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Exploring Technology's Impact on Digitalization, Leadership, and Employee Performance: A Case Study of Local Authorities in Mauritius

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ABSTRACT

This study examines the relationship between digitalization and employee performance in local authorities in Mauritius, focusing on resistance to change, employee engagement, leadership, resources, education, and the success of digital initiatives like the Innovative Council. Using primary data from an online survey analyzed via Statistical Package for the Social Sciences, positive relationships were found between employee performance, workplace culture, and digitalization level. However, leadership support had an unexpected inverse effect. Recommendations include enhancing digital infrastructure, refining training, and promoting workplace culture, emphasizing further research on leadership's role.

1. Introduction

The research work entails exploring how digitalisation is altering ways of working in Mauritian LAs (Local Authorities). The I-Council (Innovative Council) project is a key factor of digital transformation. In a nutshell, the key objective of the project is to boost employee performance through implementation of technological tools/platforms such as CPM (Council Project Management), an ERP (Enterprise Resource Planning) software and incorporating GIS (Geographic Information System) in daily work processes. These allow optimising the administrative processes, assist in managing the data/information and enhance the quality of services delivered by the LAs.

Clarity is fundamental from the outset that the I-Council project is not limited to technological implementation, but instead comprises of an overhaul of business processes, organisation culture change and encompasses change in the day-to-day activities of each individual within LAs. The conventional way of working is being shaken by the digital transformation which consisted of re-examination of established methodologies to develop in-house technological initiatives. The effectiveness of employees in adapting to these digital tools is a key determinant in the project's success. The success of this project in the District Council of Moka has led to the desire to extend the project to all LAs.

It is far too simplistic to consider change only on the technological level, the equation needs to consider the human aspect, thus highlighting the importance of change management in ensuring smooth transition. Adequate strategic approach has to be employed so as to guide staff fluidly throughout adjustments and overcoming potential resistance to leverage the benefits brought forth by the digitalisation initiative (Masud, Jafrin, Mohammad Saif and Mamun, 2023). The I-Council project englobes the technological aspect through utilisation of digital tools while the human resources have to be managed for the fruitful implementation of the project.

The matter of how employees can understand and deal with how the application of digital initiatives can impact on LAs employee performance is of invaluable importance to this study. The implementation of the project directly affects LA employees as they have to adapt their skillset, habitual activities, responsibilities and overall approach to work, shifting from traditional methods a more digital based approach. The shift itself is not just a technical piece of adjustment but is a transformative change capable of changing their role nature and responsibilities (Olanipekun, Olanipekun, Bamidele and Awe, 2023).

The issue that is most pertinent is resistance to change. There are long serving staff members who are well acquainted with established practices, they may be hesitant or uncomfortable to embrace the digital initiatives. The presence of resistance may be detrimental to the smooth incorporation of the I-Council project,

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thus suppressing the deriving of potential benefits. Disparity in the level of digital literacy of employees and lack of training to cater for such shortcomings tends to raise resistance, yielding in a more challenging project implementation (Wijonarko and Amaliyah, 2023).

A step backwards may be required to take a leap forward, as such digitalisation may have an initial adverse effect on employee performance. The number of digital transformation initiatives in the public sector is limited and their implementation caused disruption in operations initially. The adoption of new technology is not without risk, it comprises of changing work procedures and involve technical malfunctions that can have a temporary impact on employee efficiency and quality of service delivered. This implies that the digitalisation endeavour will directly impact employee performance whether positively or negatively but short-term negative impact should not take merit away from the project.

In this scenario, there is another aspect which relates to change management because change management is essential to managing the human aspect of this transformation. Without a well-designed and customised change management plan, employees may not adapt, causing project delays, cost overruns, and compromising productive achievement of project objectives.

The study seeks to evaluate the impact of digitalisation, brought by initiatives such as the I-council project in LAs and how those changes have contributed towards improving employee performance.

The Research Objectives guide the investigation towards specific goals:

1. Employee Engagement: Investigate the level of engagement demonstrated by employees towards the digitalisation initiatives.
2. Performance Impact: The research quantifies the direct and indirect effects of digitalisation on employee performance metrics, such as productivity, service quality, and responsiveness.
3. Role of Leadership: Access the role of leadership in successful implementation of the digitalisation initiative, how leadership supports the endeavour and encourages employees.
4. Resource Availability: Examining the availability of the adequacy of resources available in the context of a digitalised working environment.
5. Residence to Change: To identify whether the success of the digitalisation endeavour has been impeded by the digitalisation endeavour, taking into consideration long-serving staff used with a particular way of working.
6. Education Impact: Accessing the role of education level in the success of implementing a digitalised work environment as digital literacy is fundamental.
7. Digitalisation Success: Any desire for change in work processes is fuelled to some extent by the desire to improve productivity, therefore the study examines the success of the change in improving employee performance.

The primary objective of study is to address the research gap in LAs and technology adoption. The study on digitalisation is likely to see considerable impact on employee performance. Consequently, it is fundamental to investigate the major effects of digitalisation on the traditional work environment. The study could lead to findings that are crucial in the formulation of polices, strategies and tactics that will promote effective implementation of technology with LAs. The research will bring forth a comprehensive understanding of the sector complexity, potential benefits and allow optimisation of strategy in regards to digitalisation initiatives in not only Mauritius but also worldwide.

The significance of the research is also vindicated, courtesy of the burden on change management in any change process. Success of a change process necessitates effort to be channelled in change management to guarantee a smooth transition for employees. Positive change management leads to minimal disruption in work while ineffective change management can lead to employees becoming alienated. This study also provides an enhanced sense of investigation as it highlights the role of change management in boosting employee adaptability which essentially adds to the knowhow of the digitalisation and is a useful insight for companies undertaking similar transformations.

LAs are responsible for the provision of essential services to the general public and are responsible for welfare of the community at large. Therefore, the study has implications regarding quality of service delivered to citizens of Mauritius. The study would allow accessing how effectively, the digitalisation initiatives have been in enhancing employee performance, consequently whether it has created a positive effect towards service provision in terms of responsiveness, higher level of data accuracy and reduced administrative time for processing a task (Othman and Zaid 2023). The study is significant to the Local Government in that the incorporation of digital technologies in daily work processes would boost performance levels, aid with good governance and allow ease of monitoring for crucial practices that in essence demonstrate open, effective and transparent work for citizen welfare.

This study is in fact, in line with national and international goals of achieving greater incorporation of technology in the workplace in a sustainable way, for instance use of paper is greatly reduced through digitalisation. Mauritius is trying to position itself as a smart nation and the I-Council project is one of many initiatives to help achieve that goal. The findings of this study may prove valuable for the digital transformation objectives of the country, as successes from this can be replicated in other public bodies and lessons learned

from. It is expected that greater digitalisation will boost economic growth, facilitate innovation and extend higher level of services to the citizens.

2. Review of Literature Review

Digitalisation Level

Studies with empirical rigour have been carried out to investigate the effect of digitalisation on employee performance. Studies suggest a significant positive relationship between digitalisation level and employee performance. It is observed that the adoption of innovative digitals tools leads to enhanced employee performance. Erro-Garcés and Aramendia-Muneta (2023), for instance, found that companies with relatively high level of digitalisation, on average reported 15 percent better ratings in employee performance.

Conversely, studies have also shown that a lack of modern digital tools can have a detrimental impact on employee performance. Outdates information systems, limited access to information and ineffective operational processes may lead to dissatisfaction and lower productivity. Tortorella et al., (2023) research has showed that organisation with less digitalisation had shown a significant decrease of 12% in employee performance indicators. Therefore,

H1: A higher level of digitalisation in LAs is positively associated with improved employee performance.

Training and Development

Many empirical studies have been carried out to evaluate the effect of training and development on employee performance. Those studies have consistently culminated in finding a statistically positive relationship between training and development and employee performance. For example, a study by Shirase, Chhibber, and Narkhede, (2023) found a significant 20% increase in performance of employees who had received consistent training and development compared to those not subjected to similar treatment. The boost in performance can be attributed to an improvement in skills, knowledge, and motivation.

Likewise, a research study conducted by Fischer, Siegel, Proeller, and Drathschmidt (2023) in a corporate setting concluded that Training and Development endeavours led to a considerable increase of 15% in employee performance, primarily in those areas directly using the newly acquired skills. Enhancement of contemporary skills has a favourable effect on both the performance and job satisfaction.

In contrast, Shirase et al., (2023) found that organisations that do not invest in training and development practices witness a 10% decline in their performance indicators. The study pinned that effect on a lack of capacity building and adaptability.

H2: Adequate and effective digital training resources positively influence employee performance.

Leadership Support

Existing empirical evidence sheds light on the role of leadership support in relation to employee performance. The existence of a strong positive relationship is supported by numerous scholarly studies. A study by Fischer et al., (2023) demonstrated that employees having strong leadership support experienced 25% higher performance metrics. Theories and empirical evidence suggest that having leadership support is correlated with high levels of motivation as well as a significant increase in job satisfaction and a clearer sense of Organisational direction. A study by Erro-Garcés et al., (2023) in health care demonstrated that strong leadership support led to 20% better performance.

On the other hand, studies also found a lack of leadership support leads to deterioration in performance. In line with what Bellakhal and Mouelhi (2023) found, organisations with unsupportive leadership had a decline in their performance indicators by 15%. The decline being credited to low morale of workers and lack of commitment emanating from a lack of support from leadership.

H3: Strong leadership support for Digitalisation initiatives is positively associated with improved employee performance.

Workplace Culture

A wide array of empirical studies has found that a positive relationship exists between workplace culture and employee performance. An empirical study undertaken by ErroGarcés et al., (2023), found that a better culture leads to 20% improvement in employee performance. Another study led by Tortorella et al., (2023) pertained to the technology sector have found that a culture that encourages learning led to 15% increase in performance as it encouraged innovation and adaptability.

Conversely, companies where poor organisation culture exists correlates to lowered performance level, as demonstrated in a study by Thakur and Kumar, (2023). In this study, poor culture saw a 10% drop in performance levels and led to other issues such as high employee turnover and job dissatisfaction.

H4: A positive workplace culture that encourages innovation, experimentation, collaboration, and continuous learning enhances employee performance in the context of Digitalisation.

Figure 1 below illustrates the relationship between the different variables in the study.

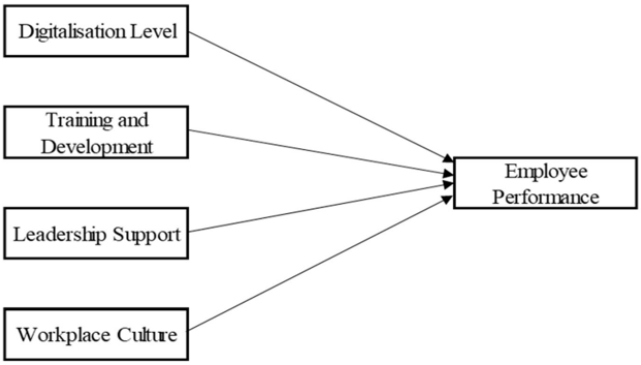

Figure 1. Conceptual framework

Source: author

3. Research Methods

The selected methodology for data collection in this study is a structured online survey, chosen for its capacity to provide a rigorous and organised means of obtaining comprehensive insights into the various factors involved in change management amid the digitalisation efforts of LAs in Mauritius.

The structured online survey entails formulating a questionnaire comprising thoughtfully constructed inquiries that effectively target the research objectives. The administered survey will be directed towards a comprehensive and representative sample of employees from LAs (Hainey et al., 2022). These individuals, either directly or indirectly involved in the process of digital transformation, will be the intended recipients of the questionnaire. The survey will gather valuable data as to various facets of the digitalisation initiative and how these impacts on employee performance.

The utilisation of a structured online survey is deemed appropriate due to its inherent capacity to efficaciously gather data from a substantial number of participants, thereby enabling a comprehensive and all-encompassing understanding of the subject matter at hand. This particular methodology facilitates the implementation of standardised data gathering, guaranteeing that every participant is exposed to an identical series of inquiries, in turn strengthening the dependability and comparability of the acquired data (Hainey et al., 2022). Furthermore, conducting a survey facilitates the collection of quantitative data, thereby granting the opportunity to statistically analyse the dataset in order to discern trends, correlations, and patterns (Hainey et al., 2022).

Considering the extent of the study, the utilisation of the structured survey approach is highly suitable for acquiring a thorough comprehension of the current sentiments, opinions, and experiences expressed by diverse stakeholders. The employment of a combination of closed-ended and Likert-scale questions will enhance the potential for quantitative analysis, affording the ability to derive significant conclusions and valuable insights pertaining to the change management procedures carried out during the digitalisation initiatives undertaken and how that is impacting on employee performance.

The choice of structured online survey has been made while considering viability of data collection. LAs are geographically spread out throughout the country, the use of online survey ensures ease of access, therefore making the data collection process more feasible and cost effective (Van Selm and Jankowski, 2006). Online survey is easily accessible and respondents can respond to those at their own leisure, in the comfort of their home for instance, this ensures that the reliability of data as respondents are less likely to be biased when comfortable. The use of online survey will not only reach many respondents in a short time but it will also save time in terms of data entry associated with a traditional paper-based survey.

The methodology for sampling employed in this study entails a fusion of both purposive and stratified sampling techniques. This approach has been selected so as to ensure a comprehensive and pertinent representation of employees actively involved in the digitalisation process of LAs in Mauritius.

Most non-manual grade employees have access on at least one of the digital initiatives, however not all employees have the same level of involvement in utilisation of these new platforms. The purposive approach ensures that only “active” users will be considered as respondents, an active user being someone heavily involved in use of those tools. Active users are present at different levels of LAs, this is where stratified sampling steps in, not all users can be surveyed, consequently users at various levels of organisation hierarchy will be invited to ensure diversity. This specific approach guarantees active participation of those inherently involved in the change and utilisation of the new digital tools (Hainey et al., 2022).

It is expected that stratification will boost representation of distinct LAs. Through the employment of a heterogeneous sample of respondents, the study aims to derive a comprehensive overview of as well as differences in diverse contexts. For the purpose of this study, nine of the twelve LAs have been selected for investigation due to the current status as to the implementation of the I-Council project. Those LAs are the Municipal City Council of Port-Louis, the municipal councils of Beau Bassin Rose Hill, Quatre Bornes, Vacoas

Phoenix and Curepipe, and the district councils of Moka, Flacq, Savanne and Pamplemousses. Conversely the district councils of Riviere du Rempart, Grand Port and Black River are not considered for this study courtesy of their current state of ongoing transition. This approach avoids collecting data from organisations still under shock from the ongoing state of change.

Key roles in respect of use the digital tools were considered and it was estimated that on average, LAs have 19 "active users". Since 9 LAs are being considered for the purpose of this study, the estimated population size is 171. Slovin's formula as laid out below is being used to determine the required sample size based on the estimates.

$$n = N / (1 + Ne^2) = 171 / (1 + (171)\ (0.05^2)) = 119.79 = 120 \text{ Respondents}$$

where:

n = sample size, 120

N = population size, 171

e = acceptable margin of error, 5%

Figure 2: Slovin's Formula (Source: Author)

The application of Slovin's formula at 5% confidence interval shows that a minimum of 120 respondents is required for the study to be accurate. 120 divided into 9 LAs is 13.33, to ensure diversity and proper representation of all the chosen LAs, the data collection will be focused on ensuring at least 12 respondents from each LA.

In line with the design of the structured survey, using Likert scale, analysis will focus on the quantitative side. Analysis will be done using the software, Statistical Package for the Social Sciences commonly referred to as IBM SPSS Statistics. Descriptive and inferential test will be conducted to allow the identification of trends, correlations and patterns between the variables (Neuman, 2014), with the intention of providing quantitative insights on the implications of digitalisation on employee performance. The utilisation of quantitative statistical analysis will be used to quantify the degree of influence that different variables have on employee performance (Hainey et al., 2022).

The study will entail use of quantitative analysis techniques to take a holistic approach to answer the research questions and providing for a multi-dimensional view of the impact of digitalisation on employee performance. Quantitative analysis techniques will allow to quantify and measure potential effects, making decision making based on evidence also predictable.

The research considers the significance of ethics and upholds indispensable principles of ethics such as integrity, confidentiality, respect and responsibility. The research requires participants to provide consent and ensures their confidentiality, allowing them to participate honestly without fear of repercussions.

The reasons for the study will be clearly laid out to the participants so they know what they are signing up for. Participants can withdraw if they wish to without facing any adverse consequence. Ensuring the confidentiality of participants is a crucial aspect of any ethical research work. Only the researcher will be able to access the data and the data collected will be used for the exclusive purpose of this study, not even the organisations where participants work will have access to this information.

Another dimension to ethical considerations is the accurate, fair and unbiased presentation of data. This will be followed to ensure that the research is impartial. Solicitation for participation will be done in a professional manner minimising any potential bias caused from the dynamics between the researcher and the respondents.

Since the research involves a set of people from specific organisations that are recognisable, it is of fundamental importance, to not only obtain the approval of the participants but also the organisations concerned. Obtaining the consent of 9 organisations is quite a long process, consequently consent has been sought and obtained from the parent ministry, that is the Ministry of Local Government and Disaster Risk Management.

No study is perfect, consequently limitations of study have to be acknowledged. In this instance, focus is being placed on "active users" only, but the effect of digitalisation is likely to be felt by other employees, as the quality of work handed over to them is better.

Resource and time constraints means that the study will target around 120 respondents whilst ensuring at least 12 for each LA. This figure is not enough to gain a comprehensive understanding of each individual LA but is nonetheless enough for a wider study involving multiple organisations.

The dependent variable of employee performance is being evaluated on a selfassessment basis, where employees rate themselves. A better approach would have been to utilise performance appraisal data of the

employees and associating their responses with the performance appraisal data. Unfortunately, such data is confidential and inaccessible, but internal research led by the organisation could utilise this approach for better assessment. This could include use of secondary data in comparing performance metrics prior to and post digitalisation.

4. Results and Analysis

Of the 123 participants that responded to this study, 55.3% identified as female with 44.7% identifying as male. Gender representation is vital towards understanding the demographic making of the sample. The results are well balanced showing good level of participation from both genders.

It is noteworthy that a large proportion of participants are within the 25-54 age range. The age groups of 25-34, 35-44 and 45-54 represented by 26.8%, 33.3% and 23.6% respectively, collectively representing 83.7% of the sample. Age is a valuable element of demographics; particularly as varying age groups may have unique perspectives on the digitalisation initiative and the impact it has on employee performance. The lower response rate of participants from the 55-64 age group may be explained by more elderly people having less interest in digitalisation. The lowest category is the 18-24 age group, this may be explained by a lack of employees falling into this category.

The data collected revealed that a significant proportion have tertiary education, with 47.2% possessing a bachelor's degree, 19.5% with a master's degree. 16.3% holding a diploma and 1.6% for doctoral degrees, collectively this accounts for 84.6% of the sample. This demonstrate an overall good level of education, which is an important aspect of demographics, especially in this situation where digital literacy is fundamental. The length of service is quite disproportionate, with an overwhelming majority of participants at 63.4% having been employed for more than 10 years. Length of employment is an important aspect of demographics, especially in this project. The project involves change management and it may be more difficult for a long serving employee to change than one with less length of service.

The analysis of the occupational composition of the respondents offers significant insights into the diverse professional roles present in the study. Significantly, administrative roles 35.8% and technical positions 26.8% are adequately represented, indicating a diverse array of responsibilities. The presence of nature of occupation provides the opportunity for analysis of data in respect of different roles, allowing the gaining of insight relative to specific digital tools. It is of note that the Municipal City Council of Port Louis and the District council of Moka both demonstrate higher response rate than their counterparts, each accounting for 13.8% of the sample.

Reliability Analysis

Table 1. Reliability Statistics

Reliability Statistics

Cronbach's Alpha	N of Items
.973	25

Source: author

The presented reliability statistics include a Cronbach's Alpha value of 0.973, indicating an exceptionally high degree of internal consistency within the items comprising the measurement instrument. Cronbach's Alpha is a statistical measure used to assess the internal consistency and reliability of a scale or survey by determining the extent to which its items are intercorrelated. In the present instance, a coefficient value of 0.973 indicates a robust level of inter-item reliability, signifying that the instruments utilised in the investigation exhibit a high degree of coherence.

In the context of research, a Cronbach's Alpha exceeding 0.70 is generally deemed to be satisfactory (Kennedy, 2022), while a value surpassing 0.90, as observed in this specific instance, is notably high. This phenomenon indicates that the elements within the tool for measurement are consistently assessing the intended construct, thereby bolstering the credibility and validity of the research results.

Statistical testing is vital to the outcomes of this study as it will examine and evaluate the strength of relationship between the variables identified and employee performance. Employing regression analysis can help to identify patterns, trends and potential causal relationship between variable, thus uncovering information vital in any research (Ye and Liu, 2022). It can be employed to weigh the strength of relationship between variables, for instance evaluating the impact of workplace culture on employee performance. Regression analysis allows quantifying the relationships of variable and can prove to be a valuable tool for decision makers in the context of LAs, shortcomings in the digital transformation strategy can be identified. By comparing the relative strength of variables, decision making is supported in that, potential avenues for investment can be evaluated prior to implementation, allowing to weigh the potential benefits prior to implementation.

Table 2. Descriptive Statistics

Descriptive Statistics

	N	Mean	Std. Deviation
Digitalisation_Level	123	3.4472	.85778
Training_and_Development	123	3.1984	.96309
Leadership_Support	123	3.3431	.94731
Workplace_Culture	123	3.3073	.94688
Employee_Performance	123	3.7366	.87002
Valid N (listwise)	123		

Source: author

The descriptive statistics as depicted in Table 2, offers a detailed overview of the crucial variables in the study. The mean is one of the measures of central tendency, fundamentally, it is important to take note of the mean for employee performance at 3.7366 which depicts a generally favourable tendency. Standard deviation gives an idea of how much variance is present in the dataset. The independent variables of digitalisation level, training and development programs, leadership support, and workplace culture all have moderate to relatively high means, demonstrating that they are received in positive fashion by the participants of the survey. The variance present, as demonstrated by the standard deviations, are limited in scope, overall suggesting some level of consensus in perceptions.

Table 3 represents Pearson's correlation, the value of which is denoted by r while significance is denoted by p.

Table 3. Correlations

Correlations

		Digitalisation_Level	Training_and_Development	Leadership_Support	Workplace_Culture	Employee_Performance
Digitalisation_Level	Pearson Correlation	1	.850**	.754**	.786**	.714**
	Sig. (1-tailed)		.000	.000	.000	.000
	N	123	123	123	123	123
Training_and_Development	Pearson Correlation	.850**	1	.711**	.818**	.716**
	Sig. (1-tailed)	.000		.000	.000	.000
	N	123	123	123	123	123
Leadership_Support	Pearson Correlation	.754**	.711**	1	.822**	.635**
	Sig. (1-tailed)	.000	.000		.000	.000
	N	123	123	123	123	123
Workplace_Culture	Pearson Correlation	.786**	.818**	.822**	1	.764**
	Sig. (1-tailed)	.000	.000	.000		.000
	N	123	123	123	123	123
Employee_Performance	Pearson Correlation	.714**	.716**	.635**	.764**	1
	Sig. (1-tailed)	.000	.000	.000	.000	
	N	123	123	123	123	123

**. Correlation is significant at the 0.01 level (1-tailed).

Source: author

Correlation is about the dynamic relationship between variables, that is how change in one variable affects another. Significance data from the table shows that $p<0.01$ between all variables, demonstrating that correlation is significant for all variables involved. It can be observed from the table that there is a strong relationship amongst the independent variables of digitalisation level, training and development and workplace culture to the dependent variable of employee performance, at 0.714, 0.716 and 0.764 respectively. A strong relationship but to a lesser extent exists between leadership support and employee performance, at 0.635. The findings suggest that the variables involved have a significant role in improving employee performance in LAs, it will be useful for the discussion part of this study.

Table 4. Model Summary

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.789[a]	.623	.610	.5432

a. Predictors: (Constant), Workplace_Culture, Digitalisation_Level, Leadership_Support, Training_and_Development

b. Dependent Variable: Employee_Performance

Source: author

The model summary has r2 value at 0.623, this can be interpreted as 62.3% of variance in the dependent variable is accounted for by the independent variables employed in this study. The adjusted r2 value is slightly reduced to 0.61. Adjusted r2 serves the purpose of addressing the limitations of r2 in a model like this one where several variables are involved. It considers the number of predictors and amend accordingly to present measurement that is more accurate, implying that actually 61% of variability in employee performance is explained for by the predictors, including a constant. 0.5432 represents the standard error of the estimate, essentially demonstrating the discrepancies between the observed values in comparison to the predicted values.

Table 5. ANOVA

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	57.532	4	14.383	48.751	<.001[b]
	Residual	34.814	118	.295		
	Total	92.345	122			

a. Dependent Variable: Employee_Performance

b. Predictors: (Constant), Workplace_Culture, Digitalisation_Level, Leadership_Support, Training_and_Development

Source: author

Table 5 presents a summary of regression analysis and coefficients. Under regression analysis, Analysis of Variance (ANOVA) helps in the forecasting of results (Adanta et al., 2023), in this context, to what extent will the independent variables employed collectively influence the dependent variable of employee performance. The significance level denoted by $p<0.001$, elucidates a statistically significant fit, a value of $p<0.05$ is generally desirable (Kennedy-Shaffer, 2019). The sum of squares stands at 57.532, with 4 degrees of freedom, culminating into a mean square of 14.383. The F score at 48.751 explained variability exceeds that which would be anticipated under random chance alone, demonstrating statistical significance. The residual sum of squares is computed at 34.814, showing the unaccounted variability in data. The total sum of squares at 92.345 lays emphasis on the efficiency of the independent variables in explaining variance in employee performance.

Hypothesis testing is essential in understanding the statistical significance between items composing a hypothesis, it provides evidence that helps to decide whether to reject the null hypothesis in favour of the alternative hypothesis (Wilcox, 2022). Lower the values of the significance, denoted by p, provide for more robust evidence against the null hypothesis, a value of $p<0.05$ is considered as significant (Kennedy-Shaffer, 2019).

Table 6. Coefficients[a]

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	1.133	.208		5.439	<.001
	Digitalisation_Level	.250	.119	.246	2.096	.038
	Training_and_Development	.117	.109	.130	1.074	.285
	Leadership_Support	-.070	.096	-.076	-.727	.469
	Workplace_Culture	.484	.112	.526	4.301	<.001

a. Dependent Variable: Employee_Performance

Source: author

Table 6 illustrates regression coefficients which provide an understanding as to the association present between independent predictors and the dependent variable of employee performance. Standardised coefficient β (beta) and unstandardised B illustrates the responsiveness of the dependent variable in respect to a change in the independent variable. The value of p from the table will determine whether to accept the alternative hypothesis in favour of the null hypothesis. The constant value of 1.133 represents the anticipated value of Employee Performance where all predictive factors are at a null value.

The results reveal that digitalisation level has a substantial impact on employee performance with B=0.250 and β=0.246. The p value of 0.038<0.05, therefore accepting H1.

The relationship between training and development is not statistically significant with B=0.13 and β=0.117. The p value of 0.285>0.05, therefore rejecting H2.

Table 6 reveals a statistically insignificant relationship between leadership support and employee performance proves to be statistically insignificant, albeit negative, with B=0.07 and β=-0.76. The p value of 0.469>0.05 is considerably higher, as such rejecting H3.

The findings suggest the existence of a strong relationship between workplace culture and employee performance, with B=0.484 and β=0.526. The p value presented at <0.001 is considerably below 0.05, thus the accepting H4.

5. Discussion

Digitalisation level and employee performance

H1 was accepted, highlighting the existence of a statistically meaningful relationship between the digitalisation level and employee performance. It means that the presence of more advanced digital tools eases the job of employees and boosts performance.

The positive relationship is illustrated by the correlation, r=0.714. It is reinforced with Standardised coefficient β=0.245 and unstandardised B=0.25 and its p value of 0.038 being less than 0.05. This means that by increasing digitalisation level, employee performance be boosted.

Although the findings of the study promote enhancing digitalisation level to boost employee performance, this should not be done blindly. The enhancing of digitalisation level as per the design of the survey entails digital tools, digital literacy programs, integration of digital systems, digitalisation strategy and the upgrading of digital infrastructure to keep up with technological trends. The specific aspects need to be meticulously considered and requires careful crafting of the digitalisation strategy.

Two notably important aspects are the digital tools available and the upgrading of digital infrastructure, these can represent significant costs to LAs and it is important for public bodies to use public funds responsibly. Therefore, it is important to conduct a thorough evaluation of existing resources prior to deciding on what to invest in. The availability of digital tools is pointless if it is not being used, consequently, emphasis may also be placed on promoting the use of said tools and boosting digital literacy level amongst employees to achieve higher employee performance.

The term digitalisation is very vast and covers a broad range of initiatives from purposefully basic level of automation to highly sophisticated data analytics and artificial intelligence (Smits et al., 2022). Technological advancement has been a huge player in the last couple of decades, technology that was considered the latest trends may not necessarily represent the highest level of digitalisation that is presently available on the market. This is where demographics data kicks in, respondents above 45 represent 35% of the sample and 63.4% of the respondents have been in employment for more than 10 years. It is probable that people over a certain age are not in tune with latest digital trends and equally likely for those in long term employment to have had limited exposure to external digital tools that can aid work. The I-Council project surrounds an in-house initiative to digitalise LAs, a broader perspective with consideration of technology available outside is likely to help in any endeavour to boost digitalisation level to ultimately improve employee performance.

Given that the study concerns 9 different LAs, more in-depth analysis may be required as to their respective level of digitalisation, the data collected per LA is too limited to make meaningful individual decisions but serves a broader purpose for the Ministry to decision making. It is important to consider that LAs are faced with their own unique bureaucratic frameworks, resource constraints, and variety of services available (Alsufyani and Gill, 2022)

The I-Council project's implementation is quite recent, digital transformation may take some time to be fully in tune with employee routines and bring about its benefits (ErroGarcés et al., 2023), therefore another study at a different point in time may yield different results as employees get accommodated.

Training and development and employee performance

Valuable insights have been obtained from the regression analysis pertaining to the relationship between training and development and employee performance. The results of p=0.285 showing that the relationship is of no statistical significance. The observed result may be due to chance variation rather than the consistent relationship.

Caution is supreme when interpreting the results of this study from both a practitioner's and a decision maker's point of view. A null result in this research does not imply that training and development was ineffective. It may demonstrate some need for finetuning of the training and development initiatives in place.

A subsequent study could lay more emphasis on specific nature of jobs as training is tailored to nature of job. The integration of qualitative methods such as interviews may provide the opportunity to go to the root of the problem and develop a more comprehensive understanding of the situation.

It came as a shock that the relationship between training and development was found to not be statistically significant, particularly when considering that 84.6% of respondents have some level of tertiary education, suggesting an ability to learn from training and development initiatives. The associations between training, development and performance are extremely multidimensional and suggest further research. A holistic approach to managing talent within the organisation is necessary.

Leadership support and employee performance

The inverse relationship between leadership support and employee performance was an unexpected outcome of the regression analysis in this study. This warrants in-depth analysis to bring light to subtle matters that may have brought about this inverse result.

In order to gain a more comprehensive understanding of the matter at hand, it is vital to understand the various aspects of leadership. The possibility that, a particular leadership style which may look good but is ineffective or detrimental, cannot be discarded. For instance, a leadership style that exerts excessive level of control and monitoring may seem good in some respect but good organisation culture dictates that less monitoring is needed as employees are already aware of their responsibilities and are self-driven to perform well. Excessive control may prove harmful to the autonomy of employees, ultimately their motivation and limit their ability to perform well (Shirase et al., 2023).

A possible explanation of this result could the presence of a disparity between the perceived and actual level of leadership support available. Individuals are from different backgrounds, as such may have different expectations from leadership, offering a possible explanation to this surprising result. The relationship of leadership with employees is another factor to consider, as a poor relationship is likely to lead to some degree of bias in respondent's answers.

The survey design can be analysed to gain a better understanding of this result. The survey revolved around issues pertaining to commitment, communication, vision, resource provision and feedback reception demonstrated by leadership in regards to digitalisation. LAs being public entities face a unique challenge in terms of leadership. As a public body, it has to implement the decisions of the government, one of which is the digitalisation endeavour, the actual leadership in the distinct LAs may have their own views, beliefs and engagement to the endeavour, explaining why an inverse relationship has occurred.

In order to add another dimension of understanding to this problem, further research could involve qualitative techniques such as interviews or observation. This would enable profound analysis of the support provided by leadership in the context of the distinct LAs.

Workplace culture and employee performance

H2 as demonstrated by the results of the analysis was rejected. The correlation value of $p=0.764$, standardised coefficient $\beta=0.526$ and unstandardised $B=0.484$ shows the effect of the predictor on employee performance. The significance value $p<0.001$ is well below the recommended 0.05 for the embellishing of statistical significance.

The findings conclude that there is a strong significant positive relationship between the predictor workplace culture and employee performance. This expected result, reinforces the perception that a positive culture in the organisation fosters a better employee performance. The presence of a good culture serves the purpose of employee engagement, motivation and job satisfaction and in turn impacts on the quality of work delivered by employees.

Workplace culture is about the environment that is cultivated within the organisation for the employees, it is one of the most fundamental aspects of any organisation. A work setting with the wrong culture and the best tools will fail to make the most of those tools whilst a setting with limited tools but good culture, will do the best it can with the tools available. People tend to perform at higher levels when they perceive a positive and supportive workplace culture including a wide array of factors such as trust, collaboration and recognition.

The positive relationship means that LAs who are able to create a positive work culture are likely to reap benefits in employee productivity. LAs should aim to reinforce and improve the cultural dynamic already present so as to benefit from higher levels of output from employees. The presence of a positive culture is also inclined to bring about benefits beyond performance. A good culture can reduce absenteeism, turnover and job dissatisfaction.

It is imperative to understand that correlation does not equal causation. There is a correlation between a positive workplace culture and increased employee performance, but a more detailed investigation would

need to be conducted to determine causation. This study sets the ground work for future studies that could lay emphasis on the specific cultural aspects that are most critical towards the improvement of performance.

Culture is an extremely sensitive and delicate matter, it is hard to control, shape or change. Culture is very unique and no two organisations are alike. Culture is at the centre of everything and guides how people approach work and view the organisation. There is merit to further investigation into culture and efforts to improve it, as it proves to be a strong influence on performance. In the context of this study and the strategic direction of LAs in regards to digitalisation, it is imperative to foster a culture friendly to innovation, change, continuous improvement and digitalisation.

6. Conclusion and Recommendations

This study has thoroughly examined the impact of digitalisation on employee performance in LAs. The literature review covered studies previously done in similar fields, albeit different scenarios. This allowed solid empirical based design of the rest of the study. Four key variables, found to influence employee performance in other studies, were identified as critical to the digitalisation process successfully improving employee performance. Significant data was collected in a measurable manner using Likert scale, using structured online survey method. Rigorous statistical analysis revealed that two of those variables, namely digitalisation level and workplace culture have a significant part in determining employee performance in this digitalised working environment. The findings highlight the potential performance gains from sound investment in digital infrastructure and the cultivation of a sound workplace culture. Despite the positive association of training and development on performance, results revealed the association to not be statistically significant. This demonstrates a need to review training programs. The results in regards to leadership support showed an inverse relationship in the coefficients table, this unexpected result merits further investigation but could be explained by the perceived level of leadership support and the actual level. 63.4% of respondents have been in employment for at least 10 years, demonstrating majority representation of long serving staff members, the generally positive outcome suggests resistance to change has not been at a high level or been effectively dealt with. The R2 in the ANOVA test at 62.3% highlights the explanatory power of the framework.

Recommendations

In line with the methodology design, quantitative analysis of data was employed and interpreted to reveal insightful findings. The findings allow to grasp an understanding of different dimensions of digitalisation and its relationship with employee performance in LAs. Backed by the findings, several knowledge driven recommendations can be made to improve employee performance, improve the ongoing I-Council project and help in design of an improved digitalisation strategy for LAs that could well be relevant to other public bodies in Mauritius.

Increase investment in digital infrastructure: The availability of advanced digital tools has been found to have a positive relationship with employee performance, as processes are streamlined, data retrieval and processing are faster. Budget considerations are important and investment should be done after a digital infrastructure audit to allow proper channelling of funds towards the right tools.

Cultivate a modern and positive organisational culture: Culture was found to have a statistically significant positive relationship on employee performance. The strength of culture is not limited to performance but extends to trust, talent retention, loyalty and teamwork. This can be achieved through recognition and having a human approach to employees. Employees should not feel threatened by others but instead encouraged to share, innovate and embracing continuous improvement.

Finetune training and development programs: A positive relationship was obtained but not enough to be statistically significant. The implementation team should review training programs offered to employees as this has the potential to unlock an employee's potential as he is properly equipped to perform his tasks. It is possible the training programs focused on transition; future training should aim on providing added value.

Investigate leadership dynamics: The inverse relationship merits further investigation in order to understand the complex relationship at hand. Leadership is a fundamental part of any organisation, making it a key area to investigate so as to understand how leadership can be tuned to derive better performance. Qualitative analysis such as interviews or observation may help with this endeavour.

Long term monitoring: As the effects of digitalisation can take time to truly derive the benefits, another study in the long run is desirable to weight the impact after employees have had time to adapt and gain digitalisation relevant work experience.

Study employing secondary data: The method of measurement for the dependent variable was done on self-assessment basis, due to the confidential nature of performance appraisal, such data could not be used in this study. Performance appraisal data may be a stronger indicator of employee performance, hence such a study within the organisations or the ministry may provide further insights, including comparisons prior to and post the digitalisation initiative.

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