

“Effectiveness of learning and growth performance metrics in the Nepalese telecommunications industry for organizational success”

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EFFECTIVENESS OF LEARNING AND GROWTH PERFORMANCE METRICS IN THE NEPALESE TELECOMMUNICATIONS INDUSTRY FOR ORGANIZATIONAL SUCCESS

Abstract

The primary use of financial-based performance metrics to assess an organization's success might be misleading. The application of non-financial performance metrics could improve organizational success and longevity. This study aimed to examine the effectiveness of learning and growth performance metrics for organizational success in the Nepalese telecommunication industry. The quantitative research approach was utilized for collecting, presenting, and analyzing data obtained during a survey. The two major telecommunications service providers in Nepal, Ncell and Nepal Telecom, were taken as sample organizations, and their employees were the study's respondents. The study revealed that two latent learning and growth performance metrics, namely 'organizational culture and alignment' having seven observable variables ($\beta = 0.229$, $t = 3.419$, $p < .05$) and 'information capital' having four observable variables ($\beta = 0.079$, $t = 1.193$, $p < .05$) were significant for organizational success. In contrast, one latent metric, 'human resources' having seven observable variables ($\beta = 0.047$, $t = 0.708$, $p > .05$), was insignificant. The overall explanation of the observed non-financial performance metrics to the organizational success of the Nepalese telecommunication industry was approximately 6%. A better learning and growth environment helps an organization generate, acquire, share, and integrate information to build resources and capabilities. In addition, non-financial performance metrics help organizations connect business performance with strategy, allowing them to be competitive.

Keywords

human resources, information capital, organizational culture and alignment, organizational performance, telecommunication

JEL Classification

L25, L84, M41

INTRODUCTION

Managers of organizations have a hard time measuring performance, and there are so many performance metrics that they need help knowing where to start (Maltz et al., 2003). In some situations, they may need help to determine which metrics are most important to their organization and which factors influence individuals to act appropriately. Many organizations fully concentrate on financial success indicators when faced with such challenges. However, it can be misleading to measure an organization's success only using a single dimension (Maltz et al., 2003). Researchers assert that introducing non-financial performance metrics is essential for overcoming the limitations of using financial-based performance metrics as a single indication for emulating organizational success. The application of non-financial performance metrics can effectively improve corporate strategy through communication among the organization's stakeholders (Lee & Yang, 2011). Furthermore, scholarly research suggests that using non-financial performance metrics could enhance organizational success and longevity (Banker et al., 2005; Hoque, 2005; Ittner & Larcker, 1998; Smith & Wright, 2004).



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Conflict of interest statement:

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The performance metrics must be selected based on the organization's context, as their consequences may vary (Euske et al., 1993). The appropriate choice of metrics is critical in effectively accomplishing corporate strategic objectives and success (Burney et al., 2009). It is not unexpected that several scholars advocate for a more thorough exploration of the influence of contingent variables on the design and application of performance metrics (Franco-Santos et al., 2012). The need for more emphasis on an organization's human resources dimension is likely the most prominent performance metric in recent years. The effectiveness of learning and growth performance metrics reveals how employees learn and develop during their careers to improve overall organizational success (Memon & Baladi, 2021). Studies showed that relevant performance measures are crucial for accomplishing corporate objectives. Therefore, the learning and growth performance metrics examine how an organization-engaged individual can promote organizational success.

1. LITERATURE REVIEW AND HYPOTHESES

Most organizations use non-financial performance metrics to give decision-makers information about customers and employees, market share, product service quality, and on-time metrics because of perceived gaps in financial-based performance metrics (Kaplan & Norton, 2001). In addition, non-financial performance metrics are used to get information about the future that cannot be learned from financial-based performance metrics (van Veen-Dirks, 2010). Such metrics can also help employees facilitate long-term goals and explain what they did to get there (Decoene & Bruggeman, 2006). Non-financial performance metrics are helpful not just to supplement financial measurements as short-term indicators of progress toward long-term goals but also to give employees feedback that they cannot get from accounting measurements (Atkinson et al., 1997; Davis & Albright, 2004; Ittner & Larcker, 1998).

Yuliansyah et al. (2017) observed that adopting a differentiation approach/strategy in assessing organizational success leads to the progress of superior performance and the attainment of competitive advantage. Similarly, Sarah et al. (2009) examined that the organizations pursuing a differentiation strategy utilizing primarily non-financial performance metrics had a favorable relationship between strategy and organizational success. According to Liguori et al. (2012), public organizations believe that non-financial performance metrics are more informative than financial-based performance metrics. Furthermore, Pollanen et al. (2017) added that various aspects of public-sector performance could not be measured

solely using financial-based performance metrics. Performance metrics like effectiveness, efficiency, responsiveness, or equity have a clear correlation with organizational success and contribute to improving service quality (Andrews & van de Walle, 2013; Elbanna et al., 2016).

The necessity of non-financial performance metrics suggests that a better indicator of success could balance the advantage of financial-based performance metrics as a short-term indicator of progress to long-term goal attainment of organizations, thereby enhancing managers' performance and organizational success (Banker et al., 2005; Kaplan & Norton, 1992; Vaivio, 1999). In addition, according to some scholars, the usage of non-financial performance metrics makes employees more adaptable in their actions (Moulang, 2015). This is because the procedures eliminate the need for employees to be inventive. Consequently, this flexibility can encourage employees to generate effective and efficient alternatives for achieving the goal. Thus, non-financial performance metrics (more precisely, the learning and growth performance metrics) stimulate members of an organization to be more creative in doing the job, which leads to the enrichment of innovation (Balsam et al., 2011).

Any employee's learning and growth performance metric can positively reflect organizational performance and success. As employees throughout an organization become creative and play a crucial part in fostering problem-solving skills, their creativity stimulates one another (Bharadwaj & Menon, 2000). Learning and growth performance metrics positively affect organizational sustainability (Gong et al., 2009), and executives with high

innovation are likely to be more innovative and creative (Subramaniam & Mia, 2001). It is only possible to boost an organization's success by concentrating on the technical components of its operation. The human element is highly crucial since everything is accomplished through individuals. People's beliefs, values, and knowledge, which collectively make up their culture, affect how they behave in unique ways. Individual performance is influenced by the cultures and surroundings of organizations, which in turn affects their performance. The most common learning and growth metrics that are used to assess non-financial organizational performance are human resources (HR), information capital (IC), and organizational culture and alignment (OCA).

Organizations view human resources as a core skill since it improves their overall success. Some learning and growth performance metrics can be used to evaluate human resources. First, job satisfaction is employee contentment at work, which motivates them to perform their duties. Customer satisfaction is the center point of a successful business in a highly competitive market, which depends on motivated employees' sincere efforts and services (Ishtiaque & Sarbabidya, 2013). Second, employee capability is the capacity of an employee to accomplish tasks according to essential requirements. It entails ensuring that individuals get the required recognition, support, training, and development to grow and retain their capacity to perform effectively in their roles (Atkinson et al., 2014; Kaplan & Norton, 2004a). Third, training and development are an organization's strategic effort to support employees' acquisition of job-related skills, knowledge, and habits for effective job performance (Noe, 2010). Fourth, employee engagement is the degree to which workers are involved in their work and are committed to their position and the organization (Vance, 2006). Committed employees and companies have a strategic advantage, such as enhanced customer service, increased productivity, and less staff turnover (Huselid, 1995). Fifth, talent management identifies, retains, develops, and motivates highly skilled individuals and managers (Noe, 2010). Organizations can prevent their best employees from leaving by giving them more chances and room for advancement. Sixth, the health and safety of employees are crucial factors to consider

when pursuing organizational objectives. An employee has the right to work in a safe and healthy environment, and it is the employer's responsibility to ensure employee safety (Atkinson et al., 2014). Finally, human rights at work include not being mistreated, joining groups, having some privacy, and being able to bargain as a group. An organization's workplace practices and policies about fair pay, equal opportunities, safe and healthy workplaces, and other human rights commitments are linked to employee satisfaction and overall performance (Kaplan & Norton, 2004a).

Information capital refers that an organization has access to the information systems, databases, libraries, networks, and other infrastructure it needs to get information and knowledge (Kaplan & Norton, 2004a). Several learning and growth performance metrics can be used to evaluate information capital. First, a clear description of information capital improves an organization's knowledge to give it a strategic advantage and its employees' skills to meet customer needs (Kaplan & Norton, 2004a). As a result, they can change business deals, analyze information, or change the business strategies of an organization (Kaplan & Norton, 2004b). Second, information management is increasingly being aligned and synchronized with business activities. This leads to an increase in productivity and an improvement in the management of these operations (Kaplan & Norton, 2004a). Third, information capital strategic preparedness measures how well an organization's information capital is prepared to support its strategy (Kaplan & Norton, 2004a). Assessing information capital readiness entails determining how well a corporation can mobilize and sustain its strategy-related transformation agenda (Kaplan & Norton, 2004b). Fourth, technology infrastructure is made up of hardware and software. In the contemporary, continually changing technological environment, employees must be continuously learning (Atkinson et al., 2014).

The organizational culture and alignment concern organizational culture and climate and goal alignment. Several learning and growth performance metrics can be used to assess the organizational culture and alignment. First, organizational culture is what individuals feel, think, and do base on their shared values, beliefs, and rules at work and in the workplace (Schein, 2010). Members of

an organization learn about its culture through socializing and training, communication networks, rites and rituals, and symbols. As a result, culture can affect how well an organization does its job, how happy its employees are with their jobs, and how confident they are in solving various (Kotter, 2012). Second, organizational learning is how an organization continuously aligns and/or transforms itself by using and enhancing corporate knowledge resources to adapt to internal and external environmental changes and maintain a competitive advantage (Chen, 2005). It improves the organization's ability to produce, gather, disseminate, and integrate information to develop resources and capabilities that enhance organizational effectiveness. Third, organizational structures are characterized as workplaces that allow people to carry out their obligations reasonably. The formal structure of task and reporting links regulates, coordinates, and motivates individual cooperation to achieve corporate goals (Atkinson et al., 2014). When the working atmosphere is friendly to making relationships and risk-free, employees are more likely to stay with their organizations, which leads to superior organizational performance. Fourth, transformational leadership raises followers' aims and enables them to act on higher-order beliefs. It encourages individuals to collaborate and empowers leaders to attempt to make significant changes with their goals in mind (Mirkamali et al., 2011). Fifth, empowerment allows individuals to utilize their knowledge and abilities to increase their enthusiasm and productivity at work (Akhavan & Jafari, 2008). Fifth, pay benchmarking compares internal job descriptions with similar duties and responsibilities to external job descriptions to determine the market rate for each position. Reasonable compensation benchmarking makes employees happier and more engaged, keeps them from leaving, and helps them do a better job (Atkinson et al., 2014). Finally, teamwork leads to new work practices that can be used to improve human resources' ability to contribute to an organization's success (Doorewaard et al., 2002).

Organizational success is perceived as the big picture, reflecting success measurements from different perspectives and knowledge bases and offering pointers toward more advanced assessment metrics. The study covered five measurement di-

mensions, as Maltz et al. (2003) suggested. First, financial success represents an increase in sales growth, profitability, return on investment, dividends, and bonuses. Customer/market success represents the better relationship between an organization and its customers. Customer-centered organizations are adept at figuring out what their customers need and want, making products that meet those needs, and keeping customers happy, which leads to high customer retention rates. Third, process success reflect the efficiency and growth of the organization. In the past decade, many influential business concepts have centered on process improvements, such as total quality management, team-based efforts, activities, or learning organizations. People development success recognizes the vital role that the stakeholders play in the organization's success. The level of employee abilities and skills, personnel and professional development, dedication to technological leadership, and slack staff resources indicate employees' crucial role in an organization's success. Finally, future success is a sign of foresight. It is viewed as an essential organizational issue and includes the performance metrics such as indicators of partnerships and alliances, depth/quality of strategic planning, investments in new markets and technologies, and anticipating and preparing for environmental changes.

Performance metrics enable an organization to communicate its plan in terms everyone can comprehend, making the strategy practical and significant (Melnik et al., 2014). Therefore, performance metrics are a crucial element of organizational success, which has been widely studied for large organizations (Ittner & Larcker, 2003; Kaplan & Norton, 1992). In organizational success, the learning and growth performance metrics consider the individuals' objectives, information technology, and organizational alignment to enhance the numerous process objectives (Atkinson et al., 2014). The importance of assessing the influence on individuals stems from the fact that organizational strategies do not exclusively determine the success of an organization. On the contrary, to some extent, it is determined by the conduct of individuals within the organization as they pursue its objectives. Therefore, examining the role that learning and growth performance metrics play in organizational success

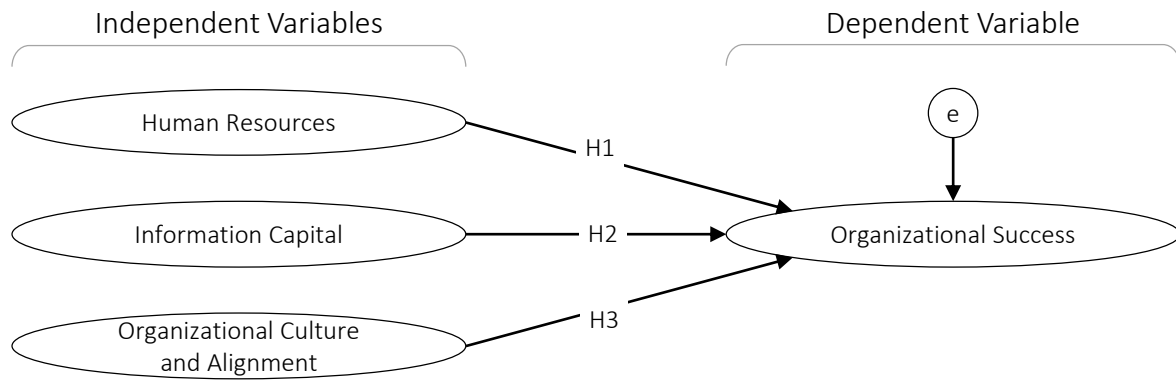


Figure 1. Hypothesized paths of the study model

is essential. With these consequences, the study aimed to examine the degree to which learning and growth performance metrics contribute to organizational success in the Nepalese telecommunication industry.

Organizational success shows the development and progress of an organization. It is a criterion or dependent variable in management and one of the researched variables (Koochang et al., 2017). It generally depends on the compatibility between applying organizational structures and contextual circumstances. Figure 1 demonstrates the hypothesized paths of the study model.

The study proposes the following hypotheses:

- H1: Human resources metrics under learning and growth performance metrics positively and significantly affect organizational success.*
- H2: Information capital metrics under learning and growth performance metrics positively and significantly affect organizational success.*
- H3: Organizational culture and alignment metrics under learning and growth performance metrics positively and significantly affect organizational success.*

2. METHODOLOGY

Quantitative research methods were employed to collect data from the targeted respondents, and statistical analyses were done to draw the conclusion of the study. Using a structured questionnaire, the quantitative data were obtained. The two leading telecommunications service providers in Nepal, Ncell and NT (Nepal Telecom), were taken as sample companies because they occupied approximately 94% of the market (Nepal Telecommunication Authority, 2022). The study adopted a random sampling method to collect primary data from the employees of the sample organizations, who were expected to understand the significance of NPMs. The structure of the questionnaire is demonstrated in Table 1.

The questionnaire, the survey instrument, was distributed via an online and field survey. The field survey was conducted at Kathmandu Valley from February to May 2022. On the other hand, an online survey was performed during the same period targeting the respondents of the sample organization who were working outside the Kathmandu Valley. The details of the mode of questionnaire delivery and return are demonstrated in Table 2.

The study conducted a reliability, validity, and CMB (common method bias) test to ensure whether the observed variables and latent con-

Table 1. Questionnaire structure

Group and Area	Qs	Measurement scale	Remarks
Group A: Demographics of the respondents	5	Various options	-
Group B: Learning and growth performance metrics	18	6-point Likert scale	1 = strongly disagree to 6 = strongly agree
Group C: Organizational success	5	6-point Likert scale	
Total	28		

Table 2. The mode of delivery and questionnaire return

Questionnaires delivery	No. of the respondents					
	Approached			Return (Properly filled up)		
	Ncell	Nepal Telecom	Total	Ncell	Nepal Telecom	Total
Field survey	100	250	350	41	126	167
Online survey using google docs	50	100	150	13	43	56
Total	150	350	500	54	169	223

structs were suitable to meet the stated objectives. Cronbach’s alpha was used to assess the internal consistency (reliability) of the variables, CR (construct reliability) and AVE (average variance extracted) were used to assess convergent validity, and Harman single-factor variance was used to assess the CMB. The test results are presented in Table 3.

All the computed values of the observed latent constructs satisfied the suggested threshold values. Therefore, the study promoted 23 observed and four latent variables for further analysis and discussion.

Table 3. Reliability, validity, and CMB insights

Constructs/Variables	Variable loading	Cronbach’s alpha	CR	AVE	CMB	
HR	Job satisfaction: VAR_06 Employee capability: VAR_07 Training and development: VAR_08 Employee engagement: VAR_09 Talent management: VAR_10 Employees’ health and safety: VAR_11 Human rights in the workplace: VAR_12	0.674 0.642 0.699 0.692 0.795 0.802 0.630	0.778	0.874	0.501	19.687 %
IC	Describe information capital: VAR_13 Align and integrate information capital: VAR_13 Measure information capital readiness: VAR_15 Technology infrastructure: VAR_16	0.731 0.799 0.817 0.696	0.758	0.835	0.559	
OCA	Organizational culture: VAR_17 Organizational learning: VAR_18 Organizational structures: VAR_19 Transformational leadership: VAR_20 Empowerment: VAR_21 Pay benchmarking: VAR_22 Teamwork: VAR_23	0.776 0.762 0.739 0.747 0.753 0.757 0.709	0.868	0.915	0.605	
OS	Financial success: VAR_24 Customer/Market success: VAR_25 Process success: VAR_26 People development success: VAR_27 Future success: VAR_28	0.871 0.859 0.630 0.847 0.805	0.702	0.902	0.652	
Threshold value	≥ 0.50	≥ 0.70	≥ 0.70	≥ 0.50	≤ 50 %	
Suggested by:	Hair et al. (2006)				Cho and Lee (2012)	

3. RESULTS

Table 4 contains a description of the occupational and personal characteristics of the study sample. These variables include organization, working status, professional experience, gender, and age group.

Table 5 presents the descriptive statistics for each latent measure of learning and growth performance metrics and organizational success measures.

Descriptive statistics for each latent variable revealed that all variables averaged greater than 3.5 on a six-point Likert scale, indicating that

Table 4. Occupational and personal characteristics of the respondents

Variables	Categorization	Frequency	Percentage
Working organization	Nepal Telecom	169	75.8
	Ncell	54	24.2
Working status	Executive	17	7.6
	Manager	33	14.8
	Officer	97	43.5
	Assistant	76	34.1
Professional experience	21 yrs. and above	33	14.8
	16-20 yrs.	28	12.5
	11-15 yrs.	57	25.6
	6-10 yrs.	93	41.7
	5 yrs. and less	12	5.4
Gender	Male	167	74.9
	Female	56	25.1
Age	56 and above	03	1.3
	46-55	39	17.5
	36-45	105	47.1
	26-35	74	33.2
	25 and less	02	0.9
Total		223	100.0

Table 5. Descriptive statistics and correlation matrix

Latent variable	Mean	SD	Correlation matrix			
			HR	IC	OCA	OS
HR	4.550	0.621		-0.401 (0.547)	0.138* (0.039)	0.075 (0.263)
IC	4.372	0.712			-0.163* (0.015)	0.040 (0.553)
OCA	4.341	0.722				0.223** (0.001)
OS	4.412	0.701				

Note: * Correlation is significant at the 0.05 level (2-tailed). ** Correlation is significant at the 0.01 level (2-tailed). The total number of respondents, N = 223.

all measurements were sufficiently strong in the study model. In addition, the response dispersion from the mean of all indicator items was relatively similar across respondents.

Multiple regression was run with organizational success as the dependent variable and human resources, information capital, and organizational culture and alignment as the independent variables. The regression insights, indicating that the dependent variables accounted for 4.5% of the variation in the arrangement of independent variables, are shown in Table 6. Figure 2 demonstrates the summary outcomes of the hypotheses testing.

As demonstrated in the correlation matrix in Table 5, there were no concerns about multi-collinearity since the correlations between the latent variables did not cross the 0.70 or higher threshold value proposed by Meyers et al. (2006). Such a fact was also cross-checked using variance inflation factor values that were not greater than the four-point cut-off number, as suggested by Hair et al. (2010). The regression insights revealed that the independent variables were distinct and partially contributed to the organizational success of the Nepalese telecommunication industry.

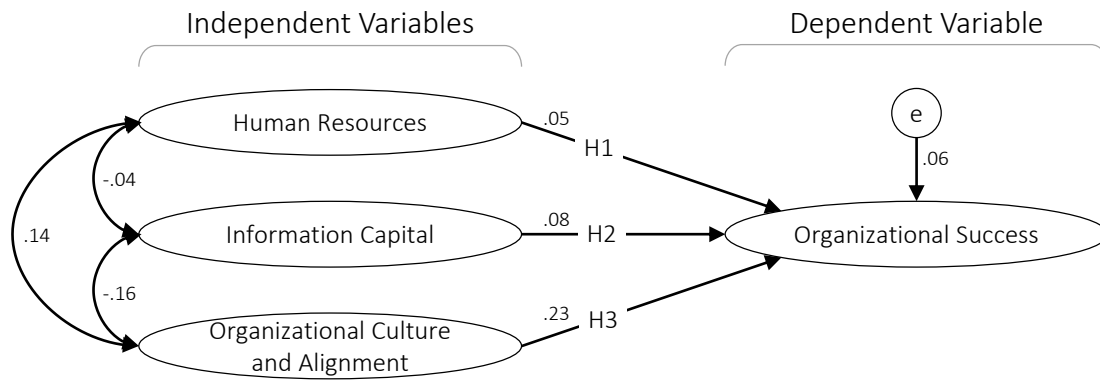


Figure 2. The outcome of the standardized hypothesized paths

Table 6. Regression insights

Model summary							
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate			
1	0.240	0.058	0.045	0.685			
ANOVA result							
	Sum of Squares	df	Mean Square	F	Sig.		
Regression	6.315	3	2.105	4.480	0.004		
Residual	102.894	219	0.470				
Total	109.210	222					
Regression Coefficients							
Model	Unstandardized Coefficients		Standardized coefficients	t-statistics	Sig.	Variance Inflation Factor	Observations on the hypotheses
	B	St. Error	Beta				
(Constant)	2.862	0.533		5.374	0.000		-
HR	0.053	0.075	0.047	0.708	0.480	1.020	Rejected
IC	0.078	0.065	0.079	1.193	0.040	1.028	Accepted
OCA	0.223	0.065	0.229	3.419	0.001	1.046	Accepted

Note: Dependent variable: OS. Independent variables/predictors: (constant), HR, IC, OCA.

4. DISCUSSION

Prior research has established the significance of non-financial performance metrics to organizational performance and success (Abernethy et al., 2012). Researchers in this field support the existence of various strategic approaches that lead to the usage of various kinds of performance indicators (Lopes et al., 2016; Vallurupalli & Bose, 2018). To improve organizational success, the implementation of non-financial performance metrics must also be undertaken. According to Hopwood (1972), using accounting performance indicators does not improve performance and success. Various authors have recommended implementing non-financial performance metrics to collect more comprehensive information about businesses and organizations in light of the inadequa-

cies of relying solely on accounting performance measures. Moreover, the effect of using non-financial performance metrics is not only beneficial to balance the advantage of financial-based performance metrics as a short-term indicator of progress toward long-term goal achievement of organizations (Banker et al., 2005; Kaplan & Norton, 1992). It is also suitable for employee purposes that accounting performance metrics do not provide (Davis & Albright, 2004; Ittner & Larcker, 1998).

The effectiveness of learning and growth performance metrics on organizational success was positive and statistically significant ($F = 4.480$; $p < .05$). While discussion concerning specific hypotheses, the human resources metrics to organizational success were not supported ($\beta = 0.047$,

$t = 0.708$, $p > .05$). In contrast with earlier studies (Atkinson et al., 2014; Nair, 2004; Noe, 2010; Vance, 2006), Nepalese telecommunication service provider organizations are still not recognizing human resources metrics in organizational success.

Studies have shown that information capital is a key part of knowledge management, leading to continuous learning at all levels of a business. Similarly, Akhavan and Jafari (2008), Mirkamali et al. (2011), Rankinen et al. (2009), and Schein (2010) have shown that organizational performance and success are the direct results of putting in place a strong culture in the organization's systems, which makes it easier for people to do their jobs. Therefore, in line with Akhavan and Jafari (2008), Josee et al. (2016), Kaplan and Norton (2004a), Khanmohammadi et al. (2015), Mirkamali et al. (2011), Rankinen et al. (2009), and Spitzer (2007), the information capital metrics ($\beta = 0.079$, $t = 1.193$, $p < .05$) and the organizational culture and alignment metrics ($\beta = 0.229$, $t = 3.419$, $p < .05$) were accepted at the 0.05 significance level.

A better learning and growth environment makes it easier for an organization to create, acquire, share, and integrate knowledge to build resources and skills that help organizational success. The study enriched Atkinson et al.'s (2014) findings that learning and growth performance metrics identify the people's objectives, information capital, and organizational alignment, which drive the learning and growth performance of overall organizational success. However, there is debate over the usefulness and reliability of using self-rating scales to assess organizational effectiveness and success. Thus, examining possible means (such as coverage, archival data, reports, records, etc.) of addressing such issues may be worthwhile. In addition, regression analyses were used to explore the causal links between the identified research variables in a cross-sectional design (i.e., the study was conducted at a single time point and did not demonstrate the usage of performance indicators across time). Finally, longitudinal research could be used to investigate these causal links and see if the interactions between the circumstances, performance, and success are stable over time.

CONCLUSION

Incorporating non-financial performance metrics into organizational performance enables the organization to match business performance with its strategy, allowing it to be competitive in the market. Therefore, the study aimed to examine how the learning and growth outlook of the non-financial metrics in organizational performance contribute to organizational success. Based on the 18 observable non-financial performance metrics concerning the extent to which an organization strives to provide its employees with opportunities for growth and learning within their respective fields, the study concluded the following.

First, the organizational culture and alignment metrics with seven observable variables positively and significantly influenced organizational success (i.e., H3 was accepted as the highest contributor). Second, the information capital metrics with four observable variables also had a positive and significant influence on organizational success at the 0.05 significance level (i.e., H2 was accepted as the second highest contributor). Finally, the human resources metrics with seven observable variables had a positive but insignificant impact on the organizational success (i.e., H1 was rejected).

Overall, the contribution of learning and growth performance metrics to explaining organizational success was close to 6%, indicating that Nepalese organizations are in the preliminary stages of adopting non-financial performance metrics in organizational success. Based on the outcomes of the study, each of the non-financial performance metrics offers a partial explanation of the synergistic effects on organizational success and demonstrates the effectiveness of the learning and growth performance metrics of the Nepalese telecommunications industry.

AUTHOR CONTRIBUTIONS

Conceptualization: Rewan Kumar Dahal.
 Data curation: Rewan Kumar Dahal.
 Formal analysis: Rewan Kumar Dahal.
 Investigation: Rewan Kumar Dahal.
 Methodology: Rewan Kumar Dahal.
 Project administration: Rewan Kumar Dahal.
 Resources: Rewan Kumar Dahal.
 Software: Rewan Kumar Dahal.
 Supervision: Rewan Kumar Dahal.
 Validation: Rewan Kumar Dahal.
 Visualization: Rewan Kumar Dahal.
 Writing – original draft: Rewan Kumar Dahal.
 Writing – review & editing: Rewan Kumar Dahal.

REFERENCES

1. Abernethy, M. A., Bouwens, J., & Lent, L. (2012). The role of performance measures in the intertemporal decisions of business unit managers. *Contemporary Accounting Research*, 30(3), 925-961. <http://dx.doi.org/10.2139/ssrn.1918857>
2. Akhavan, P., & Jafari, M. (2008). Towards learning in SMEs: An empirical study in Iran. *Development and Learning in Organizations*, 22(1), 17-19. <https://doi.org/10.1108/14777280810840067>
3. Andrews, R., & van de Walle, S. (2013). New public management and citizens' perceptions of local service efficiency, responsiveness, equity, and effectiveness. *Public Management Review*, 15(5), 762-783. <https://doi.org/10.1080/14719037.2012.725757>
4. Atkinson, A. A., Kaplan, R. S., Matsumura, E. M., Young, S. M., & Kumar, G. A. (2014). *Management accounting information for decision making and strategy execution* (6th ed.). New Delhi: Pearson Education, Inc.
5. Atkinson, A. A., Waterhouse, J. H., & Wells, R. B. (1997). A stakeholder approach to strategic performance measurement. *MIT Sloan Management Review*, 38(3), 25-37. Retrieved from <https://www.semanticscholar.org/paper/A-Stakeholder-Approach-to-Strategic-Performance-Atkinson-Waterhouse/Wells/d799da3df7d188c5ddf3c7a85e9887ead172b6d1>
6. Balsam, S., Fernando, G. D., & Tripathy, A. (2011). The impact of firm strategy on performance measures used in executive compensation. *Journal of Business Research*, 64(2), 187-193. <https://doi.org/10.1016/j.jbusres.2010.01.006>
7. Banker, R. D., Potter, G., & Srinivasan, D. (2005). Association of non-financial performance measures the financial performance of a lodging Chain. *Cornell Hotel and Restaurant Administration Quarterly*, 46(4), 394-412. <http://dx.doi.org/10.1177/0010880405275597>
8. Bharadwaj, S., & Menon, A. (2000). Making innovation happen in organizations: Individual creativity mechanisms, organizational creativity mechanisms, or both? *Journal of Product Innovation Management*, 17(6), 424-434. <https://doi.org/10.1111/1540-5885.1760424>
9. Burney, L. L., Henle, C. A., & Widener, S. K. (2009). A path model examining the relations among strategic performance measurement system characteristics, organizational justice, and extra- and in-role performance. *Accounting, Organizations and Society*, 34(3-4), 305-321. <https://doi.org/10.1016/j.aos.2008.11.002>
10. Chen, G. (2005). An organizational learning model based on western and Chinese management thoughts and practices. *Management Decision*, 43(4), 479-500. <https://doi.org/10.1108/00251740510593503>
11. Cho, Y. J., & Lee, J. W. (2012). Performance management and trust in supervisors. *Review of Public Personnel Administration*, 32(3), 236-259. <https://doi.org/10.1177/0734371X11421496>
12. Davis, S., & Albright, T. (2004). An investigation of the effect of balanced scorecard implementation on financial performance. *Management Accounting Research*, 15(2), 135-153. <https://doi.org/10.1016/j.mar.2003.11.001>
13. Decoene, V., & Bruggeman, W. (2006). Strategic alignment and middle-level managers' motivation in a balanced scorecard setting. *International Journal of Operations & Production Management*, 26(4), 429-448. <https://doi.org/10.1108/01443570610650576>
14. Doorewaard, H., Huys, R., & Van Hooft, G. (2002). Team responsibility structure and team performance. *Personnel Review*, 31, 356-370.
15. Elbanna, S., Andrews, R., & Pollanen, R. (2016). Strategic planning and implementation success in public service organizations: Evidence from Canada. *Public*

- Management Review*, 18(7), 1017-1042. <https://doi.org/10.1080/14719037.2015.1051576>
16. Euske, K., Lebas, M., & McNair, C. (1993). Performance management in an international setting. *Management Accounting Research*, 4(4), 275-299. <https://doi.org/10.1006/mare.1993.1016>
 17. Franco-Santos, M., Lucianetti, L., & Bourne, M. (2012). Contemporary performance measurement systems: A review of their consequences and a framework for research. *Management Accounting Research*, 23(2), 79-119. <https://doi.org/10.1016/j.mar.2012.04.001>
 18. Gong, Y., Huang, J.-C., & Farh, J.-L. (2009). Employee learning orientation, transformational leadership, and employee creativity: The mediating role of employee creative self-efficacy. *Academy of Management Journal*, 52(4), 765-778. <https://doi.org/10.5465/amj.2009.43670890>
 19. Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2010). *Multivariate data analysis: A global perspective* (7th ed.). London: Prentice-Hall.
 20. Hair, J. F., Black, W. C., Babin, B. J., Anderson, R. E., & Tatham, R. L. (2006). *Multivariate data analysis* (6th ed.). New Jersey: Prentice Hall, Pearson Education, Inc.
 21. Hopwood, A. G. (1972). An empirical study of the role of accounting data in performance evaluation. *Journal of Accounting Research*, 10, 156-182. <https://doi.org/10.2307/2489870>
 22. Hoque, Z. (2005). Linking environmental uncertainty to non-financial performance measures and performance: A research note. *The British Accounting Review*, 37(4), 471-481. <https://doi.org/10.1016/j.bar.2005.08.003>
 23. Huselid, M. (1995). The impact of human resource management practices on turnover, productivity, and corporate financial performance. *Academy of Management Journal*, 38(3), 635-672. <https://doi.org/10.5465/256741>
 24. Ishtiaque, A. N. A., & Sarbabidya, S. (2013). Job satisfaction in the mobile telecom industry of Bangladesh: an internal marketing approach. *Journal of Business Studies*, 34(1), 109-126. Retrieved from https://fbs-du.com/news_event/14664806376.pdf
 25. Ittner, C. D., & Larcker, D. F. (1998). Are non-financial measures leading indicators of financial performance? An analysis of customer satisfaction. *Journal of Accounting Research*, 36, 1-35. <https://doi.org/10.2307/2491304>
 26. Ittner, C., & Larcker, D. (2003). Coming up short on non-financial performance measurement. *Harvard Business Review*, 81(11), 88-95.
 27. Josee, V. M., Gongera, G. E., & Anyika, E. (2016). Critical analysis of the adoption of modern technology and its impact on the financial performance of the telecommunication industry in Rwanda. *Social and Basic Sciences Research Review*, 4(9), 166-176.
 28. Kaplan, R. S., & Norton, D. P. (1992). The balanced scorecard – measures that drive performance. *Harvard Business Review*, 70(1), 71-79. Retrieved from <https://hbr.org/1992/01/the-balanced-scorecard-measures-that-drive-performance-2>
 29. Kaplan, R. S., & Norton, D. P. (2001). Transforming the Balanced Scorecard from Performance Measurement to Strategic Management: Part II. *Accounting Horizons*, 15(2), 147-160. <http://dx.doi.org/10.2308/acch.2001.15.2.147>
 30. Kaplan, R., & Norton, D. (2004a). The strategy map: Guide to aligning intangible assets. *Strategy & Leadership*, 32(5), 10-17. <https://doi.org/10.1108/10878570410699825>
 31. Kaplan, R., & Norton, D. (2004b). Measuring Strategic Readiness of Intangible Assets. *Harvard Business Review*, 82, 52-63. Retrieved from <https://hbr.org/2004/02/measuring-the-strategic-readiness-of-intangible-assets>
 32. Khanmohammadi, M., Mohammadi, M., & Mehdizadeh, N. (2015). The feasibility of implementing the balanced scorecard – case study: Nationwide provincial telecom companies. *International Business Research*, 8(8), 118-128. <https://doi.org/10.5539/ibr.v8n8p118>
 33. Koohang, A., Paliszkiwicz, J., & Goluchowski, J. (2017). The impact of leadership on trust, knowledge management, and organizational performance: A research model. *Industrial Management & Data Systems*, 117(3), 521-537. <https://doi.org/10.1108/IMDS-02-2016-0072>
 34. Kotter, J. (2012). *Corporate culture and performance*. New York: Free Press.
 35. Lee, C.-L., & Yang, H.-J. (2011). Organization structure, competition and performance measurement systems and their joint effects on performance. *Management Accounting Research*, 22(2), 84-104. <https://doi.org/10.1016/j.mar.2010.10.003>
 36. Liguori, M., Sicilia, M., & Steccolini, I. (2012). Some like it non-financial... Politicians' and managers' views on the importance of performance information. *Public Management Review*, 14(7), 903-922. <https://doi.org/10.1080/14719037.2011.650054>
 37. Lopes, I. S., Sousa, S. D., & Nunes, E. (2016). Methodology for uncertainty characterization of performance measures. *International Journal of Quality & Reliability Management*, 33(9), 346-363. <https://doi.org/10.1108/IJQRM-10-2014-0146>
 38. Maltz, A. C., Shenhar, A. J., & Reilly, D. R. (2003). Beyond the balanced scorecard: Refining the search for organizational success measures. *Long Range Planning*, 36(2), 187-204. [https://doi.org/10.1016/S0024-6301\(02\)00165-6](https://doi.org/10.1016/S0024-6301(02)00165-6)
 39. Melnyk, S. A., Bititci, U., Platts, K., Tobias, J., & Andersen, B. (2014). Is performance measurement and management fit for the future? *Management Accounting Research*, 25(2), 173-186. <https://doi.org/10.1016/j.mar.2013.07.007>
 40. Memon, A. S., & Baladi, N. (2021). Learning and growth perspective: Banking sectors evidence.

- Jurnal Inovasi Ekonomi*, 6(1), 7-12. <https://doi.org/10.22219/jiko.v0i0.11477>
41. Meyers, L. S., Gamst, G., & Guarino, A. J. (2006). *Applied multivariate research: Design and interpretation*. Sage Publications, Inc.
 42. Mirkamali, S. M., Thani, F. N., & Alami, F. (2011). Examining the role of transformational leadership and job satisfaction in the organizational learning of an automotive manufacturing company. *Procedia – Social and Behavioral Sciences*, 29(0), 139-148. <https://doi.org/10.1016/j.sbspro.2011.11.218>
 43. Moulang, C. (2015). Performance measurement systems use in generating psychological empowerment and individual creativity. *Accounting & Finance*, 55(2), 519-544. <https://doi.org/10.1111/acfi.12059>
 44. Nair, M. (2004). *Essential of the balanced scorecard*. John Wiley & Sons.
 45. Nepal Telecommunication Authority. (2022). *Management Information System Report*. Retrieved from <https://nta.gov.np/wp-content/uploads/2022/06/MIS-2078-Chaitra.pdf>
 46. Noe, R. A. (2010). *Employee training and development* (5th ed.). New York: McGraw-Hill/Irwin.
 47. Pollanen, R., Abdel-Maksoud, A., Elbanna, S., & Mahama, H. (2017). Relationships between strategic performance measures, strategic decision-making, and organizational performance: Empirical evidence from Canadian public organizations. *Public Management Review*, 19(5), 725-746. <https://doi.org/10.1080/14719037.2016.1203013>
 48. Rankinen, S., Suominen, T., Kuok, K., Marja Lekane, L., & Doran, D. (2009). Work empowerment in multidisciplinary teams during organizational change. *International Journal of Nursing Practice*, 15(5), 403-416. <https://doi.org/10.1111/j.1440-172X.2009.01768.x>
 49. Sarah, X., Spencer, Y., Joiner, T. A., & Salmon, S. (2009). Differentiation strategy, performance measurement systems, and organizational performance: Evidence from Australia. *International Journal of Business*, 14(1), 83-103.
 50. Schein, E. H. (2010). *Organizational culture and leadership*. San Francisco: Jossey-Bass.
 51. Smith, R. E., & Wright, W. F. (2004). Determinants of customer loyalty and financial performance. *Journal of Management Accounting Research*, 16(1), 183-205. <http://dx.doi.org/10.2308/jmar.2004.16.1.183>
 52. Spitzer, D. R. (2007). *Transforming performance measurement: Rethinking the way we measure and drive organizational success*. New York: AMACOM.
 53. Subramaniam, N., & Mia, L. (2001). The relation between decentralized structure, budgetary participation, and organizational commitment: The moderating role of manager's value orientation towards innovation. *Accounting, Auditing & Accountability Journal*, 14(1), 12-30. <https://doi.org/10.1108/09513570110381051>
 54. Vaivio, J. (1999). Exploring a non-financial management accounting change. *Management Accounting Research*, 10(4), 409-437. <https://doi.org/10.1006/mare.1999.0112>
 55. Vallurupalli, V., & Bose, I. (2018). Business intelligence for performance measurement: A case based analysis. *Decision Support Systems*, 111, 72-85. <https://doi.org/10.1016/j.dss.2018.05.002>
 56. van Veen-Dirks, P. (2010). Different uses of performance measures: The evaluation versus reward of production managers. *Accounting, Organizations, and Society*, 35(2), 141-164. <https://doi.org/10.1016/j.aos.2009.02.002>
 57. Vance, R. J. (2006). *Employee engagement and commitment*. Alexandria, VA: Society for Human Resource Management (SHRM) Foundation.
 58. Yuliansyah, Y., Gurd, B., & Mohamed, N. (2017). The significance of business strategy in improving organizational performance. *Humanomics*, 33(1), 56-74. <https://doi.org/10.1108/H-06-2016-0049>