictability of IT processes: β = 0.44 (SE = 0.10), associated with 1.55 times higher odds of digital transformation to 'collaborative tools' occurring. The 95% confidence interval ranged from 1.28 to 1.86, signifying a statistically significant effect. This suggests that 'transparency and predictability of IT processes' is linked to a 55% higher likelihood of digital transformation to 'collaborative tools' in cloud computing; standardization of IT processes: β = 0.39 (SE = 0.13), associated with 1.48 times higher odds of digital transformation to 'collaborative tools' occurring. The 95% confidence interval ranged from 1.13 to 1.92, signifying a statistically significant effect. This suggests that 'standardization of IT processes' is linked to a 48% higher likelihood of digital transformation to 'collaborative tools' in cloud computing.

For the dependent variable 'e-mail', the estimated effect for the independent variable 'transparency and predictability of IT processes' was β = 0.53 (SE = 0.16). This indicates that this variable is associated with 1.71 times higher odds of digital transformation to 'e-mail' occurring. The 95% confidence interval for this estimate ranged from 1.24 to 2.35, signifying a statistically significant effect. This suggests that 'transparency and predictability of IT processes' is linked to a 71% higher likelihood of digital transformation to 'e-mail' in cloud computing.

Other selected variables in this category include: Standardization of IT processes: β = 0.45 (SE = 0.12), associated with 1.56 times higher odds of digital transformation to 'e-mail' occurring. The 95% confidence interval for this estimate ranged from 1.23 to 1.99, signifying a statistically significant effect. This suggests that 'standardization of IT processes' is linked to a 56% higher likelihood of digital transformation to 'e-mail' in cloud computing; measurability and control of IT processes: β = 0.38 (SE = 0.22). This indicates that this predictor is associated with 1.47 times higher odds of digital transformation to 'e-mail' occurring. The 95% confidence interval for this estimate ranged from 0.96 to 2.25, signifying a statistically significant effect. This suggests that 'measurability and control of IT processes' is linked to a 47% higher likelihood of digital transformation to 'e-mail' in cloud computing; stability and flexibility of IT processes: β = 0.46 (SE = 0.14). This indicates that this predictor is associated with 1.58 times higher odds of digital transformation to 'e-mail' occurring. The 95% confidence interval ranged from 1.19 to 2.09, signifying a statistically significant effect. This suggests that 'stability and flexibility of IT processes' is linked to a 58% higher likelihood of digital transformation to 'e-mail' in cloud computing; automation of IT processes: β = 0.59 (SE = 0.20). This indicates that this predictor is associated with 1.81 times higher odds of digital transformation to 'e-mail' occurring. The 95% confidence interval for this estimate ranged from 1.23 to 2.66, signifying a statistically significant effect. This suggests that 'automation of IT processes' is linked to 81% higher likelihood of digital transformation to 'e-mail' in cloud computing.

Analysis for the dependent variable 'ERP' showed several variables. The estimated effect for the predictor 'formulation and documentation of IT processes' was β = 0.49 (SE = 0.17). This indicates that this variable is associated with 1.63 times higher odds of digital transformation to 'ERP' occurring. The 95% confidence interval for this estimate ranged from 1.16 to 2.29, signifying a statistically significant effect. This suggests that 'formulation and documentation of IT processes' is linked to a 63% higher likelihood of digital transformation to 'ERP' in cloud computing.

Other variables in this analysis were: Transparency and predictability of IT processes: β = 0.49 (SE = 0.13). This indicates that this variable is associated with 1.64 times higher odds of digital transformation to 'ERP' occurring. The 95% confidence interval for this estimate ranged from 1.28 to 2.10, signifying a statistically significant effect. This suggests that 'transparency and predictability of IT processes' is linked to a 64% higher likelihood of digital transformation to 'ERP' in cloud computing; standardization of IT processes: β = 0.51 (SE = 0.14), associated with 1.67 times higher odds of digital transformation to 'ERP' occurring. The 95%

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confidence interval for this estimate ranged from 1.27 to 2.19, signifying a statistically significant effect. This suggests that 'standardization of IT processes' is linked to a 67% higher likelihood of digital transformation to 'ERP' in cloud computing; measurability and control of IT processes: β = 0.44 (SE = 0.20), associated with 1.55 times higher odds of digital transformation to 'ERP' occurring. The 95% confidence interval ranged from 1.04 to 2.31, signifying a statistically significant effect. This suggests that 'measurability and control of IT processes' is linked to a 55% higher likelihood of digital transformation to 'ERP' in cloud computing; stability and flexibility of IT processes: β = 0.35 (SE = 0.13), associated with 1.41 times higher odds of digital transformation to 'ERP' occurring. The 95% confidence interval ranged from 1.09 to 1.83, signifying a statistically significant effect. This suggests that 'stability and flexibility of IT processes' is linked to a 41% higher likelihood of digital transformation to 'ERP' in cloud computing; automation of IT processes: β = 0.41 (SE = 0.24), associated with 1.50 times higher odds of digital transformation to 'ERP' occurring. The 95% confidence interval ranged from 0.93 to 2.42, signifying a statistically significant effect. This suggests that 'automation of IT processes' is linked to a 50% higher likelihood of digital transformation to 'ERP' in cloud computing.

In the analysis for the dependent variable 'productivity suites', the estimated effect for the independent variable 'formulation and documentation of IT processes' was β = 0.50 (SE = 0.12). This indicates that this predictor is associated with 1.64 times higher odds of digital transformation to 'productivity suites' occurring. The 95% confidence interval ranged from 1.29 to 2.08, signifying a statistically significant effect. This suggests that 'formulation and documentation of IT processes' is linked to a 64% higher likelihood of digital transformation to 'productivity suites' in cloud computing.

Other variables in the analysis include: Transparency and predictability of IT processes: β = 0.48 (SE = 0.14), associated with 1.62 times higher odds of digital transformation to 'productivity suites' occurring. The 95% confidence interval ranged from 1.24 to 2.11, signifying a statistically significant effect. This suggests that 'transparency and predictability of IT processes' is linked to a 62% higher likelihood of digital transformation to 'productivity suites' in cloud computing; measurability and control of IT processes: β = 0.56 (SE = 0.15), associated with 1.75 times higher odds of digital transformation to 'productivity suites' occurring. The 95% confidence interval ranged from 1.30 to 2.36, signifying a statistically significant effect. This suggests that 'measurability and control of IT processes' is linked to a 75% higher likelihood of digital transformation to 'productivity suites' in cloud computing; automation of IT processes: β = 0.45 (SE = 0.08). This indicates that this predictor is associated with 1.57 times higher odds of digital transformation to 'productivity suites' occurring. The 95% confidence interval ranged from 1.33 to 1.85, signifying a statistically significant effect. This suggests that 'automation of IT processes' is linked to a 57% higher likelihood of digital transformation to 'productivity suites' in cloud computing.

For the analysis for the dependent variable 'virtual desktop', the estimated effect for the predictor 'standardization of IT processes' was β = 0.44 (SE = 0.12). This indicates that this variable is associated with 1.55 times higher odds of digital transformation to 'virtual desktop' occurring. The 95% confidence interval for this estimate ranged from 1.22 to 1.98, signifying a statistically significant effect. This suggests that 'standardization of IT processes' is linked to a 55% higher likelihood of digital transformation to 'virtual desktop' in cloud computing. The other variable in this model is 'measurability and control of IT processes' with β = 0.40 (SE = 0.13). This indicates that this predictor is associated with 1.50 times higher odds of digital transformation to 'virtual desktop' occurring. The 95% confidence interval for this estimate ranged from 1.17 to 1.91, signifying a statistically significant effect. This suggests that 'measurability and control of IT processes' is linked to a 50% higher likelihood of digital transformation to 'virtual desktop' in cloud computing.

Table 4 exhibits result of random forest analysis for outcome variables that showed strength based on accuracy and precision.

Table 4 IT Processes and SaaS Random Forests Analysis Results

SaaS Outcome	Predictor	Feature Importance	Rank
Instant Comm.	TPA2	0.37	1
	TPA4	0.33	2
	TPA6	0.30	3

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CRM	TPA4	0.38	1
	TPA1	0.34	2
	TPA3	0.28	3
Social Network	TPA2	0.51	1
	TPA6	0.49	2

For the outcome variable ‘instant communication' three predictor variables were identified as significant contributors based on their feature importance (FI) scores. The variable 'transparency and predictability of IT processes (TPA2)' had a feature importance score of 0.37 indicating it plays the most critical role as a key driver of digital transformation to 'instant communication' in cloud computing. Other key variables, such as 'measurability and control of IT processes (TPA4)'(FI = 0.33) and 'automation of IT processes (TPA6)' (FI = 0.30) also contribute meaningfully, and proved important as key drivers of SaaS digital transformation.

For the analysis of the outcome variable 'customer relationships management' the variable 'measurability and control of IT processes (TPA4)' had a feature importance score of 0.38 indicating it plays the most critical role as a driver of digital transformation to 'customer relationships management' SaaS. Other key variables, such as 'formulation and documentation of IT processes (TPA1)'(FI = 0.34) and 'standardization of IT processes (TPA3)'(FI = 0.28) also contribute meaningfully as key drivers of digital transformation to CRM.

For the analysis of dependent variable 'social networking' the variable 'transparency and predictability of IT processes (TPA2)' had a feature importance score of 0.51 indicating it plays the most critical role as a key driver of digital transformation to 'social networking' in cloud computing while 'automation of IT processes (TPA6)'(FI = 0.49) also contribute meaningfully, but to a lesser extent and remain important as a driver of social networking SaaS.

CONCLUSION

In conclusion, this study set out to assess how the maturity alignment of IT processes influences the success of Software as a Service (SaaS) digital transformation. Results highlights the critical role that well-documented, standardized, transparent, and measurable IT processes play in positioning organizations to adopt and benefit from SaaS applications such as ERP, CRM, and collaborative tools. Among the dimensions examined, standardization, stability and measurability emerged as the most influential in driving SaaS digital transformation.

The study contributes to the theoretical understanding of SaaS digital transformation by advancing a structured view of IT process maturity alignment as a key enabler of SaaS success. It bridges the gap between IT governance frameworks and SaaS outcomes by providing quantitative evidence of how specific process dimensions influence transformation. This adds a layer of precision to existing models of IT alignment and maturity by linking them directly with modern SaaS adoption scenarios.

For practitioners, the findings offer clear direction: successful SaaS transformation is not just about adopting cloud tools, but requires foundational IT processes that are maturely aligned, predictable, and optimized. Organizations can use these insights to assess and improve their internal IT processes during SaaS implementation. This can lead to successful transitions, better user acceptance, and more strategic outcomes from cloud investments.

Future studies can expand on this work by exploring similar maturity alignment dynamics in other cloud service models such as Infrastructure as a Service (IaaS) and Platform as a Service (PaaS) and also in other sectors such as healthcare, banking or other geographies beyond the scope of the study. Longitudinal studies could further examine how maturity alignment evolves over time and how it influences sustained SaaS digital transformation success.

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